15 award-winning innovations from the Tec's entrepreneurship festival

Technology that can be used **in space, sustainable developments**, **medical solutions,** and **artificial intelligence** projects are just a few of these innovations with a Mexican flavor**.**

The eighth annual **INCmty**, **the Tec's entrepreneurship festival**, was an opportunity for young people to share their proposals with the world.

Here is **CONECTA's** list of the stand out **startups** that won first place in contests such as the **Heineken Green Challenge, INC Accelerator, INC Prototype**, **INC-B Challenge**, and **PrepApps.**

1. Greenfluidics - Solar panels that can even be used in space

This company develops **solar panels** that use **photosynthetic microorganisms** to absorb **CO2 from the environment** while **generating energy through capturing sunlight.**

The panels have the potential to encourage **vertical farming**, to be used on **green buildings**, and could also be useful for **generating oxygen on space stations**.

Adán Ramírez shared the work of this startup, and it won **first place** in **INC Accelerator 2020**. The creators of this project are graduates of the Autonomous University of the State of Mexico (UAEM).

*"We are one of **the first space biotechnology companies** in the world; we develop innovations with applications for use in space that will have a real and immediate impact on Earth,"* said Ramírez.

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2. Xilinat - A sugar substitute which diabetics can consume

This **sugar substitute** is produced from **corn waste** which is purchased from producers so as to help with their income.

The process **generates a sweetener** that can be consumed by people **without altering their glucose levels** -even by diabetics- and also helps **protect teeth against cavities**.

Xilinat won **first place** in the **Heineken Green Challenge** 2020.

"Compared to other sweeteners, we provide many health benefits," said Javier Larragoiti, the founder of Xilinat.

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3. OZVI - An ozone and UV light sterilization system

A **smart device combines the use of ozone and UV light,** both non-invasive sterilization technologies, to **eliminate 99.9% of viruses and bacteria** in the environment**.**

This technology may be an option for the disinfection of areas contaminated by **COVID-19**. The project won **first place** in **INC Prototype 2020** for the Technology Readiness Level (TRL) 6 to 8 category.

*"OZVI features **4 30-watt lamps which provide 360 degrees of disinfection**. In 2.5 minutes it can disinfect around 3.14 cubic meters, but it has the capacity to **sterilize up to 200 cubic meters in an hour**,"* explained Rogelio Sariñana, a student at the **Tec's Aguascalientes campus**.
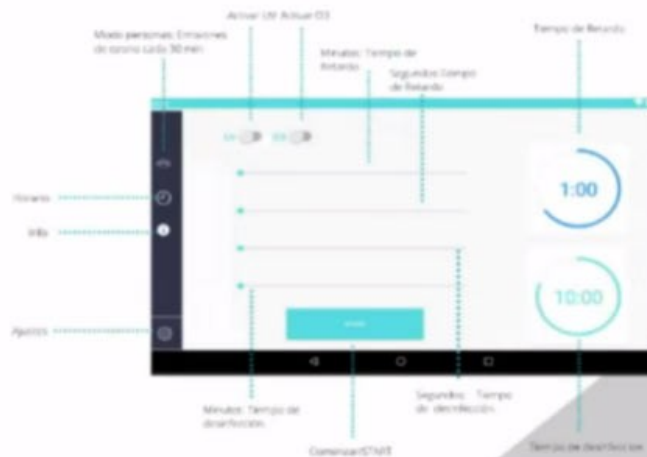
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4. BSN Medical Vision - Intelligent Cancer Care Assistance

By using artificial intelligence, this startup provides **support to doctors treating patients with early-stage cancer.**

Using a platform, specialists will have access to a **digital file**, a network of medical contacts, and **tools for anatomical segmentation**, detection of abnormalities, and the ability to **generate clinical reports**.

Juan Pablo Montoya, a student studying **Computer Technology Engineering** at the **Tec's Sonora Norte campus,** won **second place** in **INC Prototype 2020** for the TRL 6 to 8 category.

5. Moonbeam - Organic personal hygiene products

By using **natural and organic ingredients** obtained from local producers and sustainable processes, this company manufactures **personal hygiene and care products**, which it offers in **returnable containers**.

The startup is run by **Ximena Mora and Omar Landa**, who won **second place** in the **INC Accelerator** 2020 competition.

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6. Jabón Güíjolos - Detergents made from oil waste

70 percent of this **ecological and hypoallergenic detergent** comes from **recycled kitchen oil,** which prevents it from **contaminating rivers, lakes, and other water sources**.

Aracely Gutiérrez, creator of **Jabón Güíjolos**, won second place in the **HEINEKEN Green Challenge**.

"Oil is 5,000 times more polluting than wastewater. According to SEMARNAT, the equivalent of 19.7 Chapala lakes are polluted in Mexico each year," Gutiérrez shared during her pitch.

Un producto circular

Aceite reconvertido en jabón para la ropa, sin sintéticos, sin plástico y sin residuos.

Generando agentes de cambio y empatía por la economía circular.

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7. Agacel Nano - More nutritious food for children.

This startup develops highly nutritious **organic additives** for **foods consumed by children**, such as bread, sweets and bottled drinks, without these losing flavor or texture.

Nanocellulose, rich in fiber and protein, is obtained from a process that takes **advantage of the waste produced by the malted barley** used in beer brewing.

The startup was developed by **Leonardo Chávez and Luxz Cuéllar**, and won third place in the **Heineken Green Challenge**.

"Protein and fiber already exist in the market; what differentiates us is that our process is highly efficient, and we can produce more in less time and by spending less money," said Cuéllar.

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8. SMAAD - A smart environmental monitoring system

The **Atmospheric and Environmental Monitoring System using Drones (SMAAD)** autonomously monitors the **level of pollution** of large geographic areas through **the use of artificial intelligence**.

This technology provides **atmospheric data, obtained in real time**, that can be used by organizations which need the information to be able to make decisions.

The project, whose members are from the **Tec's Hidalgo campus**, won **first place** in the TRL 3 to 5 category of the **INC Prototype 2020** competition.

9. Pellet MX - Agricultural waste used to create biofuel

By utilizing **organic agricultural, woodland, and timber waste**, **this startup** has developed **biomass which serves as a solid biofuel** that can be used as a substitute for fossil fuels such as coal, diesel, and LP Gas.

The creators of this startup want their product to be used in industry and even households. They won **third place** in **INC Accelerator 2020**.

10. iLow material - Biodegradable plastic for electronic devices

For the development of an **electrically conductive polymer**, **Salucita Román and José Villanueva** won third place in the **INC Prototype 2020** TRL 6 to 8 category.

*"iLow is a low-cost, electrically-conductive bioplastic made from organic products which, when integrated into the manufacture of electronic devices, can be **easily recycled** and can degrade naturally,"* said Román.

As it is a bioplastic, it can be produced with a **lower carbon footprint** and can be used to make **circuits, cables, and coatings** that prevent the increase of electronic waste pollution.
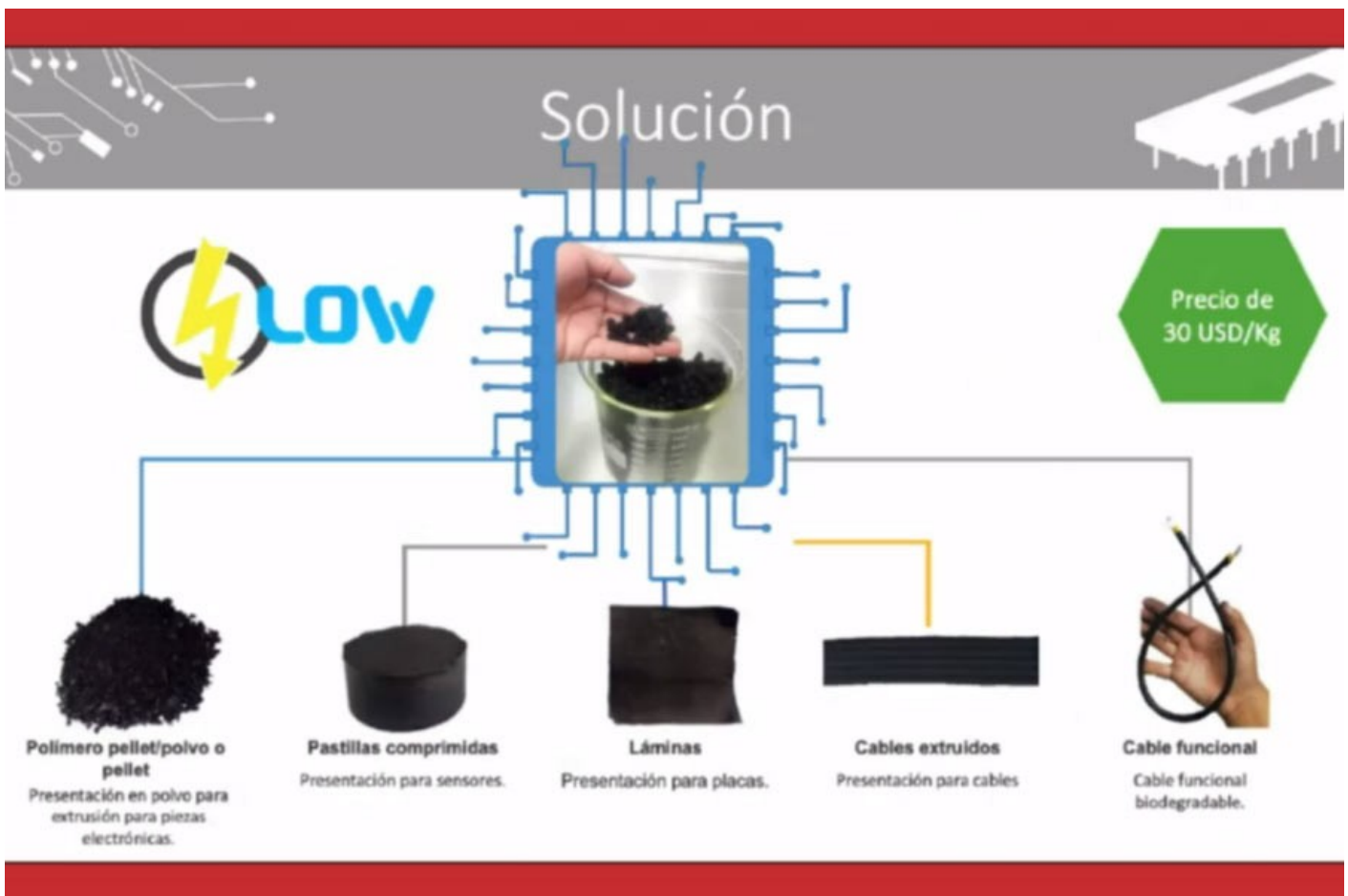
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11. APM - An automated forklift system

The **Automated Pick-Up Machine (APM)** creates a fleet of **autonomous forklifts** which use artificial intelligence to take **real-time inventories** of products and storage in warehouses.

The forklifts can be monitored using a cellphone application, have an integrated camera system, an 8-hour battery, and capacity to transport up to 4 tons.

The project, developed by students at the **Tec's Mexico City campus**, took second place in the **INC Prototype 2020** TRL 3 to 5 category.

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12. Outernet - A device connecting rural areas to the internet

This device takes advantage of the spaces left over from analog television channels to **convert UHF and VHF signals into an internet signal**; the intention is to connect rural and marginalized communities to the world wide web.

For this project, **Jana Laura Voorting**, a student at the **Tec's Cuernavaca campus**, won first place in **INC B-Challenge 2020**.

13. Perseel - An app to manage your events calendar

An application that **works as a catalog of events providers**, allowing users to compare prices, see available dates and browse other details that allow them to plan the best possible event and make reservations in a easier and more accessible way.

César Ávila, a student at the Tec's Sonora Norte campus, won second place in **INC B-Challenge** for this application.

14. Giggle - An app and toy to help children with autism

This project consists of the development of a **smart toy** for **children with autism spectrum disorders**, which can be interacted with through a **mobile application**.

The startup was developed by four students from **PrepaTec Esmeralda**, and won first place in the **PrepApps 2020** contest.

*"The purpose of our project is to help boys and girls with autism spectrum disorders and make their day-to-day lives a little more pleasant. It's more than a toy. It can become **a companion for life**,"* said Juan Antonio Sánchez, one of the developers.

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15. NXT Road - Logistics for freight transportation

This is a **logistics intelligence platform** focusing on the transportation of goods by small and medium-sized companies.

For their project, José Raúl Rodríguez, a student at the **Tec's Monterrey campus**, and Raúl Muñoz, a student at the UANL, won third place in **INC B-Challenge 2020**.

More about INCmty 2020

INCmty brought together more than 10,000 **entrepreneurs, businesspeople, investors, and leaders** from Mexico, the United States, Chile, Colombia, Germany, Spain, Peru, Israel, Brazil, and Canada.

Young people participated in competitions focused on different topics and aimed at distinct entrepreneurship stages, such as:

- The **Heineken Green Challenge**: promoted by **HEINEKEN México** and **INCmty**. This year, it asked for solutions based on the idea of the **circular economy.**
- **INC Accelerator**: aimed at startups launched for the Latin American market.
- **INC Prototype**: a university competition verifying the feasibility and desirability of different prototypes.
- **INC B-Challenge**: a virtual boot camp to generate an initial technology-based project.
- **Prepapps**: Apps and technological solutions developed by **PrepaTec** students.

For **Rogelio de los Santos**, the INCmty president, an important part of the entrepreneurship festival is its role as a platform for young people**.**

*"It's very important to be able participate in this type of competition and to interact with members of the entrepreneurial ecosystem; it is here that **ideas not only develop into concepts**, but they begin to translate into having **societal impacts**,"* he shared.

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https://tec.mx/en/news/national/entrepreneurs/8-important-topics-incmty-entrepreneurial-festival