

SUSTAINABILITY Report 2020

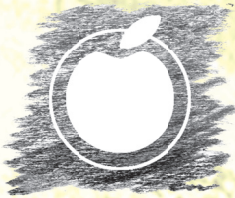


Trentino Sustainable Fruit-Growing Project

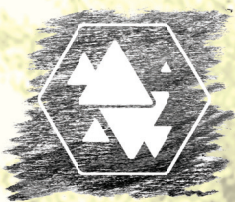
2020
Sustainability Report

Trentino Sustainable Fruit-Growing Project

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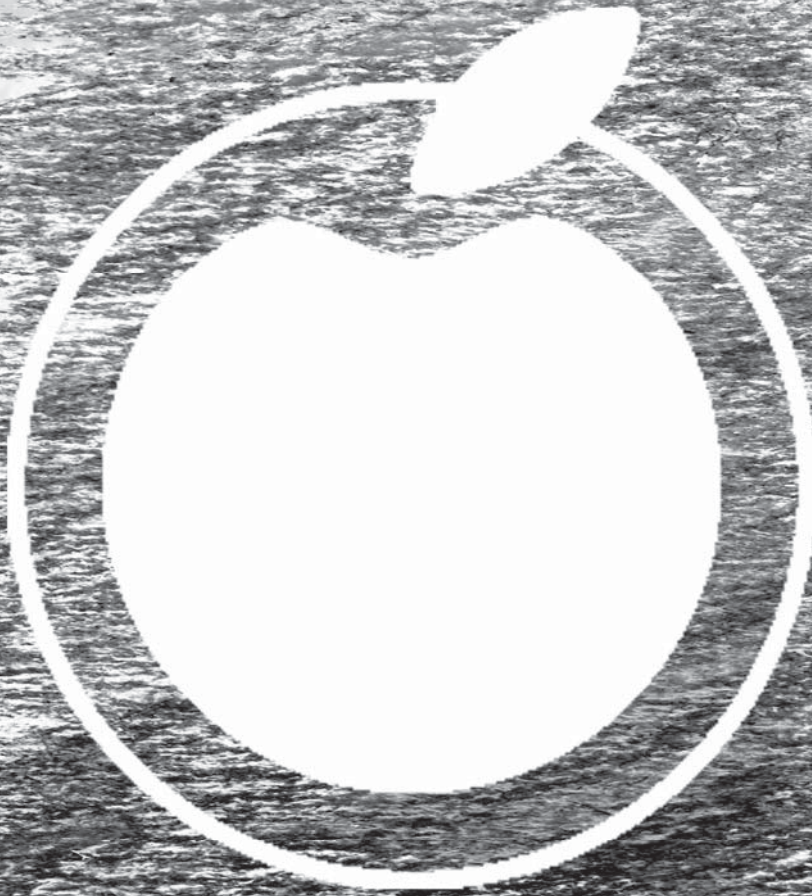


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INTRODUCTION



Trentino Sustainable Fruit-Growing Project



PRESENTATION

Three years have passed since the first edition of the “Sustainability Report” of APOT, the Association of Fruit and Vegetable Producers of Trentino, and many things have changed.

The roadmap announced in 2016 has continued consistently and with the usual commitment, so there has been no lack of results. A number of objectives have been achieved, one of which is the increase in the area under organic cultivation to exactly 1,000 hectares as had been announced three years ago.

In the meantime, the market has changed, with the apple sector squeezed between a European production potential that has grown significantly and the prospect of new competitor countries just beyond the borders of the European Union entering the market, while modern distribution is increasingly oriented towards promoting the efforts of organised producers with the clear aim of improving environmental and social performance.

The political context is more markedly green, and it is no coincidence that the European Union's new objectives are summarised in a package called the “Green Deal”. The “Farm to Fork” strategy, the “agricultural” component of the Green Deal, outlines a policy framework to drive the next round of the Common Agricultural Policy (CAP) which aims to promote and support producers who are most committed to these objectives.

Fruit growers play a central role in this process. APOT and its member consortia can stimulate, provide guidelines, control and when necessary sanction, but they are not a substitute to the diligence of individual producers. With a fully shared approach, in the last three years APOT has taken a decisive step towards organisation and becoming the “commercial” tool for the two member consortia, Melinda and Trentina.

This step, which is in some ways a quantum shift, is already yielding economic results, and is also proving to be a valuable tool for improving its ability to push in the direction of the objectives set by EU legislators and resulting national and provincial policies. Aspects related to quality, health and increasingly environmentally sound practices have been centralised in APOT, as has the setting up and management of 'Research and Development' programmes and projects.

Today, discussions on 'carbon footprints' and renewable resources, energy efficiency and climate change, as well as workers' rights and social welfare, are no longer a novelty for Trentino's producers. The proposals and projects that have been developed over a long period of time can now be seen in the sector's ability to look ahead, innovate and accept challenges with openness. The connective tissue in Trentino is certainly of great help. It's not just the public institutions, as other pillars for the growth of the system have included cooperation with the E. Mach (FEM) Foundation, a leading light for research, training and consultancy in agriculture, as well as collaboration with many other trade unions and cooperatives.

All this reinforces the ability of these consortia to stand out in a rapidly growing competitive market, by offering a concrete and documented ability to supply products that meet the increasingly refined criteria demanded by customers, consumers and citizens as users of the territory and the goods connected with it.

It is our duty as farmers, but perhaps even more so as citizens, to help shape a future that is more peaceful and responsible towards food, the environment and the land - while maintaining balanced income objectives.

Ennio Magnani, President of APOT

Letter to Stakeholders

(GRI 102-14)

In the process of building a full and complete sustainability, APOT and the P.O. Melinda and La Trentina pursue the best possible balance between economic, environmental and social aspects, with a vision within the system and for the direct or indirect effects outside of it. In the short term, performance in terms of the environment and food safety is addressed, with important implications for relations with local communities. In the medium and long term, the impact of the choices made on company margins will also have to be carefully assessed in order to ensure an appropriate level of profitability.

The parameters considered range from the carbon impact of the production guidelines, to the supply of energy from renewable sources, to trends in the use of simple fertility inputs, mainly agrochemicals and fertilisers. Particular attention is paid to measuring, preserving and - where necessary - improving the biodiversity of the system in its main plant and animal components, through the preservation and enhancement of biocenosis of particular value. A strategic emphasis is placed on knowledge and monitoring of soil biodiversity, which is the subject of a specific certification process. In this context, the choice of bio-indicators of particular and recognised effectiveness, such as pollinating insects or bats, to which specific preservation activities should be devoted, will be areas of specific commitment. The fruit-growing system belonging to APOT closely observes and follows the social implications of the fruit-growing sector, which are reflected in three directions: first of all, the vitality of the associated farms, then the long-term employment that derives mainly from the work requirements in the factories and, finally, the seasonal employment for field work, which implies quality in company accommodation for workers and is assessed with the specific GRASP protocol. Safety at work is an integral part of APOT's policies and is addressed in annual professional training courses.

In tune with the associated P.O.'s and the direct territorial interlocutors, APOT intends to express a creative and strong commitment to structure a network of relations between different local economic subjects, with a broad vision and holistic approach, inclusive of agricultural and non-agricultural territorial values. Enhancing their respective potential is a modern and topical objective, especially for Trentino fruit growing, which is located in valleys with a wealth of different features profound economic, social and often historical-cultural roots.

The scope of activities that justify APOT's growing commitment in the area of "sustainability" stems, on the one hand, from the lifestyles changes of citizens and consumers and, on the other, by the European political framework and the strong focus on sustainability and the environment. The 17 strategic objectives established by the United Nations for the protection of the planet, as well as the EU strategies summarised in the Green Deal, have therefore become unavoidable guidelines towards which the attention and resources of APOT, its associated consortia and each individual fruit grower can be channelled.

In this context, the APOT production system can only accelerate its evolution towards sustainability objectives, by responsibly focusing on the economics of businesses, with the awareness that only healthy companies rooted in the territory can provide direct and indirect economic, environmental and social benefits to the local system.



Since it was founded in 1993, APOT has played a pivotal role in gradually steering the production system towards pest management techniques that are increasingly attentive to food safety and the environment, moving from “self-discipline” protocols, typical of “integrated defence”, to “integrated production”, and now to the inclusion of social and environmental components in its working methods, which is essential to demonstrate professional maturity and a forward-looking vision of its own future. Investment programmes in research and innovation are progressively growing, as are communication campaigns, internally towards members and - externally - towards a wide and complex audience of citizens. There have never been any setbacks in this process; if anything, there have been strategic adjustments and a refinement of methods which, in keeping with the entrepreneurial vision, have accompanied APOT towards a dimension that is more open to “environmental” challenges, more open to dialogue and discussion as tools for growth and innovation. The Trentino Sustainable Fruit-Growing Project, which started in 2016, and into which operational and communication activities have merged, is a crucial step in the process and represents the linchpin for the variables of “future sustainability”.

While the first “Sustainability Report” of 2016 allowed APOT to get to know itself better, measure various parameters of its sustainable performance and set some objectives for the immediate future, the second Sustainability Report is a valuable point of assessment of the path that has been taken, the solidity of the system and the opportunities for repositioning in the near future. While some indicators, such as water use or PPP residue control programmes, remain broadly stable, either because the process of change is slow, as in the case of water, or because there is little scope for improvement, as in the case of residues, in other cases the improvement objectives set out in the first report have been met or exceeded. These include the project to expand the area under organic cultivation - which has increased from 126 to 475 ha in the APOT system - and the use of scab-resistant varieties, preferentially targeted near sensitive areas which, with a similar trend, have increased from 48 to 154 ha, thereby fully meeting the objectives established in 2016. There has been a significant reduction in the use of agrochemicals, from 52 kg/ha in 2012, to 45 kg/ha in 2016 and 36 kg/ha in 2019, thanks

in particular by the elimination of some insecticides. The 2019 edition of the report also introduces a parameter for assessing the “risk” associated with the panel of crop protection products used, which in this case shows an important and corresponding reduction in the risk profile of the mix of crop protection products used in the 2019 defence campaign compared to 2016. This procedure will have to be defined and implemented even better in order to evaluate a path towards new sustainability objectives in plant protection, in both quantitative and qualitative terms. Finally, among the many aspects analysed, it is worth mentioning the certification of the biodiversity of Trentino fruit-growing soils, which on average is at a more than satisfactory level.

With the second edition of the sustainability report, in order to highlight the close connections of fruit farming with the local socio-economic system, an accurate analysis is introduced of the economic value directly generated by fruit farming and, from the perspective of the economic district, the value of both direct and indirect satellite activities that are closely linked to primary agricultural production, including employment implications as well as activities that are not related to agriculture generated and sustained by the presence of fruit growers in the area. This analysis also included an estimate of the positive externalities generated by the care and maintenance of the land carried out by thousands of fruit growers in terms of prevention of hydrogeological events to the detriment of the territory and evaluated as savings on prevention and recovery costs. This very innovative approach provides very different values compared to the traditional method of direct activities generated by a sector and offers important elements for assessing the real weight of the agricultural sector in the social and economic context of a territory.

The period 2020 - 2022 will see a continuity in terms of the action described above. The technical effort to consolidate or improve the various environmental parameters will continue without delay. This includes phytosanitary aspects, energy, biodiversity and, as far as possible, the use of water resources. Positive partnerships with public sector actors, research institutions and other institutions will continue, with the common goal of creating sustainable innovation. Other issues, that are apparently less related to agricultural activities but strongly increasing in importance in the perception of the citizen-consumer, such as the quality of a product in relation to the territory from which it comes, will have to be included in this process. The decisive step to evolve from a “good fruit” to an “identity fruit”, that is intimately connected with its origins, with the richness and beauty of the landscape of the area in which it has grown and, therefore, with the ability of producers to add the intangible values of the production setting to the fundamental pillars of taste quality and food safety. This will help to differentiate the product, to the benefit of producers and consumers.

Considering the complexity of the analysis of the multiple factors that contribute to shaping “sustainability”, the steps taken in the period 2016 - 2019 are very significant, and confirm the soundness of the insights underlying the Trentino Sustainable Fruit-Growing Project and lend themselves well to an upgrade for the next work cycle 2020 - 2022.

Alessandro Dalpiaz, Director of APOT

The **SECOND** Sustainability Report

(GRI 102-56)

With its second sustainability report, the “Trentino Sustainable Fruit-Growing” project continues the periodic reporting process of the goals pursued and the results achieved by Trentino fruit growers across economic, social and environmental variables. The document is therefore available to all interested parties, whether they are stakeholders within or which are external to the system. The 2020 edition is a compendium of the activities performed and results achieved during the course of the 2019 calendar year, but it also reports - for most of the aspects that are studied - the history of the evolutionary path followed by the Trentino fruit growing sector in the three year period 2017-2019, and is therefore the completion of the first summary in 2016 regarding the sustainable approach to the activities taken by the production system.

The elements analysed are water, soil and energy as far as the environmental aspects are concerned; production, employees, research direct and indirect economic activities for the district; and to the local area, integration, health and social initiatives as regards the social aspects, as well as an analysis on the positive externalities that the economic positioning of the fruit-growing sector contributes to generating. As regards the scope of the analysis this considers the production of fruit in all its facets, its subsequent refrigeration, processing and packaging, all the way to its final sale and related logistical and marketing activities.

The report was drawn up with the help of a group of professionals from outside APOT, specialised in sustainability issues applied to agri-food processes, who took care of the project's assurance by liaising with a specially structured working group within APOT and with two audits, one made up of stakeholders from within the fruit-growing system and one from outside it.

An innovative feature of this second report is that it is drawn up according to the standards developed by the Global Reporting Initiative (GRI)¹, a non-profit organisation whose aim is to provide concrete support to any company or institution wishing to draw up a sustainability report to present their environmental, social and economic performance. To do this, GRI Standards are made available, which are criteria by which organisations can measure their impact and disclose this in a format that is understandable to non-experts.

Today, more than 10,000 organisations in over 100 countries use the GRI Standards to prepare their sustainability reports.

The GRI Standards are divided into four series, of which the first (100) are the universal standards and the others cover the three basic dimensions of sustainability: 200 are economic, 300 environmental and 400 social. At the beginning of each paragraph, the text makes specific reference to the GRI, which are detailed in the GRI content index in the appendix.

APOT has decided to develop its sustainability report according to the GRI Standards, choosing the Core option which requires compliance with specific disclosures in the 100 series and at least one of the three subsequent series. With regard to the GRI 100, information on the organisation's profile, strategy, ethics and integrity, governance, stakeholder engagement and reporting practices is crucial. More information on the approach to sustainability reporting can be found in the methodological note in the appendix.

APOT also decided to submit the GRI content index for review by the Global Reporting Initiative, to ensure alignment with the requirements, disclosures 102-40 to 102-49, regarding stakeholder engagement, and reporting practices to verify their proper placement in both the GRI content index and the text of the final report.

Last but not least, the reporting activities are carried out according to the 2030 Agenda for sustainable development by ONU. At the beginning of each chapter, the corresponding objectives have been selected. They are described in detail in the appendix together with the targets APOT achieved.

Roberto Della Casa, External Assurance Manager

¹ www.globalreporting.org

The FRUIT FARMS

(GRI 102-7)

The size of the fruit farms in Trentino is the result of the orography of the land on the one hand, and the progressive splitting up of estates as a result of inheritance and succession on the other. Only in the last decade has there been a reversal of this trend, which has led to the reorganisation of most of the smaller units, but the farm network remains highly fragmented. The total of 10,700 hectares cultivated by 6,487 fruit farms has an average land area of 1.6 hectares, divided into 30,916 plots; these rarely surround the centre of the farm and are nearly always planted with various species and varieties.

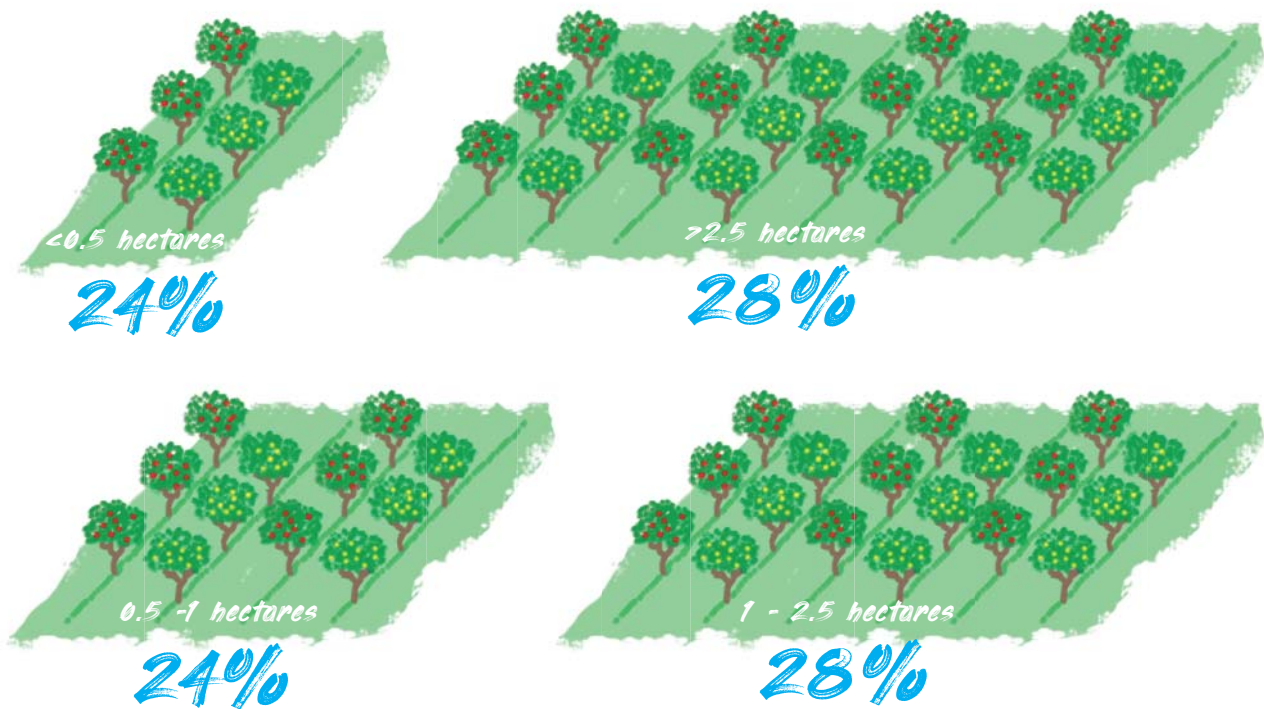
In this context, APOT, the consortium made up of the Melinda, La Trentina and Copag cooperatives, plays a fundamental role and represents more than 75% of cultivated hectares, plots and fruit growers. There are 5,025 members of the APOT cooperatives and they cultivate 8,260 hectares divided into 25,516 plots.

This brief description of the context immediately leads to a better understanding not only of the desirability, but in some ways of the need for a context characterised by strong historical cooperation, of which APOT is a striking example.

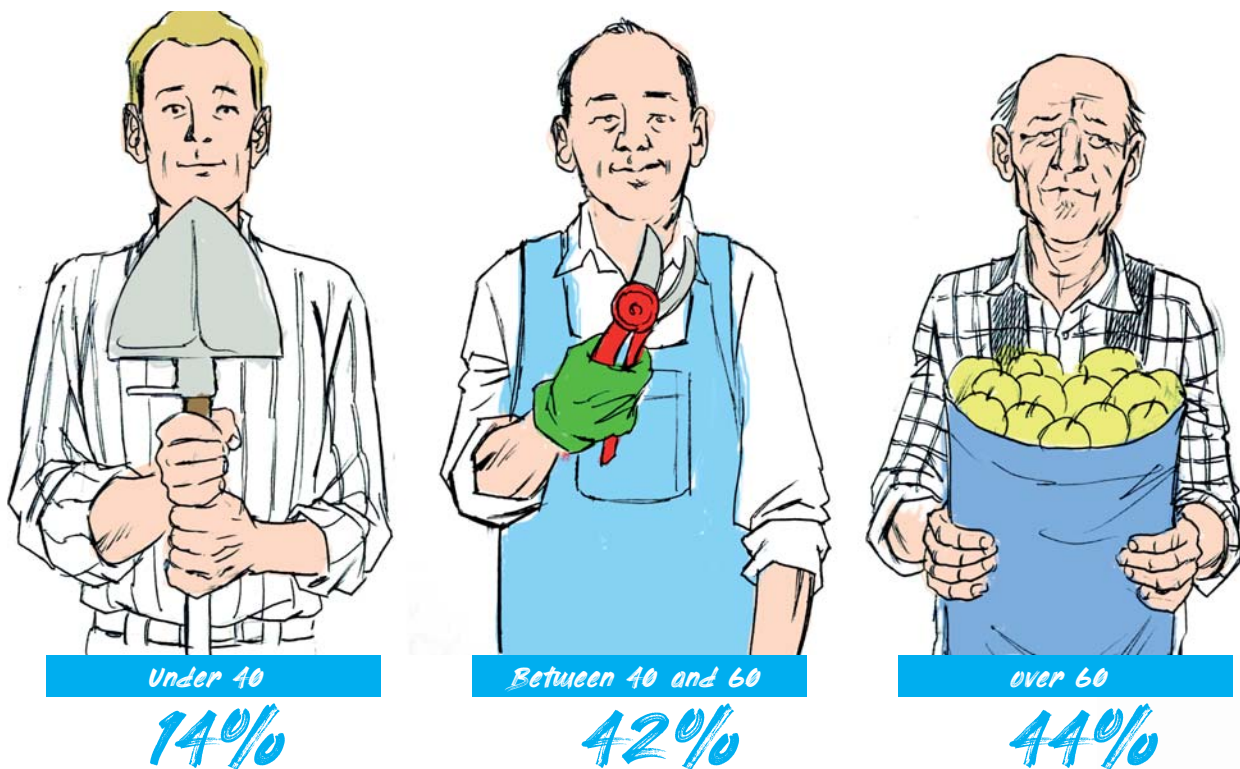
With regard to members, who are the soul of the Trentino fruit-growing system and APOT, the progressive ageing of members should be highlighted, considering that most of them are over 40 years old, in particular 42% are aged between 40 and 60 and 44% are over 60. Only 14% are under 40.



TRENTINO FRUIT AND VEGETABLE FARMS by size classes



FRUIT FARMERS by age group



Source: our calculations using APOT data

APOT in details

History and objectives

(GRI 102-1, 102-5)

The Association of Trentino Fruit and Vegetable Producers (*Associazione dei Produttori Ortofrutticoli Trentini*, APOT) was founded as a cooperative in 1993 to be the point of reference in the coordination of fruit growing in Trentino.

The current members of APOT are the POs. (Producer Organisations according to EU Reg. 1308/2013) Melinda and La Trentina, as well as the cooperative Copag.

In 2019, with the resolution of the Provincial Council of Trento n. 1.570 APOT has been confirmed as A.O.P., Association of Producer Organisations, according to the EU Reg. 1308/2013.

APOT thus directly represents the three companies mentioned above and indirectly represents 21 first degree cooperatives and about 5,000 producers.

APOT is now the point of reference for the associated P.O.'s, as well as a standard-bearer for the entire sector.

97% of the volume of products it represents are apples, the rest being “other fruit” (cherries, kiwis, plums, small fruits, strawberries, etc.) and potatoes, with the latter produced in particular by Copag. The O.P. Melinda and La Trentina have progressively intensified their level of collaboration and, during 2018 agreed to test an integration project for the joint marketing of their respective products. The project entrusted the marketing of the products of both companies to A.O.P.

The sharing of their respective commercial skills, the expansion of the range of varieties available to customers, as well as the improvement in the management of logistical aspects and the rationalisation of costs, have led the two POs towards the objective of a more solid commercial collaboration.

The legal basis stems from the EU Regulations under the Common Market Organisation (CMO) for fruit and vegetables and, in particular, EU Reg. 1308/2013, EU Reg. 2393/2017 (Omnibus), Reg. 891 and 892/2017, as well as the subsequent implementing measures at national level.

The analysis of EU and national legislation in the fruit and vegetable sector, supported by specialised legal experts, led APOT, in its role as A.O.P., being identified as the most suitable entity to test the commercial collaboration project.

All the areas of operation and operating procedures are summarised in Article 3 of the Articles of Association and, in greater detail, in the General Rules of the Association, the main features of which are set out in Section 1a of the Appendix.

Services for members

(GRI 102-2)

Quality, certification and production safety

APOT has been identified as the body for the coordination of the activities for defining the annual integrated production specifications for the fruit and vegetable sector and the respective controls and checks on compliance through resolution no. 1675/2014 by the Autonomous Province of Trento. This role was redefined and confirmed by Resolution 130/2020.

As a result of the 2020 revision, in order to streamline the existing system, APOT and its member co-operatives decided to merge all activities and tasks related to integrated and organic production, including technical advice and initiatives to support research and innovation into a single commission. However, field inspections are fully outsourced to an independent inspection commission consisting of experts from the E. Mach Foundation.

The working procedures are ISO 9001/2015 'certified' and the third-party audits are entrusted to CSQA of Thiene.

In the field of quality, also as a result of the joint marketing project, the Global Gap Chain of Custody, IFS Broker and Organic certifications have been included in APOT, as well as the “Qualità Trentino” system, for which APOT has been the licensee since 2013.

Technical consultancy

In order to ensure the proper implementation of integrated and organic production and continue the growth process towards sustainable farming methods, APOT - assisted by the E. Mach Foundation - provides the necessary technical advice to the sector. Guidance on how to work and support technical, environmental and commercial decisions is provided to members.

Control of atomizers/sprayers

In accordance with EU Directive 128/2007, APOT is responsible for checking the correct functioning of the machines for phytosanitary/plant health treatments, the so-called sprayers. The actual verification work is entrusted to suitably qualified companies included in the authorised parties list. Every year, more than 700 sprayers are tested according to a specific schedule and optimised to ensure that the correct doses are used under the best possible technical conditions. In 2019, 678 were checked and, in total, 3,572 sprayers have been over the last five years.

Collection of plant protection product packaging

APOT coordinates a collection programme for phytosanitary product packaging in late spring and autumn, aimed at its proper disposal, which is carried out in cooperation with an authorised operator. After being duly informed, fruit growers can go to their local cooperative, transporting the packaging, which is generally classified as 'special hazardous waste', as well as other materials identified in the programme agreement approved by G.p. 1834/18 and classified as 'non-hazardous' and thereby exempt from the normal documentation. The cost of disposal is then charged to each individual company.

Renewal of fruit plantations

APOT has for some time been coordinating on behalf of the Autonomous Province of Trento the preparation and activation of a financial accommodation instruments for the renewal of apple orchards, the last cycle of which started in 2017 and is still ongoing.

The motivations behind the project are mainly related to the evolution of the market and consumer tastes, but include environmental and sustainability objectives. Targeting new varieties that are resistant or tolerant to the most well-known apple diseases can help both to reduce the quantity of plant protection products needed in general and mitigate the drift effect of pesticide distribution in the vicinity of socially sensitive areas such as schools and hospitals, thereby improving the relationship between fruit growing and civil society.

Cadastral/land registry data

APOT collects, organises and monitors data on cultivated areas, from the PO level to the individual farm and/or fruit grower. This activity is important for the fulfilment of the obligations required by the CMO for the disbursement of contributions with the correct implementation of the “farm files”, but it is also useful for defining fruit growing strategies in the province, in terms of both the future evolution, for example with the varietal renewal projects, and in the context of current activities such as the management of the most important diseases.

Shareholdings

In order to promote the pursuit of the strategic objectives related to surface knowledge and research related to varietal innovation, APOT has helped set up two specific companies in which it holds shares. The first is the Centro Assistenza Agricola (CAA) Cooprento s.r.l., in which APOT holds 85.47% of

the shares. The aim of this company is to manage and organise the cadastral information and business files of all agricultural producers in the provincial cooperative sector.

The second is the Consorzio Innovazione Frutta (CIF), a consortium company s.r.l., of which APOT owns 67.74%. It was set up as a research centre and its activities contribute to varietal innovation for apple trees as well as other types of fruit trees, in order to strengthen the competitiveness of the sector, on the one hand, and - on the other - mitigate the effects on the environment and society from the use of plant protection products in the production cycle, thanks to research activities developed in partnership with FEM.

Governance structure and values

(GRI 102-18)

APOT's operational structure reflects both traditional and newer competencies, by also dividing the relevant responsibilities through specific external expertise, in order to achieve maximum effectiveness without burdening the internal structure.

The fundamental bodies for the functioning of APOT are the shareholders' meeting, the board of directors, the executive committee and the board of statutory auditors, the characteristics of which are described in section 1b of the appendix.

Sustainability governance

Within APOT, the issue of sustainability is the responsibility of the General Manager and the Quality Manager, who coordinate a working group of consultants and member representatives. In addition, in order to respond to the needs and critical sustainability issues identified by stakeholders, an external audit was set up and is periodically involved. This consists of representatives of local communities and citizens, the public administration, suppliers, the scientific community, trade associations and trade unions, which is periodically involved. In addition to this, a number of public meetings on sustainability were organised within the period covered by this report and are detailed in section 1c of the appendix.

*2022 Target: establish the post of
Sustainability Manager
within the organisation*

Our values

(GRI 102-16)

APOT's daily choices and actions are based on six values that inspire the activity of all the people in the cooperative.

I. History and tradition

We draw our strength from tradition and decades of experience in our province..

II. Cooperation

cooperation is the basis of our system and the members and their work are the cornerstone of our system. The services we provide help our farmers obtain healthy and high quality products.

III. Innovation

we believe in the importance of the ability to imagine the future. We face new challenges with determination and courage, ensuring promptness and speed in the development of our ideas.

IV. Excellence

we aim to offer our members the best possible services services. Knowledge and expertise in the sector are crucial for ensuring APOT's success.

V. Passion

we work every day with dedication and energy to grow and create value for our members and the whole community.

VI. Territory

Trentino's territory is our starting point and therefore we use it in the best possible way, trying to preserve it for future generations.

GlobalGAP - GRASP certifications and risk management

(GRI 102-11 and 102-12)

The Trentino fruit and vegetable system, which APOT is a part of, has been certified for over 10 years according to the international standard “GlobalGAP” version 5, a recognition process that, through commitment and determination, has led to a substantial improvement of the local production system. GlobalGAP is the private body that brings together farms around the planet on the basis of sustainable production practices and sets the standards of reference and control. Its aim is to achieve a single standard of 'Good Agricultural Practices' with different product applications, catering for the whole of global agriculture.

Specifically, APOT refers to the GlobalGAP IFA (Integrated Farm Assurance) standard, which verifies the production system in four areas: environment, food safety, worker protection and traceability. A clear example of how the management system that has been set up for years is integrated and able to operate in accordance with current regulatory and international standards, and above all able to follow the needs of the consortia that make it up.

APOT entrusts the training of its members and support in the control phase regarding the GlobalGAP to the E. Mach Foundation.

After obtaining the GlobalGAP certification, the Trentino system has decided to extend it with GLOBAL G.A.P. Risk Assessment on Social Practice (GLOBAL G.A.P. Risk Control in Social Practice, GRASP). The GRASP is a module designed to assess social practices in companies. In order to obtain this certification, the APOT members, Melinda and La Trentina, have demonstrated that they meet the 11 requirements. These standards address specific aspects of workers' health, safety and welfare and the main ones are provided in section 1d of the appendix.

The GlobalGAP certification is the best way to manage business-related risks for APOT members involved in farming and fruit processing activities. In fact, for each point of the checklist that is checked for the purposes of the certification, it is specified how to act in case of potential problems. One example is food defence (AF10), where potential threats to food safety are identified and assessed in all stages of production. The identification of food safety risks must ensure that all inputs come from safe and secure sources by making information available on all employees and subcontractors.

*2022 Target:
strengthen the risk
management system*



OUR PROVINCE



(GRI 102-3, 102-4)

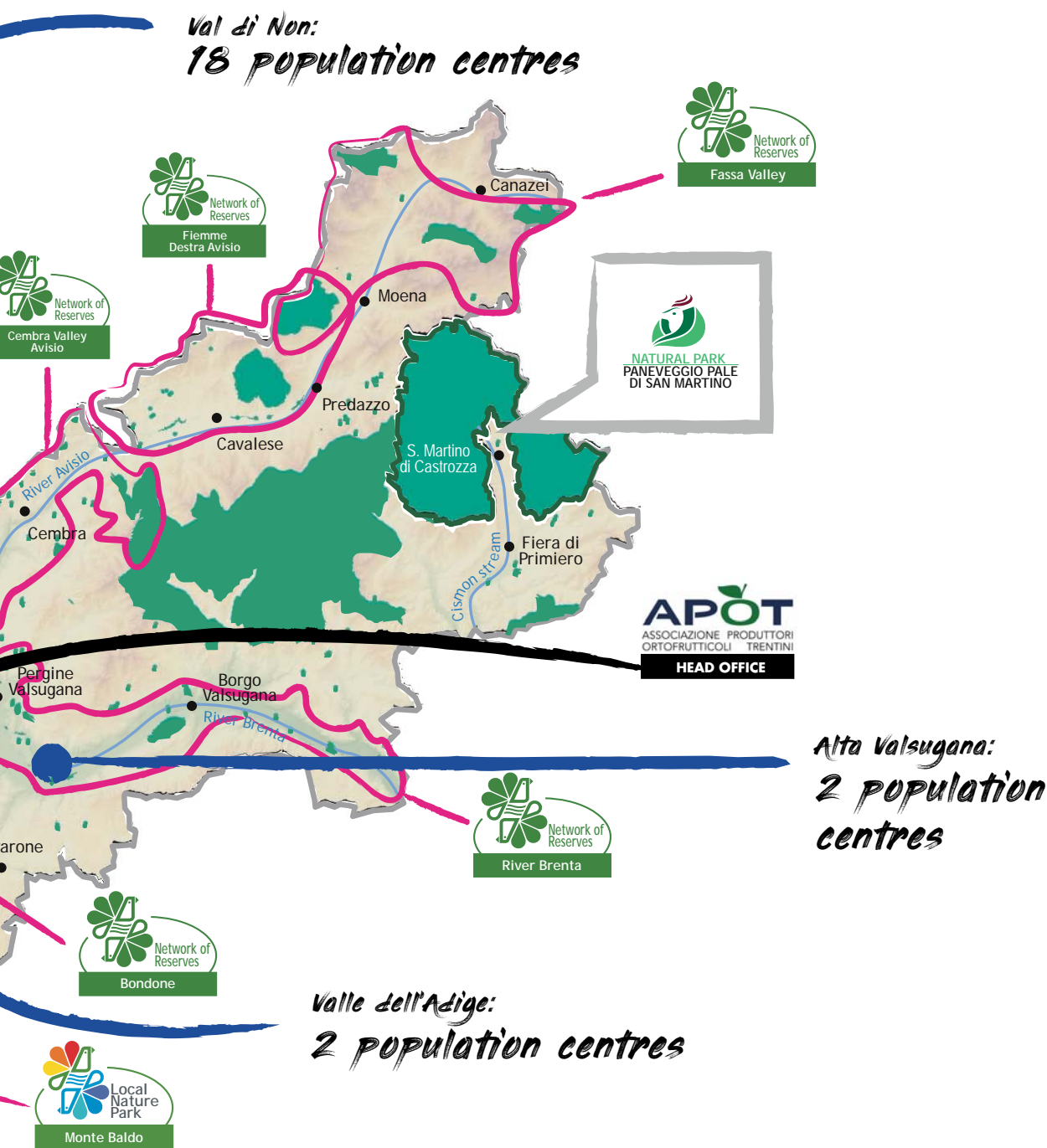
*Val di Sole:
2 population centres*

*Valli Giudicarie:
1 population centre*

*Alto Garda and Ledro:
1 population centre*



- Parks
- Network Natura 2000
- "Reti di Riserve" (nature reserve networks) already established
- "Reti di Riserve" (nature reserve networks) in process of being established
- "Ledro Alps and Judicaria" UNESCO Biosphere Reserve
- Centres of selection and/or storage of fruit products (Source APOT)



The entire agricultural system in Trentino is deeply immersed in nature, with an agriculture that has certainly evolved and specialised over time - much of which in a 'green' way - which has been stable for decades, with 86.3% of the surface covered by woods, water and unproductive areas, while 13.7% is occupied by anthropic activities, of which 9.8% concerns agricultural activities.

Nowadays, fruit growers have a broader vision of their activity that goes beyond their own small plot of land, and they fully understand the need to become part of a system such as APOT's which combines the needs of individual members with those of the surrounding environment and citizens. This system makes it possible to preserve the environment and people's quality of life, without compromising the needs of its members.

PEOPLE as the CONSULTATION CENTRE for the future

(GRI 102-40)

- APOT members (Melinda, La Trentina, Copag)
- Producer members of member cooperatives and their families
- Employees and their families
- Seasonal workers and their families
- Subsidiary Businesses
- Trade associations and representatives



A sustainable approach for a production system that is strongly rooted in its local area is based first and foremost on listening to the environment, society and the economy at the local level. For this reason, with the “Trentino Sustainable Fruit-Growing” project and this second sustainability report, we have maintained a focus on what we call shareholders and all the system’s internal stakeholders. Since the cooperative model is the fundamental driving force of agriculture in Trentino, producer members, employees and seasonal workers, together with their families, are the beating heart from which to continue the process of consultation and reflection on the future of “Trentino Sustainable Fruit-Growing”.

EXTERNAL STAKEHOLDERS to understand the DIRECTION

(GRI 102-40)

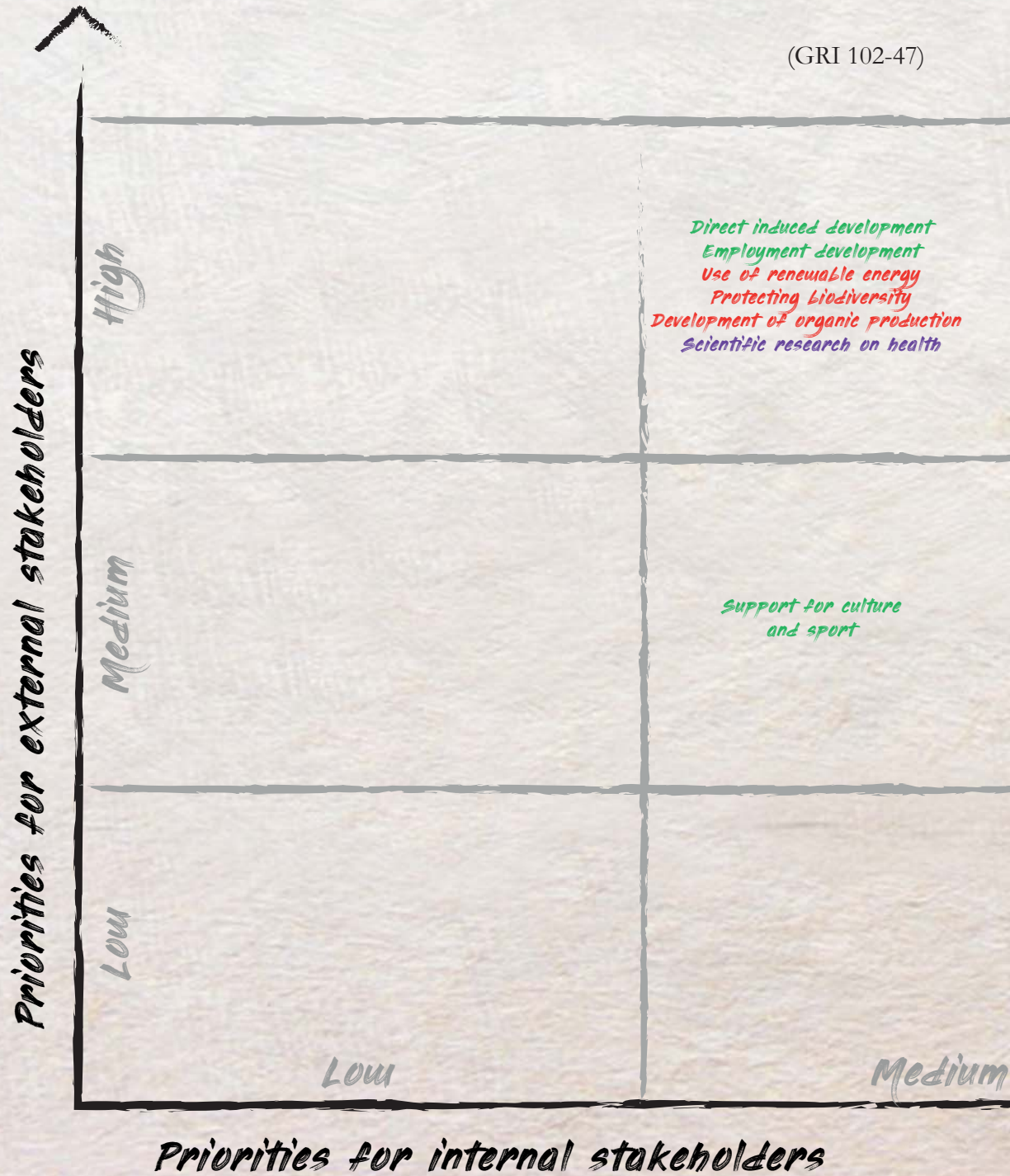
- Local communities
- Final consumers
- Customers
- Suppliers
- The scientific community
- Competitors
- Media
- Public bodies
- Non-governmental organisations



To achieve a truly sustainable future, as well as the people who contribute to the realisation of this project every morning, i.e. the internal stakeholders, it is also necessary to take into account the requests of what are known as external stakeholders, i.e. stakeholders who are not directly involved in the Trentino fruit-growing system but who have an ongoing relationship with it and therefore make a decisive contribution to its development. The latter are first of all the local communities, followed by the final consumers of the fruit produced, the customers who help to distribute the product, the suppliers who are essential for development and, finally the scientific community that helps the farmers. Each single person included within the external stakeholders is essential for understanding the direction to take together in order to ensure the development of “Trentino Sustainable Fruit-Growing”.

The MATERIALITY MATRIX

(GRI 102-47)



Measuring the sustainability of a process is strongly influenced by the perspective from which it is analysed. Based on this assumption, the report on the Trentino fruit-growing system takes into account all points of view, both those of internal stakeholders - with the main ones being producers - and those of external stakeholders, both locally and at national and international level. In this way the Trentino fruit production sector will be able to focus on those shared objectives considered to be of the highest priority and importance for sustainable development.

Key



For the environment



For the local community



For the economy



For the ethics

Transparency in processes and products
Reducing chemical use
Protection of water
Protecting the air
Waste reduction and waste management
Protecting land and landscape
Training and integration of young people

Attention to residents' health
Development and use of sustainable packaging
Sustainable product innovation
Food safety and health
Scientific research on food quality and safety

Scientific research on sustainability

Saving energy

Responsible supply chain management

Reducing water use

Vocational training for workers
Environment and safety at work
Farm holidays development
Value creation

Social inclusion and integration

Protection of plants
Services for workers' families
Economic performance
Investment development
Centrality of the cooperative system

High



For this purpose, 33 material topics were considered - compared to 30 in the first edition - that were identified with the help of internal and external audits, divided between environmental, economic, social and community issues. On the basis of the results of the interview sample research carried out as part of the project on both internal and external stakeholders, as well as the outcomes of the annual internal and external audit meetings, the external assurance sorted the material topics by relative importance - low, medium, high and intermediate degrees - in order to identify the most pressing topics of shared interest to focus on.



1. For the care of the ENVIRONMENT

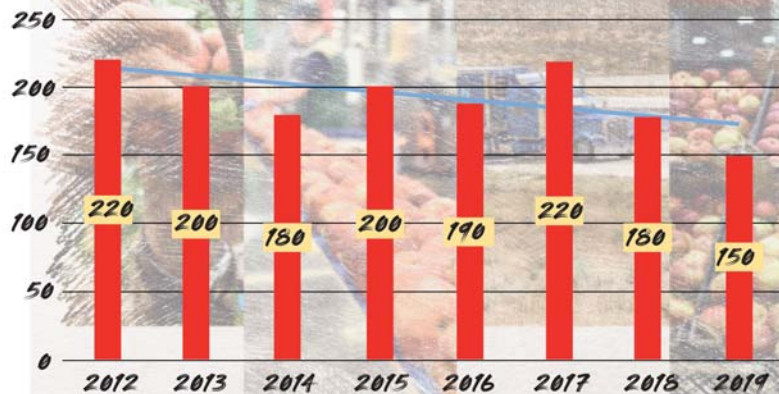


Trentino Sustainable Fruit-Growing Project

SUSTAINABLE SPECIALIZATION

CO₂ and energy in the production process

Grams of CO₂ per
kg of apples pro-
duced and packaged



Source: our calculations
using Assumela data

The release of CO₂ into the environment remains an issue of global concern. With 150 g of CO₂ equivalent per kilogram of apples produced, as measured by the EPD methodology (Environmental Product Declaration) described below, Trentino fruit growing is one of the most virtuous production areas in Italy and has recorded an improvement of 70 g of CO₂ equivalent per kilogram of apples produced compared to the beginning of the decade, i.e. 32%.

Several factors have led to this improvement. The most important of these, which has allowed such a large reduction in EPD between 2012 and 2019, is undoubtedly the system's switch to 100% renewable energy. The modelling of the packaging used was also significant, albeit to a lesser extent, with a gradual shift from materials that are difficult to handle with the current recycling circuits to materials that are more easily reusable, recyclable, biodegradable and/or compostable, which have a lower impact in the logistics cycle and at the end of life.

What is EPD

The “Environmental Product Declaration” (EPD) is a procedure that describes the environmental impacts related to the production of a specific quantity of a product: e.g. energy and raw material consumption, waste production, air emissions and discharges into water bodies. The Declaration, which is created on a voluntary basis, must be prepared for the product based on a Life Cycle Assessment (LCA) study, which defines the consumption of resources (materials, water, energy) and impacts on the environment. The results are presented in summary form through the use of a series of environmental indicators, such as the amount of carbon dioxide emitted (Carbon Footprint) or GWP (Global Warming Potential) per declared unit of product. In the case of apples, the indicators are related to the kg of fruit produced.

2022 Target:
maintenance

SPRAYER FILLING STATIONS a widespread commitment

CORRECT USE OF SPRAYER FILLING STATIONS

Only use the water from the SPRAYER FILLING STATION to fill the sprayer without draining the water.

In the area of the SPRAYER FILLING STATION:

- DO NOT** mix plant protection products
- DO NOT** discharge pesticide mixtures
- DO NOT** wash spraying machines and other equipment

INCORRECT BEHAVIOUR WILL BE PUNISHED

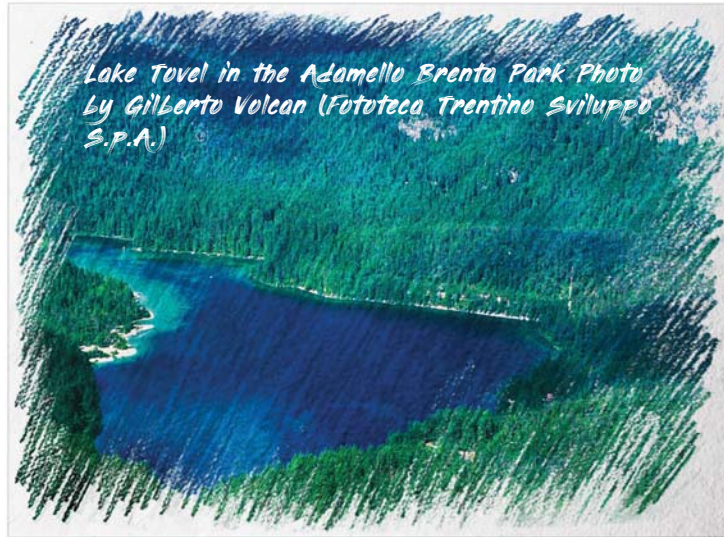
Your contribution to the responsible use of water and soil in your area

The sign will be placed at all 364 sprayer filling stations in Trentino

The aim of the project for the water loading points for phyto-sanitary spraying is to provide correct information to fruit growers on how to conduct themselves in these areas, while improving their geolocation and/or structure. Indeed, bringing to the attention of Trentino producers the practices prohibited near the water intake points necessary for treatment is essential for safety purposes. APOT is in charge of coordinating the evaluation of the filling stations and printing the posters to be put up in the designated places. The Provincial Federation of Irrigation and Land Improvement Consortia, in collaboration with the Provincial Agency for Environmental Protection (APPA) and together with the E. Mach Foundation, is instead in charge of maintaining and updating the situation of the filling stations in the territory, which was up to 364 units in 2019 from 350 in 2016 when the first sustainability report was drawn up.

*2022 Target:
annual monitoring and consolidation*

Water as an IRRIGATION resource



The Trentino river system is strongly conditioned by the morphology of the territory, with torrential waterways feeding rivers flowing through valleys and alternating with lakes both at high altitude and in the valley floor. It covers over six thousand km² of main and secondary catchment areas.

Irrigation water is managed by about 180 land improvement consortia, which also deal with irrigation and serve more than 15,500 hectares of land with over 4,000 water extraction points.

Irrigation continues to be one of the frontiers of work for Trentino fruit growers.

The period 2016 - 2019 did not see any substantial changes in the technical and organisational set-up of the irrigation system for fruit growing, both in terms of surface area and technology, so data concerning the water requirement for irrigation purposes is substantially confirmed, as is the saving of just over 30% between the drip irrigation system, which now covers almost all Trentino orchards, compared to the previous overhead irrigation system which characterised fruit growing until the end of the 1980s. Water consumption for apple production has thus decreased from about 70 l/kg to about 50 l/kg today.

In the meantime, APOT has stimulated a project coordinated by Assomela together with the Free University of Bolzano, which started in 2019 and will last three years, concerning the study of water use efficiency in apple cultivation in Trentino-Alto Adige, with the aim of finding methodologies to maximise the efficiency of water resources. Technological innovation undoubtedly opens up further prospects for optimising the use of water resources, in particular with the adoption of advanced technologies for calculating the water requirements of plants, and the combined effect of scientific research and the evolution of technology, commonly reflected in the so-called “agriculture 4.0”, may offer new ideas for further water savings in apple cultivation while maintaining or expanding the qualitative response for the fruit.

The commitment for APOT concerns the completion of the mentioned project, the evaluation of emerging technologies and participation in future projects for the progressive modernisation and refurbishment of existing facilities.

*2022 Target:
inclusion of irrigation in the continuing education
of fruit growers*

Water QUALITY, an asset to PROTECT

*Lago di Santa Giustina - photo by Pio Geminiani
(Fototeca Trentino Sviluppo S.p.A)*

In the four-year period 2016 - 2019 APOT actively participated in the work programme shared with the Provincial Environmental Protection Body (APPA) for the improvement of the water quality of some waterways crossing fruit-growing territories.

The decision to eliminate the use of “chlorpyrifos ethyl”, which was voluntarily extended in 2018 to the entire provincial territory, confirmed the desired results and allowed a broad positive response for the “chemical quality” of the affected waterways. The active and frequent interaction between producers and the provincial authorities, with the technical and scientific support of the E. Mach Foundation, has made it possible to progressively implement other restrictions on the use of certain active substances, with the aim of encouraging a progressive increase in the biological quality of waterways in areas characterised by the presence of large areas of specialised apple-growing. The first results are also encouraging and the joint work will continue with the renewal of the programme agreement expiring in December 2020. More precisely, in 2017, out of more than 400 river waterways monitored in the province of Trento by APPA, 11 had a bad chemical status, while by 2019 this had been reduced to 4. Finally, in the framework of the shared activities, APOT has decided to finance a PhD programme developed by the University of Trento, entitled “Development of a prototype of passive sampler for the analysis of pollutant load for running waters”, to contribute to identifying the causes of some criticalities and facilitate the implementation of targeted improvement strategies.

*2022 Target:
development of water quality issues
in fruit grower training*

ONLY RENEWABLE energy

The photovoltaic energy produced by fruit growing in Trentino meets the public lighting needs of a town of 65,000 inhabitants.



Since the beginning of the decade, fruit growing in Trentino has been using more and more renewable energy sources. Average annual consumption in the three-year period 2017-2019 was 50 million kWh, of which 88% came from hydroelectric production and 12% from photovoltaics. The latter are photovoltaic panels placed mainly on the roofs of factories or conservation facilities, covering a total of 27,250 m², equivalent to the area of 4 football pitches. The total production of photovoltaics amounts to more than 6.5 million kWh and is sufficient to guarantee the electricity needed for public lighting in a town of 65,000 inhabitants, based on a per capita consumption of 100 kWh as estimated by the Public Accounts Observatory of the Cattolica University.

*2022 Target:
consolidation of sources and optimisation
of consumption*

Apples IN THE MOUNTAIN



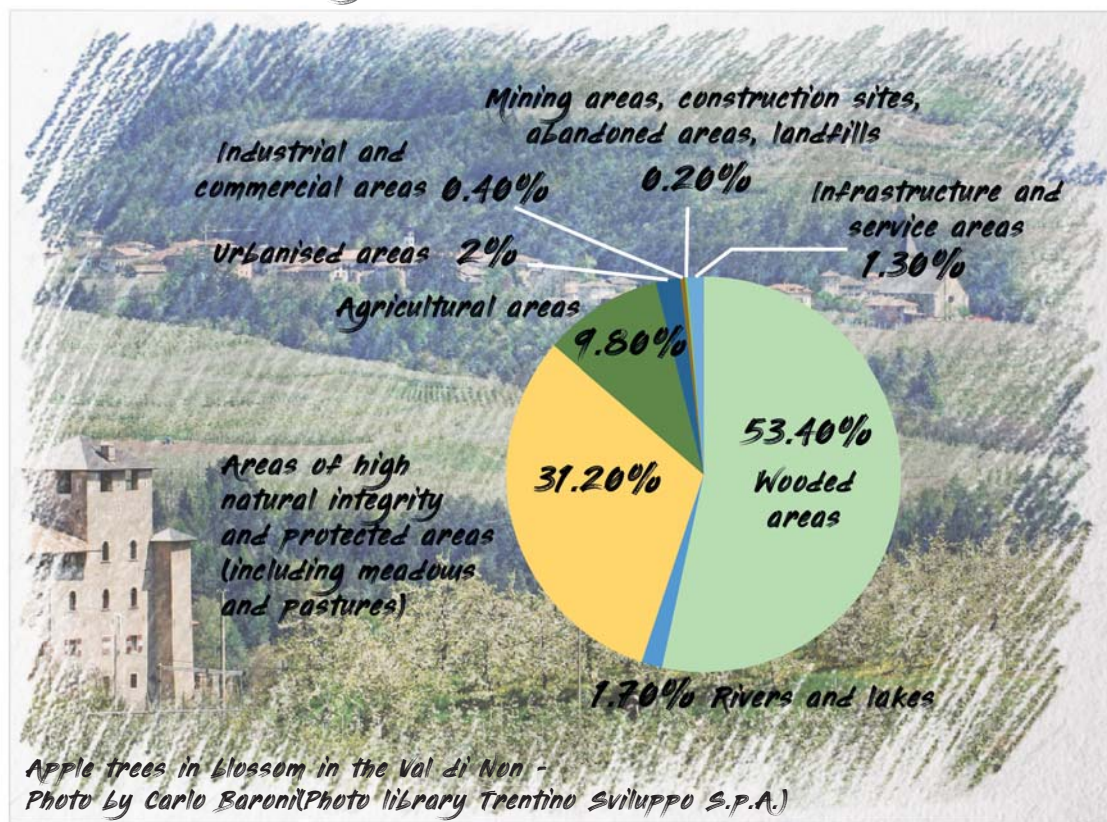
An interesting and positive example of the sustainable use of energy is the underground storage of apples developed by APOT member Melinda using the tunnels of the dolomite quarry in Rio Maggiore, now managed by Miniera San Romedio, in the heart of Val di Non. Thanks to the availability of these tunnels, at a depth of 300 meters, a reduction in the thermal dispersion is achievable in the storage achievable due to the better insulation compared to epigeal cold storage, so that the energy needed to cool stored apples is up to 30% lower than in traditional above ground cold storage. This calculation also includes the greater initial energy needs for cooling the rock and then keeping a stable temperature.

Around 30,000 tonnes of apples are currently stored in the caves, with a target of 40,000 tonnes by 2022, resulting in a concrete current saving of 12 GWh compared to epigeal storage, which corresponds to the domestic electricity consumption of a town of 13,000 inhabitants.

*2022 Target:
40,000 tonnes of apples annually stored
underground*

LANDSCAPE impact

The Trentino territory



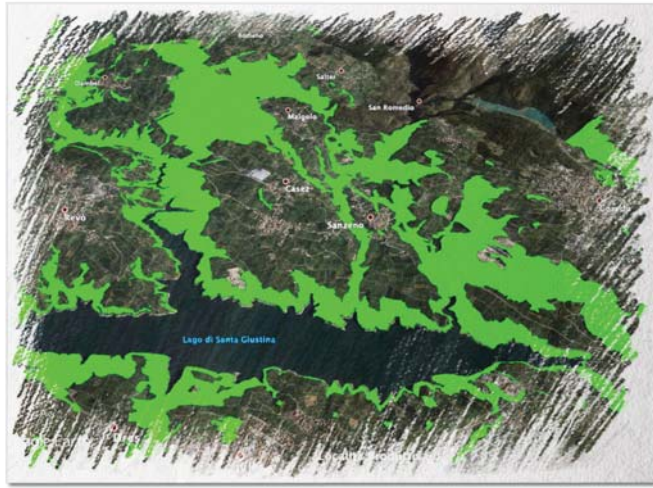
Source: our calculations using data from ISPAT, Institute of Statistics of the Autonomous Province of Trento

Nature and agriculture are closely linked and connected in Trentino. The presence of wooded and protected areas between fruit-growing areas plays an important ecosystem role by maintaining a high level of biodiversity and encouraging the life and presence of animals and even insects to rival other insects that are potentially harmful to crops. The 53% of wooded areas and 31% of protected areas with a high degree of natural integrity highlight that Trentino is a province with a marked “natural footprint” which is the result of a valid synergy between man and nature. As well as maintaining a high level of biodiversity, forests and natural parks characterise and qualify the Trentino territory, making it a resource for agriculture, and other sectors such as tourism, since it can be accessed and used by citizens in their leisure time.

2022 Target:
implementation of initiatives to promote
areas of naturalistic interest

WOODS and CULTIVATIONS

Complement and merge with each other



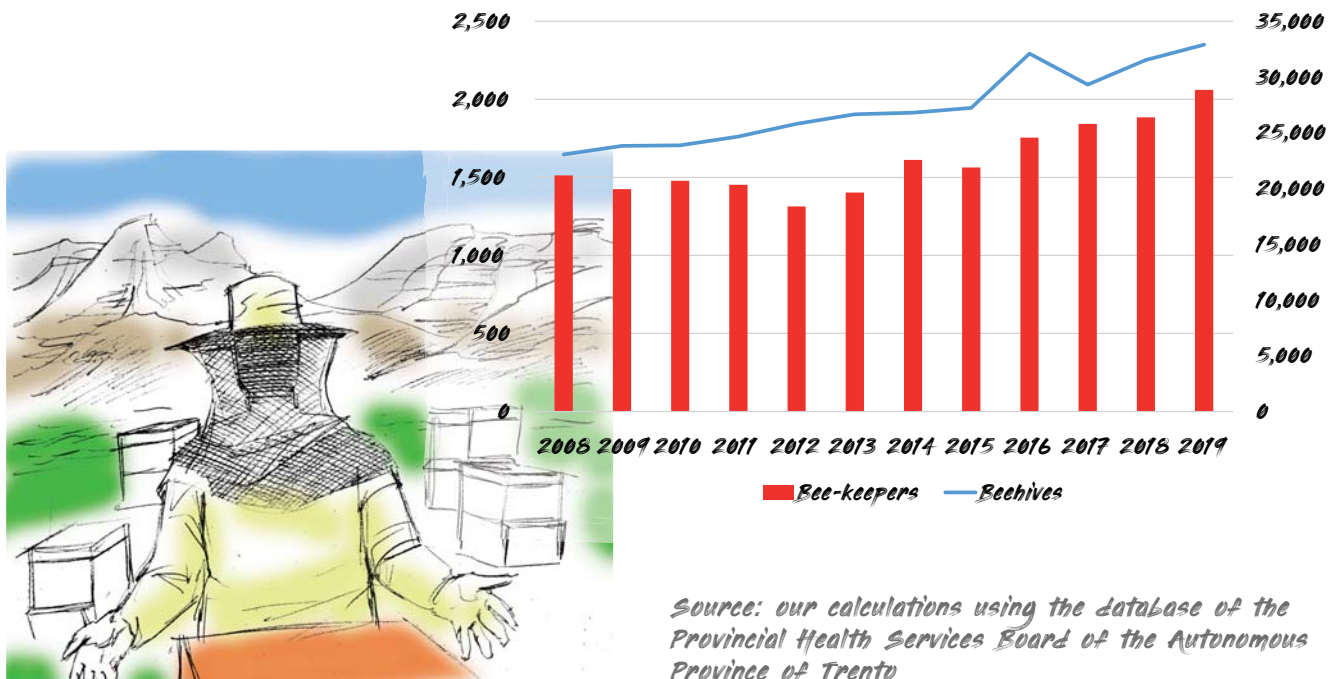
Source: our calculations using APOT data

The synergy between forest and agriculture is a distinctive feature in Trentino. Indeed, despite fruit growing being one of the main activities in the area, the forest continues to exist in different areas and not just in marginal areas. In the territories examined in 2019 - the upper Val di Non and the Giudicarie valleys - between 25 and 30% of the areas where fruit is grown are occupied by strips of woodland or non-cultivated areas between crops and help ensure biodiversity thanks to a habitat that is favourable to many forms of life that are useful in combating any crop pathogens. The areas taken into consideration are an excellent example of the possibility of coexistence between forests and crops, as in many other areas of Trentino. It should be noted, in particular, as in the previous report, that in recent years valuable wooded areas in Trentino have been preserved and not converted to grape or apple growing.

2022 Target:
preservation of valuable wooded areas

BEES AND FRUITFARMING: a progressively developing synergy

2019: Over 26,000 resident hives and 6,700 from outside the province during the flowering period



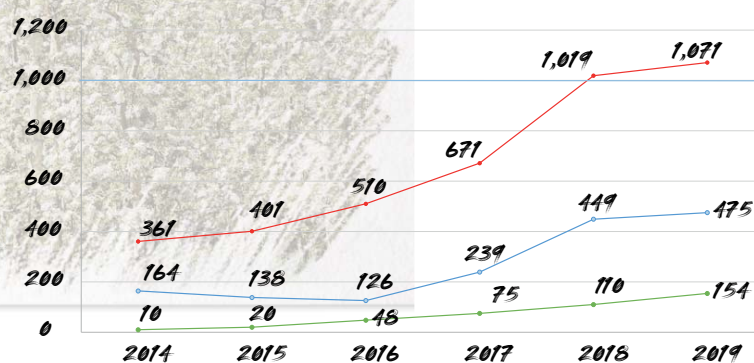
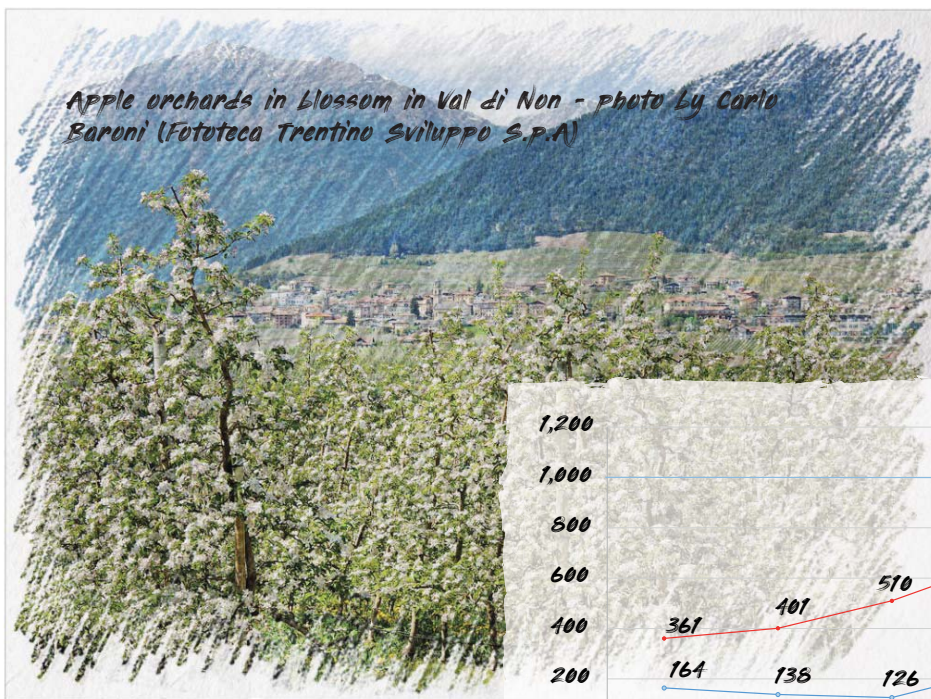
In 2019, the Provincial Health Services Board recorded more than 26,000 beehives in Trentino, in addition to another 6,700 that are introduced seasonally from outside the province to support the delicate phase of pollination of the orchards in spring. Compared to 2016, the number of bee-keepers in the territory has also increased, from 1,755 in 2016 to 2,060 in 2019.

These figures show how Trentino's production system is structurally suited to a profitable symbiosis with bees, which represent an indicator of environmental sustainability and a fundamental ally for fruit quality and economic sustainability. Precisely in relation to this strong synergy, aided by science, Trentino's agriculture is constantly looking for techniques to further improve the production environment by studying new measures to encourage symbiosis with bees and pollinating insects in general.

2022 Target:
draw up a specific protocol for the protection of pollinating insects, in agreement with Trentino's Bee-keepers' associations.

100% SUSTAINABLE PRODUCTION

Evolution of organic and resistant cultivar orchard hectares in Trentino



Source: our calculations using APOT and PAT data (Autonomous Province of Trento)

CV Resistant hectares (APOT) Hectares of organic orchards (APOT)
 Hectares of organic orchards (PAT)

The number of hectares of organic orchards in Trentino has doubled in the last four years, from 510 in 2016 to 1,071 in 2019. The APOT system has played an important role in this growth, increasing from 126 hectares in 2016 to 475 in 2019. The number of hectares of resistant cultivars also tripled over the same period, from 48 to 154, thereby fully meeting the targets set in 2016.

Today, by implementing organic cultivation and with resistant cultivars, Trentino fruit growers have taken a decisive step towards disease control techniques using non-synthetic active substances or resistance factors. These steps encourage a process of progressive convergence of integrated and organic production towards the concept of sustainability, through the productive mutual exchange of experience and knowledge from technology and nature.

2022 Target:
 adoption of the Integrated Production
 National Quality System

ORGANIC Consolidation

The organic oases of Rio Maggiore and Dardine



The first pioneering initiatives in organic apple production in Trentino began in the 1980s. The 2000s saw an important evolution, driven by more deeply rooted individual and cooperative experiences. Over the last few years the growth in consumption of organic products has also offered new development opportunities to the Trentino apple-growing sector, which now accounts for about 10% of the total cultivated area in Trentino.

The particular conformation of the territory and the fragmentation of the land has required the concentration of organic farming in well-defined areas, known as 'oases', where cultivation practices and, in particular, phytosanitary defence are more effective, respectful of the strict rules governing the respective production method and, consequently, are easier to oversee. Today we have four oases, covering a total of 103 hectares.

The “organic” path, which has seen strong international development and yet fierce competition, needs to be monitored and stabilised going forward, in order to set new goals with the best conditions for growth and success.

2022 Target:
organisational set-up of the oasis system, analysis of economic sustainability and study of the level of phytosanitary interaction between organic and integrated production

More and more RESISTANT VARIETIES

Resistant varieties embrace residential areas



Terres, a hamlet in the municipality of Contà (2016)



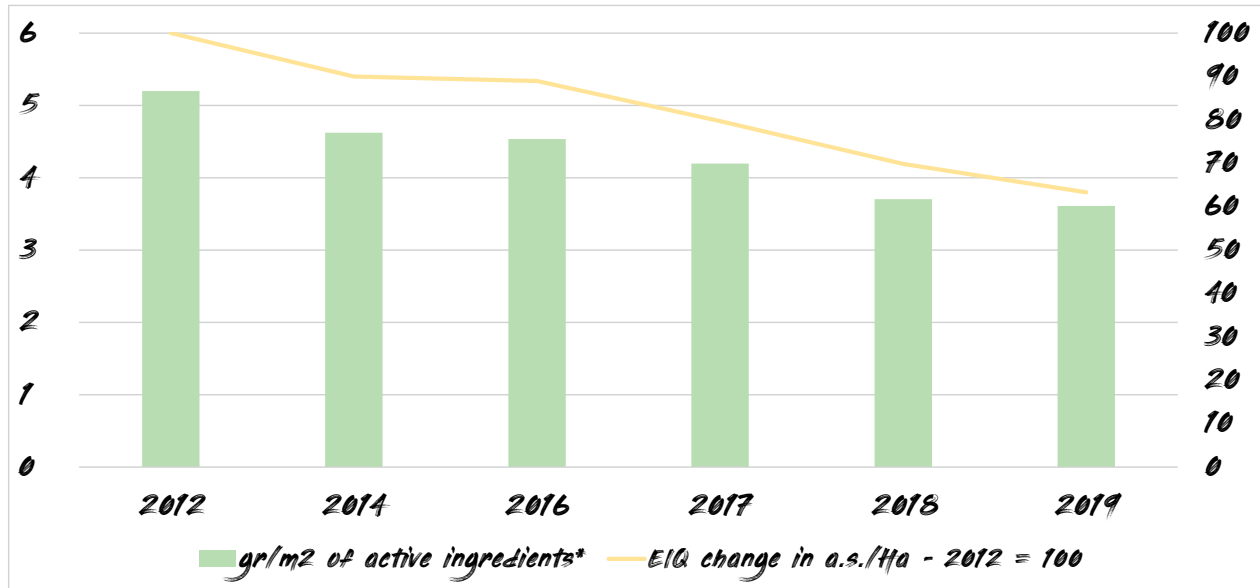
Terres, a hamlet in the municipality of Contà (2019)

The attention of growers in Trentino is constantly focused on new varieties that are suited to new consumption trends, characterised by more attention to the use of chemicals in agriculture, and are therefore sensitive to the introduction of tolerance or resistance to the main apple diseases. The planting guidelines provided by the consortia for these varieties encourage their use in new organic production projects or in the vicinity of sensitive and residential areas. These new varieties allow a significant reduction in fungicide treatments - well over 50% for scab - and can make a decisive contribution to mitigating the drift phenomenon. A great example of how new apple varieties can be a good match in residential areas is exemplified by Terres, a hamlet of the municipality of Contà, which saw the evolution of the planted area with resistant varieties in the period 2016-2019.

2022 Target:
50 hectares of new plantings

The evolution of ACTIVE COMPONENTS

Use of chemicals for plant protection in Trentino

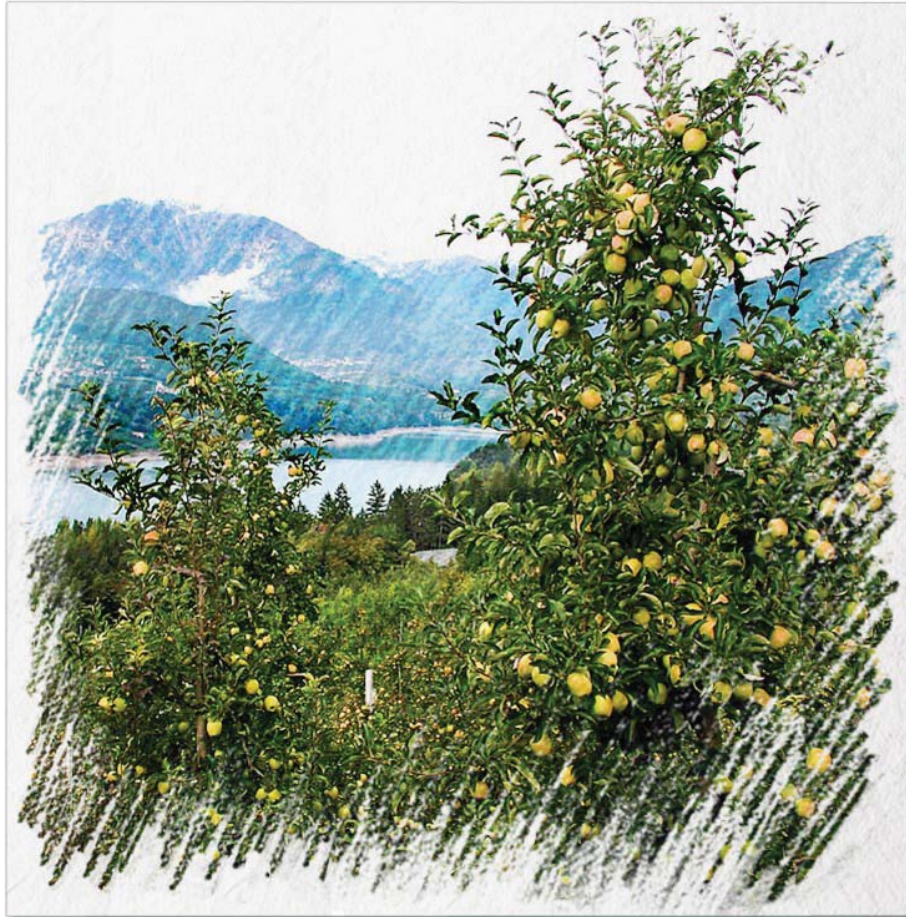


Source: our calculations using APOT data - * Acaricides - Herbicides - Plant growth regulators - Fungicides - Insecticides

The widespread adoption of integrated production is a prime example of the attention to sustainability in Trentino fruit growing. This has involved a continuous search for new molecules that offer improvements in terms of toxicology, selectivity and impact on the environment, often before changes in European and national legislation. Similarly, distribution techniques are being continually improved and the timing of the operations optimised, so that the quantity of plant protection products distributed is also gradually being reduced.

As can be seen from the graph, the trend in the use of plant protection products in general shows a continuous reduction in volume, excluding cyclical growth due to particularly difficult conditions during years in which climate trends were particularly favourable to pathogens. From the first budget in 2016 to the one in 2019, the average annual reduction was more than 20% in terms of grammes of active ingredients per sqm.

In the meantime, an initial assessment has been made on the 'qualitative' transition of the active ingredients towards new generation substances with toxicological profiles that are attentive to human health and environmental requirements. The qualitative profile was assessed by means of the environmental impact index (EIQ - Environmental Impact Quotient), validated for Trentino through the joint work of the E. Mach Foundation and Cornell University in Geneva, New York State. This indicator, which was set at 100 in 2012, shows a reduction of more than 30 points in 2019 and confirms significant qualitative as well as quantitative progress in plant protection product use choices. In the near future, quality assessments will become a benchmark in the new National Action Plan for the Sustainable Use of Pesticides.

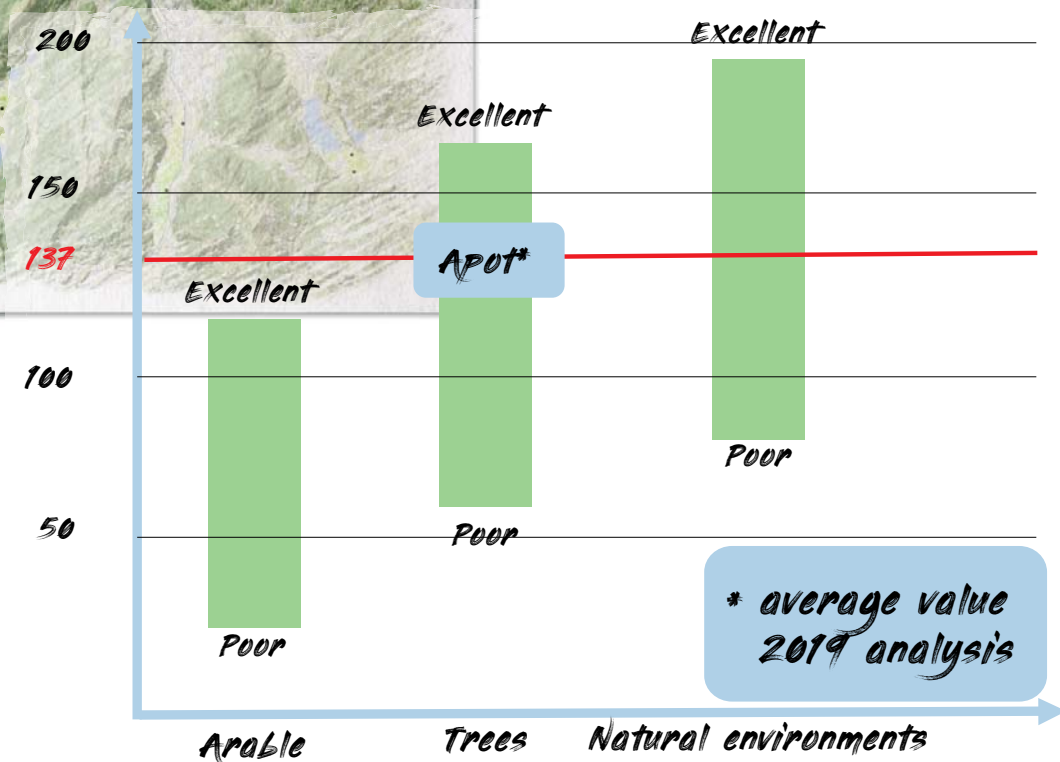
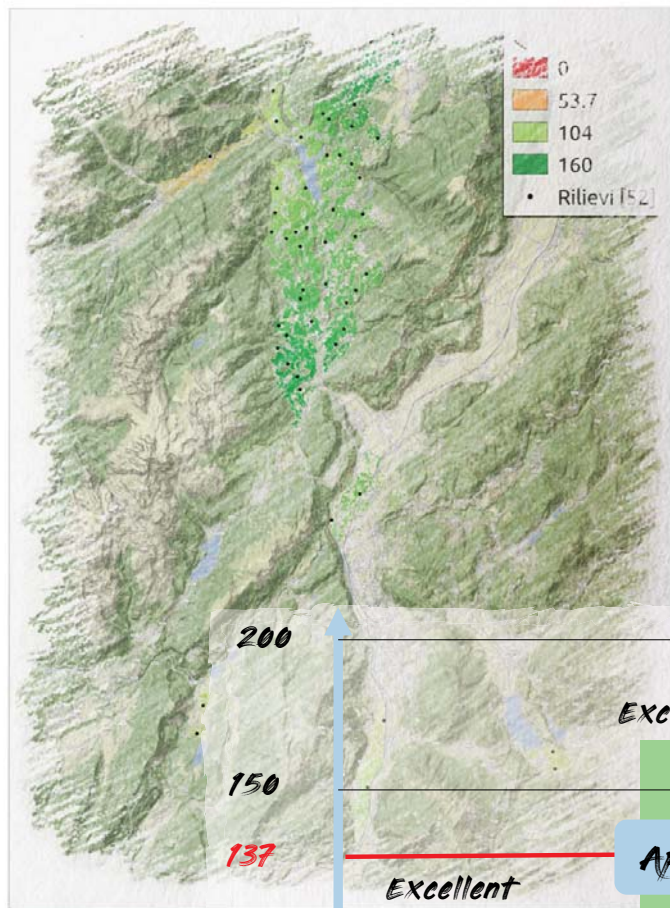


EIQ meaning and methodology

The Environmental Impact Quotient (EIQ) is a system for estimating the potential negative effects on workers, consumers, aquatic and terrestrial organisms resulting from the use of plant protection products. The method was developed in 1992 and updated in 2011 in a joint effort between the Department of Entomology at Cornell University (New York State Agricultural Experimental Station - Geneva - USA) and the E. Mach Foundation that combines chemical and physiological risk factors on health and the environment, by giving a “weight” ranging from 1 to 5, to provide a final result that can clearly express the impact of each active ingredient (a.p.) analysed and also the “package” of active ingredients that are actually used in the field. A reduction in total value corresponds to a lower risk profile.

2022 Target:
5% quantity reduction - Introduction of risk assessment index

The BIODIVERSITY of Trentino soil



Source: our calculations using Timesis-CCPB data

The Trentino territory is characterised by the presence of areas of high environmental importance and a high level of biodiversity. Indeed, as mentioned above, 53.4% of the territory consists of wooded areas, 31.2% are areas of high natural integrity or protected areas and 1.7% are rivers and lakes. Areas of high natural integrity and protected areas are subject to different types of environmental protection (Natura 2000 network, biotopes, nature reserves, parks, etc.) and according to different levels, ranging from the Stelvio National Park to the provincial nature parks (Adamello Brenta and Paneveggio-Pale di San Martino) to local reserves, across more than 180 municipalities.



In this context, therefore, biodiversity and agriculture are closely interlinked. And while, as we will show later, agriculture can contribute to maintaining a high level of biodiversity, biodiversity is the foundation of essential ecosystem services, such as forests and waterways, that support agriculture and human well-being. The coexistence of different animal and plant species in the same ecosystem contributes, at various levels, to the regulation of diseases and pests, pollination, maintenance of the water and nutrient cycle and soil fertility, erosion control, climate regulation, as well as carbon sequestration. Sustainable agriculture promotes biodiversity and is enhanced by biodiversity itself.

Recognition of this value as the basis of a truly sustainable agriculture has led APOT to analyse and evaluate the state of biodiversity in the soils of the Trentino fruit-growing system, especially in the area dedicated to apple production.

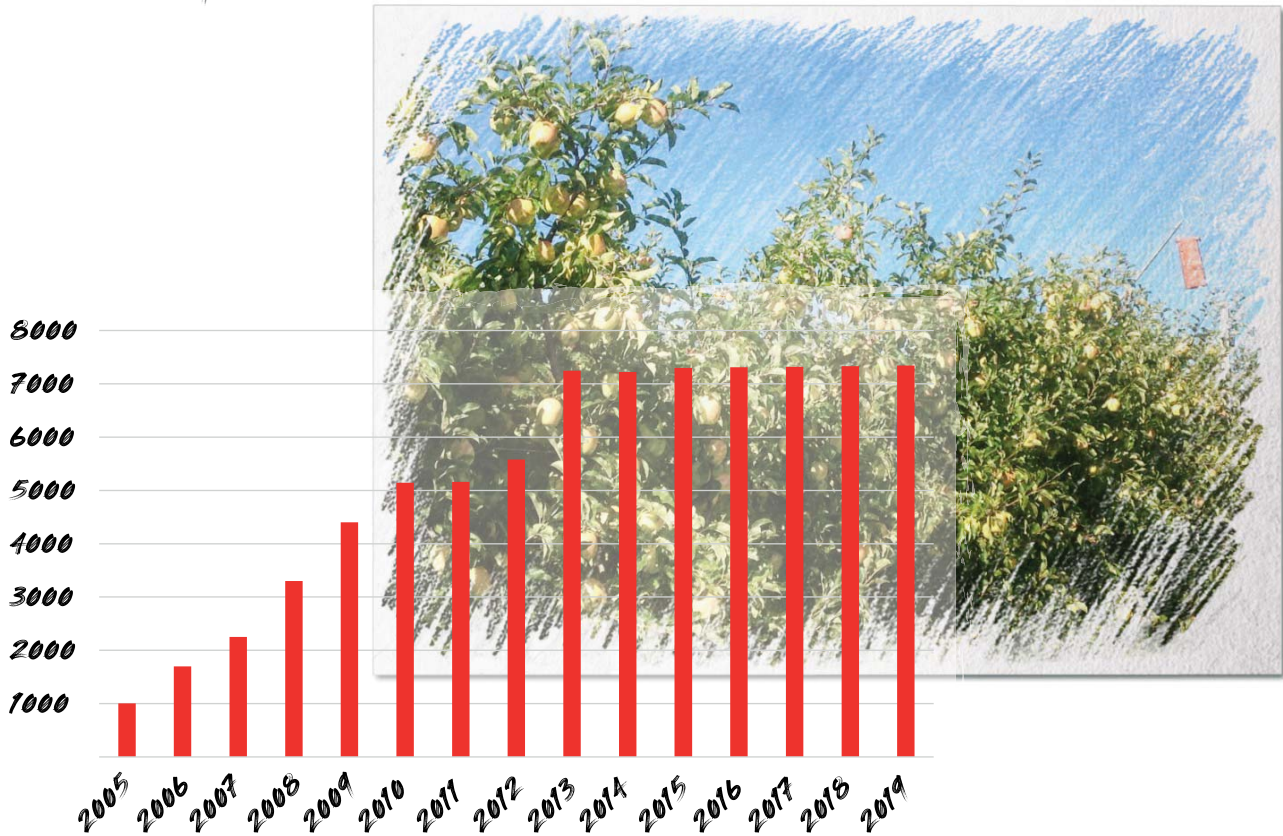
With the control body CCPB, APOT has therefore undertaken the Biodiversity Alliance certification process, aimed at monitoring the biological quality of soils, through the use of the QBS-ar index. This index is based on the analysis of edaphic microarthropods living in the top centimetres of soil, where their activity is most concentrated.

In 2019, 52 surveys were carried out that showed an average QBS-ar value of 137, on a scale of 60 (poor) to 160 (excellent), which is highly consistent with previous years that saw a QBS-ar of 116.5 in 2017 and 142 in 2018. This data place Trentino fruit-growing soils at a medium-high biological quality level.

*2022 Target:
QBS-ar medium above index 130*

SUSTAINABLE METHODS: sexual confusion

*Affected
areas in Ha*



Source: our calculations using APOT data

More than fifteen years ago, the technique of sexual confusion was introduced in Trentino fruit-growing. This innovative tool is the result of the efforts of producers and research bodies and reduces the use of plant protection products to control insects through natural substances that simulate the effect of the pheromones emitted by females and disorientate males, thus reducing the birth rate and, consequently, the development of subsequent generations of pathogens. Today this technique covers 100% of the Trentino apple-growing area managed by APOT - which is affected by the presence of the codling moth (*Cydia pomonella*) - with significant results that have certainly contributed to the reduction in the use of plant protection products. The refinement of this technique continues year after year with the aim of extending its use to other apple insects and pathogens.

*2022 Target:
introduction of diffusers to control other
'Loring' insects*

RESPECTFUL packaging

(GRI 301-1, 301-2, 301-3)



For producers in Trentino it is important to make their products identifiable in the target markets, by applying their own brand on all the fruit and also on transport containers and displays. Nowadays these disposable packages consist of boxes made of corrugated cardboard, cardboard, wood and plastic, with the latter being as recyclable as possible (R-PET, PE).

The vast majority of containers with paper and wood-based materials come from sustainably produced raw materials. The cellulose used comes from specially created plantations, where felled adult trees are replaced by new ones, with the replanting exceeding the cutting coefficient. In 2019, a total of about 50 million packages were used by the APOT system.

The Trentino fruit-growing system has therefore created a virtuous system for packaging, as both plastic and paper can be recycled to create secondary materials from which to restart the cycle. With regard to transport and display packaging, the concept of reuse through the use of reusable plastic containers (RPCs) has also become established in mass distribution channels. In 2019, the fruit system handled just under 10 million RPCs. This system makes it possible, on the one hand, to reduce the use of raw materials to produce the packaging and, on the other, to optimise transport costs thanks to the lowering of the sides on the way back to the washing centres.

2022 Target:
only sustainable packaging

SPECIAL waste RECOVERY

(GRI 306-2, 306-4)

<i>APOT (MELINDA+LA TRENINA)</i>	<i>Contributions (no.)</i>	<i>Pesticide packaging (kg)</i>	<i>Expired pesticides (kg)</i>	<i>Filters (kg)</i>
<i>2017</i>	<i>3,440</i>	<i>27,691</i>	<i>1,615</i>	<i>809</i>
<i>2018</i>	<i>3,467</i>	<i>32,662</i>	<i>1,247</i>	<i>842</i>
<i>2019</i>	<i>4,000</i>	<i>35,126</i>	<i>1,876</i>	<i>819</i>

<i>REST OF TRENINO</i>	<i>Contributions (no.)</i>	<i>Pesticide packaging (kg)</i>	<i>Expired pesticides (kg)</i>	<i>Filters (kg)</i>
<i>2017</i>	<i>176</i>	<i>2,018</i>	<i>123</i>	<i>51</i>
<i>2018</i>	<i>136</i>	<i>1,263</i>	<i>157</i>	<i>10</i>
<i>2019</i>	<i>166</i>	<i>2,057</i>	<i>146</i>	<i>46</i>

Source: our calculations using APOT data

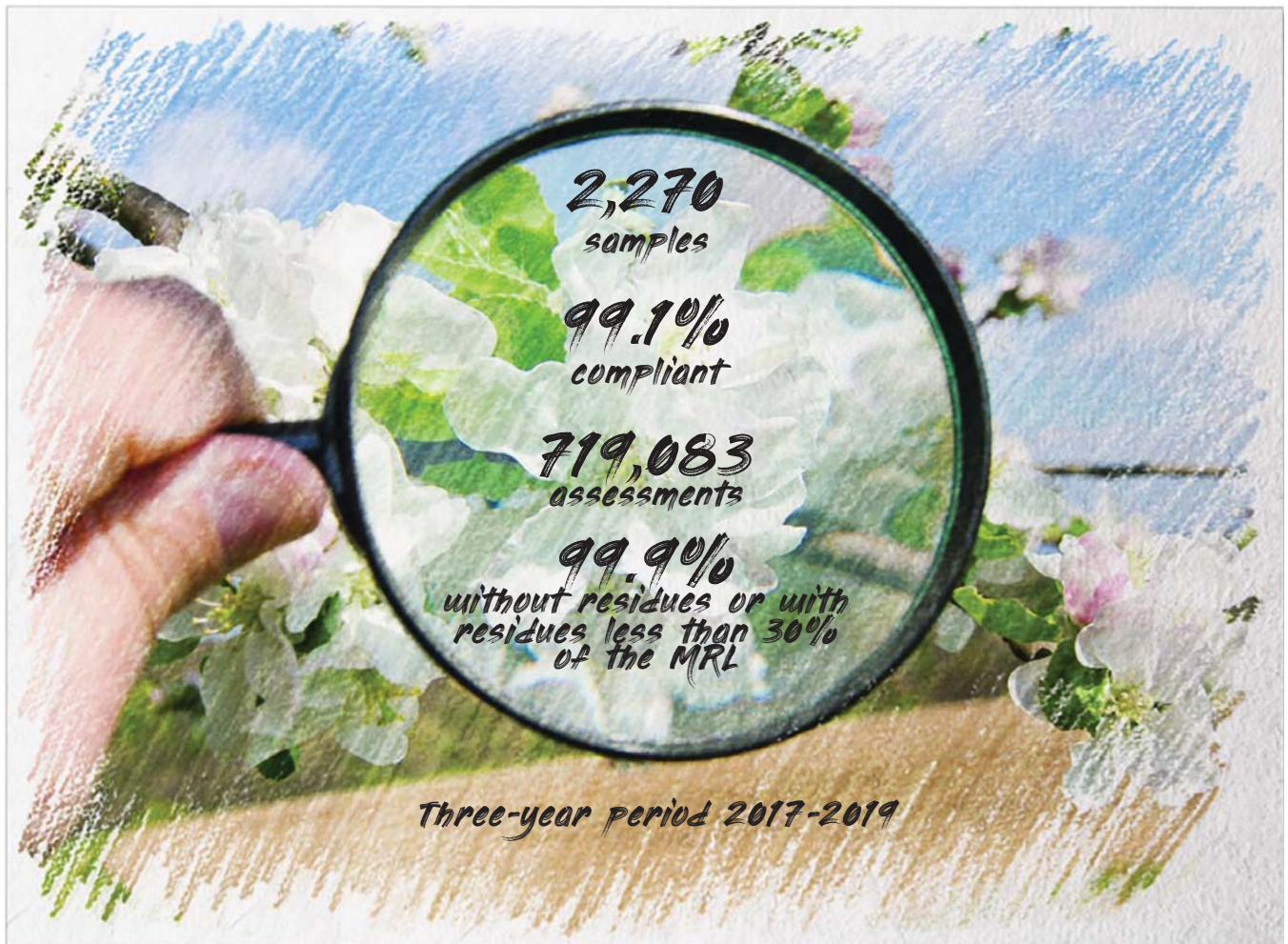
The strong desire to preserve the quality of the environment has led to Trentino producers setting up a system for the collection and disposal of packaging for plant protection products, expired plant protection products, filters and, starting from 2019, other materials in a widespread manner throughout the territory.

This system is based on a specific “programme agreement”, that was renewed in 2018 with the Autonomous Province of Trento. In 2019, APOT, which performs the waste disposal service for its members, made 4,000 deliveries, 96% of the total across the province, which represented an increase of 21% compared to 2016.



2022 Target:
maintain and stabilise the system

CONTROLS in integrated production



Source: our calculations using APOT data

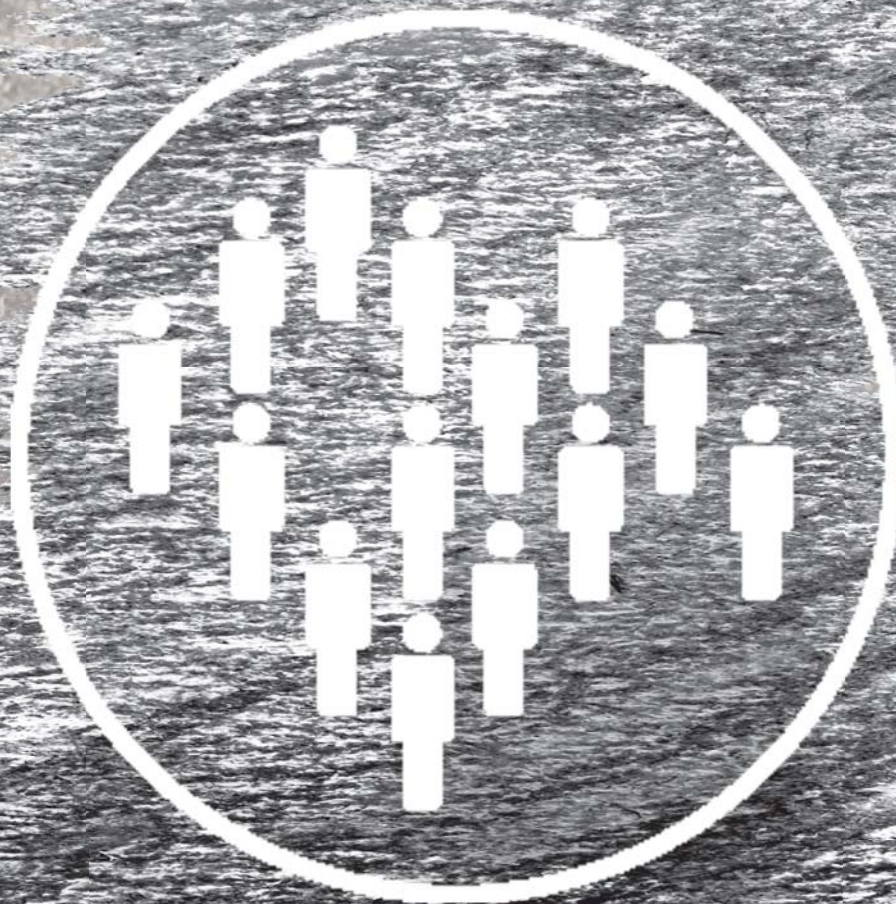
The Trentino fruit and vegetable system is very attentive to the issue of product wholesomeness, so much so that it continues to use a particularly stringent system of controls in the field and in processing warehouses. The control plan has a much higher sample base than is normally required by existing certification schemes and is now completely computerised, with the availability of a whole range of data that make it possible to analyse and understand the usage dynamics of phytoiatric products in order to increase their effectiveness and, consequently, reduce the need for their use. This extremely sophisticated and precise controls offer consumers extremely high food guarantees and safety standards. Checks on residues in apples carried out by the Trentino fruit-growing system show that, in the three-year period 2017-19, of the 2,270 samples analysed, on average 99.1% of these were compliant. A total of 719,083 assessments were carried out on these samples over the last three years, of which 99.9% were found to be free of residues or with residues below 30% of the Maximum Residue Limits (MRLs).

**2022 Target:
maintain the system**

*Lake Tovel - Photo by Roberto Cavalli
(Fototeca Trentino Sviluppo S.p.A)*



2. FOR PEOPLE AND LEISURE TIME



Trentino Sustainable Fruit-Growing Project

MAN at the centre of the system

(GRI 102-7)



Source: our calculations using APOT data

The mutual spirit, that is typical of the cooperative system, based on people before capital, has always been the cornerstone of the Trentino fruit-growing system. The 6,487 active members, 5,025 of which are members of APOT, are the driving force behind this system, in which there is a progressive reduction in the number of associated producers, thanks to the progressive recomposition of the farm network into larger and more structured companies - in line with a general trend for Italian agriculture - but a reduction in cultivated areas. However, in Trentino, the decrease in the number of farms, from 7,764 in 2016 to 6,487 in 2019, saw the cultivated area remain stable. This remains above 10,000 hectares and can be seen as a positive evolution towards larger and more professional farms. Indeed, thanks to the combination of many small and medium-sized specialised and state-of-the-art operators, in 2019 the system employed a workforce of 1,703 people within their cooperative structures, to generate in the same year revenues from the sale of fruit of € 376,314,000. If we consider both fruit and wine growing, in Trentino an additional 23,243 seasonal workers are involved in pruning (9%), thinning (27%) and harvesting/harvesting (61%) operations.

**2022 Target:
maintain employment**

The role of FOREIGN WORKERS



Source: our calculations using Ispat, Coldiretti, CIA, Confagricoltura Trentino data.

The fruit sector is an important source of employment for seasonal workers involved in pruning, thinning and, in particular, harvesting fruit. Approximately 75% are foreign and now mainly come from Eastern European countries, in particular, Romania. In the 2016-2019 period, seasonal employment for the total agricultural sector increased by 5,679, from 17,564 to 23,243; specifically in the fruit sector, the increase was 682 - from 6,907 to 7,589.

Of particular significance in this dynamic is the incidence of young people under the age of 25, who account for 26% of the total, while female workers account for 23% of the total - an increase of 49% compared to 2016.

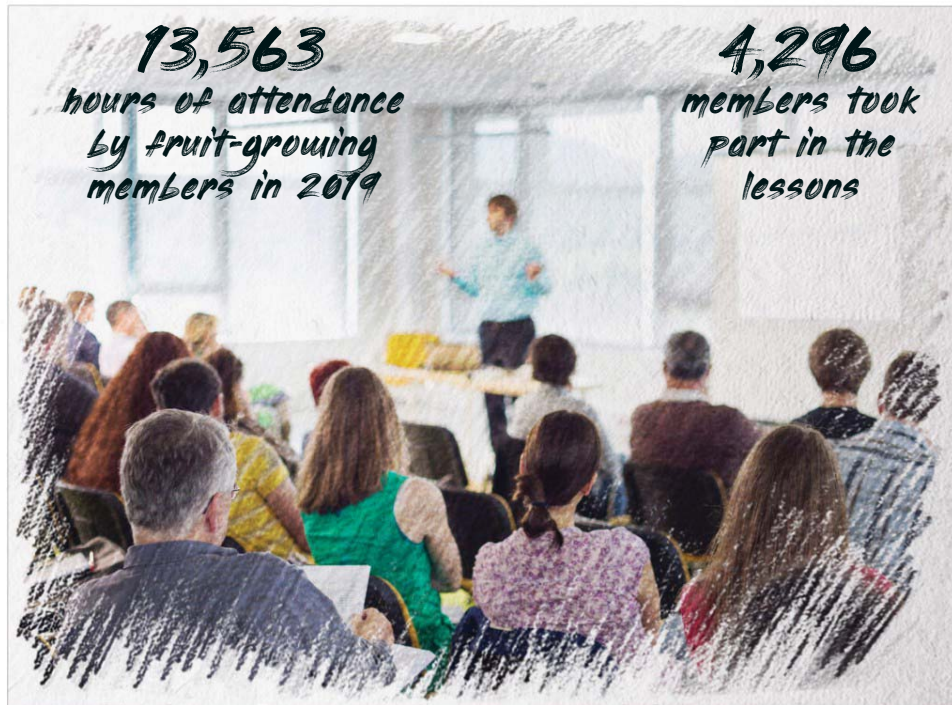
The accommodation provided to seasonal workers is one of the high-quality aspects in the growth of the Trentino fruit and wine-growing system. Today workers are housed in purpose-built facilities built at the homes of farmers, which provide decent and adequate accommodation for a comfortable stay. Over time, long-lasting and familiar relationships have been established, leading fruit growers and workers to enjoy durable partnerships.

2022 Target:
improvement of the monitoring system

TRAINING for the future

(GRI 404-1, 404-2, 404-3)

Training of members and employees in 2019



The training that APOT organises and promotes for its members is important to spread and affirm the concept of sustainability of the Trentino fruit-growing system.

The tradition of organising training sessions during the winter months to target specific needs has now been established for many years. In 2019, more than 4,000 members were involved in more than 13,000 hours of training courses. This service, developed mainly in cooperation with the technical structure of the E. Mach Foundation enables its fruit-growing members and, therefore, the whole system to remain constantly up-to-date with the latest developments in cultivation methods, new technologies and the prevention of accidents in the workplace.

People development is crucial for any company to continue to grow and be competitive in the market. Product diversification, constant technological change and the ongoing evolution of consumers would have little impact if they were not accompanied by major investments in people's professional development. This is why APOT's corporate know-how is consolidated through a set of coordinated actions including training programmes and individual and group coaching, as part of the development of career paths for all employees. Also in 2019, with the help of experts, the company financed and implemented training courses, with the relative performance evaluation about the professional development, for all employees.

The courses covered the General Data Protection Regulation, GlobalGAP 5.1 certifications, the GRASP module and biodiversity in product certifications in agriculture.

2022 Target:
maintain the system and develop online
training modules

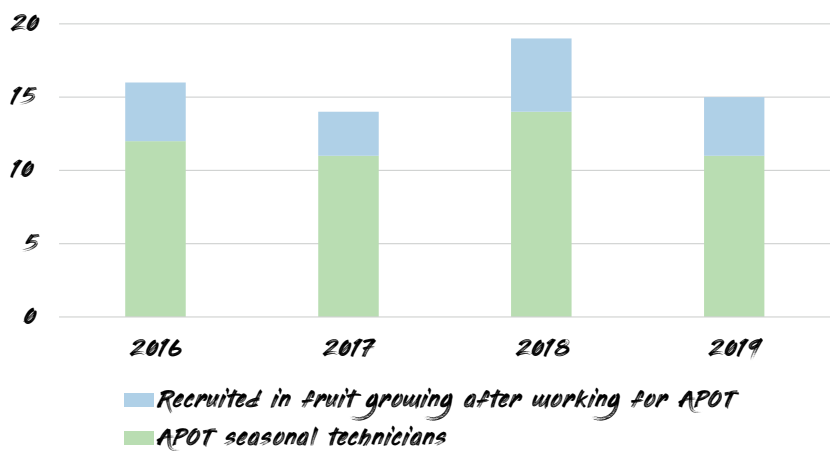
YOUNG PEOPLE and AGRICULTURE

Recruitment of young seasonal workers in Trentino



Source: our calculations using Ispat, Coldiretti, CIA, Confagricoltura Trentino data.

From temporary technician in APOT to working towards more ambitious goals in fruit farming

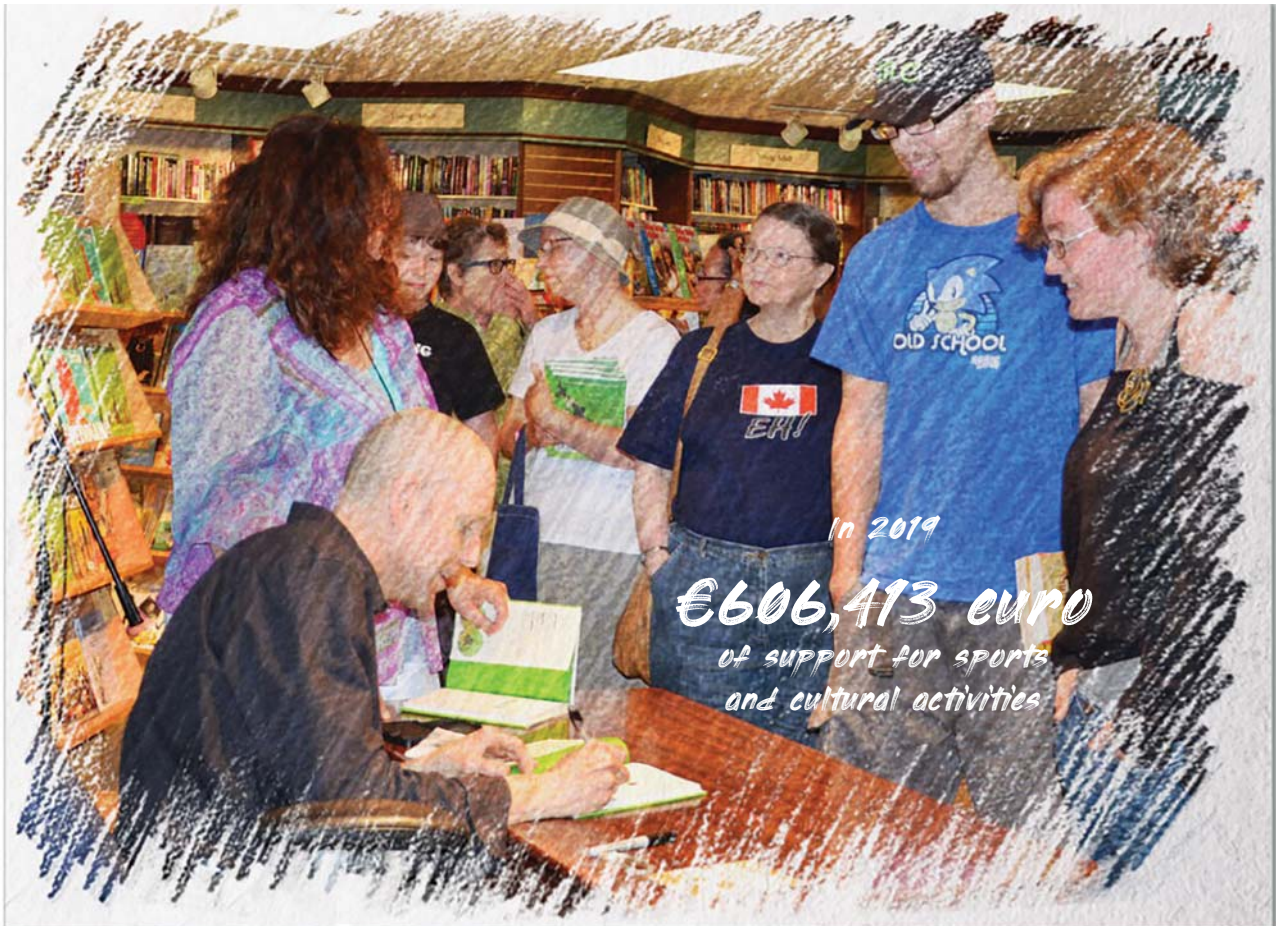


Source: our calculations using APOT data

The trend in seasonal employment in the agricultural sector over the last few years is of reveals a significant increase in young people, that were up 1,357 units from 2016 to 2019. Specifically, a marked increase in the number of workers occurred during the period between August and November, at the time of thinning and harvesting, when there is the greatest need for personnel. APOT can also be a springboard for its technical staff to find more stable employment in various capacities in Trentino's fruit farms. In 2019, for example, 4 seasonal technicians found employment in the sector: 2 with fixed-term contracts and 2 with permanent contracts.

**2022 Target:
15 recruitments per year**

CULTURAL AND SPORTS INITIATIVES FOR THE PROVINCE



Source: our calculations using APOT data

Support for sporting and cultural activities is very important for Trentino, both for drawing attention to and encouraging the sustainable development of the province and for promoting tourism, which, through its link to farm holidays, is an important resource for agriculture in the area. Significantly, in 2019, the system that sees APOT as the pivot of Melinda, la Trentina and Copag, decided to invest € 606,413 in such activities, dividing this amount between sponsorships of sports teams and competitive events, including Aquila Basket, Itas Trentino Volley, the Alpe Cimbra FIS Children Cup (former Topolino Trophy) and the Tour of the Alps (former Tour of Trentino). Not to mention support for museums, cultural associations and local tourist offices.





3. For the LOCAL ECONOMY



Trentino Sustainable Fruit-Growing Project

The value of FRUIT-GROWING



*The value of the fruit sold
2019 turnover of agricultural
fruit-growing cooperatives in Trentino:
376 million, of which 73%,
or more than 274 million, is directly
attributable to APOT.*

Source: our calculations using APOT data

(GRI 102-7)

As mentioned above, fruit growing in Trentino is made up of thousands of small family businesses which, thanks to the aggregation in a system of cooperatives and consortia, were able to bring more than 477 million kilograms of fruit to the market in 2019, equal to more than 2 billion fruits, for a value of more than 376 million euro, but it also represents a group of more than 1,700 workers involved in the refrigeration and processing of apples.

Through its members, APOT is the protagonist of this system; in 2019 it managed more than 420,000 tonnes of fruit grown by its more than 5,000 members, which was then preserved, sorted and packaged by 1,331 employees, to generate a turnover of €274,814,814.

Most of the employment comes from the families of the fruit growers themselves, thus allowing them to supplement their family income to ensure good employment conditions even in the most peripheral areas of the province, where fruit growing is the engine of the entire economy. Fruit farming is also connected and intertwined with the ancillary activities of production and supply of technical means, as well as with the management of processing and packaging sites, and all activities related to intangible services.

Fruit-growing, together with wine-growing and animal husbandry, which it shares several elements with from a district perspective, is therefore the cornerstone of the economy for these areas and keeps them active and dynamic and suitable for tourist and hotel/accommodation businesses.

The *IMPACT* of the system

The impact of fruit-growing on the Trentino economic system

Agriculture's contribution to the GDP of Trentino:
2.90%

Fruit-growing GSP as percentage of agricultural total:
33%

Apples GSP of fruit-growing total:
82%

*Source: Rural Development Programme Autonomous
Province of Trento 2014-2020 update 2020*

In Trentino agriculture plays a very important role in the provincial economy, so much so that its incidence on the provincial GDP is almost double the national average, despite the reduced availability of cultivable land due to the predominantly mountainous conformation of the territory.

The result is that its agriculture sector specialises strongly in two high added-value categories, namely wine-growing and fruit growing. The latter is worth 33% of the sector's gross saleable production, centred around a strong specialisation in apple growing which alone accounts for over two thirds of the category. Apple growing and its related storage and packaging activities is thus one of the province's key activities in terms of direct and related employment and creates - as we shall see below - an internationally recognised centre of excellence. In addition to the direct value generated by fruit farming, the effects on related sectors must be added, including direct effects such as technical means, insurance, transport, and indirect effects, such as tangible and intangible services for the sector's workers and their families.

2022 Target:
Bring fruit farming back to over 35%
of agricultural GSP

The Trentino Apple District

Trentino Apple District

Year 2018	Fruit growing in Trentino	Italian fruit farming
agricultural workers + processing workers FeV/tot workers	7.9%	4.9%
agricultural workers + FeV workers <250 workers /tot agricultural workers + FeV workers	98.3%	97.4%
fruit farms/agricultural farms	43.7%	14.6%
fruit farms/total companies	17.9%	5.3%

Source: our calculations using Infocamere and Istat data

In 2018, the “Trentino apple district” was studied and identified, which fulfils all four evaluation criteria established by the economist Fabio Sforzi, whose methodology is provided in section 2a of the appendix. In particular, the ratio of fruit farms to total farms is three times higher than the Italian average.

The key element of the Trentino apple district is the direct induced activity that it is able to generate in the territory. Suffice it to say that out of the total turnover of the system of just under 400 million euro between 2017 and 2019, the direct induced income from the agricultural phase alone was in the order of 190 million euro. Repeated fertility technical means make up 52%, while simple fertility technical means (25%) and intangible services (23%) make up the remaining 48%.

But the district does not only produce economic effects. From 2001 to 2018 areas subject to hydrogeological instability in Val di Non alone increased by just 0.6%, from 5.9% to 6.5% of the territory, thanks in part to the development of fruit farming, which has ensured direct and indirect control over the area, while, over the same period, in many hilly areas of the Apennines where fruit farming has declined sharply, the increase has exceeded 5%. The limitation of instability compared to the situation in the Apennines has led to a reduction in prevention and restoration costs which, on the basis of the growth differential, has been estimated to be more than one million euro per year.

Valli del Noce apple economic district in 2019

		Number of compa- nies	Number of em- ployees
<i>District activity</i>	<i>Apple cultivation</i>	<i>3,780</i>	<i>11,590</i>
	<i>Post-harvest activities</i>	<i>30</i>	<i>54</i>
	<i>Selection, processing, packaging and marketing of apples</i>	<i>1</i>	<i>1,508</i>
	<i>Support activities for plant production</i>	<i>101</i>	<i>515</i>
	<i>Plant Breeding activities</i>	<i>5</i>	<i>25</i>
	<i>Bee-keeping</i>	<i>51</i>	<i>47</i>
	<i>Processing for fruit and vegetable products</i>	<i>14</i>	<i>68</i>
	<i>Trade in fresh or preserved fruit and vegetables</i>	<i>15</i>	<i>55</i>
	<i>Manufacture of agricultural and forestry machinery</i>	<i>20</i>	<i>267</i>
	<i>Repair and maintenance of tractors and other agricultural machinery</i>	<i>22</i>	<i>46</i>
<i>Direct induced</i>	<i>Agents and representatives for raw materials, chemicals and agricultural machinery</i>	<i>10</i>	
	<i>Wholesale of other agricultural machinery, equipment and supplies</i>	<i>13</i>	<i>59</i>
	<i>Wholesale of fertilisers and other agricultural chemicals</i>	<i>6</i>	<i>16</i>
	<i>Agricultural consulting</i>	<i>2</i>	<i>18</i>
	<i>Rental of agricultural machinery and equipment</i>	<i>3</i>	<i>4</i>
	<i>Farmstays</i>	<i>106</i>	<i>186</i>
	<i>Total direct induced</i>	<i>4,179</i>	<i>14,472</i>

Using data from different sources

The Valli del Noce, Val di Non and Val di Sole, in particular, represent an example of “apple district economy” of particular importance in Trentino’s socio-economic system. In these valleys, the district’s activity is carried out by more than 3,800 companies who employ more than 13,000 people. The main activity of the district is connected to the direct induced activity that consists of activities directly linked to apple growing and support activities for vegetable production that provide work for 368 companies and 1,320 workers.

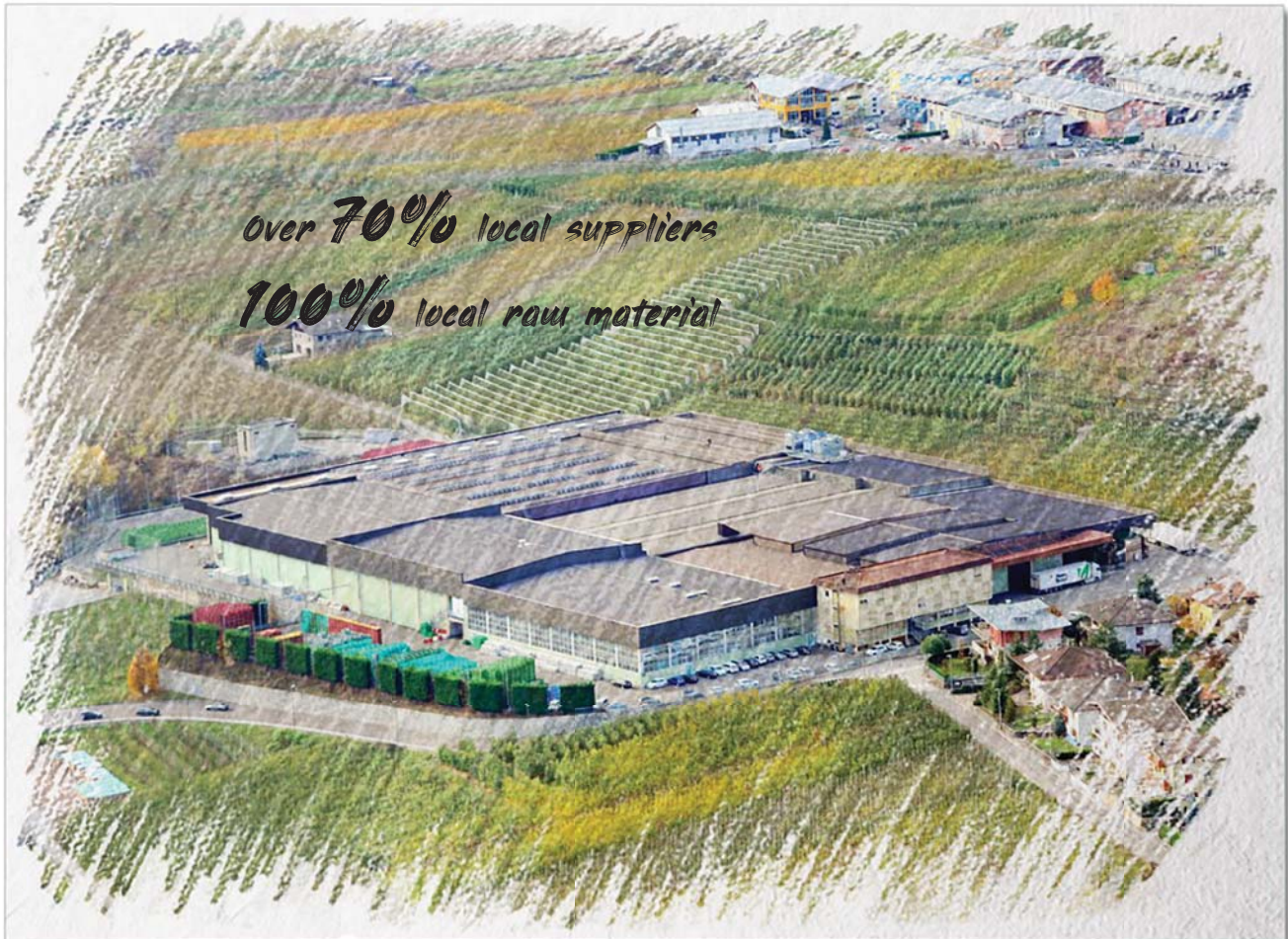
In total, therefore, there are 4,179 companies in the Valli del Noce that operate directly in the district and those that are part of the direct induced activities, with 14,472 employees.

The “apple district” of the Valli del Noce thus employs 26% of the resident population between direct and induced activities. These people (not including their families) feed a demand for goods and services in the area that employs more than 1,000 companies and almost 2,500 people indirectly.

2022 Target:
more details on the value of indirect induced activities and externalities

The ECONOMIC sustainability OF APOT

(GRI 204-1)



For APOT, economic sustainability means operating responsibly to ensure a stable and prosperous future for the company. With this in mind, there is a commitment to create value over time by offering high-level services and selling top-quality products in a constantly evolving market.

For APOT, economic sustainability also means supporting local growth and the growth of all parties in the company's value chain. The value generated by APOT is largely redistributed in the province of Trento in which it operates, through the creation of employment and the use of a high percentage of local suppliers (more than 70% of the total) thus contributing to better employment levels and investments.



Economic and financial results

In 2018, the Melinda and Trentina Consortia decided to fully centralise the marketing of the product produced by their respective members as they were certain they would be able to strengthen the system and take advantage of the opportunities offered by the European Union for Associations of Producer Organisations (A.O.P.). This is the first such example at national level and one of the few at the EU level.

In 2019, APOT operated in an extremely competitive market scenario, which in recent years has become more and more difficult due to the increased bargaining power of Large-Scale Retailers even in Italy. The spread and growth of discount stores, which are particularly aggressive on the sales price front, the ongoing concentration of distribution giants, the intensification of trade tensions and protectionist measures have increased pressure on suppliers and competition. Despite this, APOT has managed to increase its market share thanks to the Melinda and La Trentina brands, which are leaders in Italy for apples.

In the first year of joint marketing of apples produced by Melinda and La Trentina members, APOT achieved a turnover of more than 274 million euro.

The company's results are closely linked to external factors, in particular the European and global geopolitical production context, but also the the varietal structure and the average productivity of the system.

After a few years of strong renewal, with a trend of over 7% per year, there has been a slowdown, with an incidence fluctuating between 3 and 3.5%, which is a critical threshold to overcome. Average productivity per hectare stands at 52 tonnes, with the worst performing farms barely reaching 45 tonnes/ha. The process of plant renewal and attention to agronomic practices should seek to restore marginal production situations and increase average productivity.

*2022 target:
keep plant renewals above
4% per year*

Economic value DIRECTLY generated and distributed

(GRI 102-9)

ECONOMIC VALUE DIRECTLY GENERATED AND DISTRIBUTED

FINANCIAL YEAR	2018/2019
Economic value generated	274,619,532
Revenues from sales and services	273,460,530
Other income and revenues	1,334,284
Financial income	1,012
Foreign exchange gains and losses	3,706
Economic value distributed	274,609,159
Operating costs	272,535,637
For raw materials (fruit, consumables and goods)	253,150,020
For services	18,970,766
For use of third party assets	83,917
Amortisation/depreciation and write-downs	69,665
Other operating expenses	261,449
Personnel costs	2,241,677
Remuneration of capital	5,736
Payments to Public Administration	25,909
Economic value retained	10,373
Value paid to member consortia	253,150,020
Operating profit	10,373
Legal reserve	3,112
Mutual Fund	311,19
Statutory reserve	6,950

Source: Our calculations using APOT data

rootedness to the territory where the company was founded and has developed including through its services, contributes to the distribution of value towards local communities.

A specific analysis of the origin of service providers - mainly logistics and plant maintenance providers - shows APOT's contribution to the local and regional supply chains. APOT considers suppliers from the autonomous provinces of Trento and Bolzano as local. This represents a major commitment and a constant source of focus for the company. Section 2b of the appendix lists APOT's most important suppliers.

A sustainable company is able to create value but also has the ability to redistribute part of the wealth it produces to the territory in which it operates and to its stakeholders, be they employees, suppliers, public administration or the entire community. The economic value generated, the value distributed to member consortia and the value retained are summarised here through the analysis of the income statement of APOT's financial statements for the 2018-19 financial year.

It is evident that most of the economic value generated was used to purchase raw materials - the vast majority of which is the basic product supplied by the members - and services, which in APOT's specific case have a significant impact on the territory in which it operates, given the strong links with local service providers. This aspect is a distinctive feature of APOT, which is committed to investing in Italy and, above all, in the province of Trento.

This operating model, which is linked to investments based on local suppliers and

2022 Target:
maintenance

The internationalisation of APOT

(GRI 102-6)



Source: our calculations using APOT data

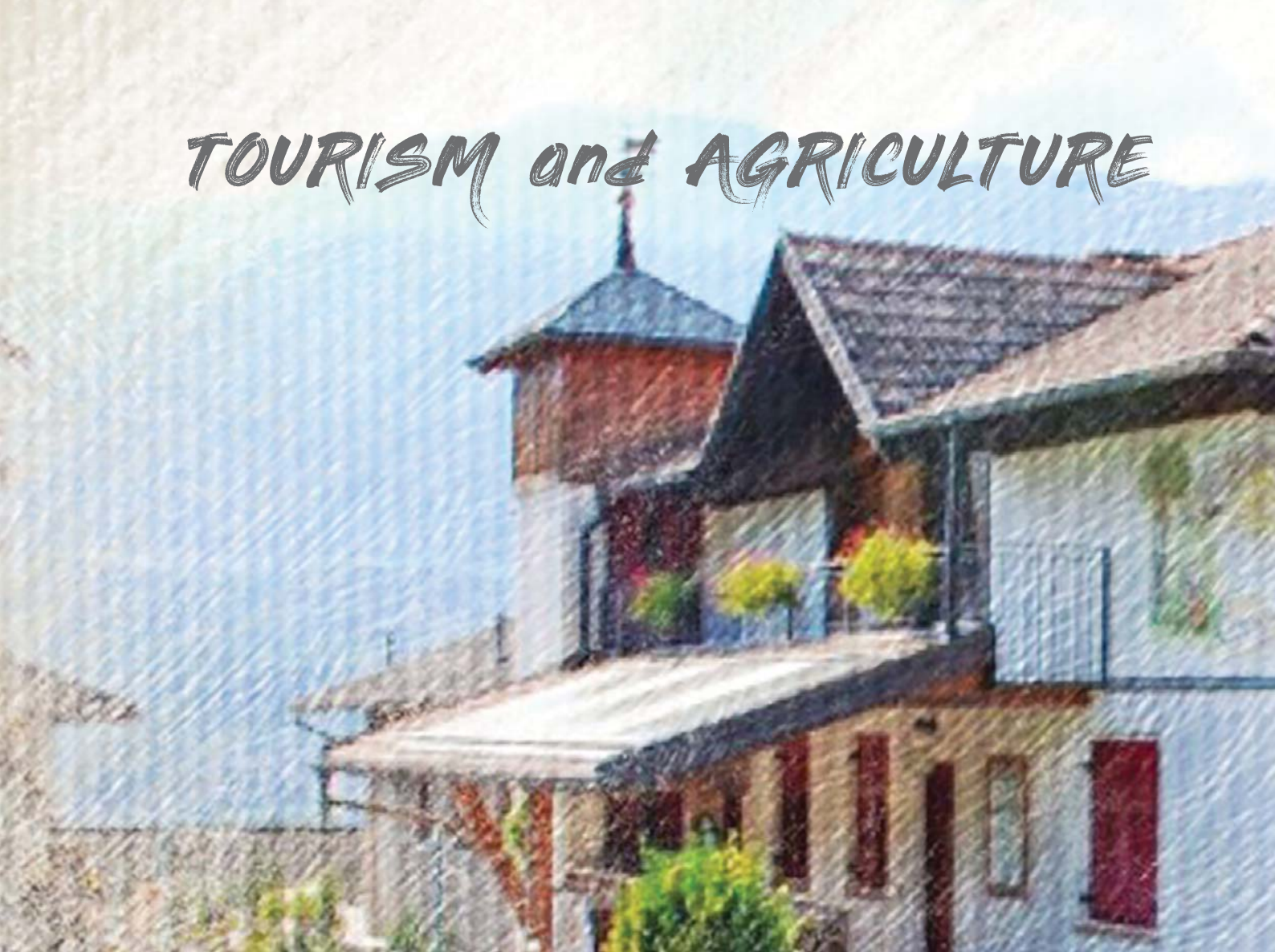
APOT also deals with the export of apples produced by its members: Melinda and La Trentina. Aside from Europe, where Trentino apples have for some time been exported continuously and widely, APOT's products now reach the whole world, starting with four countries in the Americas: Canada, USA, Brazil and Colombia, with no particular restrictions.

In North Africa, Morocco and Egypt are the only countries to which APOT continuously sends apples. However, the situation in the rest of the Maghreb is more problematic due to the difficult socio-political situation these countries are experiencing.

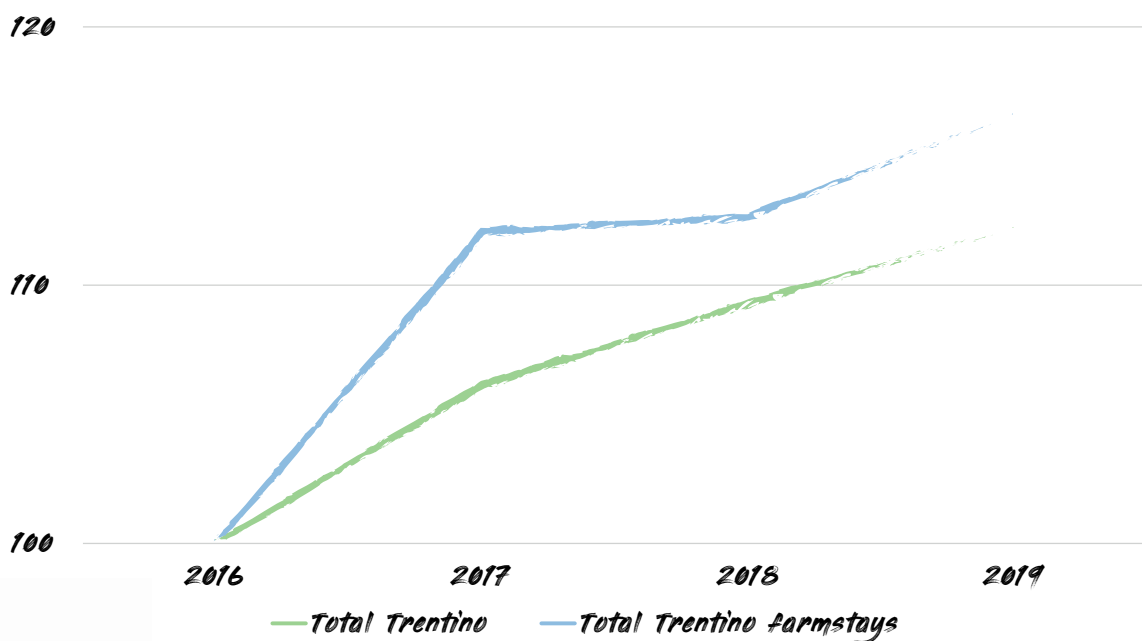
Finally, there are new prospects for the cooperative's apple exports in the Far East. India, Vietnam, Singapore and Malaysia, and soon Taiwan and Thailand, are the markets that are currently served and their development will be important for the future.

**2022 Target:
increase export share to 30%.**

TOURISM and AGRICULTURE



Evolution of arrivals in tourist facilities(2016= 100)



Source: our calculations using data from the Statistical Service of the Province of Trento



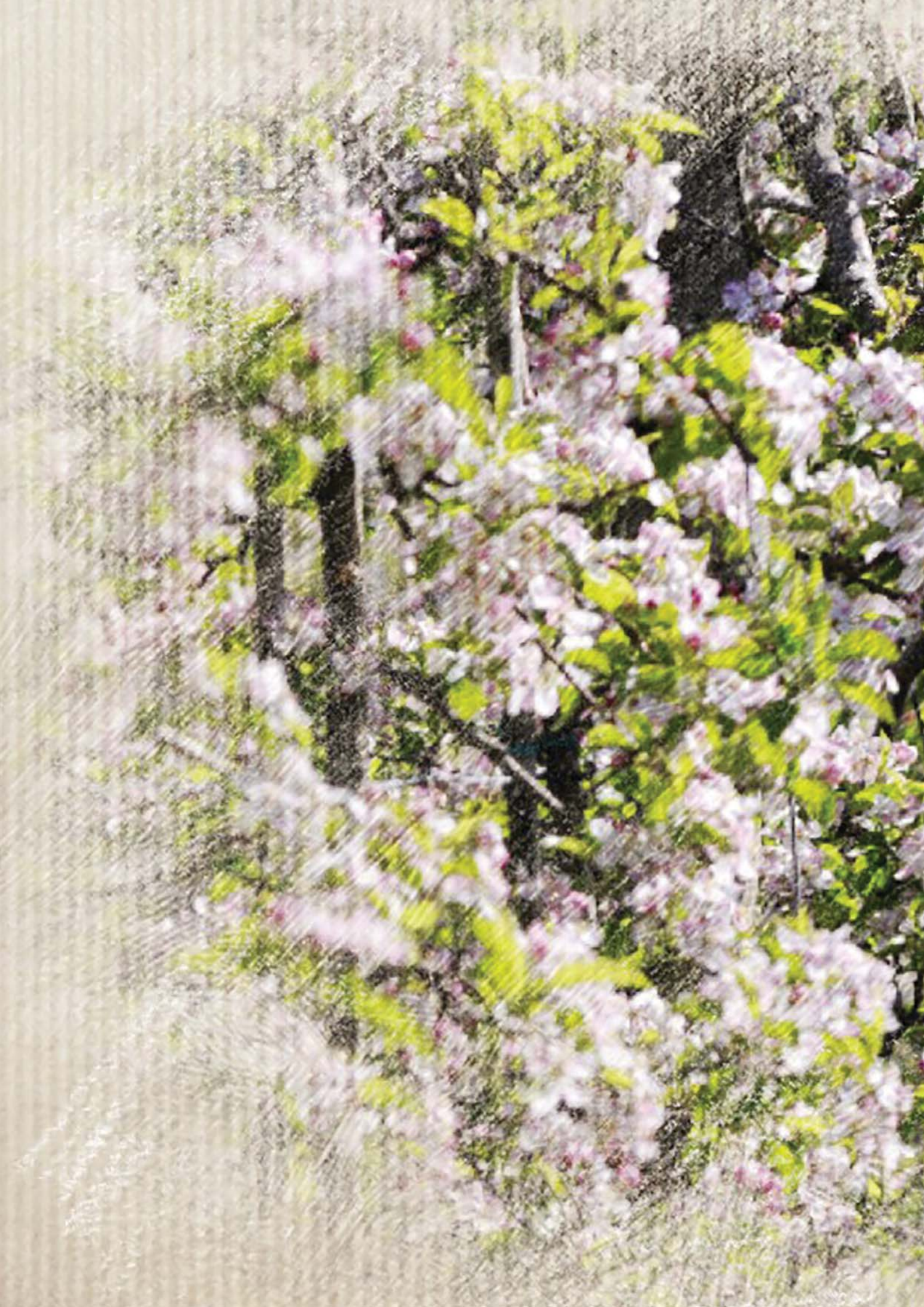
(GRI 203-2, 413-1)

In the last four years, the number of tourists who have chosen Trentino as their holiday destination has increased by a significant 12% in both the summer and winter periods.

There have been even more notable increases for Val di Non, the iconic Trentino apple-growing area, where arrivals in tourist facilities increased by 4 percent compared to the overall figures. Foreign tourism continues to do well and accounted for 39% of total arrivals in Trentino between 2016 and 2019.

Nature has played a dominant role as the driving factor in this trend, with the landscapes of Trentino increasingly appreciated a place to spend a relaxing holiday. Casting an eye over arrivals at Farm Holiday destinations, these have increased by 16% in the past 4 years, showing that fruit-growing and tourism can coexist and share the same goals: rural development on the one hand and the improvement of tourism possibilities on the other. In this perspective APOT, which represents about 77% of fruit growers in Trentino, indirectly contributes to the development of tourism in the province by taking care of the territory, the main resource, and guaranteeing for individual companies that are part of the system the income required for them to remain as vital operators in this sector.

*2022 Target:
to foster conditions for further development
of farm tourism*



4. FOR A SUSTAINABLE FUTURE



Trentino Sustainable Fruit-Growing Project

INVESTMENTS and PROJECTS ON COURSE FOR sustainability

In 2019, thanks to the European Innovation Partnership (E.P.I. measure 16.1 of the Rural Development Plan), APOT worked on three important projects in collaboration with other entities: the Sustainable Pedestrian Apple Orchard (Me.P.S.), the Sustainable Alternative Fruit Growing (F.A.S.) and Climate and Agriculture in Mountain Areas (C&A).

1 - Me.P.S., a shared project for a temporary association of companies (ATI) with the E. Mach Foundation and the Fruit Innovation Consortium, that aims to study an innovative way of fruit growing through the use of low-cut plants to increase the quality of the production process. This enables all the working operations to be carried out from the ground and, through a net covering system, that is both insect-proof and rainproof, it can contribute to drastically reducing the use of agro-pharmaceuticals and thinning agents, thus increasing the safety of the fruit. As part of this project, we are also experimenting with plant protection sprayers above the foliage, to carry out treatments with fixed plants positioned above the plants, so as to eliminate the drift effect, avoid the use of tractors and, consequently, eliminate risks, particularly in sloping areas, as well as reducing the carbon impact of plant protection. The project ended in 2019 with encouraging results; in particular, the technique of phytosanitary overhead treatment will be progressively transferred to some fruit-growing areas.



2022 Target:
100 hectares of sustainable walking orchard

2 - The F.A.S., a project shared with the same ATI of the Me.P.S., aims to develop sustainable cultivation methods for the P.D.O. 'Susina di Dro' and the blueberry, two currently minor species which are growing interest in the Trentino fruit-growing scene, together with the biological control of an insect (the Mediterranean fly) for all the fruit species in the area.

3 - Finally, the C&A project deals with the study of climatic variables in Trentino fruit-growing areas, with the aim of identifying the most critical situations and guaranteeing measures for reducing the effects of quantitative/qualitative production instability caused by the repetition of adverse and extreme weather phenomena such as spring frosts or summer droughts.



CONTINUOUS INVESTMENT in projects and services

2019 Projects and Services

	Amount	Percentage
<i>FEM Projects and Services 2019</i>	€ 441,876.00	47.6%
<i>Technical consultancy 2019</i>	€ 440,000.00	47.4%
<i>Sustainable walkable apple orchard</i>	€ 27,184.00	2.9%
<i>Sustainable alternative fruit growing</i>	€ 18,647.00	2.0%
<i>Climate and agriculture in mountain areas</i>	€ 1,440.00	0.2%

Investment € 929,147.00

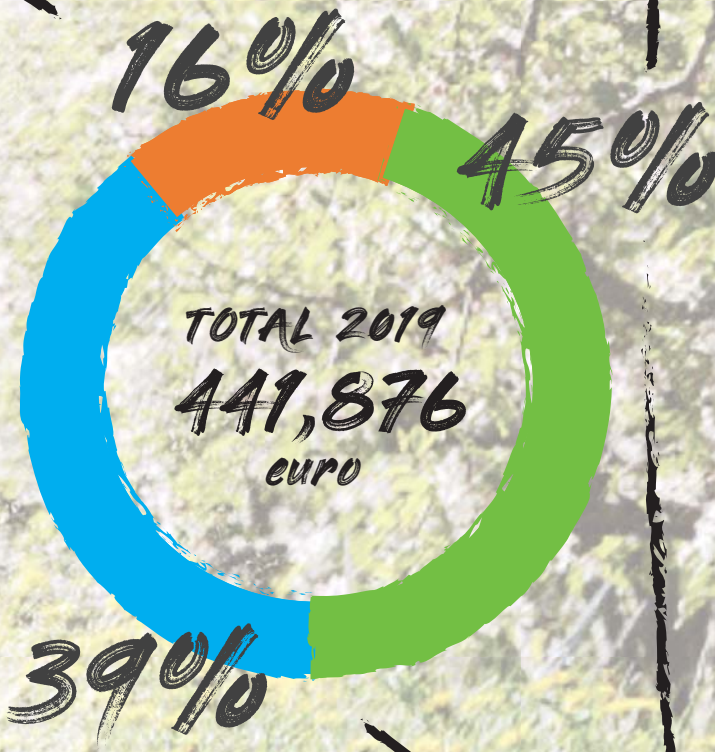
The “projects and services” and “technical consultancy” programmes refer to an agreement concluded by APOT with the E. Mach Foundation which is updated every year according to the results of the shared work each production year. Individual sheets identify the motivations, methods and objectives, costs and persons involved in each area of collaboration. At the end of the annual programme, APOT and FEM organise three days of discussions to present and discuss the results, and assess the conditions for confirming the programme, which is detailed and formalised through a specially created Joint Coordination Committee.

Shared activities include professional development courses for fruit growers that are held in the winter months.

This working method has brought important results in terms of a practical spin-off for APOT's social base, with a particular focus on agronomic and phytosanitary intervention techniques as well as in relation to various sustainability-related areas.

2019 Investments, projects and services for sustainability

Controls: check for compliance with the integrated production requirement



Consultancy: Certification, occupational health and safety, cross-compliance and training

- Ripening period control and storage selection support
- Mediterranean fruit fly
- Aerosol dispensers project for sexual confusion of apple trees
- Phytoiatric apple management for minimum residue production
- Impact of growing techniques on bees
- Technical transfer from organic farming to integrated production
- Area-based detection techniques applied to proliferation
- Holder for grafts
- Phyto-sanitary product distribution machines, drift study, fixed point systems
- *Drosophila suzukii*
- Irrigation water quality monitoring
- Sustainable aphid management in apple trees
- Study of causes/remedies of white patina
- Improving production techniques for new varieties
- Techniques for managing spontaneous vegetation in orchard sub-rows
- Biological control of the invasive alien species *Halymorpha Halys*
- Effects of adopting harvest facilitation machines and related farm costs

OBJECTIVES and PLANS - existing and in development



APOT confirms the strategic importance of the constant monitoring of the health status of the production environment as well as the surrounding environment.

In the period 2016 - 2019, the study shared with Assomela, carried out with the Free University of Bolzano on: “Analysis of the efficiency of water use in apple cultivation in Trentino Alto Adige and application of a quality index to regional apple production”, was completed. The results of this study will contribute to improving the way in which water resources are used with the coordination of the competent consortia.

In order to increase the responsiveness of the fruit-growing system to environmental and, consequently, commercial issues, there are plans to strengthen or create an appropriate IT architecture to collect and manage data generated by fruit growers. The transition from notebooks to computers in the countryside was the starting point, but the wealth of information they contain, as well as all the information on soil structure, which is important for an analysis of suitability, biodiversity, climatic conditions, etc., can be fed into a system capable of creating new knowledge, new benefits and new opportunities.

This is the idea behind the objective of continuing to strengthen the collaboration with high-profile organisations, such as the Museum of Science of Trento (MUSE), in supra-provincial naturalistic projects and the evaluation of indices on the quality of the territory.

*2022 Target:
spatial geo-referencing of the system's
information*



REFLECTIONS on the present, COMMITMENT for the future

The constant dedication of Trentino fruit growers to ensure a healthier product will continue in the future, along with the promotion of a greater attention towards issues like the health and safety of workers and the resident population of the valleys and the development of increasingly harmonious production techniques for a sustainable production system. Continuous improvement includes the development of the “Online Field Notebook”, with independent use by fruit growers having increased by 20% between 2016 to 2019, from 40% to 60%. Compared to the use of paper for recording agronomic activities, this improves security in the application of procedures and also represents a form of training for farmers, making them more independent in the management of cultivation practices and also more aware of the importance of their work.



5. APPENDIX



Trentino Sustainable Fruit-Growing Project

METHODOLOGICAL note

(GRI 102-45, 102-48, 102-49, 102-50, 102-51, 102-53, 102-54)

The 2020 Sustainability Report for APOT, that was drafted within the framework of the Trentino Sustainable Fruit Growing project, represents the tool for APOT to share with internal and external stakeholders its strategy and progress in terms of sustainability.

The report, which is in its second edition following the first report published in 2016, shows the main results achieved in the three-year period 2017-2019 and the goals in years to come for creating long-term value.

The report has been drafted in accordance with the standards developed by the Global Reporting Initiative (GRI³, a non-profit organisation that aims to provide concrete support to companies or institutions that wants to present a sustainability report to outline their environmental, social and economic performance.

This report has been prepared in accordance with the GRI Standards: Core option.

The GRI Standards are currently the most widely used and established international reference for non-financial reporting.

The figures and information reported are for the tax year 1 August 2018 - 31 July 2019, unless otherwise stated. The reporting scope corresponds to that of the financial report for the year ended 31 July 2019; any limitations or extensions to this scope are specified in the document. Data on production aspects refer to APOT members operating in the autonomous province of Trento.

There are no significant events or changes in measurement methods that would affect the comparability of the information contained in this report with that provided in the previous edition, except where appropriately noted.

This report has been prepared with the external assurance of Agroter di Roberto Della Casa & Partners, a research and consultancy firm specialised in non-financial analysis in the agri-food sector. For any explanations, please write to: info@APOT.it.

PRINCIPLES FOR DEFINING THE CONTENTS OF THE REPORT

(GRI 102-46, 102-52)

Stakeholder inclusiveness

APOT is committed to identifying and establishing an open and transparent dialogue with people who, for various reasons, contribute to the company's activities or are influenced by them.

Sustainability context

The report shows APOT's performance against the international context. In line with this objective, APOT's current and prospective contributions to sustainability were identified and reported.

Materiality

The social and environmental aspects reported are those of greatest interest in terms of relevance to APOT and the community in which it operates, as derived from the materiality matrix.

Completeness

Aspects that are detailed in qualitative terms, the qualitative-quantitative indicators and the reporting scope reflect APOT's economic, environmental and social impacts in the province of Trento and in the contexts in which its activities may have a significant influence on stakeholders.

Balance between positive and negative aspects

From the perspective of complete transparency, the document describes the main performances, reporting both positive aspects and areas for improvement and future challenges.

Comparability

Where available, comparisons with the previous two financial years (those ending 31 July 2017 and 31 July 2018) are included.

Accuracy

In order to ensure the reliability of the information in the report, priority has been given to directly measurable quantities and the use of estimates has been avoided as much as possible. Where necessary, these estimates are based on the best available calculation methodologies or on sample surveys and their use is appropriately reported.

Timeliness

APOT's reporting cycle is three years.

Clarity

The description of activities and projects contains information that is as clear as possible and usable by any stakeholder of the company, with a fairley detailed reporting of technical data and specificities.

Reliability

Data collection and control involves multiple functions and company representatives and is supported by computerised data collection systems. This is followed by a process of consolidation and validation by the representatives of the working group for their respective areas of responsibility. The report was submitted to the external assurance of Agrotor of Roberto Della Casa & Partners. The ultimate responsibility for the data and information in the report lies with APOT's management.

Definition of MATERIAL ISSUES

(GRI 102-46, 102-47, 103-1,103-2, 103-3)

The 2020 Sustainability Report has been structured according to the material issues identified by APOT and the Stakeholders, as reported in the materiality matrix. First of all, the material issues for the sector identified by the GRI Sustainability Accounting Standards Board (SASB) for agricultural products were considered. These issues represent the aspects with the most important impacts for APOT and for stakeholders connected to the organisation itself in different ways.

In order to define in detail the material issues, APOT then adopted a process that first included:

1. the identification of issues that could potentially be significant for the company;
2. the evaluation of issues whose impacts are most significant;
3. the validation of the issues for the materiality matrix.

In order to weigh up the issues identified, a scenario analysis and sample market research interviews were conducted as part of the project with both internal and external stakeholders, as well as on the outcomes of the annual internal and external audit meetings. The external assurance firm then listed the material issues in terms of their relative importance - low, medium, high and intermediate - precisely in order to identify the most pressing issues of shared interest to focus on.

Once the relevant issues were identified and weighed, during a workshop with company management, the materiality matrix was created by ordering the issues based on their potential impact on APOT and the company's ability to manage these impacts.

The material issues that were defined and prioritised primarily impact Trentino's fruit-growing system and Trentino's society. Only some of these, such as the development of organic production, the use of sustainable packaging, product innovation, scientific research on food quality and safety as well as related food health and safety, have an impact beyond the borders of Trentino in the marketing of products distributed by APOT. Similarly, the impacts generated are mostly caused by Trentino's fruit-growing system in both positive and negative terms.

Insights into the CONTENTS of the report

1 - INTRODUCTION References

1a: APOT's history and objectives

The fundamental objectives of APOT, defined in Article 3 of the Articles of Association, are:

- plan production and adapt it to demand, in terms of both quality and quantity;
- promote the concentration of supply, marketing and commercialisation of members' production;
- reduce production costs;
- provide technical assistance and advice, in particular on environmentally friendly cultivation practices and production techniques;
- manage promotion programmes;
- prepare and implement multi-annual or annual operational programmes, in whole or in part;
- represent all the interests of Trentino's producers with the outside world, particularly public bodies;
- manage relations with public bodies with regard to existing or future regulations and legislation;
- organise and manage the 'integrated production specification';
- organise and manage the registers of members and producers.

1b: Governance structure of APOT

(GRI 102-18)

The General Assembly is the collective body that expresses the will of the members. In particular, the Ordinary Shareholders' Meeting appoints the members of the Board of Directors and the Board of Statutory Auditors, approves the budget, decides on funds necessary for achieving the company purposes and approves the regulations determining the criteria and rules for the performance of mutual activities. The Extraordinary Shareholders' Meeting deals with amendments to the articles of association, the dissolution of the company and the appointment of liquidators and determines their powers.

The Board of Directors consists of 11 members who have a three-year term of office. The Board is vested with the broadest powers for the management of the company and carries out all acts of ordinary and extraordinary administration with the exception of those that the law or the articles of association reserve for the Shareholders' Meeting. The Board may delegate part of its tasks to an Executive Committee whose composition and powers are laid down in the Rules of Procedure and which operates in accordance with the instructions of the Board. The Executive Committee has been delegated to manage commercial activities, quality and marketing and must report to the Board every three months on the general performance of the delegated management and its outlook, as well as on the most important operations. The management body shall prepare the partial or full multi-annual operational programme in accordance with the applicable EU and national legislation, as amended and supplemented, for approval by the Shareholders' Meeting.

Finally, the Board of Statutory Auditors is the body responsible for the statutory audit of the accounts.

1c: APOT's sustainability governance Dialogue with stakeholders

(GRI 102-13, GRI 102-40, GRI 102-42, GRI 102-43, GRI 102-44)

Throughout 2019 APOT continued the process of improving relations with its stakeholders, with the aim of involving them more and more in its choices. An effective stakeholder engagement process enables companies to enrich and make their strategic decisions more 'sustainable' and, above all, to steer their social, environmental and economic performance in the direction of coordinated growth.

The way in which stakeholders are involved and the frequency of dialogue with each of them varies depending on the issues being addressed and the opportunities for discussion. APOT involves its stakeholders through the Trentino Frutticolo Sostenibile (TFS) project, whose objective, as highlighted above, is the environmental, economic and social sustainability of fruit growing in the Autonomous Province of Trento.

This project is carried out through participation and productive exchange within internal and external audits. The internal audit involves producer members, employees, subsidiaries and trade associations. The external audit involves representatives of local communities, customers, suppliers, trade unions, the scientific community, public administration and local authorities. In 2019, the meeting with all stakeholders to discuss the topic of sustainability and how to implement it took place on 17 July.

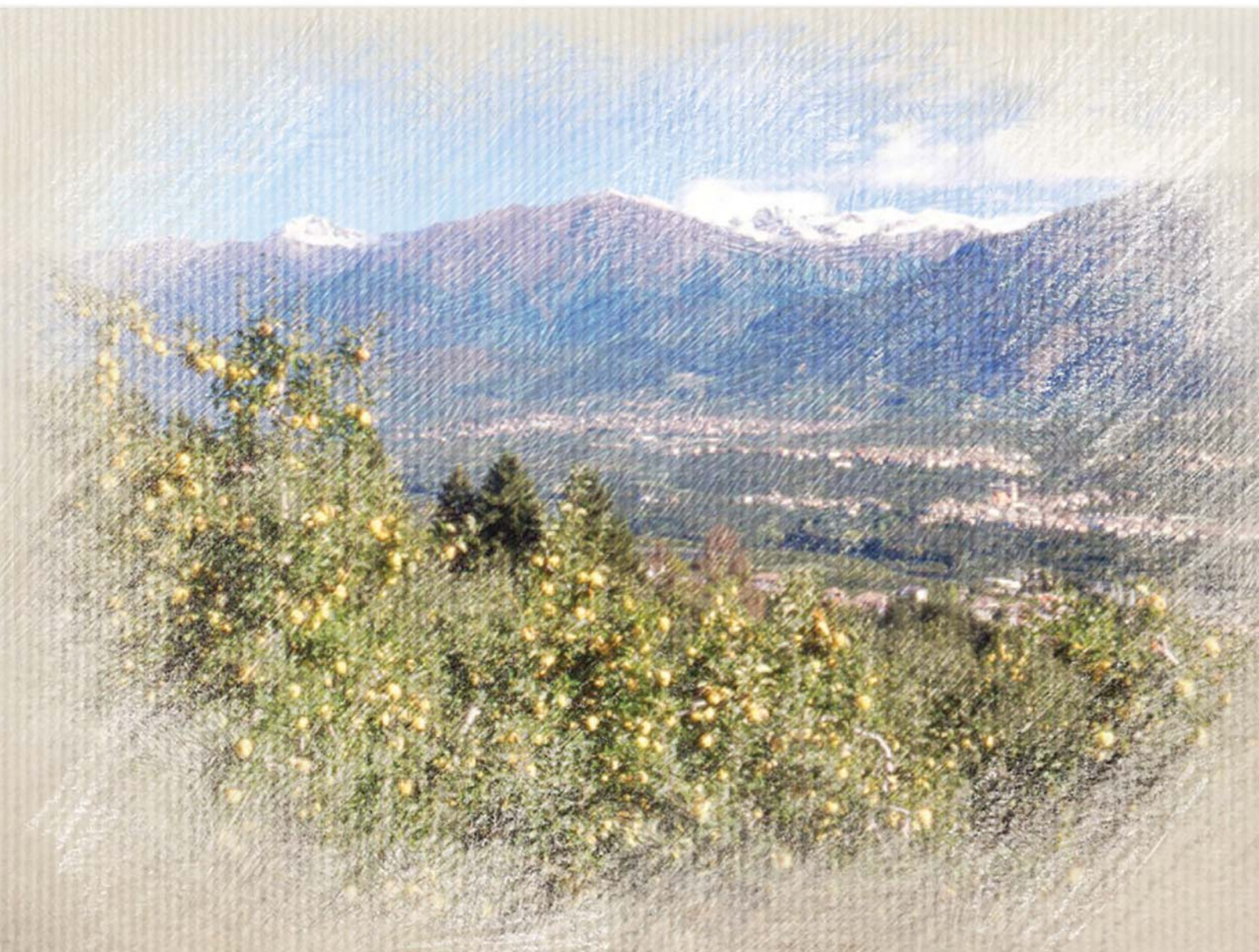
On 15 February 2019 a public meeting was held at the Social Theatre of Trento entitled "The other half of the apple", in which the activities of the TFS project were presented. In addition, in 2019, APOT organised two press conferences to communicate with stakeholders.

The first was held on 18 March at the time of the signing by the chairs of APOT and the E. Mach Foundation of the convention for the 2019-2021 programme of services and experiments. The signing of the agreement renewed for a further three years the territorial technical consultancy service for all members of APOT's producer organisations and the maintenance of production certifications, including the new GRASP requirement concerning social responsibility and worker welfare, as well as ongoing training activities, which allows farmers to accumulate training credits for the renewal of authorisations to purchase and use plant protection products.

The second press conference was held on 18 December to present the first results of the agreement between Melinda and Trentina. The two Consortia have joined forces since 2017 to sell and promote the entire range of products, under the administrative management of APOT.

Over the course of the year, the director of APOT participated in various meetings within the framework of the Trentino Sustainable Fruit Growing project.

<i>DATE</i>	<i>PLACE</i>	<i>REASON FOR MEETING</i>
<i>20/02/19</i>	<i>University of Bolzano</i>	<i>Improved Irrigation Management</i>
<i>02/04/19</i>	<i>Rotary Club of Trento</i>	<i>Comparison of Environment and Sustainability</i>
<i>09/04/19</i>	<i>Minambiente Head of Secretariat</i>	<i>Among others, Theme Biological Control</i>
<i>13/04/19</i>	<i>Wine Consortium</i>	<i>P.I. Coordination</i>
<i>20/04/19</i>	<i>CREA</i>	<i>PhosBee project - Bees</i>
<i>22/05/19</i>	<i>Environment Agency Trento</i>	<i>Water management</i>
<i>03/09/19</i>	<i>Zero Waste Campaign</i>	<i>Intervention</i>
<i>06/09/19</i>	<i>SANA Bologna</i>	<i>Intervention CCPB seminar</i>
<i>11/09/19</i>	<i>Environmenta; agency meeting</i>	<i>Water management</i>
<i>28/11/19</i>	<i>Fruit growers /CREA meeting</i>	<i>PhosBee project - Bees</i>



The main ways of communicating with stakeholders and issues of interest are summarised below.

Stakeholder map

<u>Stakeholders</u>	<u>Subgroups</u>	<u>Engagement and communication methods</u>	<u>Thematic area of interest</u>
Members	APOT members (Melinda, La Trentina, Copag)	Shareholders' meeting, periodic financial reports, Trentino Sustainable Fruit Farming internal audit	Economic, environmental and social sustainability
Customers	Supermarket chains, wholesalers, retailers and end buyers	Trentino Fruit Growing Sustainable external audit	
Staff	Administrative, Commercial/sales	Trentino Fruit Growing Sustainable internal audit	
Local communities	Valle dei Laghi, Valsugana, Val di Non	Trentino Fruit Growing Sustainable external audit	
Trade Unions	Agricultural trade unions	Trentino Fruit Growing Sustainable external audit	
Suppliers		Trentino Fruit Growing Sustainable external audit	
Public administration and local authorities		Trentino Fruit Growing Sustainable external audit	
Trade associations and other organisations	<p>Direct association: Trentino Federation of Cooperatives, Assomela, Consorzio Innovazione Frutta (CIF), Caa Coop Trento, Promocoop spa, Coopertidi</p> <p>Indirect association through Assomela: FRESHFEL, World Apple and Pear Association,</p>	Trentino Fruit Growing Sustainable external audit	
The scientific community		Trentino Fruit Growing Sustainable external audit	

1d: GlobalGAP and GRASP certifications

Particularly relevant are:

- The self-declaration on good social practices. This requirement requires management and workers' representatives to sign, display and enforce a self-declaration of good social practices and respect for human rights towards all workers. At the very least this declaration contains a commitment to comply with the main conventions of the International Labour Organisation (ILO), such as those on discrimination, minimum age for admission to employment and child labour, forced labour, freedom of association, the right to organise trade unions and collective bargaining, fair remuneration and minimum wage, transparent and non-discriminatory recruitment procedures and a whistleblowing procedure. The self-declaration states that workers' representatives may submit complaints without personal sanctions. Workers must be informed about the self-declaration and it is reviewed at least once every three years or whenever necessary.
- Employment contracts. This requirement means that for each worker there is a contract to show to the evaluator who requests it (on a sample basis). Contracts must be in line with applicable laws and/or collective bargaining. Contracts must be signed by both the employer and the employee. Contracts must contain at least the full name, nationality, a description of the function, date of birth, date of commencement of work, hours of regular work, salary and contract period and, for workers with foreign nationality, the relevant legal status and work permit.
- Working hours and breaks. This requirement sets forth that working hours, breaks and rest days must be documented and in line with applicable laws and/or collective bargaining. Unless there are more restrictive legal requirements, records must indicate that the ordinary work does not exceed 48 hours per week. During peak periods (e.g. harvest), working hours must not exceed 60 hours per week. Daily breaks and rests must also be guaranteed during seasonal peaks (e.g. harvest).

2 - References to Chapter 3 "For the local economy".

2a: Methodology for identifying the apple district in Trentino

The constituent element of a production district is the localised interaction between a community of people (with a historically defined identity and particular values, rules and institutions) and a population of businesses, specialised in a certain sector and organised in such a way as to achieve a division of labour by phases that results in greater efficiency and flexibility of the production process.

Fabio Sforzi, professor of Economic Geography at the Faculty of Economics of the University of Turin, was the first to tackle the quantitative analysis of districts, experimenting with an identification procedure that was then adopted by ISTAT as a working tool.

The methodology consists of two distinct steps. In the first step, by means of a cluster algorithm, local labour systems (SLL) are identified after being defined on the basis of daily commuting movements resulting from census data. In the second step, a subset of SLLs is classified as a district on the basis of a set of characteristics of the economic structure based on a comparative analysis of local population and industry census data in relation to national data.

In this second step, which is the structural basis and methodological difference between Sforzi's 1990 and 1995 work, the idea is that a Marshallian industrial district is simply an SLL that possesses certain structural characteristics that can be measured through:

- 1) the share of manufacturing employees in total employment in non-agricultural sectors, which must be higher than the national average;

⁴ Sforzi F. (edited by), *I sistemi locali del lavoro* 1991, ISTAT, Collana Argomenti, n. 10, 1997.

- 2) the share of manufacturing industry employees in enterprises with up to 250 employees, which must be higher than the national average;
- 3) the share of employees in at least one sector of the manufacturing industry in total manufacturing employment, which must be higher than the national share;
- 4) the share of employees in at least one sector referred to in the previous point, in enterprises with up to 250 employees, which must be higher than the national average.

If conditions 1 and 2 have been fulfilled in a local system, and, if for at least one sector, conditions 3 and 4 have been fulfilled jointly, the local sector is called a district, and the sectors for which conditions 3 and 4 have been fulfilled are called specialisations of the district. From these sectors of specialisation, the one in which the index referred to in condition 3 is highest is called dominant and defines the district.

26: APOT's supply chain

(GRI 102-9)

Below is a list of APOT's main suppliers

- AGROTER DI ROBERTO DELLA CASA & PARTNERS SAS: is the specialised company in charge of external assurance for the Trentino Sustainable Fruit Growing project and for consumer research.
- CCPB SRL: is a recognized organism who certifies organic and eco friendly sustainable products all over the world.
- CSQA SRL CERTIFICATIONS: deals with ISO 9001 certification
- EDMUND MACH FOUNDATION (FEM): through a service contract it provides technical advice and is involved in research and testing.
- MICHELI RENATO & C. SNC: is a mechanics company which overhauls sprayers using APOT's equipment.
- TRENTINO SVILUPPO SPA: is responsible for organising trade fairs APOT attends.
- VASSANELLI LAB SRL and WATER & LIFE LAB SRL: are two laboratories carrying out residue analysis in apples. Both laboratories are outside the region and were chosen for their third party status and impartiality compared to local laboratories that might be more influenced by APOT's role in Trentino.

GRI CONTENT INDEX

(102-55)


GRI Standards	Disclosure	Description	Detail/Details or reason for omission - Page number																																										
GRI 102 General disclosure 2016																																													
PROFILE OF THE ORGANISATION																																													
102-1		Name of the organisation	APOT s.c.a. - P. 14																																										
102-2		Business activities, trademarks, products and services	P. 14																																										
102-3		Location of the main headquarters	Via Brennero 322, 38121 Trento - P. 16																																										
102-4		Location of the business activities	P. 16																																										
102-5		Ownership and legal form	P. 14																																										
102-6		Markets served	P. 63																																										
102-7		Size of the organisation	<table border="1"> <tr> <td>TOTAL NUMBER OF EMPLOYEES</td> <td>31</td> </tr> <tr> <td>SERVICES PROVIDED</td> <td>6</td> </tr> <tr> <td>REVENUES</td> <td>274,614,614</td> </tr> </table> <p>P. 46-56</p>	TOTAL NUMBER OF EMPLOYEES	31	SERVICES PROVIDED	6	REVENUES	274,614,614																																				
TOTAL NUMBER OF EMPLOYEES	31																																												
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REVENUES	274,614,614																																												
102-8		Information on employees and other workers	<table border="1"> <thead> <tr> <th colspan="2">APOT workforce 2018-2019</th> </tr> </thead> <tbody> <tr> <td>Permanent contract</td> <td>23</td> </tr> <tr> <td>Men</td> <td>13</td> </tr> <tr> <td>Women</td> <td>10</td> </tr> <tr> <td>Fixed-term contract</td> <td>6</td> </tr> <tr> <td>Men</td> <td>6</td> </tr> <tr> <td>Women</td> <td>2</td> </tr> <tr> <td>Full-time contract</td> <td>26</td> </tr> <tr> <td>Men</td> <td>14</td> </tr> <tr> <td>Women</td> <td>9</td> </tr> <tr> <td>Part-time contract</td> <td>3</td> </tr> <tr> <td>Men</td> <td>0</td> </tr> <tr> <td>Women</td> <td>3</td> </tr> <tr> <td>Total employees</td> <td>31</td> </tr> <tr> <td>Total men</td> <td>14</td> </tr> <tr> <td>Total women</td> <td>12</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th colspan="2">Seasonal technicians employed in 2018-2019</th> </tr> </thead> <tbody> <tr> <td>Seasonal contracts</td> <td>2018-2019</td> </tr> <tr> <td>Men</td> <td>7</td> </tr> <tr> <td>Women</td> <td>4</td> </tr> <tr> <td>Number of seasonal technicians employed</td> <td>11</td> </tr> </tbody> </table>	APOT workforce 2018-2019		Permanent contract	23	Men	13	Women	10	Fixed-term contract	6	Men	6	Women	2	Full-time contract	26	Men	14	Women	9	Part-time contract	3	Men	0	Women	3	Total employees	31	Total men	14	Total women	12	Seasonal technicians employed in 2018-2019		Seasonal contracts	2018-2019	Men	7	Women	4	Number of seasonal technicians employed	11
APOT workforce 2018-2019																																													
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102-9		Supply chain	P. 62-64																																										
102-10		Significant changes to the organisation and its supply chain	There are no significant changes to report to the organisation and its supply chain																																										
102-11		Precautionary principle	P. 17																																										
102-12		External initiatives	P. 17																																										
102-13		Membership of associations	P. 60																																										
STRATEGY																																													
102-14		Declaration from a senior manager	P. 6																																										
ETHICS AND INTEGRITY																																													
102-16		Values, principles, standards and rules of conduct	P. 16																																										
GOVERNANCE																																													
102-18		Governance structure	P. 16-19																																										
INVOLVEMENT OF STAKEHOLDERS																																													
102-40		List of groups of stakeholders	P. 20-21-60																																										
102-41		Collective bargaining agreements	PROVINCIAL BARGAINING AGREEMENT FOR EMPLOYEES AND ASSISTANT MANAGERS OF FRUIT AND VEGETABLE COOPERATIVES IN TRENITINO, which in Trentino also incorporates the Italian national law for managers of agricultural businesses. The source for the contract is the Trentino Cooperation Federation it covers 100% of employees.																																										
102-42		Identification and selection of stakeholders	P. 60																																										
102-43		Procedures for involving stakeholders	P. 60																																										
102-44		Key issues and criticalities raised	P. 60																																										
REPORTING PRACTICES																																													
102-45		Parties included in the consolidated financial statement	P. 76																																										
102-46		Definition of the content of the report and scope of the issues	P. 77-78																																										
102-47		List of material issues	P. 22-78																																										
102-48		Auditing of information	P. 76																																										
102-49		Changes in the reporting	P. 76																																										
102-50		Reporting period	P. 76																																										
102-51		Data from the most recent report	P. 76																																										
102-52		Reporting frequency	P. 77																																										
102-53		Contact details for requesting information on the report	Reporting party: APOT s.c.a. Via Brennero 322 38121 Trento - info@apot.it - Compiler: Agrotor s.a.s. Via Mazzolini 5 - 47121 Forlì - P. 76																																										
102-54		Declaration on reporting in compliance with GRI standards	P. 76																																										
102-55		Index of GRI contents	P. 65																																										
102-56		External assurance	Agrotor di Roberto Della Casa & Partners SAS- 11																																										




ECONOMICS																					
MARKET PRESENCE																					
GRI 103 Management approach 2016	103-1, 103-2, 103-3	Explanation of the material issue and its scope; the management procedure and its components; evaluation of the management procedure	P. 22-76																		
	202-1	Ratios of standard entry level wage by gender compared to local minimum wage	Not applicable because none employee is remunerated according to the minimum wage law.																		
GRI 202 Market Presence 2016	202-2	Proportion of senior managers recruited from the local community	For Apot local means that senior managers come from the province of Trento. Of the 3 managers, 2 (66.6%) come from the province of Trento and 1 comes from the province of Bolzano.																		
INDIRECT ECONOMIC IMPACTS																					
GRI 103 Management approach 2016	103-1, 103-2, 103-3	Explanation of the material issue and its scope; the management procedure and its components; evaluation of the management procedure	P. 22-76																		
	203-1	Infrastructure investments and services supported	Not applicable, because the organization doesn't make infrastructural investments. It doesn't generate financial service either.																		
GRI 203 Indirect economic impacts 2016	203-2	Significant indirect economic impacts	In 2019, Apot directly invested more than €7,000 in cultural and sports initiatives for the benefit of the community. <table border="1"> <thead> <tr> <th colspan="2">APOT DIRECT SPONSORSHIPS</th> </tr> <tr> <th>CIFRA</th> <th>Reason</th> </tr> </thead> <tbody> <tr> <td>€ 1,000.00</td> <td>For the ATA Battisti Trento international youth tennis tournament</td> </tr> <tr> <td>€ 1,650.00</td> <td>For the Alpe Cimbra FIS Children Cup ski tournament (formerly the Toroline Trophy)</td> </tr> <tr> <td>€ 500.00</td> <td>In support of the 2019 US Skiing sports season</td> </tr> <tr> <td>€ 1,000.00</td> <td>For the Riva del Garda half-marathon</td> </tr> <tr> <td>€ 2,000.00</td> <td>For the TV programme Buonagricoltu-</td> </tr> <tr> <td>€ 1,000.00</td> <td>For the BITAC 2019 (Italian Stock Exchange for Cooperative and Associative Tourism) event</td> </tr> <tr> <td>€ 7,150.00</td> <td></td> </tr> </tbody> </table>	APOT DIRECT SPONSORSHIPS		CIFRA	Reason	€ 1,000.00	For the ATA Battisti Trento international youth tennis tournament	€ 1,650.00	For the Alpe Cimbra FIS Children Cup ski tournament (formerly the Toroline Trophy)	€ 500.00	In support of the 2019 US Skiing sports season	€ 1,000.00	For the Riva del Garda half-marathon	€ 2,000.00	For the TV programme Buonagricoltu-	€ 1,000.00	For the BITAC 2019 (Italian Stock Exchange for Cooperative and Associative Tourism) event	€ 7,150.00	
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			P. 65																		
PROCUREMENT PRACTICES																					
GRI 103 Management approach 2016	103-1, 103-2, 103-3	Explanation of the material issue and its scope; the management procedure and its components; evaluation of the management procedure	P. 22-76																		
GRI 204 Procurement practices 2016	204-1	Proportion of expenditure to local suppliers	P. 60																		
ENVIRONMENT																					
MATERIALS																					
GRI 103 Management approach 2016	103-1, 103-2, 103-3	Explanation of the material issue and its scope; the management procedure and its components; evaluation of the management procedure	P. 43																		
GRI 301 Materials 2016	301-1; 302-2; 302-3	Material used by volume and weight; Recycled input materials used; Reclaimed products and their packaging materials	P. 43																		
WATER DISCHARGES AND WASTE																					
GRI 103 Management approach 2016	103-1, 103-2, 103-3	Explanation of the material issue and its scope; the management procedure and its components; evaluation of the management procedure	P. 22-76																		
	GRI 306-1, 306-3, 306-5	Water discharge by quality and destination; Significant spills; Water bodies affected by water discharges and/or runoff	Not applicable because the organization doesn't handle directly production or industrial activities.																		
GRI 306 WATER DISCHARGES AND WASTE 2016	GRI 306-2, 306-4	Waste by type and disposal method; Transport of hazardous waste	Apot deals with the collection and disposal of hazardous and non-hazardous waste produced by its members. <table border="1"> <thead> <tr> <th colspan="2">WASTE GENERATED BY APOT MEMBERS (TONNES)</th> </tr> </thead> <tbody> <tr> <td>HAZARDOUS WASTE</td> <td>2019</td> </tr> <tr> <td>TOTAL WEIGHT (TON)</td> <td>35</td> </tr> <tr> <td>FOR RECLAMATION</td> <td>36</td> </tr> <tr> <td>FOR LANDFILLS</td> <td>2</td> </tr> <tr> <td colspan="2"> </td> </tr> <tr> <td>NON-HAZARDOUS WASTE</td> <td>2019</td> </tr> <tr> <td>TOTAL WEIGHT</td> <td>130</td> </tr> <tr> <td>FOR RECLAMATION</td> <td>130</td> </tr> </tbody> </table>	WASTE GENERATED BY APOT MEMBERS (TONNES)		HAZARDOUS WASTE	2019	TOTAL WEIGHT (TON)	35	FOR RECLAMATION	36	FOR LANDFILLS	2			NON-HAZARDOUS WASTE	2019	TOTAL WEIGHT	130	FOR RECLAMATION	130
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FOR RECLAMATION	130																				
			P. 44																		
SOCIAL																					
TRAINING AND EDUCATION																					
GRI 103 Management approach 2016	103-1, 103-2, 103-3	Explanation of the material issue and its scope; the management procedure and its components; evaluation of the management procedure	P. 22-76																		
GRI 404 Training and education 2016	GRI 404-1, 404-2, 404-3	Average hours of training per year per employee; Programs for upgrading employee skills and transition assistance programs; Percentage of employees receiving regular performance and career development reviews	Average hours of training provided annually by Apot for its employees: 410 <table border="1"> <thead> <tr> <th colspan="2">410 total training hours in 2019</th> </tr> <tr> <th colspan="2">Average hours of training per employee: 13</th> </tr> <tr> <th colspan="2">Average hours of training by gender</th> </tr> <tr> <th>MEN</th> <th>WOMEN</th> </tr> </thead> <tbody> <tr> <td>13</td> <td>13</td> </tr> </tbody> </table>	410 total training hours in 2019		Average hours of training per employee: 13		Average hours of training by gender		MEN	WOMEN	13	13								
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Average hours of training by gender																					
MEN	WOMEN																				
13	13																				
			P. 50																		
LOCAL COMMUNITIES																					
GRI 103 Management approach 2016	103-1, 103-2, 103-3	Explanation of the material issue and its scope; the management procedure and its components; evaluation of the management procedure	P. 22-76																		
GRI 413 Local Communities 2016	413-1	Activities involving community involvement; impact assessments and development programmes	In 2019 Apot invested 7,000 euros directly in cultural and sporting activities by involving the population in the preparation and execution of the events. This guaranteed income for the various local activities involved. One example is the Alpe Cimbra FIS Children Cup, which brings skiers from all over Italy and abroad, thereby generating movement and involvement throughout the province of Trento.																		
	413-2	Operations with significant actual and potential negative impacts on local communities	Not applicable because the organization doesn't generate negative impacts on the local community, neither in potential terms.																		
			P. 65																		

APOT and the 2030 AGENDA for Sustainable Development


In 2015, the governments of 193 UN member countries signed up to the 2030 Agenda for Sustainable Development, a programme of action for people, the planet and prosperity. The Agenda comprises 17 Sustainable Development Goals (SDGs), which in turn consist of 169 targets, and aim to address issues related to economic and social development, including, to name but a few, the environment, climate change, the right to health, employment, access to water and energy.

The Trentino Sustainable Fruit Growing project focuses on 11 Objectives and 25 specific targets


Sustainable Development Goals	Target	Reference	Icon	APOT
<i>Target 2: Ending hunger, achieving food security, improving nutrition and promoting sustainable agriculture</i>				
<p><i>It is time to rethink how we grow, share and consume food. If managed well, agriculture, forestry and fisheries can provide nutritious food for everyone and generate adequate incomes, while at the same time supporting people-centred rural development and protecting the environment. Nevertheless, our soils, rivers, oceans, forests and biodiversity are degrading rapidly. Climate change is putting increasing pressure on the resources we depend on and increasing the risks associated with environmental disasters such as droughts and floods.</i></p>				
	<p><i>2.3 By 2030, double the agricultural productivity and income of small-scale food producers, in particular women, indigenous peoples, farm families, shepherds and fishermen, including through secure and equitable access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value-added and non-agricultural occupations</i></p>	<p><i>Introduction: P. 14-15; Chapter 3: P. 60-61-62-64-65; Chapter 4: P. 66-70-71</i></p>		<p><i>Through the services it provides to its members, APOT contributes to increasing the knowledge and productivity of the entire Trentino region, thereby contributing to the livelihood and well-being of the local population.</i></p>
	<p><i>2.4 By 2030, ensure sustainable food production systems and implement resilient farming practices to increase productivity and output, help protect ecosystems, enhance adaptability to climate change, extreme weather, drought, floods and other disasters, and progressively improve soil quality</i></p>	<p><i>Chapter 1: P. 26- 29-30-35-40-41-42-44-45</i></p>		<p><i>APOT has a strong focus on environmental sustainability in order to obtain healthy and sustainable products.</i></p> <p><i>The system:</i></p> <ul style="list-style-type: none"> - uses sustainable production methods such as integrated pest management and sexual confusion, which allow for the use of less pesticides; - monitors the biological quality of the soil through the use of the GBS-ar index; - uses only renewable energy: 88% hydroelectric and 12% photovoltaic; - is very careful about both water consumption and quality. In terms of the consumption of water for irrigation, APOT is taking part in a project coordinated by Assomela together with the Free University of Bolzano concerning the study of water use efficiency in apple cultivation in Trentino-Alto Adige, with the aim of finding methodologies to maximise the efficiency of water resources. APOT is also actively participating in the work programme shared with the Provincial Environmental Protection Body (APPA) for the improvement of the water quality of some waterways crossing fruit-growing territories. - uses a system for collecting and disposing of hazardous waste (pesticide packaging, expired pesticides and filters); - the products are subject to strict controls before and after harvesting.

	<p>2.5 By 2020, maintain the genetic diversity of seeds, cultivated plants, farm and domestic animals and related wild species, including through diversified and appropriately managed seed and plant banks at national, regional and international levels; promote access to and fair and equitable sharing of the benefits arising from the utilisation of genetic resources and associated traditional knowledge, as agreed at an international level.</p>	<p>Introduction p. 15</p>		<p>APOT collaborates with the Consortium for Fruit Innovation (CIF) on research into new fruit varieties</p>
Target 3: Ensuring health and well-being for everyone and all age groups				
<p>In order to achieve sustainable development, it is essential to ensure healthy living and promote well-being for people of all ages. Many efforts are needed to completely eradicate a wide variety of diseases and address many different recent or persistent health issues.</p>				
	<p>3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and from air, water and soil contamination and pollution</p>	<p>Chapter 1: p. 45</p>		<p>APOT pays great attention to the wholesomeness of its products, and has a particularly stringent system of checks on pesticide residues. The checks carried out show that, over the last three years, an average of 99.1% of the 2,270 samples analysed were compliant.</p>
Target 4: Providing quality, equitable and inclusive education and learning opportunities for all				
<p>High quality education is the basis for improving people's lives and achieving sustainable development. Significant achievements have been made in increasing access to education at all levels and raising enrolment levels in schools, especially for women and girls. The basic level of literacy has improved significantly, but efforts need to be redoubled to achieve even better results and meet the targets for universal education. For example, worldwide equality between girls and boys has been achieved in primary education, but few countries have achieved this at all levels of education.</p>				
	<p>4.4 By 2030 substantially increase the number of young people and adults with specific skills - including technical and vocational skills - for employment, decent jobs and entrepreneurship</p>	<p>Chapter 2: p. 50</p>		<p>The training that APOT organises is important for updating its members on new techniques and for spreading and establishing the concept of sustainability for Trentino's fruit-growing system. In 2019, more than 4,000 members were involved in more than 13,000 hours of training courses.</p>
Target 5: Achieving gender equality and empowering all women and girls				
<p>While the world has made progress in gender equality and women's empowerment through the Millennium Development Goals (including equal access to primary education for boys and girls), women and girls continue to face discrimination and violence in every part of the world. Gender equality is not only a fundamental human right, it is the necessary condition for a prosperous, sustainable and peaceful world. Guaranteeing equal access to education, health care, decent work for women and girls, as well as representation in decision-making, political and economic processes, will promote sustainable economies that benefit societies and humanity as a whole.</p>				
	<p>5.1 Ending all forms of discrimination against women and girls everywhere</p>	<p>Introduzione: p. 17; Capitolo 5: p. 85 GRI 102-S</p>		<p>At APOT there is absolute equality between the two sexes, in terms of both job positions and pay</p>
	<p>5.5 Ensuring full and effective participation of women and equal leadership opportunities at all levels of decision-making in politics, business and public life</p>	<p>Introduction p. 17</p>		<p>At APOT women have important positions in operational management</p>

Target 6: Ensuring the availability and sustainable management of water and sanitation for all



<p>Access to sufficient clean water is an essential aspect of the world we want to live in. Our planet has enough drinking water to achieve this goal. But because of poor infrastructure or economic mismanagement, every year millions of people - mostly children - die from diseases due to inadequate water supply, sanitation and hygiene. By 2050, it is likely that at least one in four people will be affected by long-term or recurrent drinking water shortages.</p>				
	<p>6.3 Improving water quality by 2030 by eliminating landfills, reducing pollution and the release of hazardous chemicals and waste, halving the amount of untreated wastewater and substantially increasing recycling and safe reuse globally</p>	<p>Chapter 1: p. 29</p>		<p>APOT is working with the Provincial Environmental Protection Body (APPA) to improve the water quality of some waterways crossing fruit-growing territories.</p> <p>An example of this commitment was the decision to phase out the use of "chlorpyrifos ethyl" in 2018, which resulted in a significant positive response in the "chemical quality" of the waterways in question.</p> <p>Through a continuous dialogue between producers and provincial authorities, with the technical and scientific support of the E. Mach Foundation restrictions have been progressively implemented on the use of certain active substances, with the aim of encouraging a progressive increase in the biological quality of waterways in areas with an abundance of specialised apple-growing.</p>
	<p>6.4 Substantially increasing water use efficiency in every sector by 2030 and ensuring sustainable drinking water supplies to address water scarcity and substantially reduce the number of people affected by it</p>	<p>Chapter 1: p. 28</p>		<p>Irrigation is a very important issue for fruit growers in Trentino. Continuous research into water-saving methods has resulted in the consumption of 30% less water with drip irrigation compared to overhead irrigation that was used previously. Water consumption for apple production has thus decreased from about 70 l/kg to about 50 l/kg today. Along with other organisations, APOT continues to study new and more efficient ways of using water in apple cultivation.</p>
	<p>6.6 Protecting and restoring water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes by 2030</p>	<p>Chapter 4: p. 65</p>		<p>With the project Climate and Agriculture in Mountain Areas: APOT deals with the study of climatic variables in Trentino's fruit-growing areas, with the aim of identifying the most critical situations and guaranteeing measures for reducing the effects of quantitative/qualitative production instability caused by the repetition of adverse and extreme weather phenomena such as spring frosts or summer droughts.</p>



Target 7: Ensuring universal access to affordable, reliable, sustainable and modern energy systems

<p>Energy is central to almost every major challenge and opportunity facing the world today. Access to energy is essential for employment, security, climate change, food production and income growth. Sustainable energy is an opportunity - it transforms lives, the economy and the planet.</p>				
	<p>7.2 Substantially increasing the share of renewable energies in total energy consumption by 2030</p>	<p>Chapter 1: p. 30</p>		<p>The energy used by the APOT system is completely renewable: 88% is hydroelectric and 12% is photovoltaic.</p>

Target 8: Promoting durable, inclusive and sustainable economic growth, full and productive employment and decent work for all

<p>About half the world's population still lives on the equivalent of about two dollars a day. In many places, having a job does not guarantee a way out of poverty. This slow and uneven progress requires us to reconsider and reorganise our economic and social policies for eradicating poverty. A prolonged lack of decent work opportunities, underinvestment and underconsumption lead to an erosion of the basic social contract underpinning democratic societies, according to which we all have to contribute to progress. The creation of quality jobs remains a major challenge for almost all economies. Sustainable economic growth will require societies that create conditions to allow people to have quality jobs that stimulate economies and at the same time do not harm the environment. In addition, decent work opportunities and working conditions are needed for the entire working-age population.</p>				
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	<i>5.5 Protecting the right to work and promoting healthy and safe working environment for all workers, including migrants, especially women, and people in precarious employment:</i>	<i>Introduzione: p. 17</i>		<i>APOT's members have GRASP certification (GLOBAL.G.A.P Risk Assessment on Social Practice), which certifies that companies manage their employees responsibly and respect their rights.</i>
	<i>5.9 Designing and implementing policies by 2030 to promote sustainable tourism to create jobs and promote local culture and products</i>	<i>Chapter 3: p. 64</i>		<i>Fruit growing in Trentino also fuels tourism. Several farms are also farmstays. In Trentino there are 343 farmstays which registered 116,473 arrivals in 2019. Entire Trentino families are involved in these activities.</i>
Target 11: Making cities and human settlements inclusive, safe, durable and sustainable				
<i>Cities are centres for new ideas, trade, culture, science, productivity, social development and much more. Cities have enabled many people to improve their social and economic status. However, challenges still remain in terms of ensuring urban centres remain places to work and prosper, while not damaging land and resources. The challenges posed by urban environments include traffic, lack of funds to provide basic services, shortage of adequate housing, deteriorating infrastructure. The challenges cities face can be overcome in ways that allow them to continue to prosper and grow, while improving resource use and reducing pollution and poverty. The future we want includes cities that offer opportunities for all, with access to basic services, energy, housing, transport and much more.</i>				
	<i>11.4 Strengthening efforts to protect and safeguard the world's cultural and natural heritage</i>	<i>Chapter 1: p. 32</i>		<i>The synergy between forest and agriculture is a distinctive feature in Trentino. Indeed, despite fruit growing being one of the main activities in the area, forests continue to exist in different areas and not just in marginal areas. The presence of strips of woodland or non-cultivated areas between crops is important because it helps to ensure biodiversity and a favourable habitat for many forms of life that help combat crop pathogens.</i>
	<i>11.a Supporting positive economic, social and environmental links between urban, suburban and rural areas by strengthening national and regional development planning</i>	<i>Chapter 1: p. 37</i>		<i>In recent years, APOT's members have introduced varieties that are resistant to various diseases which allow a strong reduction of fungicide treatments and have been used mostly in applications near population centres.</i>
Target 12: Ensuring sustainable patterns of production and consumption				
<i>Sustainable consumption and production aim to "do more and better with less", increasing the welfare benefits from economic activities by reducing resource use, degradation and pollution throughout the production cycle, thereby improving the quality of life.</i>				
	<i>12.2 By 2030, achieve sustainable management and efficient use of natural resources</i>	<i>Chapter 1: p. 35</i>		<i>Introduction of the National Integrated Production System by 2022</i>
	<i>12.2 By 2030, achieve sustainable management and efficient use of natural resources</i>	<i>Chapter 4: p. 65 - p. 71</i>		<i>APOT worked on the Sustainable Pedestrian Apple Orchard (Me.P.S.) and the Sustainable Alternative Fruit Growing (F.A.S.) projects with other entities to develop sustainable cultivation methods.</i>
	<i>12.4 By 2020, achieve an environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release into the air, water and soil to minimise negative impacts on human health and the environment</i>	<i>Chapter 1: p. 29-45</i>		<i>APOT aims to reduce water pollution in the Noce basin. An important step was the decision to phase out the use of chlorpyrifos ethyl. In addition, checks are carried out on apples both before and after harvesting - between 2017 and 2019, 2,270 samples were analysed and 99.1% were found to be compliant.</i>
	<i>12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse</i>	<i>Chapter 1: p. 44</i>		<i>APOT collects and disposes of hazardous and non-hazardous waste produced by its members. Of the 36 tonnes of hazardous waste, 36 tonnes are reclaimed. The 130 tonnes of non-hazardous waste are all reclaimed.</i>
Target 13: Promoting action at all levels to combat climate change				
<i>Climate change affects countries across all continents. People are experiencing the significant impacts of climate change, such as changing weather conditions, rising sea levels and other more extreme weather phenomena. Greenhouse gas</i>				

<p>forests behind climate change and continue to increase. They are currently at their highest level in history. If no action is taken, it is predicted that the average temperature of the earth's surface will increase by 3° C during the 21st century.</p>			
	<p>13.1 Strengthening resilience and adaptation to climate-related risks and natural disasters in all countries</p>	<p>Chapter 4: p. 68</p>	<p>3 - Finally, the CRA project deals with the study of climatic variables in Trentino's fruit-growing areas, with the aim of identifying the most critical situations and guaranteeing measures for reducing the effects of quantitative/qualitative production instability caused by the repetition of adverse and extreme weather phenomena such as spring frosts or summer droughts.</p>
	<p>13.2 Integrate climate change measures into national policies, strategies and planning.</p>	<p>Chapter 4: p. 68</p>	<p>APOT worked on the Climate and Agriculture in Mountain Areas (CRA) project with other entities to reduce the climate change effects.</p>
<p>Target 15: Protecting, restoring and promoting a sustainable use of the earth's ecosystem, sustainably managing forests, combating desertification, halting and reversing land degradation and halting the loss of biological diversity</p>			
<p>Forests cover 30% of the earth's surface and, as well as providing safe food and shelter for hundreds of living species, they are essential for combating climate change, and protecting biodiversity and the homes of indigenous peoples. Thirteen million hectares of forests are lost every year, while persistent land degradation has led to the desertification of 3.6 billion hectares.</p>			
	<p>15.1 By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations set forth in international agreements</p>	<p>Chapter 1: p. 32-33</p>	<p>Nature and agriculture are closely linked and connected in Trentino. The existence of woodland and protected areas between fruit-growing land has an important role in maintaining high levels of biodiversity and encouraging the presence of animals that can combat potentially crop-infecting insects. The future objective is to safeguard valuable wooded areas and monitor the situation.</p>
	<p>15.2 By 2020, promote sustainable management of all types of forests, halt deforestation, restore degraded forests and significantly increase reforestation and afforestation everywhere.</p>	<p>Chapter 1: p. 32-33</p>	<p>See above</p>
	<p>15.4 By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, with a view to enhancing their capacity to produce benefits that are essential for sustainable development</p>	<p>Chapter 1: p. 40</p>	 <p>In a context such as Trentino, biodiversity and sustainable agriculture are closely interlinked. The latter can contribute to maintaining a high level of biodiversity. The coexistence of different animal and plant species in the same ecosystem contributes, at various levels, to the regulation of diseases and pests, pollination, maintenance of the water and nutrient cycle and soil fertility, erosion control, climate regulation, as well as carbon sequestration. In order to preserve biodiversity, APOT monitors the biological quality of soils using the QRS-ar index. This index is based on the analysis of edaphic microarthropods living in the top centimetres of soil, where their activities are most concentrated.</p>
	<p>15.5 Take effective and immediate action to reduce the degradation of natural environments, halt the destruction of biodiversity and protect endangered species by 2020</p>	<p>Chapter 1: p. 40</p>	<p>See above</p>
	<p>15.5 Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species.</p>	<p>Chapter 4: p. 72</p>	<p>APOT confirms the strategic importance of the constant monitoring of the health status of the production environment as well as the surrounding environment through the spatial geo-referencing of the system's information.</p>
	<p>15.a Mobilise and significantly increase economic resources from all sources to conserve and sustainably use biodiversity and ecosystems</p>	<p>Chapter 1: p. 36</p>	<p>In order to promote the development of organic farming, APOT has initiated and financed the Organic Oases project.</p>

ACKNOWLEDGEMENTS

The second edition of the Trentino Fruit Growing Sustainability Report summarises the strong commitment of APOT but, above all, of every single fruit grower to the “Sustainable Trentino Fruit Growing” project. Without their constant daily efforts to improve from both the technical and the social point of view there would have been no progress to present and comment upon since the first edition, and we would not have been able to offer the community such solid evidence of a sustainable growth process in the sector. As time passes we are becoming increasingly aware of the seriousness of environmental issues and the need for constant progress in seeking improved solutions to the concept of “sustainability” within which, together with environmental and social factors, we can also improve the financial outlook of fruit-growing businesses. For their constant and invaluable support to the project we must also thank everyone who has contributed to this process, providing guidance and impetus to the directions and projects undertaken. First on the list is the Autonomous Province of Trento, starting with its agricultural departments but also including a steady growth in active cooperation with the Environmental, Territorial, Health and Trentino Marketing sectors. A channel of frank discussion has also been further developed at the municipal level with the public administration and local communities, with the intention of informing rather than convincing them, by presenting knowledge that is useful for making informed decisions that respect the needs of the production chains as well as the public. Even more outstanding, as this publication highlights, is the extensive technical and scientific support of the E. Mach Foundation, along with the ever-increasing contribution of the Museum of Natural Sciences (now known as MUSE), with which major joint ventures can be developed for a sector that is even more aware of and proactive towards environmental issues. The crucial support of the agricultural unions also merits particular gratitude, with their immediate recognition of the APOT proposal as a high-quality and well-balanced opportunity to tangibly express the efforts, results and plans of fruit-growing businesses in Trentino. We finally also thank all those voices within society who, sometimes in strongly critical terms, urge the production sector to accelerate the pace towards the objectives of safety, tranquillity and enjoyment of the environment. To all of you we confirm, as this report demonstrates, that this is precisely the direction we are taking, in the interest of producers but mainly in the interest of future generations.

A project supported by



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*Graphic design and layout
Davide Locatelli - Agroter*

*Printing finished in April 2021
on FSC® paper*



