2021

AZUD Sustainability Report.

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Content Summary

Letter from the CEO

José Tomás Pérez Olivares

Innovation lies at the heart of AZUD since its origins, at the end of the 80s, when the company was just a small **group of people willing to help farmers in one of the most arid areas of Europe to successfully irrigate their crops**. Then, as today, the only way to achieve this was with **technologies that would optimise the use of water and safeguard this resource as if it were a treasure, and that is what we did.**

Currently, this need continues to worsen and we see how **humanity faces a water crisis**, intensified by **climate change** and population growth. We need to act immediately.

In addition, 2021 has been a year marked by the COVID-19 pandemic. **In our case, we faced these challenges with the conviction that it was essential for us to maintain our activity**, as an auxiliary industry in a sector so necessary to society as is the primary sector: agriculture.

The countryside does not stop, and neither do we, which is why during these two difficult years our factories have continued to be active, as they have always done, and the entire **AZUD family has adapted to the challenges derived from this pandemic in order to maintain the best service** to our customers.

Each and every one of the actions we carry out has an impact on the environment and on society. For this reason, **we work so that our commitment to sustainable development grows year on year**, not only in our activities as a manufacturing company, but also in the innovation of solutions for the efficient use of water in agriculture and industry. This is reflected in our 2021 Sustainability Report.

2021 is also the first year in which **we register our Carbon Footprint as the first step in an emissions reduction plan**. In addition, we continue developing a management that favours **the circular economy in manufacturing processes**.

At AZUD, sustainability and innovation go hand in hand. **I am proud to highlight our leadership and commitment to research, development and innovation projects in which various companies in the sector and public research entities cooperate.** The results of these projects trace the path towards a more sustainable and environmentally-friendly agriculture, towards the **New Agriculture**.

However, without the people that make up AZUD, our customers and interested parties, we would not have arrived to where we are today. **It is an honour to lead this company for another year, not only because of its objectives, but also for the contribution of all AZUD employees who work every day to combat the challenges we face globally.**

Our commitment is with our people, customers and farmers, and we have ambitious sustainable development plans for the coming years. We hope you find our first sustainability report interesting and inspirational.

Warm greetings,

José Tomás Pérez Olivares

Executive overview

About AZUD

We are a leading group in the manufacture of irrigation technologies and plant nutrition, filtration systems and water treatment.

We have been innovating for more than 30 years to **guarantee the efficient use of water, with the aim of achieving the highest profitability and sustainability in agricultural and industrial activity**, as well as access to this universal right in municipalities and emergencies, with a marked purpose of contributing value to every drop of water.

We were founded in 1989 in the most arid region of Europe, and today **we are proud to champion The Culture of Water in more than 100 countries**. With a multidisciplinary team of more than 450 people, we **have our headquarters in Spain, and branches in Mexico, Brazil, India, China and Singapore**.

40 YEARS I **450** EMPLOYEES I **9** FACTORIES I **7** BRANCHES I **63** PATENTS I **3%** R+D+I

Mission, vision, and values

MISSION

We create **innovative irrigation, filtration and water treatment solutions** that provide value for our customers, their ecosystem and society, through **an intelligent, profitable and sustainable use** of water.

VISION

To be the **global benchmark** in agricultural and industry in the **knowledge of efficient and sustainable water management.**

OBJECTIVE

To improve the world and people's lives making the efficient use of water universal.

AZUD

VALUES

- Excellence
- Innovation
- Sustainability
- Proximity
- Knowledge

The Culture of Water for new agriculture and sustainable development

Traditionally, farmers have strived to make the most of every seed, every nutrient, and every hour of work to ensure that their business is productive and profitable.

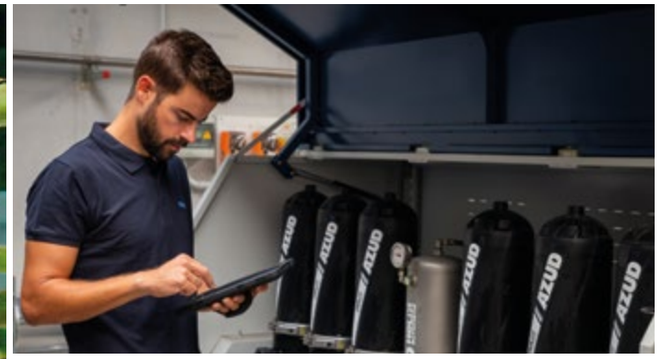
Currently, new agriculture faces the challenge of maximising natural resources, which are becoming increasingly scarce, to ensure crop productivity and combat climate change. For this reason, we focus on water as a vector of growth and sustainability.

In addition, **we also face the challenge of optimising the use of water in industry**, where it is an essential resource for hundreds of processes.

Protecting water basins, recycling process water, exploring alternative water sources, supplying drinking water to isolated populations, reducing water consumption and achieving maximum precision in the application of water and nutrients are essential factors in order to give more **value to water**.

Our solutions enable our customers and partners to achieve these objectives, carrying out their work in a more precise and productive way through innovative technology.

Experience, together with technology, allows us **to optimise resources and maximise production** like never before.



Business model

OUR ACTIVITY

Innovating for a more efficient use of water.

We are **leading manufacturers in the development of innovative irrigation and filtration solutions**, we provide knowledge in new techniques and supply digital services as a means towards a more precise, profitable and sustainable agriculture and industry.

Our solutions for agriculture

Our solutions for industries, municipalities and the humanitarian sector

Our solutions for agriculture

SUB-SURFACE DRIP IRRIGATION (SDI)

The most efficient, profitable and sustainable drip irrigation solution for crops.

SDI allows water and nutrients to be supplied to the plant in a localised way, under the surface, thus optimising the growth of the roots and the plant. It is becoming the best alternative at economic, agronomic and ecological level.
At AZUD, we have extensive experience in most crops, backed by thousands of projects around the world.

PROTECTED AND SOILLESS CROPS IRRIGATION

The solution for optimal growth and production of protected crops and crops in confined areas.

Our nutrition and irrigation technologies enable precise control of the cultivation medium conditions for the absorption of the nutrient solution, providing optimal growth and regeneration of the root system.
Furthermore, this leads to a better planned, more homogeneous and higher production.

GARDENING AND LANDSCAPING

The solution for the efficient use of irrigation water to improve sustainability in urban areas.

We provide innovative solutions to improve the sustainability of urban green areas through sub-surface irrigation systems to make cities more sustainable, thanks to gardening methods that use fewer resources and reduce or recycle waste.

REGENERATED WATER IRRIGATION

The most sustainable solution for the use of water resources.

At AZUD, we apply knowledge to regenerate water with the latest technologies. We research and develop a wide range of innovative solutions to improve the environmental impact of water consumption. Recycling is the best step to move towards a circular use of water and to ensure access to this vital resource.

PRECISION IRRIGATION

The solution that makes the difference in the use of water in agriculture.

High-precision localised irrigation systems are the result of our constant innovation in the design of emitters, the evolution and continuous improvement of processes, and our own technological capacity.
With these, we help to increase control and maximise production quality, reducing costs and working towards more sustainable agriculture.

PRODUCT FAMILIES

- Sub-surface drip irrigation
- Filtration
- Plant nutrition
- Water treatment
- Digital agriculture
- Accessories and complements

Our solutions for industries, municipalities and the humanitarian sector

AZUD INDUSTRIAL is a division of AZUD where we develop water filtration and treatment solutions for industries, municipalities and humanitarian sector.

INDUSTRIAL FILTRATION

We develop **filtering technologies specially designed to eliminate or recover solids from water** in industrial processes, with solutions adapted to an infinite number of applications and different water qualities, always seeking maximum precision and minimum environmental impact.

WATER TREATMENT

We manufacture compact water treatment plants for purification, desalination, and recycling water from any source, in the industrial, municipal, humanitarian, defence and residential sectors.
In this way, we cooperate to ensure access to this universal right.

APPLICATIONS

- Refrigeration systems protection
- Filter media protection
- UF membrane protection
- Catchment water filtration
- Recycling process water
- Recycling grey water
- Desalination of process water
- Decentralised water purification
- Mobile water purification
- Decentralised residual water purification
- Residual water regeneration
- Integral projects

Organisational chart and functional areas

GENERAL MANAGEMENT
José Tomás Pérez Olivares

MANAGEMENT AREA
- Finance
- Human Resources
- IT
- CSR
- Compliance
- Logistics
- Quality, Environmental, and Labour Relations Management

MARKETING AREA
- Strategic Marketing
- Product Marketing
- Communication

SALES AREA
- Agricultural Division
- Industrial Division
- Business Development Division

CUSTOMER SUCCESS AREA
- Customer Support
- After-Sales Service
- Training
- Technical Support

INNOVATION AREA
- R & D & i
- Product Development

INDUSTRIAL AREA
- Industrial Engineering and Maintenance
- Production
- Quality
- Planning and Purchasing
- Internal Logistics

Risks and Opportunities

Risks and Opportunities

The growing scarcity and contamination of water resources is one of the biggest challenges that humanity has faced

The consequences derived from the effects of climate change are increasingly severe, pushing us to take measures to mitigate their impact.

At AZUD, we put our **work and technology at the service of innovation** to achieve **a balance with the environment**, identifying the following challenges and opportunities.

Subject	Risks	Opportunities
Sustainable food production	Impact of food production on environmental degradation, increasing contamination in aquifers and soils.	Develop innovative technologies together with knowledge of efficient irrigation and fertigation techniques that do not harm, nor pollute the rural environment.
	Loss of the nutritional quality of food.	Develop technological solutions for irrigation and nutrition that efficiently ensure the highest quality crops and optimal nutritional value for the consumer.
Climate change and limited resources	Decrease in productive profitability due to the growing scarcity of natural resources.	Provide more efficient localised irrigation solutions for optimising natural resources, reducing production costs and increasing profitability.
	Increased scarcity of fresh water on the planet.	Innovate in water filtration technology for the proper use of regenerated water in irrigation, in order to obtain alternative water sources.
Qualified staff	Maintaining a traditional crop management system that is less efficient and less respectful of the environment.	Offer data and information from different technologies through software to reduce uncertainty in decision making, facilitate daily work, empower less qualified personnel, and minimise consumption.
	Outdating new agronomic techniques.	Create and participate in platforms based on the transfer and democratisation of knowledge, together with specialised companies and universities, to support professionals in the agronomic sector.

Results

Circular economy

- Sustainable management of production losses
- Production plant monitoring software

Innovation and sustainability

- Optimisation of water usage in protected agriculture
- Digital agriculture
- Sub-surface Drip Irrigation (SDI)
- Use of effluents
- Recycling of irrigation water
- Autogeneration of fertiliser bioproducts

Environmental Responsibility

- Greenhouse gas emission reduction plan 2021-2023
- Adherence to the OCS program: zero waste of plastic granules
- Hazardous waste

Corporate Social Responsibility

- Implementation and certification of the occupational health and safety management system (OHS)
- Synergynuts
- Equality plan
- Cooperation with associations, NGOs and organisations

Standards and Certifications

- Environmental management system - ISO 14001
- IQNET Certificate - ISO 14001
- Occupational health and safety management system (OHS) - ISO 45001
- IQNET Certificate - ISO 45001
- Adherence to the OCS program
- Organisation carbon footprint certificate
- Quality management system - ISO 9001

Results

To meet these challenges and take advantage of the aforementioned opportunities, **at AZUD we develop solutions and lead innovation and research projects that promote the circular economy in agriculture, industry and their processes**, complying with strict **environmental responsibility** requirements as a manufacturing company, and cooperating in the development of activities of a social and sustainable nature.

Our actions in each of these points are described in detail below:

- **Circular economy**
- **Innovation and sustainability**
- **Environmental Responsibility**
- **Corporate Social Responsibility**
- **Standards and Certifications**

Circular economy

Promoting circularity and sustainability in our management is one of our main objectives.
For this reason, we try to **minimise the environmental impact** produced by our manufacturing methods, implementing improvements in our processes and using technology to optimise resources.

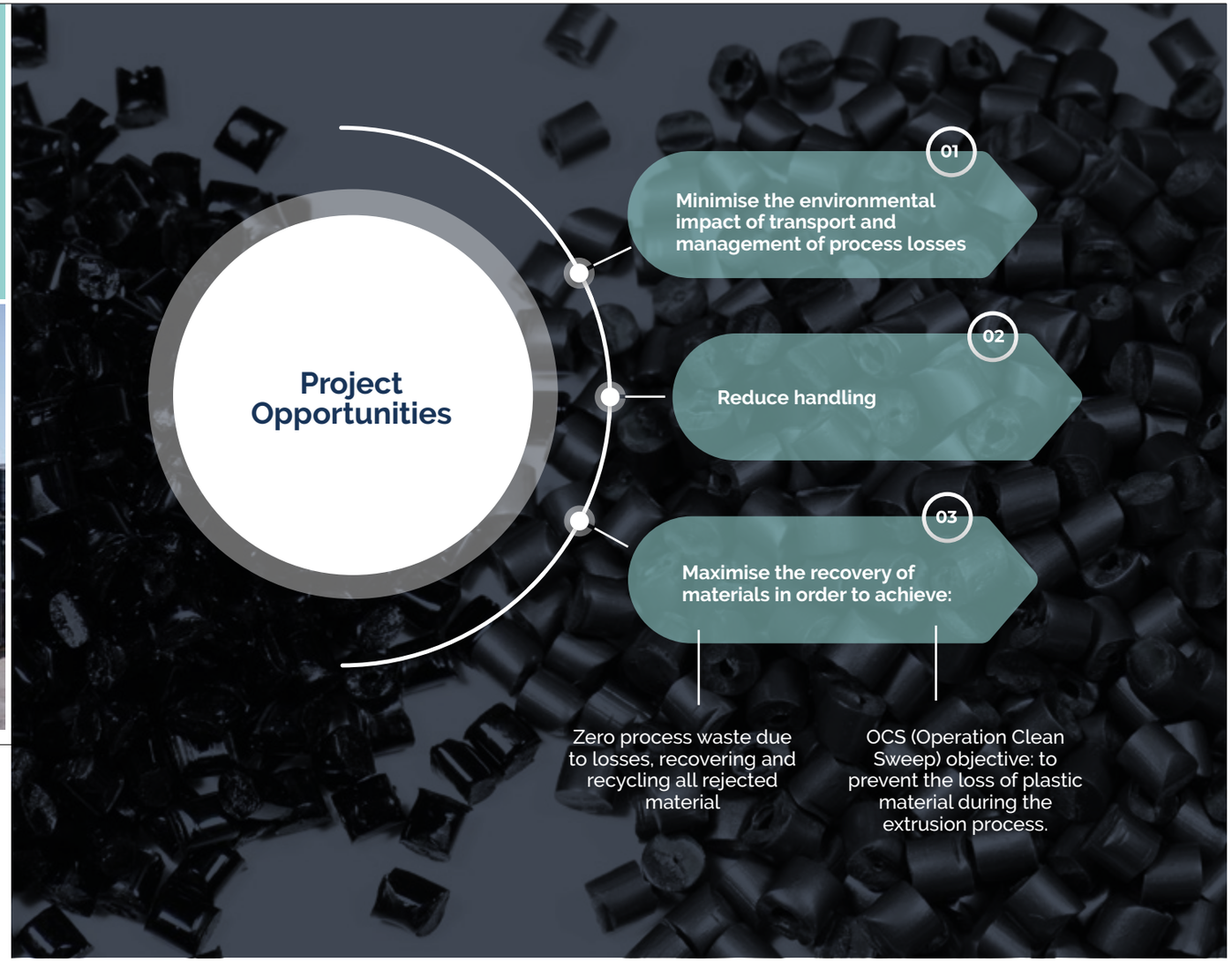
Sustainable management of production losses

We optimise and improve the efficiency of the collection, handling and subsequent **recovery and use of losses** generated by the extrusion process, thus seeking to achieve **zero waste of plastic materials**.

Related to SDG

Responsible production and consumption

Climate action



Production plant monitoring software

We increase the efficiency of production plants through the traceability of all processes in real time;
we also **optimise required controls and inspections to guarantee and minimise process deviations outside of their specifications**.

Related to SDG

- 9 INDUSTRIA, INNOVACIÓN E INFRAESTRUCTURA — Industry, innovation and infrastructure
- 12 PRODUCCIÓN Y CONSUMO RESPONSABLES — Responsible production and consumption
- 13 ACCIÓN POR EL CLIMA — Climate action

Innovation and sustainability

At AZUD, innovation and sustainability go hand in hand.

We innovate to create a more sustainable world. For this reason, we develop projects with customers around the world, where, **through research, scientific knowledge and continuous improvement, we promote the efficient use of water and natural resources.**

Learn more about the projects that AZUD undertakes

Optimisation of water usage in protected agriculture

Project **Baja California, Mexico**

Period	**2021**
Location	**Baja California, Mexico**
Crop	**Ecological berries and vegetables**
Area	**600 ha**
Water source	**Sub-surface well**

Problems

- Extreme scarcity of water resources.
- Poor quality irrigation water with high conductivity and organic contaminants, coming from a well.
- Lack of crop growth due to low water supply.

Solution

AZUD HELIX AUTOMATIC AA 207/6FX in 130 micron:
Efficient solution, air-assisted, low water consumption self-cleaning filtration system.

Benefits

- High quality water for irrigation achieved, reducing conductivity and eliminating the load of organic pollutants.
- Savings of 99% of the water used in the equipment cleaning process.
- Energy savings in the equipment cleaning process.

This farm that produces berries and vegetables is located in one of the regions in Baja California, Mexico, which is hit the hardest by lack of water. Producers in this area are highly influenced by the United States, where **sand filtration is traditionally used, which consumes large volumes of water** due to its operation and cleaning process. Nevertheless, in Baja California **they cannot afford this waste of water resources, given the drought that the area suffers**.

In this region, the irrigation water **comes from underground** and, to get to it, it is necessary to dig wells up to 200 m deep. **The water obtained is of low quality, with high levels of conductivity and organic contaminants**. Therefore, the water quota is insufficient to grow and manage the crops.

To ensure quality irrigation water, a filtration solution that protects precision irrigation systems is necessary.

The solution that we provide is an **efficient filtration system**, with **an air-assisted, low consumption, self-cleaning system**. The old sand filtration systems used 12 l/s during the 48 seconds of cleaning time, with a consumption of around 14.4 m^3 per irrigation head cleaning, compared to the AZUD HELIX SYSTEM AA equipment with a total consumption of 0.14 m^3 per cleaning. Therefore, **it is possible to save more than 99% of the water used, in addition to the expected energy savings in the process.**

With this solution, the Baja California producer can use water from a well to irrigate their crops, saving as much water as possible and reducing their energy consumption while protecting their precision irrigation system, thus contributing to a more sustainable agriculture.

Related to SDG

Responsible production and consumption

Climate action

Digital agriculture

Project **Trocadero Estate**

Period	**2020-2021**
Location	**Valencia, Spain**
Crop	**Mandarins *Orri***
Area	**30 ha**
Soil type	**Clay soil**

Problems

- Root asphyxia caused by waterlogging.

Solution

A monitoring station with:

- Temperature sensor
- Air humidity
- Rain gauge
- 90 cm humidity probe.

Benefits

- Disappearance of cryptogamic diseases, symptoms of root asphyxia and deep percolation.
- Reduction in the consumption of irrigation water, diesel, and fertilisers.
- Better use of nutrients, preventing leaching and blocking of ions.
- More precise adjustment of the irrigation interval and time, pre-fertiliser and post-fertiliser, saving resources and providing the plant with only what it needs at all times.

The producer of this mandarin farm, also an agronomic advisor, contacted AZUD so we could carry out this project together. **The main objective was to solve a root asphyxia problem in trees caused by deep waterlogging in the spring-summer seasons.**

The flooding was being caused by the excessive use of traditional irrigation, along with heavy, clayey soil, which is also located next to a seasonal watercourse.

The installed solution to deal with this situation consists of a **monitoring station with temperature and ambient humidity sensors, and a rain gauge** to **control thermal evolution and precipitation** at specific points.

In addition, the station is equipped with a 90 cm long capacitive humidity probe to **monitor volumetric soil humidity** along its profile. This humidity probe also informs us of the **evolution of electrical conductivity** in that soil profil**e and indicates the temperature by depth sections** within those 90 cm.

The **direct advantages** that this farmer benefits from, thanks to this solution, are the **disappearance of cryptogramic diseases and symptoms of root asphyxia**, avoiding deep percolation, as well as reducing consumption of irrigation water, energy, and fertilisers. In addition to all this, the **use of nutrients** has been improved, preventing leaching and ion blockages.

Now, the field technicians are able to adjust the irrigation interval and time by observing the behaviour of the water along the 90 cm soil profile, where the mandarin roots are found. At the same time, they are now able **to adjust the pre-fertilisation, fertilisation, and post-fertilisation times, with the soil electrical conductivity (EC) information**, always moving in EC values (ds/m) optimal for the health of the crop.

In addition, **thanks to the soil temperature data and the meteorological data, the technicians know the best time of the week and even of the day to start irrigation or fertilising, since this information allows them to know the needs of the plant in real time.**

Related to SDG

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Climate action

Life of earth ecosystems

Sub-surface Drip Irrigation

Project
Pijolo Estate

Period	**2000**
Location	**Ciudad Real, Spain**
Crop	**Vineyards *(airen, tempranillo, cabernet sauvignon)*, pistachios *(kerman)*, almonds *(lauranne)*, hedge-plantation olive groves**
Type of nutrition	**Organic, ecological**
Plantation spacing	**Vineyard 3 x 1.3 m, olive grove 4 x 1.5 m, pistachio 7 x 6 m, almond 7 x 6 m**
Area	**250 ha**
Water supply	**< 1,000 m³/ha per year**

Problems

- Water supply is extremely low and insufficient for all the crops on the estate.

Solution

- Sub-surface drip irrigation using AZUD PREMIER PC AS pipe d16 x 1.1 mm 1.25 m 2.2 l/h.

Benefits

The direct application of water and nutrients in the root zone means:

- Savings of 15-20% irrigation water
- Fertiliser savings
- Energy savings

The installation of sub-surface drip irrigation in the 250 ha of this organic farm was carried out in several phases since the year 2000. **The estate, which has vineyards, hedge-plantation olive groves, almond and pistachio groves, barely has 1000 m³//ha per year for irrigation, insufficient to supply these crops.**

The sub-surface drip irrigation solution (SDI) from AZUD was offered together with a controlled deficit irrigation strategy, to optimise as much as possible the low level of available water supply and thus achieve profitable production. The installed solution for the SDI is the AZUD PREMIER PC AS self-compensating and anti-siphon emitter pipe.

Some of the most outstanding **advantages** of this irrigation system now enjoyed by the producer, derive from the **direct application of water and nutrients to the root zone**, offering **greater efficiency in the application of irrigation water, and leading to water savings of up to 15-20%**. In addition, this allows **greater efficiency in the application of nutrients and a reduction in energy expenditure**, compared to traditional irrigation systems.

Thanks to the use of this sub-surface drip irrigation system and controlled deficit irrigation strategy, this producer, with a water supply of only 1000 m³/ha per year, **achieves the following approximate production:**

- **Vineyard**: 11,000 kg/ha
- **Olive grove**: 7,000 kg/ha
- **Pistachios:** 1,500 kg/ha
- **Almonds:** 2,500 kg/ha

Related to SDG

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Climate action

Life of earth ecosystems

Use of effluents

Project **Estancias del lago**

Period **2017-2018**
Location **Durazno, Uruguay**
Industry **Powdered milk producing company**

Aim

- Counteract the environmental impact resulting from farming and livestock.

Solution

Integrated design in two stages:

- **1st stage:**
  - AZUD LUXON MFH 9600 125 micron (2 KITS)
  - AZUD HELIX AUTOMATIC 208 50 micron (3 KITS)
- **2nd stage:**
  - AZUD LUXON LKM 13200S/14 800 micron (2 KITS)
  - AZUD HELIX AUTOMATIC 210 AA 200 micron (4 KITS)

Benefits

- Reduction of the environmental footprint from farming and livestock activity
- Improve crop production
- Reduce the use of chemical fertilisers by 70%
- Biological regeneration of the soil

Estancias del Lago is one of the largest agro-industrial complexes for the production of powdered milk in the world. Located in Uruguay, it is an example of a **sustainable agricultural and livestock production model**, aligned with circular economy trends and the efficient use of resources for the intensive production of powdered milk.

Thanks to our solution, it has been possible **to condition the effluents of all the processes for their reuse in irrigation, making good use of the by-products and effluents from agricultural-livestock production**. Irrigation with effluents is viable thanks to its conditioning with advanced filtration solutions, which minimise waste generation, improve water quality, protect irrigation systems and, ultimately, **improve process efficiency, saving resources and reducing the industrial impact on the environment**. In this way, it has been possible to reduce the acquisition and consumption of mineral fertilisers of fossil origin by 70%.

This implies that it is possible to feed cattle with fodder grown nearby, through the recovery and management of organic waste and effluents from the production process itself. This also includes **the generation and self-consumption of electrical and thermal energy required in different processes, from biogas.**

The use of effluents from different processes (water from the powdered milk processing plant, wash water from milking platforms, cooling water, water from stables, wash water from flushing, food residues and waste, animal waste, etc.) **is possible through an irrigation system that aims to produce feed for livestock**, such as soy beans, Persian clover or corn.

The Estancias del Lago project has managed **to reduce the environmental footprint of its agricultural and livestock activity, maintaining the quality of its product as well as its competitiveness in international markets, and associating its image with successful environmental management and social responsibility.**

Related to SDG

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Recycling of irrigation water

Project

Integrated management of the regeneration and efficient and safe reuse of urban waste water in agriculture (REUSAGUA)

Period	**2017-2021**
Location	**Murcia, Spain**

Aim

- To develop management practices and protocols for the proper management of regenerated water for use in irrigation and to achieve sustainable agricultural production.

Solution

Complete regenerated water management system:

- Wireless sensors platform.
- On-site monitoring using unmanned aerial vehicles.
- Intelligent processing focused on irrigation communities.

Benefits

- Less environmental impact from agriculture.
- More efficient agriculture with lower drinking water consumption.
- Circular economy resulting from wastewater recovery.
- Creation of new business opportunities by facilitating access to this resource in deficient areas.

This project entailed **multidisciplinary research work of high scientific-technical quality for sustainable agricultural production** using regenerated water as a water resource, providing technologies, innovative solutions and recommendations for good practices, providing an efficient and safe use of this type of water in agriculture.

The presence of emerging contaminants in water resources is already a great concern at a European level, so **the integration of advanced purification technologies for the elimination of emerging contaminants will be crucial for obtaining regenerated water efficiently**, with quality and health safety, increasing the confidence of both farmers and consumers, and enabling proper water management.

The **REUSAGUA project** is introduced into the field of agriculture, taking the use of alternative water resources (regenerated water) together with information and communication technologies, with the aim of developing management practices and protocols for irrigation, necessary for achieving sustainable agricultural production.

In order to optimise the management of regenerated water and thus limit any negative effect on agricultural production (microbiological contamination, quality deterioration, increase in soil salinity, etc.), we will, together with other entities involved in the project, provide innovative solutions, which in turn **will create new business opportunities in a sector where water is the key to its economic development**.

These solutions include:

- Treatment of purified water to create a **controlled and safe flow**.
- Adaptation of advanced systems with ozone to **improve the agronomic quality and profitability of crops**.
- Development of a **complete regenerated water management system** that includes:
  - **Wireless sensor platform** (providing continuous information on the quality of the water used).
  - **On-site monitoring techniques using unmanned aerial vehicles** (diagnosing the water status of the crop and salinisation of the soil).
  - **Intelligent processing** (decision-making systems), focused on irrigation communities based on the IoT (Internet of Things).

Related to SDG

Clean water and sanitation

Responsible production and consumption

Climate action

Life of earth ecosystems

Alliances to achieve the objectives

Autogeneration of fertiliser bioproducts

Project

Biorefinery of fertiliser products for self-consumption in fruit farms (BIOREFINA)

Period	**2019**
Location	**Murcia, Spain**

Aim

- On-site transformation of plant remains into high-quality fertiliser bioproducts.

Solution

- Energy self-sufficiency: Produced biogas used as a renewable heat source.
- Thermophilic anaerobic digestion resulting in three fertilisers:
  - Solid digestate: composting to improve soil and crop health.
  - Liquid digestate: liquid fertiliser in fertigation systems.
  - Liquid digestate: culture of microalgae for subsequent biofertiliser.

Benefits

- Less environmental impact from agriculture.
- Circular economy by recovering residual biomass.
- Reduction in the use of mineral fertilisers.
- Improved farm energy management.
- Improved fruit and vegetable recovery.
- Implementation of a specific waste management and recovery system.

Our **BIOREFINA R&D** project develops a new circular model through an **on-site production system of three types of fertiliser, obtained from residual biomass**.

The aim is **to transform, on site, the vegetable waste generated in fruit and vegetable farms**, such as crop remains, losses due to size or lack of quality, or other organic remains, into three high-quality fertiliser bioproducts. In this way, **a fruit and vegetable farm could go from buying fertilisers from third parties to producing its own biofertilisers under a circular economy model.**

Biorefinery processes begin with a thermophilic anaerobic digestion that **stabilises organic matter and reduces the risk of microbiological contamination**. The biogas produced is used as a renewable heat source to provide **energy self-sufficiency** to the subsequent processes for transforming the digestate into three fertilising products:

- **The solid fraction of the digestate is transformed by composting with other co-substrates into a functional organic modified product to improve soil quality and crop health.**
- **The water and nutrients present in the liquid digestate will be used as liquid fertiliser in fertigation systems.**
- **A fraction of the liquid digestate will be used to cultivate microalgae, and later, a microalgae-based biofertiliser rich in amino acids and plant hormones.**

The fertilisers obtained through the BIOREFINA system stand out for their **superior hygienic quality and reduced carbon footprint**, essential characteristics for fruits and vegetables sold in markets in central and northern Europe, which are especially demanding in this area.

The success of this project, **financed by the ERDF-INNTERCONECTA Program**, lies in its total alignment with the new **agricultural sustainability policies based on bioeconomy models**, through the implementation of a circular economy process at agro-industrial farm level.

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Environmental Responsibility

The preservation of the environment is one of the great challenges that we face as a society.

At AZUD, we join in and commit to continually innovating and transforming our processes, to make our business activity compatible with environmental conservation.

Greenhouse gas emission reduction plan 2021-2023

As part of **our commitment to reduce greenhouse** gas emissions, the first section of the **Carbon Footprint** project from the **Organisation of the Spanish Ministry for Ecological Transition has been completed.**

This participation involves the analysis and evaluation of emissions from corporate activity, identifying critical points to establish the **emission reduction plan.**

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Responsible production and consumption

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Emissions reduction plan

2021

- Changing light fittings in all manufacturing warehouses.
- Office building reforms to improve insulation and thermal efficiency.
- Adherence to the OCS program: zero waste of plastic granules.
- Calculation and logging of the Organisation's Carbon Footprint.
- Emission-compensation project with a non-profit organisation.

2022

- Installation of a photovoltaic solar-energy system.
- Replacement of fossil fuel forklifts for electric ones.

Reduction objectives planned for 2023

01 10% reduction in t CO_2eq absolute emissions registered in 2020.

02 15% reduction in emissions per unit of transformed material compared to 2020.

03 15% reduction in emissions per employee compared to 2020.

Achievements

01 Minimising the environmental impact of our organisation.

02 Greater process efficiency by detecting critical points and establishing improvement programs.

03 Increasing the trust of stakeholders.

04 Improving the impact of our supply chain by promoting and extending these improvement actions.

Adherence to the OCS program: Zero waste of plastic granules

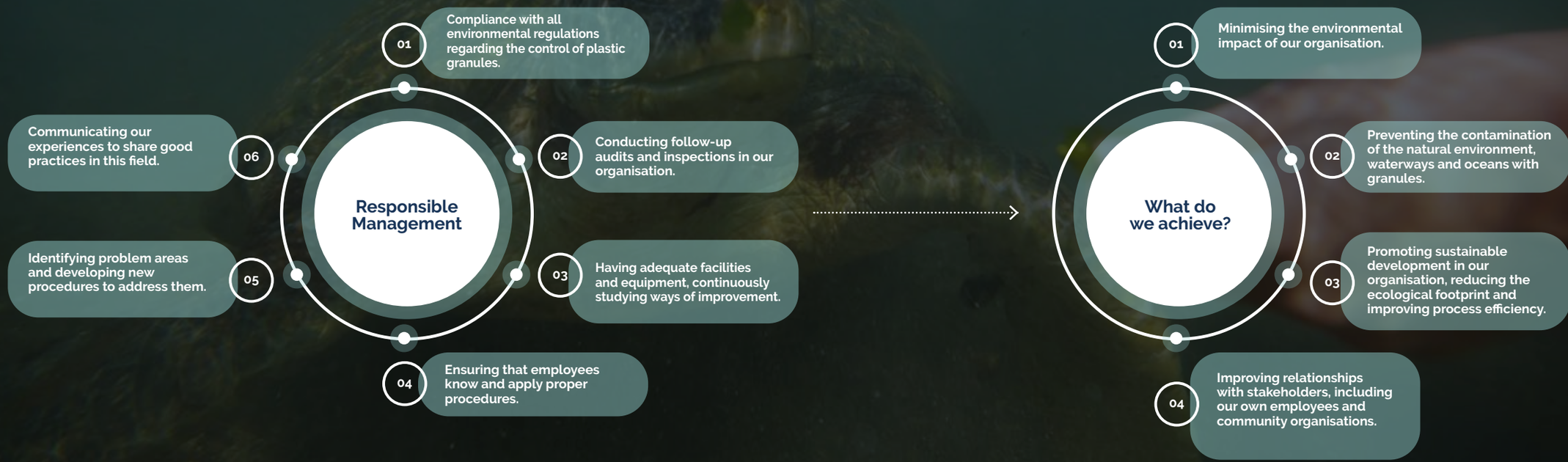
We joined the **Operation Clean Sweep program (OCS).** Its main objective is the elimination of plastic granules. This global and voluntary program aims to apply good cleaning and control practices to **achieve zero losses in all plastic handling operations,** thus protecting the environment.

In Europe and Spain, this program is coordinated by Plastics Europe and ANAIP (National Association of Plastics Industry) respectively. (www.opcleansweep.eu)

By adhering to this programme in our centres, where we handle plastic granules, we commit to responsible management taking into account the following aspects:

Related to SDG

Life underwater: preserve and sustainably use the oceans, seas and marine resources.



Hazardous waste

Despite the notable annual increase in productive activity, we remain a 'Small Waste Producer' in accordance with Spanish legislation LAW 22/2011, referring to those companies that generate less than 10 tons of hazardous waste per year. This is thanks to the implementation, year after year, of the necessary measures to **continue reducing waste generation** in our processes.

Related to SDG

12 PRODUCCIÓN Y CONSUMO RESPONSABLES — Responsible production and consumption

13 ACCIÓN POR EL CLIMA — Climate action

Corporate Social Responsibility

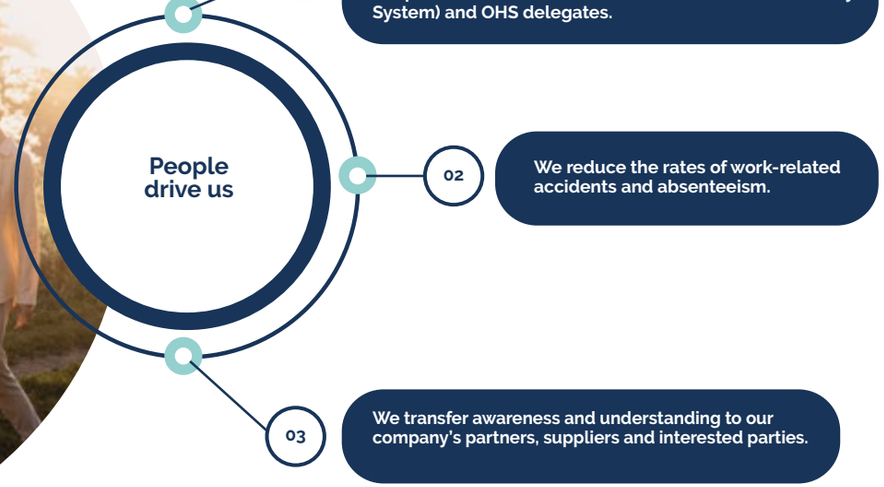
At AZUD, we work to offer an inclusive, healthy and safe growth environment, where our people can develop and have a positive impact on society.

Our objective is to ensure that our activity makes a difference in the lives of our employees, suppliers, customers and society as a whole.

Implementation and certification of the occupational health and safety management system (OHS)

At AZUD we create safe spaces for well-being. As a company aware of occupational health and safety (OHS), **we maintain, as a priority, the prevention of occupational risks in our processes, devoting large resources to their control and improvement.**

With the **implementation and certification of an occupational health and safety management system**, under the **ISO 45001** international standard, we intend not only to advance under this philosophy, but also to accredit and demonstrate all the work we have done in this area.



Related to SDG

Health and well-being

Decent work and economic growth

Synergynuts

AZUD participates in **Synergynuts** *(https://synergynuts.upct.es/)*, together with other companies in the agricultural sector. It is a **platform created to drive and diffuse knowledge, innovation and learning through experts, companies, organisations, and research centres related to the growth of nuts in hedge plantations.**

The objective is to help technicians and farmers with the transition of these traditional crops towards efficient, profitable and sustainable agriculture in the present, and to help them survive in the future. In short, an agriculture that maximises production by optimising the use of resources, in a product with high market demand such as nuts.

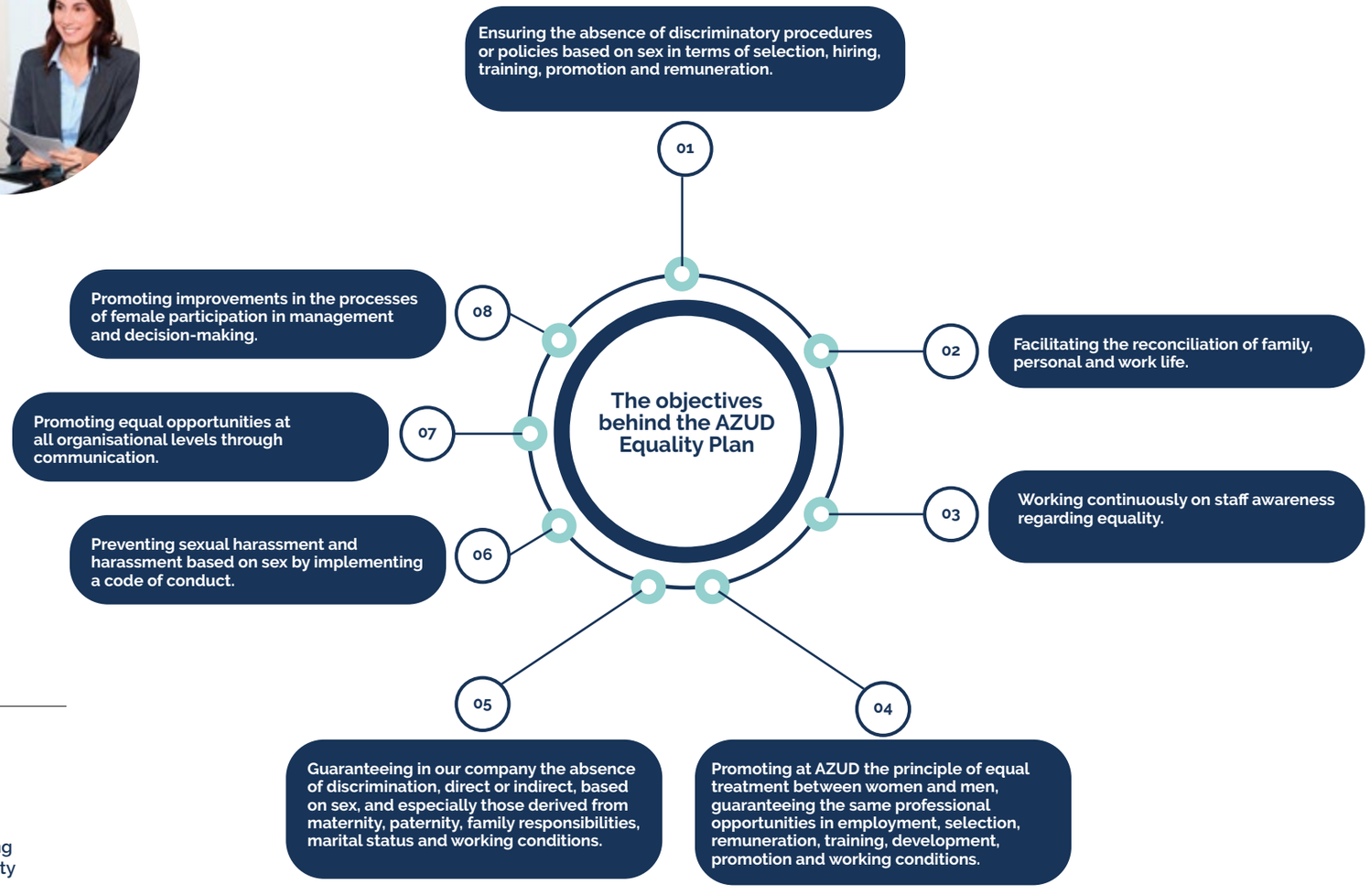
Related to SDG

Responsible production and consumption

Equality plan

We are committed to promoting equal opportunities in our organisation. For this reason, **we have an Equality Plan that aims to continue advancing equal treatment and opportunities between women and men, and to eliminate all forms of direct and indirect sex discrimination.**

It is a transversal, preventive plan where dialogue and negotiation are the main principle and a crucial part in this objective.



Related to SDG

Gender equality

Decent work and economic growth

Reducing inequality

Cooperation with associations, NGOs and organisations

We are committed to generating a positive impact and working towards building a fairer, more equal and more supportive society.

And, with the aim of facilitating the social integration of vulnerable groups, **we work with various foundations, associations and NGOs**, such as:

- The **ASSIDO association**, to facilitate the training and integration into work environments of people with Down syndrome and learning disabilities.
- The **ASTRAPACE association**, to facilitate the integration of people with learning disabilities.
- The **DRAIS foundation**, an NGO that develops training projects specifically aimed at abandoned children.
- Working with **prisons** on labour projects for the reintegration of prisoners through the subcontracting of paid work.

With these partnerships:

- We support the most vulnerable people in society or those at risk of exclusion.
- We create opportunities and working prospects.
- We fight poverty and hunger, and reduce inequality.
- We facilitate access to basic resources and services for vulnerable people or people at risk of exclusion.

Related to SDG

End of poverty

Health and well-being

Quality education

Reducing inequality

Standards and Certifications

ENVIRONMENTAL MANAGEMENT SYSTEM · ISO 14001

First issue date
2002/02/20

Expiration date
2025/05/17

IQNET CERTIFICATE ISO 14001

First issue date
2002/02/20

Expiration date
2025/05/17

OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM (OHS) - ISO 45001

First issue date
2019/09/11

Expiration date
2025/09/11

IQNET CERTIFICATE ISO 45001

First issue date
2019/09/11

Expiration date
2025/09/11

ADHERENCE TO THE OCS PROGRAM

Adherence date
2021/02

ORGANISATION CARBON FOOTPRINT CERTIFICATE

Inscription date
2022/02/17

QUALITY MANAGEMENT SYSTEM ISO 9001

First issue date
2002/02/13

Expiration date
2025/05/17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OUR MISSION
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