



PRIVATE AIMS AND SOCIAL GAINS:

# TRIEX – a story of sustainable entrepreneurship

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“Stories about us – how to tell your business narrative”, an initiative of Siemens Stiftung

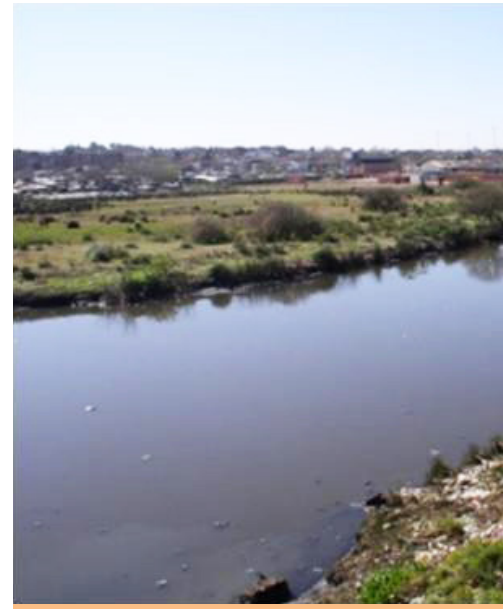
The MA&A project (later renamed TRIEX Gestión de Residuos), launched in 2001, was the result of an initiative developed by Ana Luisa Arocena and Ruben Martínez, a pair of chemists concerned about the lack of proper hazardous waste management in Uruguay. The personal experiences of Ruben in the sales field and Ana in the pharmaceutical industry triggered their interest in providing a solution to the problem from an entrepreneurial point of view.

# Turning theory into action

During the 1990s, Ana worked in a chemical analysis laboratory of an international pharmaceutical industry established in Uruguay. Although her employer used highly specialized technology, the treatment of waste was appalling. She and Ruben became concerned and started to talk about the lack of a service to manage chemical waste. This was also a time of scarce resources and poverty in Uruguay and, absurdly, vitamins were being thrown down the drain and valuable nutrients lost. With the departure of the industry and closing of the laboratory, Ana and Ruben had an additional impetus to seek new employment options and put their ideas into practice.

“I would read all the pharmaceutical catalogs containing guidelines on what could be done with laboratory waste, but ultimately everything was thrown down the drain untreated or almost untreated. We were allowed to do that. And afterwards, I would get frightened, and go and look around the neighborhood to see if the dogs were still alive. Until one day I said no, I don’t want to be complicit in all of this.”

— Ana Luisa Arocena, founder of TRIEX





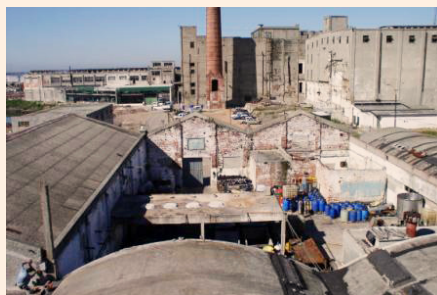
## Opening up a new market

When Ana and Ruben first ventured into the area of hazardous waste, one of the main difficulties was that there was no market for services of this kind, and the conditions for providing them were lacking. So it was necessary to create a path from the artisanal to the industrial, opening up the market. However, the environmental authorities in Montevideo didn't know what to do with the waste, and the infrastructure offered to new entrepreneurs was insecure and inadequate. Ana and Ruben decided to start by changing how they managed waste within their own company and thus setting an example. Despite the technological and financial constraints, they began to raise their own standards as a company at an occupational and environmental level, always with the aspiration of going further. They knew that solving the problem of waste in the country was a hugely ambitious goal and a tremendous challenge, but even talking in these terms gave greater weight to the work of TRIEX as a company.

“We never gave anyone any kind of gift or incentive, but we paid all our taxes and social security contributions, and we cared about the people and their problems. The company took out loans so that employees could buy motorcycles, with the cost deducted from their wages. Things that can be simple for a large company weren't possible for us and those around us,”

— Ana Luisa Arocena, founder of TRIEX

In 2000, when Uruguay was experiencing its first significant socio-environmental conflict, waste management became a more visible issue. There were cases of children with lead in their blood, especially near industrial sites. The mentality of the authorities changed, and governments began to support efforts to improve waste management.



The industrial park, old and new

# Crossing the informal line

The hazardous waste sector is very uneven, not only in terms of technology and levels of investment, but also with regard to maturity and ethical positions. Unifying standards and achieving a real impact is far from easy. In general, the sector is undervalued and hampered by informality: waste management as an activity has been disregarded by the general public as well as government authorities. “This is so much the case that there’s even a US gangster series, *The Sopranos*, where the main character is a waste manager,” Ana observes. In addition to changing processes within their company, Ana and Ruben thought that the most effective way of exerting influence at industry level was through a specialized business chamber. “Other companies in the sector would criticize us, saying we had a ‘big company’ complex,” she recalls, but that did not matter. Ana has devoted time and money from TRIEX to shaping CEGRU and exerting influence on new rules and regulations that will raise quality standards for all companies and for the authorities in the sector. In the chamber, efforts are made to eliminate scope for exploitative or backward attitudes. “Every day at CEGRU is a challenge to ensure that information is distributed and that we’re not complacent,” says Ana. For example, it was negotiated that every member of the chamber must present all its authorizations. To explain the role of TRIEX within the industry, Ana refers to the fable of the frog and the scorpion.

“The Brazilian theologian Leonardo Boff gave me the answer: it’s in my nature to be good, like the frog. Although I know the scorpion will sting me, I also know that I will advance a few steps along my chosen path.”

— Ana Luisa Arocena, founder of TRIEX



Ana Luisa Arocena and Ruben Martínez

# You can't walk alone

The possibility of creating their own jobs was already going through the minds of the two chemists. During one conversation, Ana said to Ruben, "Well, I'd love to have a service like the pharmaceutical catalogs containing guidelines on what could be done with laboratory waste," and Ruben replied, "Why not?" Moreover, both of them knew chemistry and both wanted to know about waste management.

At that time, the family was growing, and the couple decided to devote time to their professional training. Ana trained in environmental sciences, while Ruben learned about enterprises and ventures. "My vision is somewhat different," Ruben comments: "My idea is rather less environmental. I enjoy thinking about that, but on the other hand I'm passionate about performance."



To explain their different visions, Ruben refers to the 'Fábula de los tres hermanos' (Tale of the Three Brothers), a song by Silvio Rodríguez, whose message is that you can't walk alone – you need two people, one to look out for obstacles along the way and another to look ahead to where you want to go. Ana is responsible for the latter aspect, while Ruben takes care of the former: thus they complement each other.

, founder of TRIEX

"In the song 'Tale of the Three Brothers', three brothers are walking along. One is always looking down to see what he's walking on, so he doesn't know where he's going and in the end he doesn't get very far. Another brother looks ahead as he walks, but he stumbles on the stones and falls into holes, so he doesn't get far either. The third brother tries to walk with one eye looking down and the other looking ahead, but he gets cross-eyed and can't even figure out what he's looking at."

— Ruben Martínez, founder of TRIEX

# Kick up a fuss

From the outset, Ana and Ruben decided that they wanted to create an economically viable business within the conventional market, but they were also clear that they wanted to be a different company that provides decent jobs and is environmentally responsible. Profit was not their main motivation, although they started out with almost no money (see Side Story 1. Opening up a new market).

“People see us as weirdoes because we have no car. We travel to work in the El Cerro industrial park by bus each day: we sold our car seven years ago when the company was in financial difficulties, and since then we’ve never needed a car.”

At first, the couple joined forces with other entrepreneurs to manage waste from pharmaceutical products. Conditions at their business premises were precarious and the technology was rudimentary. Differences with these initial partners soon arose in terms of approach, since for Ana and Ruben the premises were merely a means of getting to the next stage; they didn’t want to settle in this structure (see Side Story 2. Crossing the informal line).

Then, in 2001, Ruben and Ana decided to create their own company, MA&A, with the aim of carrying out proper waste management and becoming a model for the sector. Ana soon became the public face of the company, recognizing, as she says, that, “due to my personality, I have a lot more patience than Ruben and I am better at talking to people.” However, they faced a number of difficulties, starting with the company facilities, in an old building allotted to them in an industrial park. “The whole site looked like a battlefield, like Sarajevo: it had been abandoned for years and there was no water or electricity,” Ana recalls.



The old (above) and new buildings (below)



## It's not just about money

For TRIEX, as for many small businesses, financial constraints are a constant problem. "At the start, we were four technicians, friends since university, who were interested in the topic, but none of us had any money," Ana recalls. Fortunately, two further people who liked the idea were able to put up the \$10,000 needed to found MA&A as a public limited company in 2001.

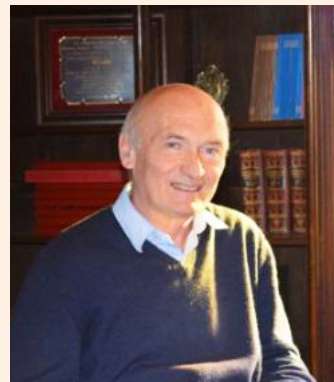
In 2001, the economic and social climate was very difficult for the company and for the country. Ruben had to cut his salary by half. Later, the company secured several microloans before starting to knock on the doors of banks. "We'd reached the end when we went to the banks. We went through all the stages and types of microloan, but then, when we ended up at the Bank of the Republic, it was like 'wow!'" says Ruben. The Bank of the Republic is a state-owned development bank, where Ruben and Ana won the confidence of Andrés, one of the partners, a very ethical, professional and level-headed person, who supported the couple with a letter of credit. They knew him from their time in the business incubator at the Faculty of Chemistry, and he has been a partner of TRIEX from the beginning as a preferred shareholder.

"An angel investor isn't just a financier. The money is smart money. This means that the investor somehow brings other things to the company.

Angel investors must not have a controlling interest in the company – they have to respect the entrepreneurs

because they are the soul of the business. They should insist that information be kept updated and legal requirements met, but they should also be involved in strategic thinking, that is, where we are heading."

— Andrés Lalanne, shareholder in TRIEX



It was then that the Municipality of Montevideo threatened to suspend the company's activities. "We needed \$100,000 and at least a year to get ourselves back in order," Ana explains. However, the loan they had sought from the Bank of the Republic was going nowhere: it had been passed from one office to another and was making no progress. Thanks to support funds from the organization Ashoka, Ana and Ruben were able to prevent the crisis from affecting their children, until, in the midst of the maelstrom that enveloped MA&A, the joint venture with CIEMSA was agreed and TRIEX emerged.



# Work culture: being part of a collective undertaking

MA&A emerged as a project with a life of its own. At one point it became the business of everyone who worked there and wanted to be part of something collective. Even among the shareholders, Ana and Ruben never had a majority voting interest. "MA&A was an extremely open company," says Ana. At that time, they had a blackboard that showed the tons of waste, the billing



of customers, and the salaries of all employees, including the two founders. They were always in close consultation with the workers; there were no mysteries. This all changed when TRIEX came about. It was decided to keep the

jobs of all workers, but the cooperative relationship between management and labor took a more confrontational turn. There was a lot of absenteeism, and the atmosphere was very uncomfortable. In 2013, the HR department at CIEMSA intervened and found that the workers were nostalgic for the MA&A era. "From then on, they respected us more," Ana comments. The merger between TRIEX and CIEMSA finally produced a mixture of the two corporate cultures. There is still some way to go, but today TRIEX makes perfect sense doing what it does best: "We can access a large infrastructure for the very small company that we continue to be," says Ana.

"A long time ago I had problems with domestic violence. I separated from my husband, and was on my own with two daughters and no kind of financial support. I arrived at the Ministry of Social Development, where I left my résumé. A year later, I had already started work somewhere else when they told me about this place. I had an interview with Ruben and the salary seemed like a fortune compared to what I was earning otherwise. I had more time with my children and could fit in a lot of other things."

— Natalia, employee at TRIEX



Stored chemical waste



They were also hampered by severe financial constraints (see Side Story 3. It's not just about money). Furthermore, when they started to apply for the relevant operating licenses, the environmental authority turned them down. "We kicked up a big fuss," Ana recalls, but it still took them three years to obtain the environmental permits, thanks to some officials who understood the need for their cooperation in developing the waste industry.

Meanwhile, waste continued to accumulate on the MA&A site. The company was like a laboratory that collected waste, conducting studies and storing the materials because it lacked the technology to treat them properly. "We knew everything that was needed – a crusher, one of these, one of those – but we never had enough capital to acquire them," says Ana.



By this time, MA&A had ten employees and a good working environment, as well as a truck and a forklift bought with money from the Church and loans from friends. But the money was going on hidden costs. The company was also paying full social security contributions and the minimum wage for chemical industry workers, which was almost 50% higher than

what competitors were paying (see Side Story 4. Work culture: being part of a collective undertaking).

Other problems also arose. Although the company had a training plan and video cameras, some occupational accidents occurred. In 2006, the truck was involved in an



Uruguayan president with TRIEX employees on the anniversary of the industrial park

accident that led to a fatality, and "things started to go awry," recalls Ana sadly. The money had run out and the outlook for MA&A was gloomy, with the prospect of having to lay off employees. There were also moments of great tension and heated discussions between Ana and Ruben (see Side Story 5. Gender matters).

And in 2008, to cap it all, the Municipality of Montevideo threatened to close their company down. They were told: "If you don't improve, if you don't reduce the amount of accumulated waste, we'll suspend your activities." Though they did everything possible to prevent this (they worked more shifts and the partners injected more funds), the city authorities prohibited them from bringing further waste into the plant and finally withdrew their operating permit.

**"All those things we had and wanted to improve – the dignity of work, the working conditions – we weren't able to give the employees."**

— Ana Luisa Arocena, founder of TRIEX

## Gender matters

On various occasions, the visions held by Ana and Ruben generated strong interpersonal conflicts, influenced also by gender. "Although we have the same goals and want to get to the same place, the day-to-day decisions are sometimes very different," says Ruben. This makes it essential to talk, in order to understand what each of them sees and find out where to go, and how to get there, even if it seems difficult.

What unites Ana and Ruben is a very strong sense of honesty. This is a positive and necessary trait, but sometimes conversations become discussions that involve real battles, causing tension and pain, for the couple and for third parties. The vast majority of quarrels between Ana and Ruben are about work rather than family.

"Ruben can be impulsive and sometimes overpowering," says Ana. And though she knows this is a matter of style rather than substance, it had to stop. For Ana, it is not what he says but his manner that is disconcerting, even when he's talking enthusiastically with other people. Therefore, the hiring of new employees brought good news and Ruben had no choice but to resign himself to the situation, join in with the others, and change his attitude.

"One of Ruben's remarkable virtues is his ability to change. Ruben may delay doing things, but when he understands that he has to change, he manages it. I'm much stricter, so I tend to be far more cautious and try to get things right from the outset."

— Ana Luisa Arocena, founder of TRIEX

Ana was also fighting her corner as a woman, a partner, a wife and a mother. She points out that she was raised in a patriarchy, with gender roles that seemed entirely natural at the time. But she read up on the subject and did research to unravel how patriarchy works, in order to confront Ruben and show him how he was part of a game that has dominated society for centuries.

## Values matter more than numbers

Ruben and Ana had always liked the idea of having their own company. "It was like another child for us," Ruben recalls. At the same time, they always had the idea of growing and knew that this would at some point involve joining forces with a larger company or group. In the midst of chaos and uncertainty, after a proposed bailout by a Spanish company fell through, they received a call from a former MA&A worker. She contacted them because her new employers were interested in venturing into waste management issues.

Ana explained their current situation: "Make no mistake, we're ruined and there's nothing you can do for us," she said flatly. However, this only whetted the interest of the other company, CIEMSA, and its president, a young engineer, who made an offer to save the business. He knew that

"It's a social is one charges more than the other, customers are does it better. If than us, we hav continues, we ha

## A venture boosted by networks and partners

MA&A had financial problems, but saw it as a gateway to the business of waste management and many years of experience. Although the negotiations with CIEMSA were tough and the transition difficult, an agreement was signed, and TRIEX kicked off.

Despite these difficulties, Ana and Ruben have an unshakeable inner strength, with principles and values that other companies and partners can appreciate. For example, talking about transparency, Ruben comments, "It is a philosophy that we have: we share information with the authorities, customers, employees and competitors." He and Ana both know what they have learned from others and therefore consider it unethical to create wealth from hiding information (see Side Story 6. A venture boosted by networks and partners).

Issue: if there are two companies and one for something and does it less well than the only reason why it's there is that they are unaware of the other company that someone is doing something better. We have to look at this, and if the situation has to stop that activity. We don't try to live off the client's ignorance."

— Ruben Martínez, founder of TRIEX

Ana and Ruben have encountered many difficulties but have also had a lot of private and public support, from Uruguay and other parts of the world. First, through private partners; second, through the support of the Faculty of Chemistry and its business incubator; third, through premises provided from Municipal Government and fourth, through international organizations such as Ashoka and the Siemens Stiftung (foundation). These relationships with different players have been important in the experience of TRIEX and its social motivation, although problems also arise, as interaction with others requires time and effort. In the specific case of Ana, these networks not only enrich her work; they have also empowered her as a professional woman and boosted the contribution that she provides to other community and business organizations such as the Organización San Vicente "Obra Padre Cacho" and CEGRU. However, relations with the various partners are not always easy. There are tense moments, such as when people fail to deliver on commitments, or during the transition to TRIEX. At such times, the support of the partners and networks is vital. Good relationships with experts and community-based organizations, for example, have facilitated support from further partners who acknowledge the work of Ana and Ruben as professional and committed chemists.





# A hidden treasure: social enterprise values

In its new phase as TRIEX, the company has become revitalized, although off the debts resulting from the crisis at MA&A. “We made a pact that we would leave TRIEX while we still have debts outstanding,” Ana explains. The founders will be free of debt in a year’s time, but they are already tackling it (see Side Story 7. Growing with the surroundings).



Ruben on the way to Congress

TRIEX, as a small business, no longer faces the challenge of moving towards a larger company, which has already begun through its partnership with a larger company. But Ana and Ruben also have a larger goal that reaches beyond the way off: getting others to share the success. Right from the start, TRIEX was not just about what it has become today, “but I still remember where we are where we wanted to be,” says Ana.

“We shared our experience with other Global Social Businesses in Mexico with other businesses that wanted to create social companies. I told them about the relationship between business and Greece, where Rome was founded by military action but the values of the new empire were Greek. The values are social.”

— Ruben Martínez

To consolidate this new phase in the development of TRIEX, and to achieve a greater political and economic impact, Ana and Ruben set out to create the Uruguay Chamber of Waste Management Businesses (Cámara de Gestión de Residuos del Uruguay - CEGRU). Ana is heading this initiative, aiming to gain the support of other participants, including companies and government, in developing and advancing the industrial waste sector as a whole.

## Growing with the surroundings

Throughout its development as a company, TRIEX, formerly MA&A, has paid special attention to the technical training of its staff and to research for innovation. In the latter respect, it has achieved exciting results in the area of hazardous waste management in Uruguay, such as the development of a pioneering system for handling mercury waste and the development of software for waste-tracing. The company is currently working on a methodology, called Neosit, for managing electronic waste.

“Neosit started as a joke.

One time, I showed Ana my concept for the machine, but I told her that another company was manufacturing it. She said, ‘Perfect, this is what we need to buy.’ I said, ‘Ah, well then, we’ll have to make it ourselves, because it doesn’t exist.’ And that’s how Neosit began.”

— Ruben Martínez, founder of TRIEX

TRIEX has won awards for its ideas, which have won the recognition of national and international players. A future project, in collaboration with CIEMSA, will involve extending the company’s research activities and participation in calls for proposals made by the Uruguay National Agency for Research and Innovation (Agencia Nacional de Investigación e Innovación de Uruguay - ANII). TRIEX is also looking to expand its networks and raise its profile in different markets around the world. At the social and political level, TRIEX is working on launching CEGRU nationwide. It is trying to gain visibility, for example by raising awareness of waste management among politicians, in order to enlist their support and reposition the sector by bringing some dignity and esteem to its activities. “We support and endorse companies and entrepreneurs as instruments of change, but not only them; there are others who also know how to do it well,” says Ana with a smile.

# The project “Stories about us – how to tell your business narrative”

People ask for data, but believe in stories. Stories are things that people know, love, and remember, and when thinking about a business they know, facts and figures are secondary. We consider this a good thing: narratives can be a real asset for any social enterprise. And we are convinced that social entrepreneurs can use storytelling to reach out to their network of investors, customers, and other stakeholders and to gain new insights into the development of their business.

The TRIEX story was produced as a part of this project.

**Stories about us – how to tell your business narrative.**  
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## The author of the TRIEX story

Dr. Daniela García Sánchez graduated in political science from the University of Hamburg in 2015. Currently, she is involved as lecturer at the Center of Economic Policy for Sustainable Development (CINPE) from Universidad Nacional in Costa Rica. She has authored several publications in the area of environment and energy. She has taken part in several third-party funded projects with different organizations like the German Institute of Global and Area Studies and the Bertelsmann Foundation. Previously, she has been in charge of the environmental management programme at Universidad Nacional.

## Siemens Stiftung

As a non-profit corporate foundation, we promote sustainable social development, which is crucially dependent on access to basic services, high-quality education, and an understanding of culture. To this effect, our project work supports people in taking the initiative to responsibly address current challenges. Together with partners, we develop and implement solutions and programs to support this effort, with technological and social innovation playing a central role. Our actions are impact-oriented and conducted in a transparent manner.

### Working area: Basic services

Secure access to basic services is indispensable for people to lead independent and dignified lives. Our goal is to reduce existential deficits in basic services and strengthen necessary social structures. With our international *empowering people. Network*, we bring innovators and social entrepreneurs together and foster the combination of technical and entrepreneurial concepts. This allows us to promote the spread of suitable solutions, maintain a platform for knowledge transfer, and enable networking of development collaboration organizations. Locally-operating projects are run together with partners and implement innovative as well as proven solutions. Additionally, we impart the necessary knowledge to ensure that self-supporting structures can contribute to a permanent improvement in basic services.

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