

SMEs Export

Argentine technology and innovation

COVID-19 SPECIAL EDITION

Argentine Small and Medium Enterprises develop innovative solutions together with INTI to confront the pandemic.

October 2020 Edition



Potential exporter

- **MW S.A.**, innovative ventilator for intensive care _____ page 1
- **Kovi S.R.L.**, supermasks and fabrics with antiviral properties _____ page 2
- **Leistung Ingeniería S.R.L.**, high complexity devices for lung ventilation _____ page 3
- **Unitec S.A.**, facial protection masks for healthcare staff _____ page 3
- **Eliho Textil S.R.L.**, masks manufacture with silver threads _____ page 4
- **Insumos Quirúrgicos S.R.L.**, three-ply high-filtration efficiency masks _____ page 5



International Cooperation _____ page 6



MW S.A., innovative ventilator for intensive care

MW Solutions Argentina is a consortium of companies that has developed together with INTI a Ciclador AMBU® or ventilator for intensive care units (ICUs), with the approval of the National Administration of Drugs, Food and Medical Devices (ANMAT), the Association of Anesthesia, Analgesia and Rehabilitation and the Argentine Society of Intensive Therapy. These institutions guarantee the safety and effectiveness of the product, which is the first of its kind produced entirely in the country.

The UCI ventilator is used in patients' primary healthcare, is simple to handle and can be used in two patients simultaneously. Another advantage is that its cost is significantly lower than that of a conventional respirator. **The Ciclador de AMBU®, called "EVA 02", can help confirmed COVID-19 patients as well as healthcare professionals to get their work done.**



For its development, more than 30 INTI's professionals with different specializations and technicians worked together with the company and four other SMEs in a collaborative way (in addition to MW, the consortium includes: Aeromedical, Metalcrafter, Microlux and FIA Implants). "We achieved a virtuous work team, with quick results. If we hadn't worked on the

project in an articulated way, we would not have succeeded”, says Rafael Dahl, a MW partner.

MW has other production lines for electro-medical equipment, AMBU type self-inflating bag, radio frequency, ultra-cavitation, ozone desinfection and sterilization equipment such as generators, hermetic cabinets, effluent

decontamination systems, water purification systems and sensors, among others.

The UCI ventilator has already been exported to Chile, Uruguay and the Dominican Republic and MW intends to meet the potential demand of the region.



Kovi SRL, supermasks and fabrics with antiviral properties

With more than 11 years of experience in the market, the textile SME Kovi is devoted to the manufacture for medical and personal protection products such as masks, gowns, coveralls, surgical caps, shoe covers, mattress and pillow covers and stretcher covers. The company did not hesitate to innovate together with INTI to face the pandemic.

Biotechnology specialists from INTI conducted microbiological tests, which enabled them to determine the antibacterial and antifungal properties of its antiviral fabrics in various products.

The company then began to produce masks with fabrics which inactivate the virus in five minutes. They are sold under the name of Atom Protect and compared to other products they have the advantage of being self-sanitized. This reduces the possibility of getting infected with the pathogen that causes the Coronavirus. In addition, they have bactericidal and antifungal properties which enable its use for many hours.

Alan Gontmaher, director of the company says: "INTI is a key platform. In less than four months its technicians were able to check the



effectiveness of the antiviral development. This allowed us to differentiate ourselves in the market with this innovative and essential product in the framework of the pandemic. With this validation we achieved a better position at a commercial level".

Kovi SRL has a productive capacity of eight million masks per month and is ready to export, especially to Latin America and the United States. In addition, the technology developed in fabrics can be applied to several final products such as sheets, curtains, etc., which could be addressed to the hotel industry among many others.





Leistung, highly complex equipment for lung ventilation

Leistung Ingeniería is a SME in the province of Córdoba that develops, manufactures and sells highly complex medical devices for lung ventilation. It has three lines of products: UCI respirators, ventilators for patient transport and anesthesia machines.

With the outbreak of the pandemic and the growing demand for ventilators, Leistung made a leap in production, which was supported by INTI's assistance. Specialists of the institute provided management tools in analysis and measurement of the production processes, between 2018 and 2020, when the company increased 100% of its existing capacity.

The company has two modern production plants, one in Argentina and another in Brazil, where it is a reference in the national markets. The increase in its exports to more than 20 countries made the company certify its products under the highest international standards and open a new office in the United States.

"During the pandemic, we have been able to supply the local market and the regional market



with our technology developed and manufactured in Argentina. And by 2021 we expect to increase our sales in the international market", says Silvina Grasso, General Manager of Leistung.

Its plants are certified by ISO 13485 international standards, the European Community guidelines for medical devices, and those corresponding to good manufacturing practices by ANMAT and its Brazilian peer, the National Health Surveillance agency (ANVISA). In turn, in 2017 it got the CE Marking for its intensive care line.



Unitec S. A., face protection masks for health staff

Unitec S.A., an Argentine SME with more than 13 years of experience in home and garden products, which **during the pandemic used its capabilities to develop a face shield especially designed and validated for healthcare staff.**

Unlike other similar products, this mask has an adjustable padded harness, which prevents rubbing against skin and allows its intensive use; its materials comply with the proper sterilization requirements for health areas, and can be



cleaned with sanitizing solutions, such as alcohol or bleach. At the same time, the harness allows the weight of the masks to be distributed throughout the head and not only in the forehead, thus being more comfortable to the user.

The company worked together with the University of Rafaela, province of Santa Fe, and with industrial design specialists from INTI, who were in charge of performing the usability tests. The work included the modification of the design of the visor to avoid fogging during intensive use and the preparation of a user's manual according to the standards. Rodrigo Laorden, head of Unitec's design and Development Department, adds: "We also decided to change the production method: we

went from a manufacturing with high impact polyethylene to plastic injection. This widely increased productive capacity and quality allowed us to improve the cost of the product."

The company, which has a (SIN "A") great experience in the sale and distribution of products throughout the territory of Argentina and Mercosur, wants to expand its market to countries such as Bolivia, Chile, Ecuador and Peru.

"Our goal is to meet the demand for personal protective equipment to prevent viral infections with an accessible product, with greater advantages than those currently offered in the market and a very satisfactory cost-benefit relationship", concludes Laorden.



Eliho Textil, manufacture of Masks with silver threads

The use of silver in the textile industry is not new for the socks factory Eliho textile S.R.L. This SME took advantage of its abilities to develop an antiviral and antibacterial mask with the silver thread X-Static technology, from a fiber made with a layer of pure silver attached to the surface of the textile fiber and which is approved by the Food and Drug Administration (FDA) of the United States. **It is a unique and innovative product which does not exist in the Latin American market.**

Silver thread has many advantages, but its main benefit is that it is an antibacterial agent. In socks, for example, it helps to regulate foot temperature and circulation. In hospital textiles, effectiveness against bacteria is highlighted and cross-contamination is eliminated. All the benefits of silver thread are permanent and do not alter with washing.

In order to validate these benefits in the masks, INTI's specialists in textile conducted tests on the properties of the fabric, its breathability, the duration of washing, cotton resistance and the percentage of particles that passes through so as to determine its



functionality and application of this essential product in the pandemic scenario.

"The current context demands more and more textiles of these characteristics. It is important for the world to know that these types of products exist, which work as a prevention barrier, take care of us, protect us and that we can provide them" concludes Damián Duek, General Director.

Eliho exported to Colombia, Brazil, Paraguay, Uruguay and Chile and it is in a position to continue doing so to those countries interested.



Insumos Quirúrgicos, three-ply high filtration efficiency masks

Patented in May, the latest development by SME Insumos Quirúrgicos SRL is a particle high filtration efficiency mask made from a combination of three types of fabrics, which ensures 97% efficiency and meets the essential safety requirements demanded for medical products by ANMAT (National Drug, Food, and Medical Technology Administration).

The company has two lines of products: individual products: sterile gowns, water resistant ophthalmological gowns, scrubs, water resistant sterile gowns, surgical caps, boots, shoe covers and stretcher covers; and surgical kits for major, minor, high-risk and universal surgery, for orthopedics and traumatology, caesarean section, birth and hemodynamics. **Both lines are certified before the ANMAT and currently they produce more than one million units monthly of each product.**

"INTI accompanied us through its specialists in the textile sector in this new project and developed a technology that allowed us to achieve a unique and innovative product: a



high-filtration efficiency mask, without an international precedent. We also managed to reduce production costs, since the mask could be sold only 10% more than the conventional one", says Rodolfo Wakstein, owner of the company.

This way Insumos Quirúrgicos improves the quality of work for both healthcare staff and patients and it is ready to export to Latin America, not only based on quality standards but also for the comparative advantage of prices in the regional market.



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• International technical cooperation



The Covid-19 emergency has globally reshaped the role of digital technology, and hence the acceleration in the trend towards digitalization in health, education and the labor market.

In this new scenario, INTI will execute over the next 3 years the ***Metrology project for digital transformation to support health services in Latin America and the Caribbean and to face the measurement challenges associated with pandemics such as COVID-19.*** The initiative is funded by the IDB, and will seek to develop new metrology services for the digital transformation of industries and health services in LAC, to be validated regionally and to face both emerging technologies and technologies developed as a result of the COVID-19 crisis.

INTI, in its role as the National Institute of Metrology, will collaborate with its peers from the Inter-American metrology system (SIM). NIST (USA), NRC (Canada) and PTB (Germany) who will participate as strategic partners to transfer their achieved knowledge and experience.

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• INTI capabilities for international markets



Training and education of human resources are keys for enterprises to become more competitive and productive.

INTI has a permanent technological offer of training courses in various industrial topics. In the midst of the global pandemic they have been virtual and free of charge.

In just 40 days we trained more than 20 thousand people (from both public agencies, business chambers, SME's and private consultants) in Argentina, as well as of in Ecuador, Colombia, Bolivia, Venezuela, Uruguay, Spain, Chile, Paraguay, Brazil, Peru, El Salvador, Honduras, Mexico, United States, Andorra, Austria, Belgium, Costa Rica, France, Panama, Italy, Dominican Republic, Russia and Algeria.

Topics such as Introduction to solar thermal energy, keys to entrepreneurship, quality tools for SMEs and training with an approach to processes, were the training proposals with a large number of enrollees.

In order to know the training offer:

<https://www.inti.gov.ar/capacitaciones>

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