

# From Brazil to the World: Innovation and Sustainability in Global Value Chains

| 2nd Cycle |



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Sérgio Adeodato

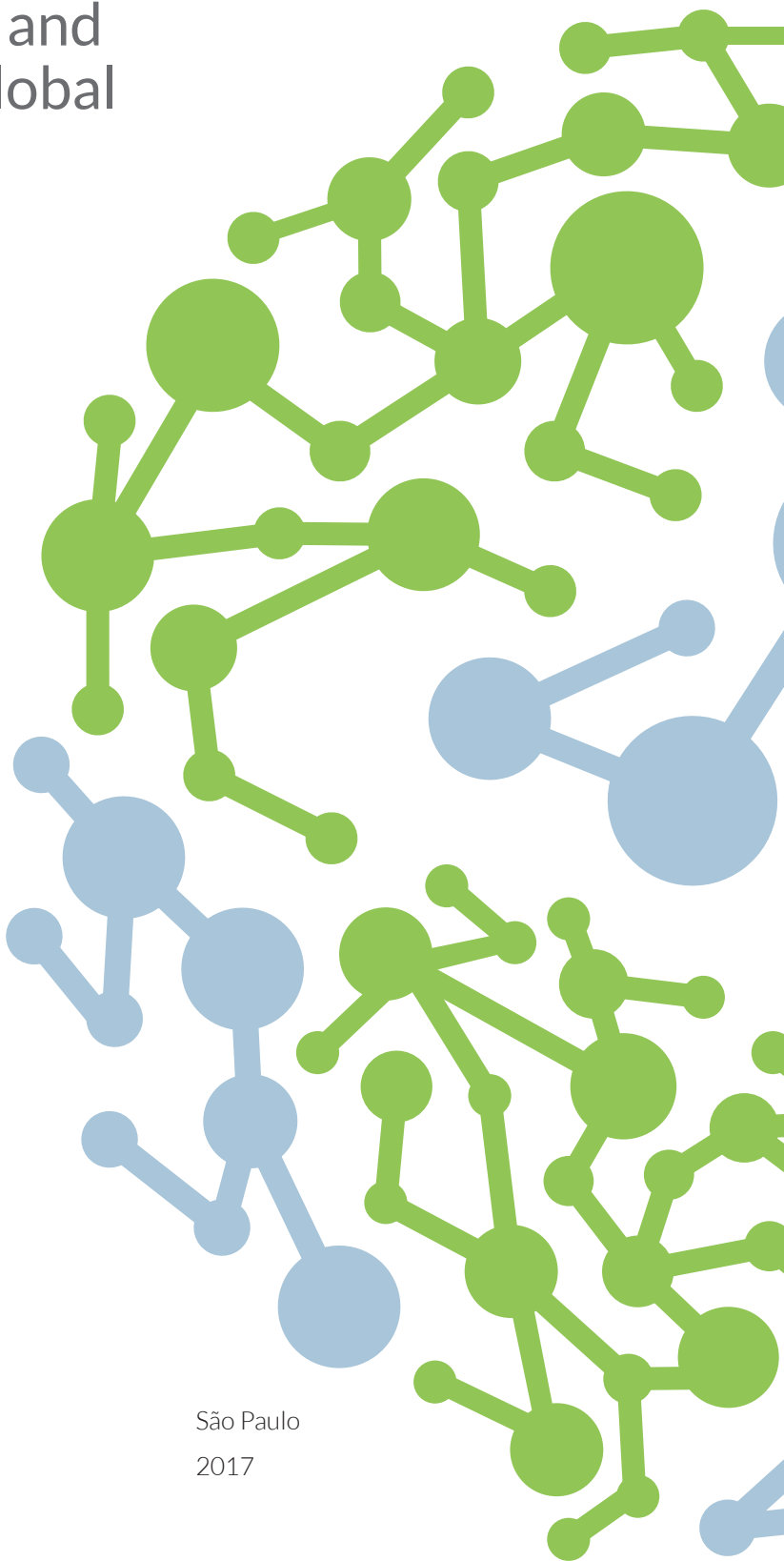
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## About Apex-Brasil

The Brazilian Trade and Investment Promotion Agency (Apex-Brasil) works to develop the competitiveness of Brazilian companies abroad, promoting the internationalization of their business and attracting Foreign Direct Investment (FDI) to Brazil.

The Agency supports over 11,000 companies across 80 sectors of the Brazilian economy, which export to over 190 markets. Apex-Brasil also plays a fundamental role in attracting Foreign Direct Investment to Brazil, working to identify business opportunities, promoting strategic events, and providing support to foreign investors interested in allocating resources in Brazil.

## About GVces

Established in 2003, the Centre for Sustainability Studies (GVces) of the Business Administration School of São Paulo at the Getulio Vargas Foundation (FGV-EAESP) is an open environment for studying, learning, insight, innovation, and the production of knowledge, composed of engaged and committed people of a multidisciplinary background, with a genuine desire to change society. The Centre is focused on formulating and monitoring public policy, building tools for self-regulation, and the development of sustainable business management strategies and tools at the local, regional, national, and international levels. Its mission is to collaboratively expand the frontiers of knowledge, contributing to sustainable development in the public and private sector.

## Preface

Over the last two decades we have observed the persistent advance, both in scope and depth, of the socio-environmental challenges and opportunities within the context of business. Faced with the planet's limited support capacity and the imperative need for reducing social inequality, companies are increasingly recognising the close link between sustainability and the creation or destruction of value for owners, shareholders, and other stakeholders. As a result, there has been a growing adoption of management practices and the development of products and services which as well as minimizing negative impact on the environment and society in general, effectively contribute to the equilibrium of ecosystems and the well-being of clients and end consumers.

Within this context smaller companies, particularly micro and small enterprises (SMEs), are gaining prominence by offering innovative solutions to real challenges arising from socio-environmental demands. Whether by providing traceability to production chains, using sustainably sourced raw materials rather than non-renewables, creating business models which are better aligned to a circular economy, and many other innovations with a disruptive potential, SMEs are increasingly important as suppliers to ever more globalised value chains.

This dynamic of the current business climate has not gone unnoticed by the Brazilian Trade and Investment Promotion Agency (Apex-Brasil) and the Centre for Sustainability Studies at the Getulio Vargas Foundation of São Paulo (GVces), who have been joining forces since 2014 on the basis of their competency in the fields of foreign trade and corporate sustainability. The partnership between Apex-Brasil and GVces, consolidated in the Innovation and Sustainability in Global Value Chains (ICV Global) project, is now in its second cycle of work with Brazilian SMEs whose products or services are of outstanding innovation or sustainability, with the aim of starting or expanding business in international markets.

If the during the first cycle ICV Global was able to validate hypotheses and turn a pilot project into a reality, during the second cycle progress was made in its capacity for serving more companies, in the consistency and completeness of the adopted methodology, as well as in the coverage of actors mobilized in Brazil and abroad, with the objective of creating opportunities for the SMEs being served. The efforts undertaken during the project's two cycles have become evident in the eyes of the market, the media, and international actors linked to foreign trade. This was expressed as, in the first case, exports carried out by companies involved in the project, and in the second case as increased presence in the press, highlighting the success stories of the companies and the relevance of the initiative. As for foreign trade actors, recognition came from the International Trade Centre (ITC), which classified the ICV Global project as a finalist in the 2016 Trade Promotion Organization Network Awards, which recognizes good practices among export promotion agencies.

The progress and results obtained so far encourage us to continue strengthening this support network for SMEs who are spearheading sustainable solutions for global value chains. We are in no doubt that it is a strategic effort for the country, with the potential for better positioning of our products and services in key markets, strengthening Brazil's contribution towards effectively sustainable development.

**Adriana Rodrigues**  
Competitiveness Coordinator, Apex-Brasil

**Paulo Durval Branco**  
Vice-coordinator, GVces

## Introduction

This book, the result of a partnership between the Brazilian Trade and Investment Promotion Agency (Apex-Brasil) and the Centre for Sustainability Studies (GVces) of the Getúlio Vargas Foundation of São Paulo (GVces), is the fruit of the joint knowledge and consolidation of experience with foreign trade and business development via socio-environmental practices of both institutions. Its central thread is the work carried out under the 2nd cycle of the Innovation and Sustainability in Global Value Chains (ICV Global) project, which seeks to contribute to the export maturity of small Brazilian companies and the positioning of value chains in the international market by strengthening the sustainability attributes of products, services, behaviour.

The book starts by pointing to the growth in scale of the initiative's second edition, which tripled the number of micro and small companies served, and the expansion of partnerships for small businesses to prosper in the international market. The first chapter also discusses new tasks for ICV Global, which now supports Apex-Brasil with a more strategic and transversal approach to the insertion of sustainability issues in their different departments and actions. The Agency can thus promote Brazilian products and services abroad and attract foreign investment to strategic sectors of the Brazilian economy with sustainability as an increasingly present competitive factor.

The second chapter explains the methodology of the project and its work schedule, which seeks to support companies in creating an export strategy based on the improvement of the sustainability attributes of their products, services, and business practices, as well as in the development of sales pitches which convey this differentiation. A set of infographics indicates the stages of the project and the different actors within the ecosystems

of innovation, entrepreneurship, sustainability, and foreign trade which form the project's network consolidated over two cycles.

In the third chapter the reader will find inspiring cases of 31 micro and small enterprises which were selected based on the degree of innovation and sustainability of their businesses. These enterprises are spearheading solutions in different sectors and challenges, such as waste and post-consumption, conscious consumption, local development, agribusiness, and health/well-being.

The fourth chapter, through a more proposal-oriented approach, lays out the main challenges and opportunities to be addressed by both the project and its partner institutions, as well as the main sustainability issues affecting international business. Proposals are presented which form part of the GVces and Apex-Brasil action guideline, with the aim of strengthening the presence of Brazilian companies with innovation and sustainability differentiation in global value chains.

Happy reading!

Gilson Spanemberg  
Business Promotion and Special Project Coordination Supervisor,  
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# A New Exporter Profile

*ICV Global enters its second cycle and broadens partnerships for small businesses with sustainability differentiation to thrive in the international market*

Of the terms being incorporated into the vocabulary of sustainable development, one particularly stands out due to its increasing influence within academic debate, the formulation of public policy, and business strategy: diversity. With diversity, the scholars say, companies of all sizes, countries, and the planet in a general sense will be better prepared to add new skills and adapt

new technology to global challenges.

The universe of innovation and sustainability - and its potential for foreign trade opportunities - are also part of this. "Different ideas are not born of similar minds", say economists linked to the National Bureau of Economic Research in Cambridge, UK, authors of a recent study which stresses cultural diversity and geographical openness as essential factors for eco-

economic development: "Homogeneity and socio-cultural rigidity diminish capacity for incorporating new paradigms and models".

Diversity. The power of its meaning goes beyond differences of gender or race, and sexual or religious orientation. It encompasses various different modes of action and thought, production and consumption, selling and buying. In a nutshell: traditionally applied in biology as a condition for ecological balance among species, the concept has adapted to new times with an expanded perspective as part of the UN's Sustainable Development Goals (SDG) with socio-environmental targets for 2030. Valuing diversity is thus a key element in the transition to a new economy with an exponential demand for solutions which pose a lower risk to the environment and to people, reflected in economic opportunities worldwide.

Not surprisingly, Brazil, a mega-diverse country rich in cultures, accents, landscapes, and natural resources extracted for innumerable productive ends, has undeniable potential to lead the way in supplying good ideas involving more sustainable production and consumption practices, with parallel gains for large productive export chains which impact the trade balance, seizing upon the external market's eagerness for alternatives which address issues such as tackling climate change and reducing social inequality

(more about this in Chapter 4).

The strategic aspect of diversity, with its greater scope of products and services and business opportunities with export potential in different regions of Brazil, was a feature of the second cycle of the Innovation and Sustainability in Global Value Chains (ICV Global) project, developed through a partnership between the Brazilian Trade and Investment Promotion Agency (Apex-Brazil) and the Centre for Sustainability Studies (GVces) at FGV-EAESP. The aim is to increase the share of micro and small enterprises (SMEs) in Brazilian export sales, to diversify and add value to international market sales, and to position Brazil as an innovative, competitive, and sustainable country.

## Continuous Evolution

Launched in 2013, the first cycle of the project covered 10 companies and had positive results (see page 30) proving the need to progress further with the dissemination of export culture among small and medium businesses, against the backdrop of the global sustainability agenda.

In the second edition, carried out between February 2016 and August 2017, the initiative saw a three-fold increase in participants, totalling 31 businesses from varied segments, offering solutions ranging from recycling alternatives and correct waste

disposal to urban mobility and healthy eating, as well as products and services which contribute to local sustainable development (see Chapter 3). There are additionally a further 17 businesses which form part of the productive chain of large 'anchor' companies in two traditionally exporting sectors - clothing and furniture- with differentiation potential in the international market via innovation and sustainability features (see pages 37 to 39).

"In recent years, international commerce has undergone a transformation: socio-environmental standards are increasingly part of the game in the form of requirements from large corporations and consumer markets, in addition to technical or tariff barriers", says Christiano Braga, Export Manager at Apex-Brasil. "From industry to agriculture, products and services with sustainability differentiation do not only add value but also open access to markets", he adds. The expectation of regulation, with the emergence of new laws and control measures on the environmentally sound origin of raw materials and adoption of practices with lower impact (also in the social field), reinforce the framework of demand and opportunity (see Chapter 4).

### Search for Competitiveness

This trend is reflected in Apex-Brasil's modus operandi as a whole, in its

mission to promote Brazilian products and services abroad and attract foreign investment to strategic sectors of the Brazilian economy. The lesson from ICV Global, says Braga, helped broaden the issue of environmental management, which is transversally incorporated into different operational departments and in new lines of action.

Furthermore, the joint initiative with GVces has helped renew and diversify the portfolio of companies supported by Apex-Brasil for exporting. As such, a greater number of small innovative businesses have been able to access structuring actions, such as the Export Qualification Program (PEIEX).

"If it was a struggle in the past to disseminate the idea of sustainability as something intrinsic to our objectives, nowadays nobody needs convincing," says Márcia Nejaim, Director of Business at Apex-Brasil. Not perchance, the issue falls under the umbrella of competitiveness: "The issue has an increasingly significant presence in the bilateral trade negotiations we have taken part in", says Nejaim, adding: "In addition to doing good, products with these characteristics are in demand from people abroad wanting to buy them".

In order to boost foreign sales, ICV Global made some adjustments between the first and second cycles. "After the initial learning experience and



the emergence of new challenges, we put emphasis on practical actions for generating business, developing the capacity in small companies to understand the different markets and their requirements", says Nejaim. Adriana Rodrigues, Competitiveness Coordinator at Apex-Brasil, agrees: "We started the second cycle in a more assertive manner, with companies primarily focused on overseas markets and more mature in terms of valuing sustainability."

It is a learning process. In the latest edition of the project, emphasis was placed on 'changing behaviour to adapt products and methods of sale' supported with market research and other tools already applied by

Apex-Brasil in their commercial support of companies. "The idea has been to take small companies on new paths, and occupying niches", says Rodrigues, highlighting the promotion of two overseas trade missions - Colombia and California - for the prospection of opportunities and to see the reality of those seeking products and services with socio-environmental differentiation (see Chapter 2).

### Reducing Risk During Economic Crises

In waking up to the needed changes and adaptations entailed by plans to venture 'out there', ICV Global activities also strengthen business in the



internal market. In fact, in addition to higher revenue, a qualification to export often results in a company becoming more innovative and competitive, creating a positive impact on their results as a whole. Furthermore, according to Rodrigues, “when markets are strengthened and diversified, companies become less susceptible to fluctuations in the economy”, compensating abroad for possible drops in domestic sales.

Up until 2014, within a scenario of economic growth, a stronger internal Brazilian market drew the attention of small and medium businesses to inside the country. “This partly explains the lower share of small companies

in exports, although another factor should also be considered: a lack of capacity and structure for foreign trade,” explains Heloísa Menezes, Technical Director at Sebrae. The institution has carried out studies to detect bottlenecks and propose the adoption of mechanisms such as the ‘Simples Internacional’ to simplify export procedures while prioritizing small and micro enterprises.

A World Bank survey shows that, in 2014, Brazilian exports of goods and services accounted for just 12% of GDP, compared to the global average of 30%. A study by the National Confederation of Industry (CNI) in partnership with FGV-EAESP lists 62 barriers to

Brazilian exports, with transport costs and high port and airport tariffs being the most critical aspects.

## Moving Exports Forward

According to the World Factbook of the US Central Intelligence Agency, in 2016 Brazil ranked 23rd in the world in terms of export value, while having the 8th largest GDP. To analysts, the discrepancy between Brazil’s exports and its position among the world’s largest economies shows significant potential to be exploited with opportunities for small and medium-sized companies - a sector which today is barely represented in the trade balance, in terms of value. According to data from the Ministry for Industry, Foreign Trade and Services (MDIC), micro and small businesses accounted for 46% of export companies in 2015, although the value of those exports amounted to only 1.08% of the total.

According to researchers this scenario is the product, among other factors, of a lack of knowledge of the consumer markets in other countries as well as of the procedures related to storage and distribution logistics, in addition to technical assistance abroad. International fairs and large scale cultural or sporting events, such as the 2016 Olympics in Rio de Janeiro, are important vectors which confer visibility to products and ser-

vices, with the potential to catalyse the internationalisation of Brazilian companies. However, in addition to traditional tools of promotion and approximation between buyers and sellers, progress in foreign trade requires high-level training in subjects ranging from company diagnosis to changes in packaging, compliance with technical norms, and building sales pitches emphasising product differentiation - among them, sustainability attributes.

## Challenges to Venturing ‘Out There’

“One of the main challenges is to give innovation a commercial focus, because in this field, the entrepreneur usually has a very technical profile, lacking business vision, financial management, and other strategic items, such as a selling approach based on product differentiation and better knowledge of target markets in order to detect opportunities”, says Ana Moraes Coelho, Manager of the ICV Global project at GVces.

The initiative has from its first cycle consolidated an innovative methodology which includes training workshops for reflection, diagnostics, and strategy alignment, together with business roundtables, trade missions, and other instruments aimed at strengthening companies and bringing them closer to potential foreign

buyers (see Chapter 2). “It is necessary to adapt product value proposals to the expectations of target markets, which requires attention and sensitivity towards various aspects, including cultural ones”, says Moraes.

The methodology offers paths to breaking paradigms, such as the difficulty small businesses face in prioritising sustainability to stand out in the market when faced with various types of barriers - bureaucratic, tributary, etc. - which forces them to prioritize measures of immediate survival. Gradually, as a contribution from ICV Global, smaller enterprises have adopted a long-term vision and included socio-environmental appeal as a vital issue, particularly where the products themselves constitute sustainable solutions and intend to thrive abroad.

An important pillar of the model built by ICV Global is the academic expertise of GVces, which brings together a multidisciplinary team of 55 researchers engaged in contributing to sustainable development through expanding knowledge frontiers. Founded in 2003 during the expansion of sustainability in the world of business, the institution has since become noted for its work on the subject on several fronts, from sustainable finance to climate change, through knowledge-sharing forums and tools for carbon emission reduction for companies, who are also

encouraged to consider their impact and dependence on ecosystem services, such as water, on their business. Throughout its history, GVces has actively participated in the creation of milestones such as the Corporate Sustainability Index (ISE) of the BM&FBovespa, as well as influencing public policy and creating strategic spaces for dialogue between different entities so that socio-environmental values and practices may be adopted in the corporate world.

Included within this context are projects with micro and small companies, such as New Ventures, an initiative focused on bringing together innovative businesses with potential investors, conducted in partnership with the World Resources Institute. Subsequent to this, the Innovation and Sustainability in the Global Value Chain project was created, in cooperation with Citi, with the purpose of mobilizing smaller companies to meet the demands of large companies. Additionally, GVces carried out a sustainability diagnosis and recommended actions for the furniture sector to leverage markets in the Brazilian Furniture project, which inspired us to soar higher. As a result, ICV Global, now in its second cycle, emerged, along with new projects involving small companies such as the Bota Na Mesa project, which is focused on the food chain and based on the premise that forms of consumption and



production have a direct impact on people’s health and the sustainability of the planet’s resources.

### Focusing on Production Chains

Competences are thereby developed through which Brazil can further progress those outstanding sectors, including small companies with prospects of exporting or opening headquarters in foreign countries, with sustainability differentiation. “It is necessary to look not only at investor capital but especially at production chains, where opportunities lie due to the pressure which large compa-

nies are under”, says André Pereira de Carvalho, a professor at the School of Business Administration of São Paulo (FGV-EAESP). In his analysis, the demand for traceability, i.e., the guarantee that, from their point of origin, products are less harmful from the environmental and social point of view, is fertile ground for innovation. He points to an example: “One needs simply to look at what’s happening today with blockchain technology, a cutting-edge subject in academia, which focuses on security control in bitcoin networks (virtual currency) from their initial transaction - a logic which can be adapted to inspire new methods for tracking socio-en-



environmental standards throughout production chains”.

According to Carvalho, the global market incorporates new notions of value. “This year, Tesla, the makers of electric cars in Silicon Valley, California, overtook General Motors in value, not due to sales of cars but due to innovation focused on sustainability, in this case, the elimination of fossil fuel.” The cost of environmental impact as well as carbon emissions, which is borne by the whole of society through the effects of climate change, is likely to become a part of business accounts and pricing (see Chapter 4). These are tendencies to which small and medium compa-

nies aiming to be at the vanguard and occupy new spaces should be attentive to.

### Brazilian Opportunities

The road to change is a long one. Currently, according to Carvalho, sustainability’s appeal lies more in the aspect of eco-efficiency, for example, saving water and energy reduces operational costs. This should be noted by companies that develop innovative solutions. In the short term, the greatest opportunities with export potential are in those areas in which Brazil is already competitive: “We could do well in biomass fuel solutions, substitution

of fossil fuel sources, and information technology for incremental improvements in the use of resources such as water, and the reduction of carbon emissions. Not to mention biological control of pests and efficiency gains in agriculture and forestry, such as paper and pulp”, says Carvalho. If for Carvalho providing socio-environmental traceability in renewable chains is “an important field”, another potential source of good business is the provision of Brazilian biodiversity assets for the cosmetics industry, as well as betting on vegan and organic ingredients.

According to Newton Campos, Director of the Private Equity and Venture Capital Research Centre at FGV-EAESP, the current expansion of sustainability-as-business is tied to globalization. “It has reached high levels in emerging countries, promoting a huge exchange of innovative solutions which previously took time to cross the planet”, says Campos, emphasizing that “today, relatively simple technology can build empires and cause a huge impact on society”.

The landscape is notable for new entrepreneurial profiles, “very different to decades ago, when setting up something new and relevant required high capital and production infrastructure.” In Campos’ view, entrepreneurship goes beyond simply having one’s own business and must necessarily embrace innovation - new ways of doing. Technology helps

make the process easier, faster, and cheaper. There is, however, an added factor in today’s context: greater ecological and social conscience. “Twenty years ago, nobody would ask the entrepreneurial ‘hero’ if what he created is destroying rivers and forests”, says Campos. “Today we encourage the potential of innovation and entrepreneurship, but in fact, what we want in addition to that is a positive outcome for society”, he concludes.

Consequently, capital directed at ‘impact investing’ is growing. Increasingly, says Campos, entrepreneurs are asking themselves: “How can I innovate making something more sustainable?” They will be more likely to succeed in the face of global concerns regarding new modes of production and consumption and measures which reduce inequality of access to vital resources. “Brazil is very well positioned to exploit frugal innovation which creates a positive impact on society based on scarce or simplified resources”, says Campos, noting that China, India and African countries are already exploiting this concept, as is the case with refrigerators which cost ten times less than conventional ones and only chill enough for basic preservation. “Brazil is behind in this trend, and tends to look at examples from developed countries, instead of to its Latin American neighbours, which can signify a loss of opportunities”, warns Campos.

“A small company born in São Paulo, Rio de Janeiro, or Porto Alegre, for example, will almost always plan to one day conquer Brazil. Meanwhile, a company created in Buenos Aires, Argentina, will ask itself how it can sell to Mexico. We suffer a curse of size: our domestic market is so big that many enterprises are happy if they take a part of it, yet sometimes it’s better to open a business in Paraguay than in Maranhão or Rondônia. You don’t have to spread throughout the country first before you venture abroad”.

According to Campos, Brazil has two quite favourable aspects when thinking of exporting sustainable solutions: access to technology and innovation, and an entrepreneurial culture. “Unlike in the past, where the dreams of economics and business

administration graduates was to work for a multinational, or the government, nowadays most want to blaze their own trail.” As stated previously, the country’s cultural and natural diversity opens up possibilities for innovative businesses with socio-environmental differentiation, such as those presented in the second cycle of the ICV Global project. However, in order to take full advantage of these Brazilian differences they need to be recognized and respected, without repeating previous mistakes such as the destruction of forests or causing harm to indigenous peoples and traditional populations, bearers of traditional knowledge. The challenge of valuing diversity and understanding different cultures, seeking good business solutions for the planet, are part of the export vision.

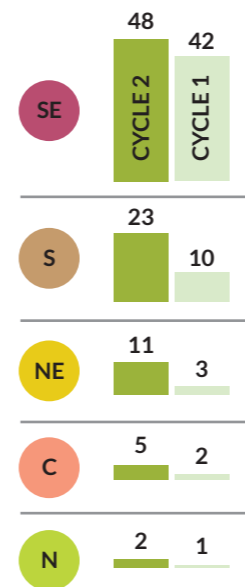


## Business Diversity

As a result of the call for cases, of the 89 micro and small enterprises which applied to Cycle 2 of ICV Global, 38 were selected, of which 30 reached the final stage of training. In addition to a greater number of participants in comparison to Cycle 1 (see Chapter 3), which also represented a greater diversity of sectors (agribusiness, cosmetics, and waste treatment, among others), a great sign of the project’s progress in Cycle 2 was the expansion of geographical coverage, allowing for the participation of companies located in regions beyond the South-Southeast axis, mainly from the Northeast.

### CALL FOR CASES

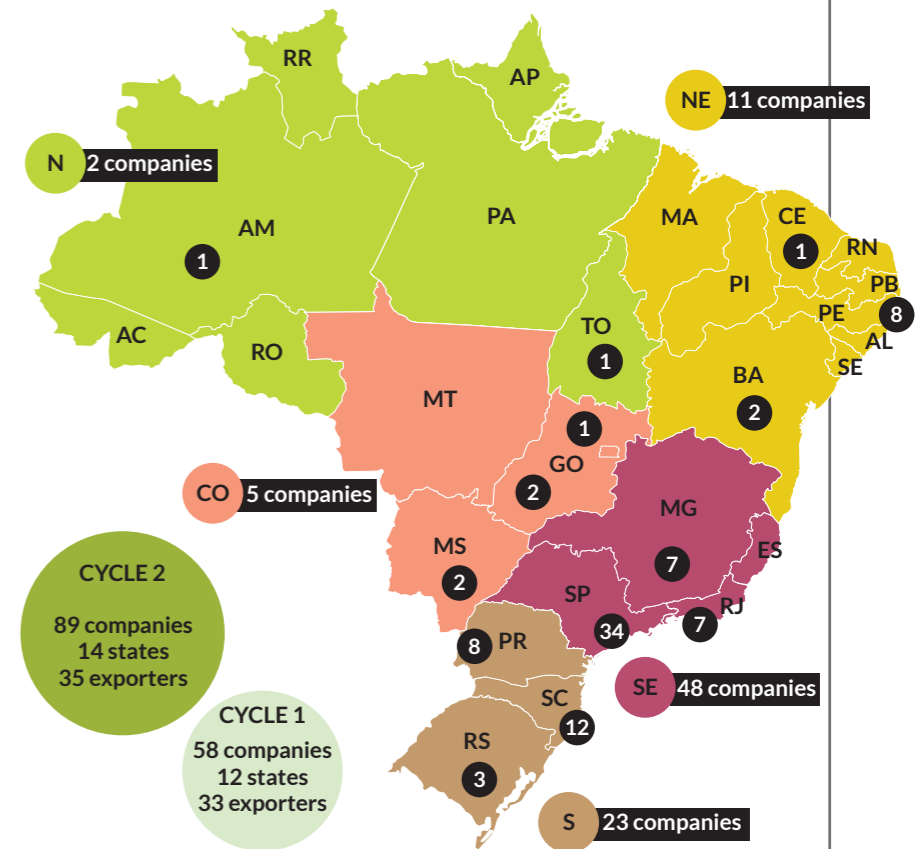
Nº OF COMPANIES/REGION/CYCLE



### SECTOR OF ACTIVITY

Nº OF COMPANIES/SECTOR

- 17 Fashion
- 11 Parts and Appliances
- 9 Food and Drink
- 9 Systems Development
- 8 Services
- 6 Cosmetics
- 6 Home & Construction
- 5 Industry solutions
- 5 Waste and Sanitation
- 4 Health and Accessibility
- 3 Power Generation
- 3 Agriculture and Livestock
- 1 Packaging
- 1 Creative Economy
- 1 Payment for Environmental Services



 **17** Companies registered were founded exclusively by women



# Consolidated Model

*A greater number and diversity of businesses supported increases the scale of benefits*

The challenge of qualifying and fostering SMEs for access to exporting under the brand of sustainability required the development of an innovative type of methodology, designed especially with various training tools and spaces for bringing together entrepreneurs, buyers and players associated with the world of foreign trade.

Based on the inaugural experience with ICV Global, the training process during the second cycle saw the incorporation of new activities, improvements, and fine tuning, enhancing capability for positive practical results. The improvement

of business management based on good sales strategies and pitches, as well as a deepening of knowledge about potential markets which value socio-environmental attributes were all points of focus in moving towards consolidation of the model.

## Selection of Companies

The initial selection stage concentrated efforts on obtaining a diversified group with a minimum degree of maturity for progression towards exporting. A competitive edge was one of the main aspects under evalu-

ation for participation in ICV Global. In analysing business potential, the selection committee specialists verified innovative aspects of the solutions presented and how they would translate into competitive advantages.

The specialists also contributed during the simulation and sales stages, held in preparation for business networking meetings promoted by GVces and Apex-Brasil. Recommendations were made regarding communication materials and pitches, so that both made clear the specificities of each business and issues of sustainability as a value-added differential, and thus having effect on transactions abroad.

During the second cycle, ICV Global brought together 21 specialists of different profiles in the areas of sustainability, innovation, and internationalization for selecting the SMEs. In the first edition of the project, the committee had seven members. The significant increase in number of analysts resulted in a pluralistic and judicious selection process based on criteria such as levels of performance in the foreign market and innovation in products and services, as well as in business models. The existence of sustainability differentiation was also assessed, such as the use of waste for generating energy or supply of products from renewable sources. Having legal status as a micro or small enterprise and a 1 year minimum of operational activity is mandatory.

The call for cases has different stages. Once submissions are closed, the GVces team makes a first selection. These pre-selected companies are screened by the specialist committee, which selects the best cases. In the following phase, on-site visits are made to gain a better understanding of production processes and assess the business. This results in the final group of companies participating in ICV Global (see Chapter 3).

Generally, the companies selected for the second cycle of ICV Global demonstrated a reasonable degree of structure and market maturity, with an ability to adapt and explore new horizons, such as exporting. Many of them were also notable for the degree of innovation and sustainability in their production process and business management - beyond what was apparent from their products or services. The diversity of the selected businesses is also significant, totalling almost 20 productive sectors, with the healthcare segment being one of the highlights with innovative solutions ranging from food supplements to assistive technologies and hospital accessories (see Chapter 3).

## Differences in Methodology

ICV Global's methodology was improved on the basis of learnings from



the first cycle of activities with participating companies and with new input to gain knowledge, share experiences, and increase positive results. It has as a differentiating factor the application of a set of practical and conceptual business management activities, backed by the technical expertise of GVces and Apex-Brasil, with a focus on the interface between sustainability, exporting, and internationalization.

In assisting companies in the presentation of attributes necessary for strategic positioning in markets which import Brazilian goods and services, training stages are based on two pillars: mentoring, in which management tools are presented; and acceleration

of impact, which assembles activities for a more intense development of the business in its specificities.

Over the course of a year, training is focused on assistance in the elaboration of an 'X-ray' of the business and plan of action, with an analysis of the company's behaviour from the socio-environmental point of view, as well as exercises to determine the product's differentiation and a good sales pitch. During this phase, company profiles are produced in Portuguese, English, and Spanish - a basic trading tool unheard of for most companies.

One of the initial activities carried out is a sustainability diagnosis, elaborated by the companies based on a

questionnaire involving 58 social, environmental, and economic indicators, from outsourcing to water consumption. Results are assessed both individually and in a group comparison. Based on this checklist of management from the socio-environmental perspective, companies then map items which may significantly affect business performance and, based on this, formulate adjustments and improvements from an export perspective.

During the mentoring workshops, a basic planning platform is presented to companies: the Canvas Business Model. Applied by ICV Global with a focus on exports, it is a tool for formatting business models and new projects, allowing for development and drafting of new activities or perfecting current ones. It functions as a strategic visual map which can relate information in a systemic, integrated, and fast manner, relative to needs and their required activities. It supports the search for answers to basic questions: how to reach the target audience, what is an adequate pricing proposition for the target market, and what costs and resources are needed, for example.

After designing the Canvas, there is the grand finale: the elaboration of an action plan listing the necessary activities for reaching the targets, with an economic-financial schedule to get the strategy for accessing international markets with sustainability attributes on its feet. The plan is dynamic, and

can be adjusted in the event of changes of scenario. It also functions as an internal communication tool for the engagement of people, and ensuring the required flow of resources to activities over time.

"The action plan is where companies are driven to transform a strategy into concrete actions. They revisit content from the workshops and update the tool throughout the training process so that it reflects the aim of exporting in the short/medium term, scaling resources, time, and revenue forecasts", says Jéssica Castro Chrysafidis, ICV Global project researcher.

For many participants, dealing with academically developed management platforms for decision making and directing business was a huge novelty.

## Female Power

The 2nd ICV Global Cycle also excelled in female participation. Of the total of companies enrolled, 17 were founded exclusively by women. This scenario opens up new perspectives for gains derived from gender diversity, especially in the world of innovation and sustainability, where start-ups are traditionally led by men. This challenge is addressed in the UN Sustainable Development Goals. These companies formed part of the Apex-Brasil Women in Export project.

# Flow of Project Stages

## Stages in the Work Schedule with Selected Micro and Small Companies (SMEs)



### Call for Cases (December 2015 to February 2016)

Objective : to identify 30 micro and small enterprises (SMEs) whose products and services stand out for their innovation and sustainability



### Mentoring Workshops (May to July 2016)

Objective: to strengthen the attributes of products and services, sales pitches, and corporate behaviour of the SMEs



### Impact Acceleration Workshops (September to October 2016)

Objective: prepare SMEs for commercial promotion activities and export of their products and services

### Selection of anchor companies (March to August 2016)

Objective: to select two large companies with the potential to mobilize small and medium-sized companies in their value chain



### Selection of anchor partners (September to October 2016)

Objective: to select up to 15 small and medium-sized companies from the value chains of the anchor companies



### Training workshops (October 2016 to March 2017)

Objective: exploring sustainability as a competitive differentiation and international positioning of the value chain



## Joint Work Schedule Stages



### Market prospecting trips (November 2016 and May 2017)

Objective: to make trips with the companies for knowledge and market prospecting



### Closing event (August 2017)

Objective: to celebrate the conclusion of the project, share experiences, and disseminate the sustainable solutions of the participating companies

### Business networking meetings (August 2017)

Objective: to bring together participating companies and identify potential international buyers



## Stages in the work schedule of anchor companies and their partners in the value chain

Theoretically, it would be an opportunity to allow their business to fly higher by looking overseas. However, the training process goes further: it contains a required stage of acceleration and honing with special support in technical areas such as branding, marketing, and design through individualized service and access to Apex-Brasil training programs. There are also simulations of business meetings monitored by analysts for pitch training, i.e. communication of the sustainability differentiation to international buyers.

## Business Meetings

This is the big moment for generating business between the participating companies and international organizations that demand and value attributes of innovation and sustainability. The business meetings are the final milestone on the ICV Global journey. On this occasion, based on Apex-Brasil's expertise, international buyers, Brazilian traders, and representatives of the agency's sectoral projects were invited to a two-day meeting at the Maksoud Plaza Hotel in São Paulo.

The business meetings in Cycle 2 were more strategic in building schedules, from thematic panels and moments for networking to bilateral meetings between buyers and companies. Given the diversity of sectors and the range of stages related to export maturity, each SME was referred to activities more aligned to the current moment of the business. For example, beginners were brought together with Apex-Brasil's sectoral project managers. Mature SMEs were able to present their business models to potential representatives and international buyers.

This analysis was only possible thanks to a brief questionnaire in which companies were able to express their interests, share strategic commercial and corporate information, and indicate possible organizations within their close network for participation in the event. Part of the schedule also included field trips to companies which convey a competitive and innovative image of Brazil.

## Trade Missions

In November 2016, ICV Global went on a trade mission to Colombia - the third largest economy in South America after Brazil and Argentina, according to the International Monetary Fund (2015). Due to its demand for infrastructure and consumer goods, Colombia is a potential trading partner

## The Value of Interculturality

“A significant challenge to foreign sales lies in dealing with stereotypes, getting to know the cultural values of markets, and building relationships of trust,” says Maria do Carmo Righini, a specialist in developing “intercultural competence” in business. This topic was a new highlight of Cycle 2 of ICV Global. During the training stages, special dynamic workshops were conducted in order to prompt reflection and sensitize entrepreneurs to cultural aspects which should be taken into account in relations with buyers.

“Knowing the ground you are treading is strategic to success”, says Regina Shagal, also a consultant in the activity, stressing the importance of asking questions: “Knowing how to listen and develop curiosity without previous judgement can be of great value for the business”.

And for good reason. A potential trading partner's view of the world, of things, of how to deal with vital key issues such as sustainability may require products to undergo a process of reinvention or adaptation, as well as changes in the communication of its advantages. The topic was developed through the workshops in different modules, both theoretical and practical, so that its content could be applied during the trade missions and simulated business meetings and then become part of the day to day of sales abroad.



## 1st Cycle Companies Report Progress

“Being selected for ICV Global was proof that we had something different”, says Samy Menasce from Brasil Ozônio, which operates technology for treating and disinfecting water, sewage, gas, food, and surgical supplies without the need for chlorine or other chemical products. The key is based on applying ozone, obtained from the air. Taking part in the training workshops and a trade mission to the US during the first cycle of the project opened doors. In 2015, the company received capital contributions from two investment funds (BNDES ‘Criatec II’, and Schnubart), which allowed for adjustments with a view to internationalization. Proposals are under negotiation with partners in Belgium, Switzerland, England, and the US. Domestically, the business has thrived, with revenues in 2016 greater than 2014 and 2015 put together. The plan now is to invest in ozone as a substitute for agrochemicals in family agriculture.

While participating in the first mentoring workshop for businesses of Cycle 2 in São Paulo, Menasce highlighted the importance of networking and a conducive environment to doing business among ICV Global participants. For example, his company supplied a sewage treatment system for Atina, a manufacturer of plant extracts and

also a project participant. With headquarters in Pouso Alegre (MG), Atina perfected its sales pitch and went on to sign a partnership with Premier Specialities for distribution in the US market, with an initial focus on substituting petrochemical inputs for native plant-based products for use in cosmetics

Poli Óleos, which exported to Whole Foods, and Safe Trace, specialized in food production chain traceability, both took part as ‘inspiring business cases’ in the ICV Global 2nd Cycle training workshop held in Recife. Fazenda Retiro Santo Antônio, a farm producing coffee, became an emblematic case when they began roasting and created their own brand - Kaynã coffee - to differentiate its sustainability attributes to end consumers. “The plan was to materialise these features beyond the socio-environmental seal which we already had for ‘green coffee’, marketed along with the production of other farms,” explains entrepreneur Jefferson Adorno.

New developments soon emerged: non-GM corn meal (‘fubá de milho’) stone-milled on the farm had made its way onto the menus of famous restaurants. “This is all helping to showcase the farm, which has received an increasing number of visitors”, says Adorno, reporting that tourism is now a new business.



for the solutions offered by the small companies of ICV Global.

During the intensely scheduled four-day trip, 11 project participants visited Bogotá and Medellín: they interacted with HubBOG, which operates as a co-working space and IT start-up accelerator; they took part in talks on the socio-economic climate in Colombia and the process of overcoming the scars left by drug trafficking, as well as making contact with representatives of investors and business schools.

In May 2017, California became the focus of attention. Getting to know the reality of the Californian market, a Mecca of technology and sustainability-as-business, was an inspiring

opportunity for 10 small Brazilian companies from ICV Global, who in their luggage brought along innovations such as natural cosmetics based on biodiversity, mobility solutions for wheelchair users, and uses for urban waste, among others.

For a week, with assistance from Apex-Brasil and GVces specialists, entrepreneurs took part in mentoring with Google, visited the Universities of California and Stanford and spoke to entrepreneurs and investors on topics such as venture capital for green companies, female entrepreneurship, and urban sustainability. They also made close contact with leading innovation initiatives for emerging businesses, such as markets

# From Brazil to the World: Connections in the Ecosystem of Innovation and Sustainability

## SME SELECTION PROCESS

An increase from 6 to 21 specialists involved (from 18 organizations), with:

- 7 from the private sector
- 6 academics
- 4 from the third sector
- 3 from government bodies

Instituto Quintessa	Sebrae
Sistema B	ESPM
Ashoka	Fundo Zona Leste Sustentável
Inseed Investimentos	Natura
Imaflora	BNDES
IBM Brasil	Fundação Vanzolini
Fundo Pitanga	Cietec
Citi Foundation	Angatu Consultoria
Finep	FGV-EAESP

## INTERNATIONAL CONNECTION

Approaching players in the entrepreneurship and sustainability ecosystem on trade missions

### In Colombia:

- IE – Business School
- Universidad EAFIT
- Universidad de Los Andes
- Sistema B Colômbia
- Innpulsa Colombia
- Endeavor Colombia
- Ruta N
- Connect Bogotá
- HubBOG
- Natura
- PolyMath Ventures
- Ecoflora
- Nutresa
- ACI
- BIOinTropic
- Apex-Brasil offices in South America

### In the United States:

- Apex-Brasil offices in North America
- San Francisco City Hall
- BayBrazil
- The Bellos Group
- OneSkin
- BovControl
- Asteroid Films
- GH Branding
- Terra Global Capital
- Google Developers Launchpad
- StartSe
- UC Berkeley
- Stanford University
- Stanford Research Institute

● 3rd sector; ● private initiative; ● public sector; ● academic

## NEW APEX-BRASIL AND FGV-EAESP STAKEHOLDERS

### Apex-Brasil

- Over 10 sectoral projects involved
- 5 fronts of action in Agency workshops: Market Intelligence, Internationalization, Competitiveness, Attracting Investment, and Exports
- Closer relationship to PEIEX

Extension Workers: > Present on 10 on site visits for selection of SMEs  
> 4 participated in training workshops

Operational Units: > 16 units participated in workshops on sustainability and business held in São Paulo and Recife, and another 194 extension workers attended online workshops.

### FGV-EAESP

- 6 professors enriched training workshops on topics such as innovation, entrepreneurship, marketing and social media, branding, and business communication.
- 3 SMEs were assisted by business administration students on the subject of financial management and accounting
- 11 GVces researchers involved in training workshops, specialising in sustainable finance, communication, local development, innovation, and sustainable production and consumption

## ICV GLOBAL IN THE NORTHEAST

- Of 31 selected SMEs, 7 are from the region
- 5 training workshops for local SMEs replicated in the city of Recife, PE
- Participation throughout the training process from AD Diper (Agency for Economic Development of Pernambuco) and UFPE (Federal University of Pernambuco)
- Partnership with Jump Brasil, business accelerator

## SUBJECTS COVERED BY PARTNER ORGANISATIONS

- Design as a competitive differentiator | Centro Brasil Design
- Industrial and Intellectual Property | INPI
- Financial mechanisms to support export and innovation | Banco do Brasil
- Export and innovation support mechanisms | Senai e Sebrae
- B Corporation Certification | Sistema B

who buy from local producers and promote responsible use of resources and fair labour conditions.

Carried out in May 2017, the mission to the US was a high point in the commercial promotion stage of the ICV Global project following the training process, which had the objectives of bringing the companies and potential buyers together, allowing for the identification of opportunities, and gaining knowledge on the behaviour of more promising markets. Ultimately, the greater purpose is to increase the range of commercial partnerships involving products and services with sustainability attributes, diversifying the profile and destinations of Brazilian exports.

## Progress Towards Broadening Results

The 2nd Cycle of ICV Global extended partnerships, created new learning spaces, and promoted changes in the methodology which allowed for greater knowledge sharing. It also brought companies closer to players in the innovation, entrepreneurship, and sustainability ecosystem (see pages 32 and 33) so that new partnerships could be established and for the path to exports to remain open after the cycle's training and closure activities.

By acting as a hub for the institutions and initiatives concerned with the challenge of exporting sustainability, the project took steps towards

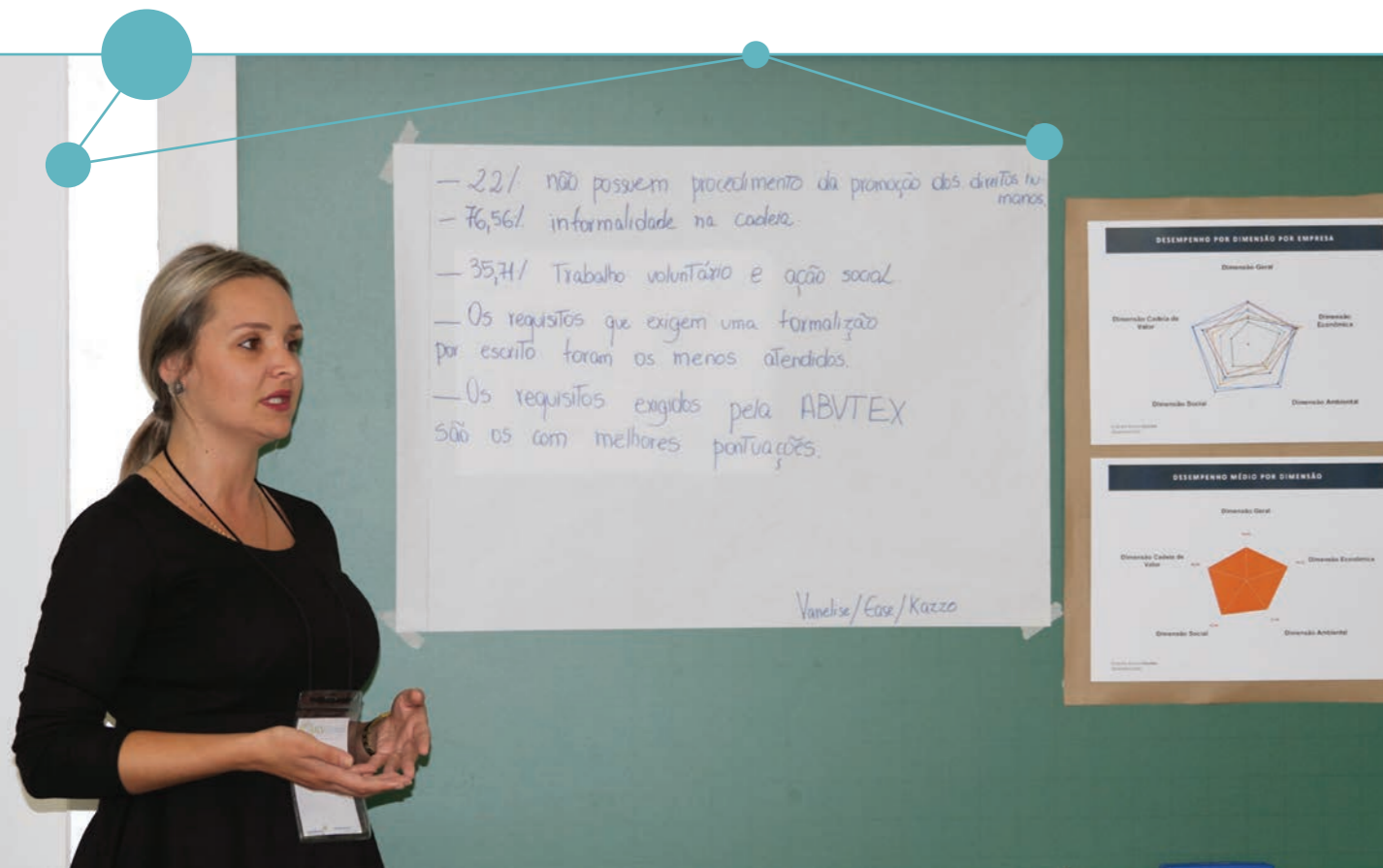
## Support From Market Intelligence

The companies participating in ICV Global had access to a particular type of strategic support offered by Apex-Brasil: market studies customized for each business profile, which would mean less risk and prospects of greater gains on the path being beaten. "From Cycle 1 of the project, this task has proved to be an important challenge for our routine service, given the characteristics of innovation and sustainability associated to these products and services, which are of high added value", says Manuel Franco Júnior, International Business analyst at the Agency.

With the purpose of making foreign trade something perennial to business, the study identified priority markets for each type of product or service based on the analysis of dozens of variables involv-

ing 40 countries. A final list of five to eight high-potential destinations was reached. "The results will contribute to company strategy for the next two years and to future consultation in the search for new opportunities", explains Franco.

"The quality of mapping of the target markets was surprising", say Ana Carolina Winkler Heemann and Rodrigo Heemann of Heide Extratos Vegetais, a company based in Paraná. "We had access to a valuable trade intelligence resource, as the study was able to target our products and consider a diverse number of criteria". According to them, "the study, in addition to confirming priority countries already known for their preference for natural and organic products, also pointed out other promising regions which were not on our radar."



promoting strategic networking for companies, allowing for flexible adaptation and collective building of the methodology based on needs identified by the group. For example, topics such as patent registration and brand protection came to form part of the program, which was also open to more in-depth contributions from actors such as Sebrae, Banco do Brasil and Sistema B. In parallel, moments for integration included post-workshop happy hours which were open to the public,

as well as the joint creation of a 'sustainable solutions gallery' for exhibiting products and services, which helped confer visibility and promote integration among participants, expanding the network established by the project.

## Greater Participation by FGV Teachers and Students

Seven FGV professionals were involved in the ICV Global's selection



and training stages. The project also established a partnership with FGV-EAESP professors Antonieta Oliveira and Maria Angélica Pedreti who ran a service experience pilot with students for small participating companies, for the purpose of producing the end of course work for the subject of controllership and finance, covering issues such as pricing and cash flow.

According to the teachers, “students came in with their doubts and we built a cost sheet together. It was more than an opportunity, it was an honour. The work we did contributed to making tangible something which is very abstract. The opportunity of experiencing the day-to-day life of a company helped them make huge

progress in the subject.”

“For me it was really great because it’s very common to hear that the form of costing the students used is only applicable to large-sized companies, but they did a really great job proving that this method can also be used with small companies. Throughout the process, students came to me with questions and together we reached a final result. It was interesting work - students, teacher, and company.”

The expectation, based on these results, is to further strengthen ties of cooperation between the work developed by GVces and FGV, via the formalisation of a personalised service for ICV Global companies in the development of future actions.

## The Power of the Productive Chain

Mobilising sustainability solutions between suppliers and large buyers

The logic of win-win is simple: on the one hand, large companies are motivated to adopt good practices and to replicate them within their production chains in order to differentiate themselves and comply with the socio-environmental demands of certain markets. On the other hand, the smaller business supplying them with raw materials and services, or purchasing inputs for their products, can take advantage of these attributes in order to reach a universe of qualified customers and venture into exports, reducing dependency on domestic sales, especially in the scenario of an economic crisis. What is the path to joining forces and positioning each production chain set in a foreign trade scenario with the brand of sustainability?

In seeking answers, the task of qualifying small and medium-size suppliers to thrive overseas, which was already a feature of the ICV Global 1st Cycle, was resumed with some new developments in the project’s latest edition, which involved the participation of two anchor companies: Vicunha, one of the largest textile manufacturers in the world, and Duratex, a manufacturer of wooden panels, chinaware, and metal fittings with extensive experience in internationalization and exports. Along with them, 18 SMEs from their production chains took part in training activities similar to those applied to the main sustainability-as-business group selected for the project.

“Exporting’s greatest challenge lies in the complexity of both the norms and

standards of markets, as well as different cultures and consumption habits”, says Hanna Welgacz, Internationalization Coordination analyst at Apex-Brasil, during a workshop in which the trends of international trade were presented.

The dynamic consisted of four separate meetings for each anchor and their respective partners. They were guided on positioning sustainability as a competitive advantage in business and had access to instruments to adopt this differentiation in practice. In Cycle 2 of ICV Global, anchors and suppliers expanded their participation: companies were invited to participate in the trade mission and business meetings, as well as their respective preparation workshops.

Among other new features, a workspace was created for companies to jointly define issues which could assist the international projection of their value chain, with new plans and institutional partnerships formatted to go beyond the training stage.



## In Search of Sustainable Jeans

“We need to seek out niches capable of absorbing costs, which can enhance sustainability attributes”, says José Otávio de Souza, export manager at Vicunha, a textile manufacturer which has been active in the international market for 30 years, with factories in Ecuador and Argentina. For Souza, creating value and communicating it as a sales pitch abroad are objectives of the sector “which in recent years has focused efforts on a heated domestic market, but which is now seeking opportunities for exporting, despite tax barriers.”

Upon joining ICV Global, Vicunha, one of the largest producers in the world of indigo and denim, demonstrated its intention of contributing to the progress of socio-environmental improvements in its production chain, “which today is excellent compared to the global average”. This is the result of a qualification and certification program for suppliers, implemented by the Brazilian Association of Textile Retail.

Such measures should not be seen as a burden but as a boon to sales. Roberta Yamacita, a representative from GMTEX which is a jeans manufacturer using Vicunha raw materials in Londrina (PR), says: “We need to be ready for the doors that will open, perhaps not in terms of costs or deadlines, because Brazil isn’t competitive in those areas, but through the supply of specialised products and services, such as those related to sustainability”.

“We need to seek out trade partnerships and market segments associated to value



proposals submitted to innovations for differentiated products, such as sustainable jeans”, emphasises GVces consultant Phillippe Lisbona, during the Canvas application workshop.

It is furthermore necessary to look at what new things are happening in markets, especially the more demanding ones which value sustainability practices. “In Europe, over twenty sectors are making purchase decisions based on the product’s footprint, from raw material to consumption”, says Ricardo Dinato, a GVces researcher, while presenting ICV Global participants with the Life Cycle Assessment tool (LCA), which measures the environmental footprint of products and services from ‘cradle to grave.’

## From Plantation To Furniture

A highlight of the 2nd Cycle of ICV Global activities involving Duratex was having the experience of seeing, on site, the journey wood makes from eucalyptus plantation to the production of fibre boards and MDF panels. In addition to what was learnt in the training workshops, visiting the company’s industrial plant in Botucatu (SP) allowed for observation of sustainability practices in situ which could nourish sales pitches and translate into competitive advantages for exports.

From ant control in the eucalyptus plantations to log cutting for supplying the manufacturer, and methods for reducing water consumption in the production of the panels, the details of each step of wood production inspired company representatives to analyse the business from a broader perspective. In addition to the visit, partner companies participated in workshops on Interculturality and the presentation of action plans, held in the factory facilities.

From their initiative, it is expected that anchor and partners will mobilise to scale up new sustainability solutions in the production chain. “The chain is a pillar of our sustainability strategy; it helps us understand demands and pass on to the market experience which can be a differentiation for sales, reflecting positively on the businesses of those who supply and purchase”, emphasizes Ana Clara Rossetto, Sustainability Manager at Duratex, a company with 22 industrial units.

“Our expectation is to also improve competitiveness in the domestic market”, says Edison Bressan, owner of Artban, a supplier of lavatory seats and seal rings for Duratex. Bressan put together a business plan to export kits for installing seats. Sabrina Leitão, Export Manager at Lopas, a furniture manufacturer at Rodeiro (MG), details what was learnt on the visit: “Behind the work of cutting panels there is a whole commitment to society and the environment which must reach the consumer.” The company exports 10% of its production to Africa, the Middle East, and Latin America, and has plans to move into the US market - “a project which is backed by ICV Global, which helped us formalise processes, and develop codes of conduct.”





# A Mosaic of Solutions

*Companies incorporate new practices and concepts, formulate business plans, and put sustainability at the forefront of their progress in the external market*

By the end of the training activities, business meetings, and trade missions to strategic countries, SMEs had been strengthened to develop qualified relationships and make new leaps towards occupying promising spaces with viable financial results, disseminating socio-environmental gains via the interface between innovation, sustainability, and business logic.

From sustainable fashion to new solutions for urban waste, from vegan cosmetics to good practices in agriculture, the business cases covered in the 2nd Cycle of ICV Global demonstrated maturity to adapt products and services and even reinvent themselves as a business in response to the difficulties inherent to the country's economic situation.

The general strategy scenario is comprised of developing technology, innovating in partnerships, knowing the norms and behaviour of buyers' markets, and overcoming trade barriers. The results achieved depend on, among other factors, the will to venture and solidity of the business, as well as the trends and reality of the challenges sustainability poses in each sector where companies operate.

- Page 41** Waste and Post-consumption
- Page 52** Conscious Consumption
- Page 61** Local Development
- Page 66** Agribusiness
- Page 70** Health/Well-being



## WASTE AND POST-CONSUMPTION

Finding solutions for basic sanitation is one of the main challenges for cities in countries with emerging economies. Of the total sewage waste generated in Brazil, only 40% is collected and, of that total, 26% is treated before disposal in the environment. Additionally, Brazil produces 228,000 tons of refuse daily, 37% of which is disposed of inadequately, with 3,000 dumps in existence according to the Brazilian Association of Public Cleaning and Special Waste Companies. The National Solid Waste Policy act, approved in 2010, establishes 'shared

responsibility' between government, companies, and citizens. The need to increase selective municipal collection and for the implementation of a reverse logistics system by companies, so that packaging and other recyclable waste can return to the industrial productive cycle, can create business opportunities. In addition to regulatory pressure, increased environmental awareness and sustainability strategies are favourable to innovations with the potential to grow in the external market, especially in countries with a Brazil-like reality regarding urban waste.

### Morada da Floresta

## When Waste Becomes Compost

After taking a 'hippie-style' sabbatical abroad and a period of educational activities focused on things which everybody can do at home to reduce their consumption footprint and protect the environment, Cláudio Vinícius Spínola, a visual artist from Brasília, found a path to what became a good business: the production of home composting kits for reuse of food leftovers, garden clippings, and other organic waste, which earthworms transform into fertiliser.

Morada da Floresta is run from a house in the Vila Universitária neighbourhood in São Paulo, standing out from the urban cluster with its green gardens where the earthworms reproduce and the organic

compost they generate is tested. On site, the composting kits were unpretentiously hand-assembled until Spínola decided to make improvements and sell them, after taking part in an entrepreneurship event by Artemisia, an organisation fostering businesses with a social impact.

The project took shape in 2013, when recycling waste from street markets became compulsory in the city of São Paulo. A year later, as part of the municipal project 'Composta São Paulo', Spínola's company won a R\$1million contract to distribute 2,000 home composting kits which included educational workshops and research on changes in consumer habits.

In 2015, given the market potential,

Morada da Floresta developed a 'less artisan' wormery model in partnership with a factory, to be launched in 2017, making composting more efficient, practical, and reducing production costs. This leap allowed the company to reposition itself from previously focusing more on domestic use by end consumers to targeting large organic waste generators, such as factories, refectories, and condominiums. "The objective was to reduce dependency on retail and diversify revenue sources", says Spínola.

To date, a total of 15,000 composting kits have been sold, with a current average revenue of R\$120,000 per month. The plan based on the new model aims to increase revenue by 50%, to broaden partnerships with municipalities, and reach the international market. "We're adding benefits because the export potential is high", says Spínola. Preparations began when the business was selected for the FGV-GVces Innovation and Sustainability

Guide in 2015, where Spínola found out about ICV Global and went ahead with his idea of exporting. By taking part in the trade mission to California organized by the project, important steps were taken towards consolidating the plan of competing in the US market with an emphasis on solutions to gardening waste, as well as the Argentinian and Peruvian markets, which are more similar to the reality in Brazil.

There is also no lack of motivation for expansion in Brazil. Organic waste represents 50% of all urban waste in the country. In addition to the environmental and social aspect, its transformation into compost reduces the cost of transport and disposal in landfill sites (R\$200 per ton on average) and carbon emissions from methane released on the sites.

In addition to the wormeries, the company offers courses on permaculture and urban agriculture, and produces ecological nappies and sanitary pads. New products are in the pipeline, such as vases, watering cans, and other accessories visually appropriate for export, an initiative which is part of the Design Export project, by Apex-Brasil. Not to mention the development of vertical gardens, "a client demand for the use of the fertiliser from their home composting", says Spínola, proud of the positive impact his business is making on society.

**Claudio Spínola committed to the distribution of home composting kits**



## Textile Bank

### Reusing in Fashion

An unease about the large amount of fabric left over in the studio after use in shows, theatre plays, and other cultural events inspired Lu Bueno, a set and costume designer, to have an innovative idea, which began in 2013 as an activity between friends and soon spread through social media to then become a structured business model offering a creative solution to an environmental problem. Thus, the Textile Bank was created, which aims to reinsert in the market unused cuts of cotton, poplin, flannel, nappa, and leather which are in inventories, on shelves, and at the bottom of cupboards, with the lowest possible generation and adequate disposal of waste, connecting different actors for the development of a more sustainable textile chain.

The model is based on a network of account holders who provide leftovers of their textiles which then become new creations. The user receives credits for each kilo delivered and can use the credit to withdraw other textiles when desired. As a form of remuneration for the service, the system retains 25% of credits and sells textiles at R\$45 per kilo. In addition to the price, the collection has the advantage of exclusive and antique products not found in normal trade, with guarantee of origin.

As such, it is an inclusive and circular system, with social, economic, and environmental effects, for the benefit of both tailoring workshops and small and medium-sized confections as well as large weaving factories seeking to comply with



**Lu Bueno created a circular economy innovation as a solution for the textile industry**

the National Solid Waste Policy. Action is required, as losses in the textile process can reach up to 20%, generating waste in need of an adequate solution.

The challenge is to finalize an e-commerce and market place platform for integrating virtual stores from various segments and regions, increasing the scale of supply and reuse of textiles. The task includes valuation mechanisms for raising investment, from which it will be possible to ripen and export the service model. "We're getting ready for that moment, which will certainly come quickly considering global demand, in which extending the life-cycle of materials is essential".

## Custom-built Sanitation

“Working with sanitation was a choice I made that will leave my children and grandchildren a better world”, says businessman Paulo Scheidemantel, a former cattle rancher in Mato Grosso and owner of a car dealership, who decided to embrace a friend’s new project, Flávio Sisti, now a partner, focusing on practical, efficient, and cheap solutions for water and sewage treatment.

In 2012, Ectas Sanitation changed its profile: previously limited to project services, it began to manufacture customised compact stations on demand, with a 70% reduction in energy consumption, as well as an almost 50% cut in cost per treated cubic metre when compared to conventional services provided by sanitation concessionaires. These gains come from the design of the equipment, with tanks using fiberglass-reinforced resin to facilitate installation and increase treatment efficiency based on various current market technologies, from activated sludge to the biological system.

“There is huge potential”, says Sisti, taking into account the tightening of environmental norms and the challenge of universal basic sanitation in Brazil. After gaining recognition through awards in the national market, the company began to look abroad. Participating in ICV Global topped off the plans: “We assimilate practices to understand markets and go far”, says Sisti. The first sale happened in 2015, in Ghana, Africa, to a project run by a Brazilian contractor.



Customised solutions reduce the cost of sewage treatment

The impulse should happen with their current showpiece: the new super-compact treatment plant, currently under development to meet residential demand in regions without sewage collection, replacing cesspits and allowing for the reuse of water. The strategy is to open factories in South America over the next five years, including one in the Northeast of Brazil. This is part of the target of doubling the estimated 2017 revenue of R\$ 4 million, and to continue strong in the domestic market. A new front is shopping malls “which today install treatment plants in parking lots as a showcase”.

## Reuse Makes Waves

To have ‘on the shelf’ an efficient and low cost form of technology for removing oil, grease, and other organic pollutants after sewage treatment, with the benefit of the residual water being in good enough condition for reuse is, in itself, an asset for exports. Water scarcity is, ultimately, a global concern. However, there is a further consideration: the fact that the active principle of this innovative process comes from Brazilian flora.

The natural and renewable origin of the raw material has the potential to add value for the success of the business. At least that is the hope of Procytek, whose head office is in São Paulo with sixteen employees and revenues of R\$11 million per year, which may double after changes in the business model to strengthen the company for the purpose of internationalisation.

“Our commercial motto is to make water reuse culture possible on a large scale”, says Gustavo Almeida, director of the company founded in 1990 by his father, Hamilton Simões de Almeida, ex-director of an industrial lubricants multinational. When the business started, the aim was to provide decontamination services to factories, which meant testing substances capable of retaining oils. “It was then he discovered that a certain compound, obtained from a well-known plant in Brazil, not only separated the contaminant from the water, but also made it cleaner,” says Almeida.

In 2010, the company had formulated various products for decontamination with lower costs than conventional methods based on acids and caustic soda that met final disposal standards but did not allow



Plant-based technology enables water reuse

for reuse of the water. The leap came three years later, through a partnership with VentilAQUA, a Portuguese group which had developed equipment capable of maximising the reuse of water resources in conjunction with the application of the Brazilian product. This led to 35% lower costs in comparison to what utility companies charge to treat and supply water. Given the business potential, the Portuguese company started manufacturing the machines in Brazil for better access to the national and South American markets.

“ICV Global gave us the courage to move into the international arena”, says Almeida, recalling that it was during training activities that their strategy was defined: the commercialisation of equipment based on different partnership formats. In the case of chemical products, due to a greater regulatory export difficulty, the target market is domestic. In Brazil, Procytek has almost 80 clients with over 30 operational automatic treatment stations, permitting the reuse of 750,000 cubic meters of water per month, and reducing waste destined for landfills or incinerators by 52%.

## Piscis

### Non-Polluting Tilapia

Two and a half times the size of Guanabara Bay, the massive Castanhão, formed by the Jaguaribe river dam in Ceará, is the largest multiple use public reservoir in Brazil. Inaugurated in 2003, it provides water to the Metropolitan Region of Fortaleza, irrigates crops, keeps livestock watered, supplies houses in rural areas, and allows economic projects to improve the lives of rural ‘sertanejos’. Fish farming developed in the reservoir as a significant source of employment and income, with an environmental issue: what can be done with the residue from the treatment of tilapia for commercialisation?

In search of a solution that did not involve dumping viscera in the water source, entrepreneur André Siqueira carried out studies, mobilized local producers, and then had a big idea: transform the residue into oil to make animal feed and organic compost which could become biogas for power generation. In the reservoir, fish production surpasses 18,000 tons per year, with 10% of that weight becoming waste after slaughter. “In the beginning there was, naturally, some resistance, because efforts towards finding an outlet conferred visibility on the impact of the activity”, says Siqueira, who arrived in the region when the reservoir was inaugurated as part of the technical support for groups of poultry farmers.

As the reservoir was not covered by the power grid, the viability of the project required the use of a car battery-powered



Waste from tilapia processing is used to enrich animal feed

contraption, occupying the building of an old gas cylinder deposit. After a R\$ 120,000 injection from an innovation grant in 2009, Piscis was born, a small company with three employees which to date has processed nearly 600,000 kg of fish viscera. In 2016, 20,000 litres of oil were produced from residue which went to supply animal feed factories, with a revenue of R\$ 390,000. A further R\$180,000 is obtained annually through the provision of services such as consulting. “We have developed technologies to transform problems into business opportunities,” says Siqueira.

One of the challenges, identified in 2015, stemming from the impact on fish farming in the region caused by a long period of drought, was “to look outwards [abroad], diversify strategies, and reduce

risk”. One possibility is the export of the waste recovery model, with technology packages focused on tilapia producing countries - an idea reinforced during the ICV Global workshops. “It was valuable experience for extending partnerships”, says Siqueira, proudly showing the project logo on the company website alongside other awards of recognition for innovation and sustainability, such as the Finep Prize. From the towed mobile plant for waste collection, storage, and processing from where the fish are slaughtered, to the technology for tilapia breeding with reused water, the range of solutions is varied. It goes beyond fish farming. It even includes a project for reusing leftovers in refrigerators which process fish production at sea.

## Differentiation - On the Wall

To make use not only of the huge natural diversity of Brazilian stones but also the refuse generated in quarries is what inspired Lap Mosaics, from Limeira (SP) to innovate and differentiate itself in one of the more refined segments of decoration and civil construction. "Since I couldn't find products on the market with the beauty and quality I was seeking, I began to make them myself", says entrepreneur Rita Carmona, who assiduously attends international fairs and events to prospect opportunities. "With each foray I realised we had a huge advantage in a little-explored sector".

In fact, Brazil is among the biggest exporters of exotic stones, but in the form of raw plates without the added value of creation or finishing. Occupying this space became the company strategy, whose main raw material is obtained from the region of Vitória (ES): residue from the process of cutting and polishing marble, quartzite, and granite, among others. Based on this refuse material, along with stones of rare beauty extracted from different regions such as Amazonia, Cerrado, and Caatinga, 2,000 pieces are produced monthly for tile stores - although there is factory capacity for ten times this production, in preparation for fresh demand.

With an eye on the external market after taking part in Apex-Brasil's 'Pasaporte para o Mundo' ('Passport to the World') platform, ICV Global was a natural next step. Carmona took part in the trade mission to Colombia offered by the project in 2017: "Waking up to

sustainability as a competitive advantage." Focusing on the issue and with better management, she says, "our expectation is to have 30% of revenue come from exports". Selection of the company for the World Design Summit in Montreal, Canada in 2017 may well give them the boost they need.



Mosaics add value to Brazilian stone in civil construction

## Betting on Manioc

A shed on a farm in the green outskirts of Botucatu (SP) is the birthplace of a business which is taking its first steps towards one day making a difference within a growing segment: biopackaging. Oka is based here, a small company producing pots, trays, spoons, boxes, and other containers made from manioc - that very Brazilian root from which flour is famously produced, as well as numerous other industrial applications.

For the packaging, starch is the raw material obtained from the root, which has sustainability attributes ranging from natural and renewable sources to zero waste, as the product is biodegradable and also non-toxic, eschewing the use of hazardous resins or chemicals. "In the year 2000, already aware of the waste management problems in Brazil, I read an article about this new technology based on manioc being developed at the State University of Campinas, so I signed a partnership agreement with a team of researchers to launch it on the market", says designer Erika Cezarine Cardoso.

Their first experience was a pilot supply of 20,000 egg boxes for 'Fazenda da Toca', an organic and agro-ecological producer in the interior of the State of São Paulo. The project aims to diversify the product line and reach industrial scale, aiming for a monthly production capacity of 280,000 pieces using a more powerful moulding machine which will become operational in 2017.



Egg cartons are produced with plant material

To get to the next level, the company reformulated its business model and integrated a new partner, Marcelo Benine, to focus on administrative and financial management, resulting in two segments - one focused on research and development for the licensing of biodegradable products, and another for the manufacturing of the packaging. The long-term goal is to invest in exports by selling the technology. Participation in ICV Global was a first step: "We now understand the importance of communicating values and differentiation in a professional way".

## Outside the Box

Through acquiring plastics from a recyclable material collection association and from factories generating leftovers from production processes, designer Flávia Vanelli discovered a path to a new business. “We didn’t want to repeat a model based solely on production, revenue, and competitiveness”, she says. This paradigm shift is typical of the design school, Orbitato, where Vanelli studied, in the small city of Pomerode (SC). Courses are run by nationally-renowned intellectuals, sparing young people wishing to study ‘outside the box’ subjects the need to migrate to the capital.

It is within such a propitious environment that Ratorói manufactures creative laminates from recycled plastic to supply the production of tags, shoes, handbags and other fashion accessories. The technique also keeps the original colour pattern of the materials separated

from refuse, eschewing the use of pigmentation or chemicals. “There is a race to develop new materials within the vegan niche, with no animal origin”, says Vanelli. As such, the synthetic alternative, coming from oil, makes more sense when associated with recycling and social issues such as fair trade.

The company then started a partnership for supplying the material, called Byeplastic, to the project of an Indian designer called Mahmmat Schetty, which mixes it with other waste such as jute and tyre tubes, for export to Europe. Eyes are on the Italian luxury market. California, the destination of one of ICV Global’s trade missions which Vanelli took part in, is also an attractor. “It was important to share knowledge with companies taking the same path and facing the same challenges, a very courageous thing for a country like Brazil”.

Plastics generated post-consumption embellish fashion accessories



## Building Alternatives

First it was water-based paint technology replacing the toxic-based variety for coating industrial and hospital facilities. Then there was fibre-glass flooring, and more recently, innovation in the reuse of concrete in building works. From one new development to another, Engpiso from Salvador is currently opening up to the world. “More than products and services, we plan to sell knowledge, which is not a common opportunity for a small company from the Northeast during an economic downturn”, says Raymundo Dorea.

Participation in the Silicon Valley trade mission in California, as part of an ICV Global activity, led to a restructuring project within the company, with the creation of a new profile focused on digital segments such as smartgrids and the internet of things: “It’s a matter of survival in this current context, with the market in crisis”, says Dorea, who joined the race in the 1990s, after seeing that “floors were treated as a by-product in engineering projects.”

It was then that Dorea began offering innovative floor and coating solutions to the Northeast market, differentiated by a reduction in the use of traditional materials such as steel and cement, in turn reducing the impact on the planet’s resources. Through participating in fairs abroad and major construction works such as the Ford plant in Camaçari (BA), and



New materials substitute steel and reduce cement use

the Fonte Nova and Pernambuco arenas built for the World Cup, the company was able to acquire visibility and maturity to make new progress. One example was the use of ‘structural synthetic fibre’, which adds resistance to floors and walls, with the potential of supplying to China. In tandem, the company developed materials for acoustic treatment and even a type of flooring which drains and reuses water. “In addition to this”, says Dorea, “there are thermal solutions designed for countries with hot climates.” Everything indicates that the story won’t end there.



## CONSCIOUS CONSUMPTION

The power of conscious consumption by individuals, companies, and government is key to influencing productive policy and practices with lower environmental and social impact. On a global level, there are markets which stand out for valuing sustainability differentiation, from fashion trends to the demand for natural cosmet-

ics. This is further reinforced by normative environmental and social standards, such as rules against the use of slave-like labour, increasingly required for the sale of certain products. In the race for opportunities in foreign trade, those who prepare now will be ahead when the framework of requirements become larger and more complex.



**Maria Oiticica**

### *A Question of Style*

The exotic beauty of the necklaces hung on the walls is striking. Some are made from the babassu flower; others, from cork and inajá palm, or macramé with vines, as well as the 'açai with 33 turns'. The names leave no space for doubt about the origin: biodiversity. This house on the bucolic Rua Visconde de Carandaí, in the Jardim Botânico neighbourhood of Rio de Janeiro (RJ), is not only the showroom but also the central hub of Amazonian designer Maria Oiticica, and the accessory brand that bears her name. The challenge is to move forward in the market by combining Brazilian style and sustainability, armed with something which can make a difference: seeds and fibres from the Amazon, threshed by

extractivists to inspire artistic creation, confer a certain sophistication, and shine on the fashion catwalks, with wins for everybody beginning with the forest which must remain standing.

It all started when her husband needed to make a characteristically Amazonian gift to the curator of an American museum: "I suggested a necklace, but as I couldn't find a more stylish model in the craft shops in Manaus, I bought several pieces, disassembled them, and created a new one", says Oiticica. The result came later: bearing the beautiful present in mind, the curator bought almost the entire stock of the studio Oiticica had just set up in Rio de Janeiro, in 2003. The idea of making pieces with

a 'Brazilian soul' took off, and a year later she was opening her first point of sale in a shopping mall. Then her first export order finally came in: 53,000 pieces for 'Brazil Week' by Macy's, a chain in the US.

"It was crazy, because the Amazon was in the rainy season, rivers were full and there weren't enough Jarina seeds or Inajá flowers for the order, which made it necessary to activate networks of artisans in several parts of the country", says Oiticica, who as a girl was accustomed to dealing with forest objects brought home by her father, a traditional tradesman who would exchange foodstuffs in riverine communities in exchange for forest products, to then resell in the big city.

Today, with thirteen employees and three shops in Rio, the brand is in search of alternatives to make up for the drop in sales due to the economic downturn. For Oiticica, export is a possible way out. "The products have appeal, but patience is needed to face the current moment", says Oiticica. Raw materials, transport costs, and



**Maria Oiticica transforms Amazonian seeds and fibres into pieces with high added value**

sterilisation of the seeds account for 30% of the total cost, which therefore requires adding value. The company maintains a social project in which 30 low-income mothers are remunerated for assembling earrings and necklaces while waiting for their children to receive medical care at the Paediatric Hospital of the Fernandes Figueira Institute. "We use our socio-environmental attributes less than we should" Oiticica says, while stressing the lesson from ICV Global: "There, we understood the challenges so as to overcome them".

## Colourful by Nature

Founded in 2007 with a focus on sales to tourists, Algodoeiro, a company from Caruaru in Pernambuco, made plans to take advantage of sustainable fashion by producing cotton clothing which is naturally coloured from plantation and requires no chemical dyeing. At the time, Embrapa, in Campina Grande (PB), had already developed the technology in conjunction with family farming, and it was a clear opportunity. The boom in eco-products, dictated by fashion trends, was encouraging, until the drought of the last 6 years drastically reduced the availability of raw material, forcing the business to adjust its targets.

As a way forward, efforts were made to invest in the appeal of organic cotton, an input that has only a single supplier in the



Dyed cotton aimed at the tourist market



country, but the idea came up against the obstacles of the Brazilian economic crisis and its impact on tourism. "By insisting on the environmental differentiation, we started off on a new cycle of products, based on conventional cotton, but dyed manually using plant dyes", says entrepreneur Valtécio Pedro. Encouraged by the niche they found, the company went even further: a project was started in partnership with Sebrae and the Institute of Technology of Pernambuco (Itep), of the state government, with the aim of developing natural dyeing with a chart of 120 colours, using four regional plants to achieve commercial scale.

This was around the time the opportunity of participating in ICV Global came up, with a perspective of exporting, but the company once again came up against barriers. The project was shelved as a consequence of cuts in Itep's public funding. The idea was to initially export t-shirts in three natural colours to Canada. "In any case, the experience from the export workshops has strengthened us for the domestic market", says Valtécio Pedro. Today, of the 5,000 monthly pieces manufactured, 1,500 are naturally dyed with manual processes, keeping the sustainability trend going.

## Beauty Reinvented

The place could not be more indicative of the differentiation cultivated therein. One need only look at the walls. In the hall, among the ferns, the Ecocert certification plate has pride of place, attesting for natural and organic origin. Next to it, the words "sustainable factory" and "vegan product." "Beyond beauty, the challenge is to bring truth and originality to everything we do", says Soraia Zonta, an entrepreneur from Santa Catarina, in front of her a table full of post-it notes with planning arrangements.

Not surprisingly, Bioart, founded in Tijucas (SC), is on the frontier of a niche market which is growing every day, and that market is biocosmetics - with a focus on facial treatment masks and a whole range of make up products which are proven to be natural, healthy, and environmentally friendly. "When I heard the big brands saying that it wasn't profitable to make natural products, that the world wasn't prepared for it, I became sensitised and decided to do something, because my universe is not the same as theirs, and there are people who think differently", says Zonta, who now regularly gives lectures on female empowerment and new values for sustainable living.

The leap came when Zonta, who is allergic to traditional cosmetics, discovered the skin benefits of clay and set up a company to supply it to the market. In 2012, after a venture as a spa owner, she chose to drop her previous activity and start her current factory - a decision



Soraia Zonta plans to export natural and organic makeup products

she took after finding out that the natural products purchased from third parties for treatment of her clients contained undesirable mixtures. The business took off thanks to new market trends and the endorsement of international quality and product origin seals, encompassing a significant variety of raw material from Brazilian flora, from the baru of the Cerrado to the andiroba of the Amazon, with a total of 50 items.

The company has registered a growth of 30% a year and, by taking part in ICV Global, advanced in their project to export which is due to start in 2017 or 2018. After the trade mission to California provided by the project, Zonta opened windows to attract investors and increase production capacity. Preparations include branding, marketing, and packaging adapted to Brazilian identity. Networking was a strong point: "By joining hands, we can strengthen the sustainability chain."

## Vegan Concerns

Initially, production of natural and herbal or phytotherapy cosmetics would happen in someone's back yard, and then be sold door to door. Later on, the target shifted from the end consumer to professional use in beauty clinics, starting with supplying massage creams. Finally, the manufacturing plant became consolidated and incorporated innovations, such as a type of nanotechnology which increases product efficiency over less time, raising the number of items in portfolio to its current 160. "When you work on the synergy of plants, you get differentiated results," says pharmacist and homeopathic specialist Maria de Lourdes Vertuan, who

is concerned about the state of public health and routines of 'doing more of the same.'

The search for the new implied changes to the business, based on the valorisation of wellbeing and the environment. The first change for Bio Vegan, based in Araquari (SC) and run by Liana Vertuan Gonçalves, was to adapt its pioneer brand 'La Vertuan' for distribution to pharmacies as a strategy of reducing dependency on clinics and expanding client profile. The plan includes reaching 200 outlets in 2017, as well as new ventures in the market. The idea of exporting has been latent from



Liana and Maria de Lourdes produce natural cosmetics for export

when the company took part in the 'My First Export' program organised by the Ministry of Industry, Trade and Services, but did not go ahead due to technical and bureaucratic difficulties. The strategy has recently been resumed with more investment.

In 2016, the company launched new natural and vegan products - free of animal use, preservatives, and gluten and lactose derivatives - to compete globally in the green cosmetics segment. One possibility, the Muslim market for example, requires alcohol-free products. A novelty in the Bio Vegan product line, which goes from exfoliators to moisturisers and shower gel, is soap extracted from quinoa shells as well as natural hair smoother, with a focus on external sales.

Preparations for exporting began to take shape, with the definition of target markets and improvements in packaging with the use of green plastics made from sugarcane. Based on the ICV Global experience, marketing actions prioritised product sustainability differentiation in addition to the appeal of natural, renewable, and healthy raw material, and also involving the productive area. In the factory gardens, rainwater capture and waste treatment systems for nurturing plants are displays of good practice, along with the solar panels placed on the car park roof which generate energy.

## Plant Power

After discovering the energetic delights of a 'mate' drink in Germany, entrepreneur Fernando Martinelli, who had lived there for some time, decided to bring the idea to Brazil and explore different natural caffeine sources. Straight away, he put together a team of specialists at the Federal University of Santa Catarina to develop a formula, carry out taste tests, market research, and produce a label design with a Brazilian identity.

Thus, Brasil Mate was born, the company which in 2015 launched the Waker brand - a drink which contains two famous Brazilian biodiversity ingredients: 'mate', from the Atlantic Forest, obtained through a special toasting process to retain its caffeine, and guaraná from the Amazon. To move forward in the market, a logistics operation was put in place, in which the extract is made in Joinville (SC) for packaging in Tietê (SP), and stored in Guarulhos (SP).

With a production of 300,000 cans per year, sold in Rio de Janeiro, São Paulo, Brasília, Santa Catarina, and the Northeast, the target is the so-called 'daytime consumer' who seeks a stimulant to improve performance and increase energy for working, studying, or doing sports. "Natural caffeine is slowly absorbed by the body, unlike synthetic stimulants", explains Martinelli, noting that it is a fiercely competitive sector with over 100 brands. To stand out for their natural approach, low calorie count, and flavour is a strategic move, as well as seeking to export, which will be initiated via e-commerce.

## The Stamp of Nature

At the back of a shop in the charming neighbourhood of Vila Madalena, in São Paulo, trousers hanging on a clothesline in front of the head office are ready for dyeing. The clothing has just been put through a rustic manual washing process, performed outdoors in full view of customers. Like an alchemy ritual, fabrics are submerged in two large cauldrons of boiling water containing natural products which remove impurities and fix the plant pigments which will be added to the bubbling contents in the next stage, with wooden spoons. Next door, in the studio, a group of seamstresses put the finishing touches on these high quality garments, whose prints are 'borrowed' from the forest.



The raw material, stored in the building, includes leaves, fibres, husks, and seeds from species such as the catuaba, urucum, pomegranate, acacia, and pau-brasil wood. They are the source of the colours and exclusive patterns of the products on display, sold by dedicated professionals who know the stories behind them - as well as the social, cultural, and environmental references on the clothing tags. On the racks, one of the highlights you can find are silk dresses with 'botanical prints' - made via a delicate process of, yes, actually compressing leaves between layers of fabric. There are also 'leather' shoes made from banana tree fibre and ceramic necklaces from the Jequitinhonha Valley (MG).

To put natural colours and patterns in fashion, based on renewable input and without the use of toxic chemicals, is the heart and soul of the Flavia Aranha brand. To trace the origin of the raw materials and include small producers, seeking out dyes which are a part of family tradition, are pillars of the business. "The market demands new values", says Aranha, recalling that she decided to embark on a new path because the glamour of the conventional fashion industry wasn't compatible with her concepts and principles. Founded in 2008, the company seeks to innovate in the natural dyeing of fabrics via strategies which aim to form a humanised supply network, valuing all links in the productive chain and stimulating a conscientious fashion ecosystem.



Botanical prints lend fashion a stylish charm

New features and products, such as a red extracted from cajuru, the new star plant of the Amazon, and colourings with UV ray absorption properties, are always in conjoined to a social factor and interaction with communities - as is the case in Urucua (MG), where the brand is seeking inspiration for future launches and supplies technical and commercial support. All signs show that things are going the right way: in 2016, revenue hit R\$ 2.5 million, 26% more than in 2015.

"When we realised that foreign markets valued this type of differentiation more than the Brazilian market, we decided to strengthen the concept internally, and then move forward abroad", says Aranha. Taking part in ICV Global was key: "we planned to invest in technology to make basic products and sell volume, but we changed our strategy and are now prioritising the European luxury market, adding value with Brazilian diversity and cultural richness."

## Snacks Full of Goodness

The desire to find an alternative to a stressful job in the financial market coupled with a habit of reading food labels to find out what was in them prompted entrepreneur André Melman to open a business which started as a platform for gastronomic experiences and food education, and culminated in the sale of healthy hand-prepared snacks.

In addition to its products being of natural origin and produced by family farms, free from chemical components and hydrogenated fat, Farofa.la also has an online subscription service for monthly delivery of kits with ten varieties in each box. "Our trade mark is the curation and development of great tasting products, approved by tests, shattering the myth that natural food is tasteless", says Melman.

The products permit healthy eating habits in a practical and easy way. In 2016, 200,000 units were sold, of a total of 25 types of snacks, including new products such as the in natura beetroot mix with manioc and rice flour - all roasted, without gluten or lactose. Some add functional factors, such as a high-energy option with dates, banana, and peanuts, for doing sports.

The plan for 2017 is to double in size through new business partnerships, including an airline company for in-flight sales: "The current priority is to look after our supply chain, so that they can grow with us", says Melman, for whom export is a future step, strengthened by the company's participation in ICV Global.

## Sensual Creations

When she left her job at a multinational company and used the severance money to start an esoteric products business with her husband, entrepreneur Raquel da Cruz from São Paulo couldn't imagine the world which awaited her. "It was like going through the turnstile on the bus and not being able to turn back", she says.

At the turn of the 2000s, the esoteric and self-help market was at full steam, but over time looking at further options was deemed necessary. From incenses, essential oils, herbs, amulets, and other items for attracting good energy, Feitiços Aromáticos took a strategic step towards diversifying its portfolio, by adding natural and sensual products, such as massage oils and bubble bath.

Of the 400 products in the portfolio, the flagship is a personal lubricant for women - 'Segredinho' (or 'little secret'), which shares the spotlight with another big seller, the 'Total Chock' arousal gel, made with jambu extract, an Amazonian plant commonly used in regional cuisine, which has the characteristic of causing a certain tremor of

the lips. "The product had great acceptance in Chile", says Cruz.

Apart from the natural origin of the products and the elimination of toxic chemicals, they are differentiated by addressing social issues too. The location of the factory, in Itaquera, in the East of São Paulo, is an indicator: "From the start, we've aimed to generate local employment and bring other benefits to the region, which has gained an unfair reputation".

After entering the Chilean market and with older sales in Portugal, the company got ready for new incursions abroad by participating in ICV Global. "We rethought the way we were using our sustainability attributes and implemented management procedures which put us on a par with large companies", says Cruz. The aim is to increase the export share of revenue, which reached R\$2.5 million in 2016, with over 500 outlets in Brazil. New products are on the way to achieve this, including the recently launched 'Titanium' - a powerful vasodilator based on catuaba and guaraná extract, designed to improve male performance.



Natural erotic products help conquer foreign markets



## LOCAL DEVELOPMENT

Prioritising the use of local labour, production, and raw materials are among the main items of the so-called 'new economy' based on socio-environmental values, and included among the UN's Sustainable Development Goals (SDGs). This means that the development of low-impact innovations

and income-generating businesses must happen through participatory processes that engage society. The valorisation of fair trade and good relations with communities is pointed out as a strategic factor for the success of businesses and the so-called 'territorial private social investment'.

### Green Social Bioethanol

## Fuelled by Rice

Eduardo Mallmann, a farmer from the South, invested in ethanol microdistilleries as an energy solution for the use of rice leftovers in the field, mobilising partnerships with a view to packaging the technology for transactions in the foreign market. The potential was promising. In Ethiopia, for example, projects in refugee camps would distribute ethanol stoves - there were no trees left in the wild to use for firewood - and the fuel came from Brazil.

The innovation which stood as a differentiation was energy independence, based on the generation of clean energy (compared to a polluter such as coal) from the waste of the community's own agricultural production.

This social appeal motivated Mallmann to also manufacture power generators running on rice-ethanol, granting rural producers greater autonomy. To this end, he brought together a group of experts to set up Green Social Bioethanol, which even had a project for using sugarcane molasses as fuel in Guyana, as well as other projects



New technology ran into difficulties in the ethanol market

in Nigeria, which in the end didn't work due to the political crisis in the country.

"That was when we decided to prioritise doing business with companies and not depend on governments, and ICV Global fit in perfectly at the moment of the turnaround", says Gaston Kremer, international relations specialist of the company team. The export plan seemed perfect, given the prestige Brazil had earned for the use of sugarcane ethanol. Management and commercial difficulties arose. To add to this, company ventures in Sudan and Nigeria were hit by the exchange rate fluctuation. The business, dependent on intensive capital, ran out of steam and was shut down. "The market wants solutions, but in many cases, it's not ready for them".

## Carbon Benefits in the Brazilian Sertão

After reading a scientific article which named the Caatinga as the tropical biome which captures the most carbon from the atmosphere, Godofredo Nadler, from Pernambuco, had an insight: to create a business model which would remunerate rural producers in exchange for conserving native vegetation as a form of offsetting or neutralising greenhouse gas emissions from companies or people distant from the region.

With the advent of the Rural Environmental Register (Cadastro Ambiental Rural - CAR) established by the Forest Code, which requires that properties define a reserve area and stipulate their environmental liabilities, Nadler got his idea off the ground and in 2014 set up Cooperflorest, focusing on 'adopting' native forests in the semiarid Northeastern region. A carbon balance methodology was developed specifically for the region, based on models from the Intergovernmental Panel on Climate Change (IPCC). According to Nadler, there are 3 million hectares eligible for emissions compensation in the Caatinga, with a potential to generate R\$ 2.7 billion per year of income for small local producers.

In addition to serving a social function,

"the region is the cheapest in terms of carbon compensation", says Nadler, adding that "the cost of conservation is much lower than planting trees." The business retains 20% of donations for covering operational costs and remunerating professionals. The idea is to grow the scale of benefits through contracts abroad.

Up until 2017, seven donation contracts have been signed, covering 4,000 hectares in 22 small properties - some of them targets for deforestation by ceramics factories seeking a supply of firewood. "During the dry season, carbon offset money is the way out", says producer Francisco Cabral, who goes by the nickname 'Bolinha', owner of 27 hectares in the municipality of São João do Jaguaribe (CE). At the site, an oasis in the midst of the sertão, neighbour George Feitosa swapped cattlebreeding for planting rice, corn, and beans, and adopted good practice to preserve the native vegetation which guarantees him R\$1,000 per year for carbon offsetting. "If you deforest, it become desert", says the producer, proudly showing the lush cumaru trees by the side of the pond.



## Way Beyond Cachaça

Rumour has it that in Pernambuco there are two rivers - the Beberibe and the Capibaribe - which join to form the Atlantic Ocean. Joking aside, it is natural for people from the land of Chico Science and Luiz Gonzaga to have a slightly inflated ego, being surrounded by so much natural beauty and cultural heritage. Conversely, reasons to be proud are not lacking when it comes to the sugarcane cycle.

The prime example of this lies in the vicinity of Chã Grande (PE), 85 km from Recife, where there is a plaque which reads: "Welcome to the first solar-powered sugar cane mill in Brazil".

This is where Sanhaçu is produced - "the first certified organic cachaça of Pernambuco". At the entrance to the property, in addition to agroecological products, there is a showroom featuring highlights produced in the still, with a special place for the award-winning cachaça aged in barrels made of umburana, an aromatic wood typical of tropical regions. In 2016, the mill produced 20,000 litres of different varieties, and aims to double production by 2020, with foreign market sales making up half of the revenue. "ICV Global has showed us the need for finding paths to gain scale", says entrepreneur Oto Barreto.

To move forward abroad, differentiation goes beyond the quality and taste of the cachaça. "The focus is on the sugar mill as a whole acting as a showcase for environmental and educational practices, including about conscious consumption", says Barreto. Accessible via the BR 232



Oto Barreto mobilizes local producers for sustainable practices

route which joins Recife and Caruaru and several other cities, the Sanhaçu plant receives close to 8,000 visitors per year, and today, tourism both rural and pedagogical account for a third of company revenue, a total of R\$360,000 per year. Each visitor pays a R\$12 entrance fee which includes tasting (for over 18s), and a visit to the factory and cane fields.

From the reuse of agroindustrial waste as fuel for the boilers, compost, and fertiliser, to controlled water use, the mill is like an open air laboratory. On the trail, the fresh, humid environment attracts a variety of birds, all of which shows what is behind the final product. "You have to see the cachaça with different eyes".

## What's in the cup?

Until very recently, the prestige of the sacred daily coffee was in the taste, aroma, acidity, and other barometers of quality. These are all still valid, of course, but there is a new factor to be considered at the moment of purchase: sustainable sourcing.

“These value are not often apparent, and may materialise in the long term, but can already bring market gains abroad”, says Miriam Monteiro de Aguiar, who is the sixth generation of the family which founded Fazenda Cachoeira, in Santo Antônio do Amparo, located in the Campos das Vertentes region, Southern Minas Gerais. At the beginning of the 20th century, coffee replace cattle on the farm - and has stood out for its quality ever since.

When she was starting out, Aguiar, who studied sociology, ran educational and rural development projects with local workers, transforming the 200-year-old house into a lodge, and started the organic farming of specialty coffee, on two hectares, which she says was “already a passion at that time”.

When she took over activities during the estate succession period, one of the first things she did was to expand organic production, which today now occupies 20 hectares, with IBD certification. Conventional coffee, grown via low impact practices, spans 39 hectares. There is an emphasis on the holistic notion of a biologically balanced ‘living soil’. In addition to these values, the business has added gender as a new attribute for recognition, with ‘coffee produced by women’. Carving out market space and visibility can result in



**“Women of coffee”:** gender is a differentiation for export

better prices, to be converted into higher remuneration for women’s work, which is already being supported through barista training and tasting courses.

With sales of 450 sacks per harvest, the organic coffee - 50% of the total - is exported to the US and Japan. The strategy for the next three years, according to Aguiar, is to increase production and make long-term partnerships with local producers, with the aim of advancing in the European market. “The challenge is not about cutting costs, but adding value”, says Aguiar, who adopted a new marketing positioning thanks to her experience with ICV Global.

## The Power of Mate

Paraná traditions of cultivation, processing, and use of medicinal plants, a reflection of European colonisation, has let to the discovery of promising niches for incursion in foreign markets. Heide, a small factory based in Pinhais (PR), for example, produces ingredients from vegetable extracts, mainly for the production of food and cosmetics. Their flagship product is the mate herb, with an innovation allowing them to meet specific customer demands for the final product. “The basis of it is creativity, and the capacity to put ideas into practice”, says pharmacist Ana Carolina Heemann.

After filing a patent to supply natural ingredients to Boticário, a cosmetics producer in the region, their first export opportunity arose, in 2005, to China, involving a camomile product. Until, after reformulating their strategy, the company put greater emphasis on innovation projects subsidised by government institutions. The objective: to develop new raw material from the mate herb as a functional food, thus contributing to greater valorisation and improvement of the production chain related to the plant. “The biotechnology project aimed to take advantage of its energy and antioxidant properties, going far beyond the chimarrão (beverage)”, says Heemann.

The technological challenge was to find a formula which would guarantee standardisation, in order to create a product stable enough for industrial use while keeping its beneficial qualities. With

this challenge overcome, Heide today has a range of 90 products obtained from 40 species of herb, both native and non-native. “We value what is ours and cultivated locally,” says Heemann. For her, “small companies have to act differently and need a secure supply in order to survive”. As a feature, ingredients for supply can be customised to industry specifications.

With six employees and 90 national clients, the company has made improvements to its website and design, and is preparing to enter the American market, with possibilities of also entering the German, Japanese, and Colombian markets. “Risks need to be calculated, but if we don’t leave our corner, nothing will happen”.



**Rodrigo and Ana Carolina formulate ingredients for the cosmetics industry**



## AGRIBUSINESS

Agribusiness represented 23% of Brazilian Gross Domestic Product (GDP) in 2016, and is among the main sectors exporting commodities. Its importance to the economy is proportional to the social and environmental challenges it faces in the context of climate change and the transition to a new development model, capable of reconciling production gains with the conservation of vital resources such as water. Within this scenario, business opportunities arise involving solutions which go from product traceability,

such as meat, to support for productive practices such as crop-livestock-forest integration. In parallel, new perspectives have opened on the development of the forest restoration chain, as well as the implementation of the Rural Environmental Registry, as a solution to environmental liabilities - which are indispensable to Brazilian climate commitments. Equally promising is the demand for compliance of agricultural products not aligned with sustainability standards on behalf of external markets.

### Fornari

## News From the Farms

On the living room wall, a coat of arms is indicative of a surname from overseas. Next to it, on a small corner table, a chessboard evinces strategic thinking, and opposite, in a more prominent place, a curiously empty frame. Who knows what scenery will fill that space one day? A world map showing export routes? Questions hang in the air. After all, what happens when a woman from a traditional Italian family is required to drop her dance classes and take charge of the greasy old truck repair shop of her father and brothers?

Innovation is the answer. To begin with, a solution demanded by agribusiness giants: equipment for disinfecting trucks before they access farms, as a method of control

during the outbreak of bird flu in 2005. "When I heard of the opportunity, I could almost hear the coins falling into the cash register and I called the old family plumber to come up with an efficient alternative, which would be unprecedented", says Luciane Piovezan, owner of Fornari, in Concordia (SC).

The region is a hub for poultry and pork processing, increasingly subjected to environmental and sanitary requirements which favour innovation. Always on the lookout for opportunities, the company pounced again with the invention of a machine designed to disinfect fertile eggs for chick production. With a differentiation: the banishing of formaldehyde, a



Luciane developed sanitary solutions to increase productivity

carcinogenic product which is prohibited but still used irregularly with health risks and productivity loss on farms.

"After tests with prototypes designed in partnership with a former client of the workshop, we filed a patent and invested in adapting the design, hardware, and software to open an office in Georgia (US) and, in June, enter the American market, the biggest chicken producers in the world", says Piovezan. According to the FDA, a US environmental agency, 1.7 billion of the 10.3 billion eggs incubated in 2015 were lost to contamination. Foreign sales included, the aim is to grow by 50%, reaching a turnover of around R\$7.5 million per year.

After taking part in ICV Global, expectations grew. Among the innovations

which are suitable for external markets is the chlorine doser, developed by the company in response to demands from the European Union for water treatment in the production processes for importing pork products. "The problem was that the pigs became resistant to quenching their thirst because of the taste of chlorine, which had an impact on productivity", says Piovezan, open to new ideas which often arrive by chance. A difficult drying solution for an egg purification system occurred to her when blow-drying her daughter's hair before going to a party. A list of new developments includes 14 items focusing on ecoefficiency, such as machines which separate waste that contaminates aquifers, and systems which help lengthen the shelf-life of eggs on supermarket shelves.

## Fertility Recycled

In the green economy, an environmental problem for one can be the income source of another who finds and replicates a solution, with wins for everybody. This is the logic behind Biovida (BA), the company of Luis Eduardo Magalhães, specialised in reusing fish waste to produce organic fertilisers which improve productivity in crops, especially soya, eliminating the need for chemicals. “For the current harvest, this input enabled us to produce five more sacks per hectare”, says Rafael Teixeira, who three years ago joined the business started by his father, Luiz Carlos, who specialises in soil nutrition and bioactivation.

Economic results have helped the dissemination of the more sustainable option. The company, which has 15 employees, produces 140,000 litres of liquid fertiliser and 60,000 kg of solids per year, sold to rural properties in Bahia, Tocantins, Espírito Santo and Pará. In addition to expanding to other states, the plan is to begin exporting to Paraguay, where the product has been tested and approved, with the prospect of reaching Colombia and Bolivia.

“Participating in ICV Global has given us the motivation to open new horizons, including obtaining the basic documentation required for making sales abroad, and being careful with the presentation of the product”, says Teixeira, recalling that strategies for foreign sales, where the sustainability aspect is valued, are different to those used in Brazil: “the pitch here is not about the environment but productivity, the results in the field.”

## Soy Source

The applications of polyurethane foam, originally derived from petroleum products, provide technical benefits to the automotive, furniture, agricultural, and civil construction sectors, in addition to its traditional use in refrigeration equipment. There is also a strategic differentiation which is environmental, embraced by EDB Polióis Vegetais, from Curitiba (PR), which manufactures the material using a renewable base content, soybean oil.

“Buyers are more and more interested in out-of-the-box solutions for the challenges of today’s world,” says chief executive Ricardo Tatesuzi. Solutions which enable conservation, resource efficiency, better performance, and minimisation of waste.

With a production of 3,000 tons per year, the company occupies a new niche by supplying a basic input from a renewable source for a large variety of products - from helmets to car parts and mattresses. As well as thermal and acoustic isolation and structural uses in construction, it is also used in agriculture to make fertiliser adhere to seeds.

Tatesuzi explains that the plan is to scale up in volume in order to enter the foreign market, including prospecting for potential foreign clients for the sale of technology, particularly Germany, Colombia, and China, in line with strategies formulated throughout training activities with ICV Global.

## A Healthy Herd

When called upon to eradicate a tick infestation which was affecting thousands of head of cattle on a farm in Mato Grosso do Sul, veterinary doctors Mônica de Souza and Marco Antônio Cucco had a business idea: the production of homeopathic medicine for use with livestock, in addition to its applications in their pet clinic, located in the city.

Mixing homeopathic products with salt and cattle feed wasn’t anything new, and any eventual scepticism came up against a reality: “the growing resistance in animals to antibiotics and other conventional drugs”, says Souza, who from the very beginning invested in the scientific differentiation of Sigo Homeopatia, in Campo Grande (MS). According to Souza, veterinary homeopathy has grown by around 15% yearly in the last decade, due to problems with the efficiency of traditional treatment.

The use of homeopathic products instead of chemicals avoids the accumulation of toxic substances in derivatives such as meat and milk, which is beneficial to human wellbeing. Furthermore, stimulating the animal’s biological equilibrium and defences against diseases also generates economic gains for farms. “Calves undergoing a preventive homeopathy treatment against diarrhoea weigh 23kg more when being weaned”, says Souza, whose line of care products currently reaches 5 million animals per month in the fields.

In addition to exports of pet products, already underway, sales to herds in Central America, Paraguay, and Bolivia are expected to start in 2017, increasing revenue by 35% compared to 2016. A new industrial plant has been projected to support expansion, in which ICV Global was a watershed: “especially with regard to brand planning and protection”.



Homeopathy helps increase the profitability of livestock



## HEALTH / WELLBEING

The search for innovation and business models with a positive social impact for improving health and wellbeing are intrinsically linked to international guidelines regarding sustainability. The list of opportunities is varied, ranging from solutions which promote natural and healthy eating to facilitating access to preventive medicine. It also includes the development of new

materials and hospital equipment which is more efficient, affordable, and environmentally friendly, as well as advances made in biotechnology to improve diagnostics. Sustainable development is also tasked with investing in technologies which reduce causes of illness, such as pollution, and improve quality of life in cities, improving accessibility and urban mobility.

### Kit Livre

## Top Mobility

The idea of being able to transform any wheelchair into a motorised tricycle came to Júlio Oliveto when he was taking his Masters in Mechanical Engineering at the São Paulo State University (Unesp). It became a business when he, along with his twin brother Lúcio, decided to seek new investment for their forklift rental company.

The purpose was to contribute to the quality of life of people with reduced mobility. As such, after the success of experimental models at invention fairs, the pair filed a patent and won R\$100,000 from an entrepreneurship competition to produce the first batch and set up the company - Kit Livre, based in São José dos Campos (SP).

The launch took place in April 2015, at the assistive technology sector fair held in São Paulo, and by the end of the year

they had distributed 76 kits to 12 states in Brazil. Partnerships with potential users for validation were strategic for building confidence in the innovation, which requires coupling equipment to the wheelchair. In 2016, the business expanded with direct sales channels and a strong social media presence, as well as different models and accessories, such as special handlebars adapted for users. In the quest for safety, design and comfort, a 'radical' sports line appeared, as well as other products. Among them is the handbike, which allows the user to 'pedal' using their hands, and the flex kit, which is moved by pedal and battery-powered motor. More exclusive versions come with multimedia kits, a phone charger, and music via bluetooth.

With a turnover of R\$1.4 million in 2016, more than threefold that of the previous

year, the expectation is to reach R\$4 million in 2017, which will see the first Kit Livre store open in São Paulo - a move made possible with help from an investment fund. The plan, in three years, is to begin exporting regularly to South American countries and eventually the US. The use of clean energy is a further differentiation, in addition to improved mobility. "We first want to strengthen the brand within the domestic market through a variety of solutions and customisation for clients with different mobility impairments", says Lúcio Oliveto.

There are nearly 4 million wheelchair users in Brazil, according to the IBGE. Today, 400 are users of the company's equipment. "The trend is for society to see more and more of these people", says Lúcio, adding:

"we're creating a Bhutan Index to measure the happiness of product users in São Paulo for mobility in leisure and work."

The company showroom has a display of the different versions of tricycles, going back to the first prototypes. In the office, there is a chart which reads: "Canvas - value proposition". The lists of objectives and measures for attaining them is the outcome of a training process which began in 2013 and culminated with ICV Global, accrediting Kit Livre to enter the foreign market and take part in big competitions such as The Chivas Venture, which awards \$1 million for innovations. At the end of the chart, a dream: "We believe that in five years our solutions can create a society where wheelchair users can be fully integrated."



Innovations open up horizons for people with limited mobility

## Nectar Of The Gods

There is an unmistakable smell of lemongrass. It makes one curious as to what products are manufactured in these facilities. Do you drink or eat them? Apply them to your skin or hair? In fact, this is a site for the research and production of a little bit of everything - from a powerful insect repellent to deliciously refreshing drinks, including creams for treating burns. However, the basis of the portfolio of BioLogicus, based in Recife, which is carefully contained in all its creations, are not exactly essential oils but are at first glance imperceptible: probiotics. These natural living micro-organisms help the body maintain a healthy balance and prevent illness.

Its use for health benefits is old. In the Caucasus, a region in Eastern Europe where the world's longest-living population lives alongside the Himalayan people, a probiotics-based diet is fairly common, harking back to the time peasants used sheepskin casks to store milk. At the bottom of these containers micrograins formed, called 'kefir', which meant 'feeling good'. In the Arab world it is known as 'Mohammed's gift', for it's one thousand and one uses for health.

"We decided to scientifically explain these effects while we were carrying out doctoral research for reusing wine in the Andalusia region in the 90s, and met somebody who cultivated kefir at home, a tradition from their time living in Israel", says entrepreneur Djalma Marques. Together with his wife, Fátima Fonseca, also a scientist, they collected samples and verified the existence of over 70 types of living organisms. According to Marques, traditional industrialised probiotic products derived from milk use only one or two species - which motivated them to innovate. The greatest challenge they met initially was to develop a method through which they could use the maximum possible number of micro-organisms, reproduced on a large scale, making the process stable and economically viable.

Djalma and Fátima turn good microorganisms into business



Their big leap came after filing the patent: the adaptation of the lactobacilli for use in fruit juices and soft drinks without synthetic chemicals, today the business's flagship, offered in special flavours such as 'lemon and plum'. As a form of overcoming obstacles relating to logistics and refrigeration, a technology was developed to transform the probiotics into powder. From then on, new developments came one after the other, many shelved while awaiting partnerships to reach the market: organic brown rice, cereal bars, and numerous cosmetics, partly developed with R\$3.5 million of public funds from Finep. A recent addition to this arsenal is Kefir Real, a food supplement capsule containing vitamin D3.

In 2017, based on this potential, the company built an extension to house a showroom and new equipment. The objective: to increase production and to export, relying on the appeal of healthy and balanced living, a strategy which also required improvements in packaging via Apex Brasil's Design Export project. In addition, taking part in ICV Global helped in the implementation of new operational procedures. "In the current economic climate, we need greater visibility and to get out of the university bubble, adapting creation to management", says Marques.

## Value Curtains

Beatriz Cricci, former executive of a shipping company, discovered her talent when her father built a glass shower box for her beach house, and she decided to make the shower curtain herself. It was cheaper, and looked nicer. She produced six more, for friends, and started selling them to shops, until one day a client asked for new models to exhibit at Expo Hotel, the main hotel sector fair, in exchange for a space at the event. From then on, she never looked back.

With the creation of BR Goods in 2009, Cricci opened a new front and entered the healthcare market with innovative products, differentiated by the production of flame-retardant fabrics using polymers containing special fibres and nanotechnology, among other features. Production includes hospital bed dividers, angle brackets, handrails, and window blinds which can be found in over 900 establishments.

In addition to monitoring the carbon footprint of their divider curtain line, the company has a line of products manufactured using sustainable materials, without polybutylene terephthalate (PBT) and polyvinyl chloride (PVC). These attributes lend a boost to export plans, which have been part of the business from the beginning, with sporadic sales to Portugal and Saudi Arabia. In 2015, upon receiving technical support from PEIEX, promoted by Apex-Brasil, BR Goods hired a foreign trade specialist, creating a positive impact on financial results.

A year later, with ICV Global, "we developed our marketing strategy, business management, and product presentation", says Cricci, happy with the 66% growth achieved in 2016, reaching revenues in excess of R\$6 million across various segments. With distributors in Saudi Arabia, the US, and Latin America, the target is for a 10% share of revenue to come from exports in 2017.

Beatriz exports hospital bed dividers with innovation as a differentiation



## On The Superbike Trail

Whoever wishes to prosper by making differentiated accessories for bikes needs an appreciation for their greatest asset: contact with nature, protecting fauna, flora, mountains, landscapes and everything which makes them so attractive. No wonder then, that PSS, based in São José dos Campos (SP), a manufacturer of high-tech parts for biking, is focused on a more efficient and diversified harnessing of the off-road experience.

Everything started with a project by an engineer who quit the aeronautical industry to make bicycle suspensions. After acting as a supplier for Caloi, the target became high value-added models, with mechanisms for improved performance and lightness. The Proshock brand currently offers a line of suspension systems differentiated by the degree of sophistication and complexity of functions they offer the cyclist according to riding habits, style, and even terrain and obstacle types.

The product, which is aluminium-based, is 95% recyclable. To encourage reuse, the company will take your old suspension and give you a discount on the purchase of a new one. "We depend on the preserved environment" says entrepreneur César Tonoli. In 2013, the business diversified through the production of Vemex wheelchair tricycles for wheelchair users, made for sports - "which allowed those users to feel the wind on their faces once again."

With a production of 12,000 suspensions per year, the company



Suspension technology improves performance

has reworked their marketing plan and prospected markets with the help of ICV Global tools, so that in future exports correspond to between 30% and 50% of total revenue, from a perspective of continuity. There is no lack of potential. "The market is eager for cutting-edge developments."

## Improving the Diagnosis

The world conspired for Eliezer Dias and Carolina Fagundes to create an innovative business with optimum potential for both finance and the quality of life and wellbeing of the population. Dias, a graphic designer, was searching for something new to satisfy his creative urges. Fagundes, a social communicator, dreamt of a career change: to work in hospitals by training in surgical instrumentation. Paths intersected and culminated in their current activity, which began to take shape when Fagundes' mother was diagnosed with colorectal cancer and required frequent stool examinations for a better chance of survival.

At the time, they encountered the difficulty and risks of the collection and transport of the material for laboratory examination. To solve the problem, they bought a common plastic bag, made a hole in one of its sides, and in doing so invented a new, immediately patented, product: the ColOff. After validation from users, doctors,

and labs, the product was supplied to the Albert Einstein Hospital in São Paulo, in 2010. "Since the 1920s, attempts have been made to create devices to facilitate collection from the toilet bowl, and we arrived at a solution which is simple and practical" says Dias.

With their own team packing the ready-cut and folded plastic by the supplier, the company offers the product in the format of a kit and a sachet. Backed by the Hospital das Clínicas and the Brazilian Society of Clinical Analysis, this solution allows for greater efficiency and lower risk of diagnosis failures. It is estimated that 70% of these failures are associated to mishandling at collection.

Over the first two years, the company produced 130,000 units, and in 2014 began exporting to Australia and New Zealand - as well as entering the US market after visiting California as a prize from an innovation competition. With external sales, which are more advantageous in terms of price, the target is hospital and clinic use, with added environmental differentiation, such as footprint measurement via the GHG Protocol. To progress further, the goal is to double production by the end of 2017, as long as progress is also made domestically. Currently, the SUS performs 17 million stool tests per year in Brazil, with another 29 million done through health insurance plans. "There will be a large field to explore when there is a more preventive medicine culture", says Dias.



Eliezer and Carolina have an eye on the American market



# Inspiration For The Future

*Lessons learned help strengthen the leading role of small businesses, increasing gains in sustainability with foreign sales*

It was an immersion in hidden, not always measurable values, which were uncovered by a desire to do good business. A journey to new paradigms, a world yet to be explored. During 18 months, ICV Global mobilised 108 companies from numerous segments of the economy based in almost every region of the country, a representation of Brazil's significant diversity, in an effort to transform socio-environmental solutions into businesses prepared for

the challenge of exporting.

Incorporating workshops on improving management and intercultural dynamics for relations with different markets as well as trade missions abroad, the project resulted in three basic advances: enhancement of the sustainability attributes linked to the product or service; strengthening of business commitment to the issue; and the creation of sales pitches aligned with the demands

of target markets, which together form an export strategy with these differentiations.

Although for some small companies taking part in the project the idea of sustainability was already present at the root of business strategy, for others, expressions such as 'traceability', 'value chain', and 'socio-environmental attributes' were something new and thought-provoking. These were concepts which, along the way, inspired a broader view of business, which translated as new partnerships and market opportunities - an invaluable seed to cultivating differentiated standards within the overall landscape of SMEs and their productive and commercial challenges, both for conquering domestic spaces as well as entering their products and services into the Brazilian export agenda.

The scope of benefits increases when the economic-financial aspect is intrinsically related to solutions with a positive impact on society, with the dissemination of concepts and practices aligned to the socio-environmental dilemmas the planet faces today. "Companies, with their demand for raw materials and power of influence over consumption, play a fundamental role within this context", says Paulo Branco, vice-coordinator of the Centre for Sustainability Studies (GVces), at FGV-Eaes. "The transition to a low-carbon economy opens up opportunities, and those

who are better prepared will thrive in the new competitive environment."

However, for those advantages to prevail, public policy as well as other strategies are needed to transform the business environment in favour of those who have invested and internalised sustainability, but who still face competitive risks in a scenario hostile to new practices. One of the challenges, for example, is the issue with tariffs, which in most cases are unfavourable to products with higher added value for export, which today consists mainly of commodities. In terms of technical support to small business aiming to do foreign trade, positive efforts have been made within the institutional framework of the federal government. Such is the case of the cooperation between Apex-Brasil and Sebrae in order to enhance access to market research and other tools which assist exports, such as supporting business management in its specificities.

According to Branco, although these strategies are still peripheral, the market will begin to work on the basis of "demand from real needs, not forged by marketing" - that is, from the search for products and services which minimise damage to the environment and life conditions. Apart from the economic interest in new market spaces, behind the movement there is a worrying scientific fact: the use of natural resources by

the world's population is 50% greater than the planet's capacity to renew them, according to the Global Footprint Network, produced by the WWF.

ICV Global, in both of its editions, has strengthened companies to help meet these new demands from society, on a planet with limited resources. "Having sustainability as a business helps to cultivate it in the social medium," adds Branco.

### Change of Scale

While Cycle 1 of ICV Global was a pilot, negotiating a terrain of innovations with the challenge of taking first steps towards the development of an unprecedented training methodology, during Cycle 2 the project was consolidated. Empowered by its initial experience, the project expanded throughout the Brazilian territory and models of partnership for greater results. The next steps will have the objective of reaching a larger scale, increasing the dimension of gains, and replicating sustainable solutions in the market, capable of inspiring new business practices, government action, and public policy. To this end, the project will build indicators as way of identifying difficulties and paths with a greater potential for success for small businesses from different sectors, integrating global chains in the context of a new economy based on socio-environmental principles.

In addition, once greater diversity has been achieved, ICV Global will deepen the debate on strategic issues, such as business-to-business (B2B) and business-to-consumer (B2C) models, to better tailor solutions built by companies. Also envisaged is a greater alignment between the productive sectors selected for the project, and those which in Brazil are more representative for channeling exports and attracting foreign investment - a synergy which means a greater potential for opportunities, including opportunities for participating in other Apex-Brasil programs, maximising chances in foreign trade.

Promoting the social leadership of small companies as protagonists capable of multiplying good practice in their territories and influencing others to follow the path of sustainability is an important legacy of ICV Global, and is also connected to emerging international trends which can push for changes in production and lend weight to the search for innovation.

### Perspectives On Climate Change

The Paris Agreement on Climate Change, held at the end of 2015 to reduce greenhouse gas emissions through sustainable development set targets to limit the increase of global average temperatures to 2°C above pre-industrial levels. By ratifying

the accord in 2016, Brazil took on an official commitment to reduce emissions by 37% by 2025, in comparison to 2005, and by 43% by 2030. To this end, the country has committed to restoring 12 million hectares of forest, as well as achieving an estimated 45% share of renewable energy in the composition of the energy matrix by 2030.

These targets open up opportunities for solutions with potential in both domestic and foreign markets, in the trail of public policy, incentives, and regulatory and self-regulatory measures which may become trade barriers in the climate context. For specialists, it is a point of no return - a sign which was reinforced when large US companies reaffirmed their climate commitments after US president Donald Trump announced the withdrawal of the United States from the agreement.

For Steven Stone, Chief of the UN Environment's Economy and Trade Branch (ETB), "the changes are inevitable". For better, in the case of those who anticipate and occupy spaces in the market; or worse, in the case of high investment for repairing environmental damage and rebuilding an image in the presence of society.

"This is a profound dilemma because the predominant paradigm of social and economic development remains largely oblivious to the risk of human-induced environmental disasters at continental to planetary scales", says



the study entitled "Planetary Boundaries: Exploring the Safe Operating Space for Humanity", published by the Stockholm Resilience Centre in Sweden.

In fact, environmental issues such as the impact of climate change and the scarcity of basic resources for production and quality of life, such as water, has mobilised international organizations, NGOs, education and research centres, government from different spheres, and citizens concerned about the future of our planet. In parallel, and of no less importance as a basis for sustainability, are the numerous social challenges faced by humanity at this current moment, such as the need for economic inclusion and the reduction of inequality of access to vital resources.

## On The Road To Sustainable Development

As such, the business world, driven by large corporations, has begun to incorporate the 17 Sustainable Development Goals (SDGs), established in 2015 by the UN, with environmental, social, and economic targets set for 2030. The process of adaptation, which will influence different markets, will possibly create niches for innovation in terms of positive socio-environmental impact. Within this frame, the SDGs should be adopted with a focus on the continuity of ICV Global

as a reference tool for the insertion of this differentiation into the value chains of small Brazilian businesses seeking to progress in the foreign market and within the green and inclusive economy.

It can be a path to overcoming the difficulties of economic crises. According to a study entitled 'Better Business, Better World', by the Business & Sustainable Development Commission, which brings together over 35 CEOs and civil society leaders, sustainable business models in the energy sector, cities, food, and health and wellbeing could be worth \$12 trillion and gener-

ate about 380 million jobs in the world per year by 2030. The paper cautions that these opportunities will only happen with the SDGs at the centre of global economic strategy, with a "significant change in business and investment agendas."

For example, there is a need to generate energy and double food production for a global population which will reach 9 billion inhabitants by 2050, with two thirds living in urban settlements, according to UN data. To reduce risks to business, global corporations are seeking solutions which can be presented by small companies as good opportunities, as long as they're on solid foundations, such as more efficient management through the use of tools for measuring positive and negative impact, and network operations. The urgency of sustainability is tied to the collaborative logic of innovation, doing away with rules which hold back solutions which are important to society as a whole. Aspiring, choosing, discovering, developing, accelerating, climbing, expanding, and mobilising are the most important verbs within the vocabulary of innovation, according to a consultancy study by McKinsey and global sector leaders.

Thus, the contribution of micro and small businesses can be strategic to successfully innovating on the basis of new models favoured by the impressive pace of change in the digital age. However, the size of the economy and

significant stocks of natural resources warrant a better place in the innovation and sustainability ranking. Brazil currently occupies the 69th position in the Global Innovation Index 2017, a global assessment developed by the Business School for the World based on dozens of indicators.

New concepts and changes in business behaviour, cultivated by ICV Global contribute to a more positive scenario. Coordinated action and network operations can bring light to the innovative entrepreneurship Brazil needs to do business in competitive markets which demand products and services differentiated by sustainability. Due to positive results, the project's methodology may be replicated in other parts of the world, such as Africa, via the International Trade Centre (ITC). In 2016, ICV Global was a finalist for an award promoted by the ITC in recognition of the best projects developed by government export agencies - a credential which may open room for international investment in conjunction with Apex-Brasil.

The expectation is that the knowledge generated during the project's first two cycles, plus the good performance of the participating companies serve as a reference for further progress. The effort to prepare small businesses for the foreign market who are responding to global challenges through innovation is a script for a story which is far from over.



## Evolution Of The Apex-Brasil and GVces Partnership

The second cycle of the ICV Global project opened up a new front for supporting a more strategic insertion of sustainability into Apex-Brasil initiatives. The qualification of extension workers by PEIEX technical staff was a significant contribution, as well as the increased participation of researchers from various GVces areas in events and actions organised by Apex-Brasil.

Working with non-exporting or novice companies (which export sporadically via distributors or agents) requires special preparation to sensitise entrepreneurs, identify target markets, and strengthen their productive, management, and marketing capabilities, with a focus on foreign trade. Once prepared, they are better qualified to compete and thrive in the international market.

It is mostly this company profile for whom Apex-Brasil develops and conducts its projects. The following are among current initiatives being coor-

inated: PEIEX, aforementioned, which focuses on qualifying businesses for export; Design Export, which seeks to improve product design and packaging for export; the Brasil + Produtivo program, which focuses on increasing efficiency and reducing costs in company production processes; 'Mulheres na Exportação', which aims to sensitise, train, and promote international business for companies led by women; and, finally, ICV Global itself.

In order to gauge the progress of this portfolio of initiatives focused on smaller companies in the initial stages of export maturity, results and impact indicators were developed, based on demand from Apex-Brasil, for application to the different methodological phases of ICV Global.

### Case Studies

Throughout the training process conceived by ICV Global, PEIEX, and other

possible contributions from Apex-Brasil, (such as support from the internationalisation area), companies face challenges of various sorts - some of which are more prominent in developing their export strategies with a sustainability differentiation.

With the objective of consolidating knowledge gained from the various trajectories of companies on their paths to export, and to bring to light their achievements over the course of the project, case studies will be formulated in different formats, to serve as both communication pieces and for didactic ends.

### Sustainability and the Global Business Agenda

With a close eye on Brazil's potential to excel in economic and socio-environmental areas, Apex-Brasil has increasingly steered its actions towards

sustainability. Following the debate and negotiations around climate agreements, for example, is key to fostering economic sectors and activities which, in addition to being competitive, promote green economic growth. Likewise, learning about the increasingly rapid transition from self-regulatory to regulatory measures is as strategic as becoming acquainted with public policy in target markets in preparing Brazilian companies for future technical barriers.

Considering the increasing relevance of the issue of sustainability, GVces proposes to continue supporting Apex-Brasil, identifying and sharing knowledge generated on topics and economic sectors relevant to the international business agenda, in order to contribute to Brazil's positioning in the world as a country which exports and attracts investment for innovative sustainable solutions.



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