



CIHEAM YOUTH INNOVATION AWARD 2024

For green and blue transition
in the mediterranean





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Discover the 9 finalists and their project ! #YouthInnovationAward



The prizes to be won are a 10,000€ grant, a one-year scholarship for a Master's degree in Open Innovation and Youth Entrepreneurship at the CIHEAM Bari and an internship with one of our partner companies!

ECOMARC

ecomarc
Eat Clean

Ahmed HAMDI



Ahmed Hamdi, a PhD in chemistry and a dedicated climate action advocate, is the **founder of Ecomarc**, a Tunisian startup transforming coffee waste into sustainable products like edible mushrooms, organic fertilizers, and mushroom-growing kits. Passionate about renewable energy, Ahmed has pioneered an automated compost pasteurization tunnel for Ecomarc, powered by

solar energy and equipped with AI for precision monitoring. His commitment to circular economy solutions is further strengthened through partnerships with global brands like Nespresso, promoting waste recycling and environmental impact.

THE PROJECT: Ecomarc is a startup that repurposes **coffee waste** into **sustainable products** like gourmet mushrooms, organic fertilizers, and mushroom-growing kits.

By collecting used coffee grounds from local businesses, Ecomarc addresses waste management while promoting a **circular economy**. Using proprietary technology, coffee grounds become a nutrient-rich substrate for mushrooms, with the leftover material transformed into eco-friendly fertilizers.

Ecomarc's cultivation kits also encourage sustainable practices among consumers, and the company plans to expand by exploring new products like biofuels and bioplastics from coffee waste.



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NOWA, Network of Women in Aquaculture



Marilou SUC

Marilou Suc is a Blue Growth Consultant specializing in Blue Economy and Blue Technology. She is the **founder of Blue Connection**, a consulting company dedicated to fostering ocean innovation by connecting Blue Economy actors and supporting the development and promotion of sustainable blue technologies. Marilou also hosts BlueTech Around the World, a podcast focused on blue technologies and ocean innovation, showcasing global pioneers and transformative ideas.

Additionally, she is the **co-founder and General Secretary of NOWA**.

THE PROJECT : The Network of Women in Aquaculture (NOWA) is a social entrepreneurship initiative dedicated to promoting **gender equality and inclusivity** across the **global aquaculture industry**.

NOWA provides a **platform** for women in aquaculture to connect, collaborate, and empower each other. The network focuses on five key Sustainable Development Goals: No Poverty, Zero Hunger, Gender Equality, Climate Action, and Life Below Water. Through mentoring, training, and a comprehensive network of resources, NOWA empowers women in aquaculture to grow and lead in the field.



Meet the rest of the Team !

Website: <https://www.nowa-aquaculture.org/>

LUXEED ROBOTICS

Guadaluna CHAER

Guadaluna Chaer is a young tech entrepreneur. She is the **Cofounder of LUXEED Robotics**, an early-stage startup aiming to disrupt the herbicides industry through lasers and AI. Originally a Mechanical Engineer, she drives LUXEED's strategy, securing funding and market development in Europe and the Mediterranean. She's a speaker on AI in Agriculture, Women in Tech, and Climate Change and loves to connect people for mutually beneficial partnerships.

She was named "a Mediterranean everyday Hero" by the UfM, and has recently won first place pitching at the World Bank Youth Summit in Washington D.C. out of the 6 finalists from 2100+ applications and 120 countries.

THE PROJECT : LUXEED Robotics S.A.R.L is developing an **agricultural machine** that uses **AI and lasers** to locate and burn weeds with high precision, completely **eliminating the need for herbicides**. This approach improves soil and crop quality, promoting organic and regenerative farming. The machine, towed by a tractor and sold in modular form, is designed to be 50% more affordable than the main competitors.

The key innovation is a detection system based on AI that optimizes the efficiency of the laser. LUXEED has already signed letters of intent with farmers in Lebanon



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VALORIZATION OF WHEY FOR SOURDOUGH FORMULATION IN BREAD MAKING

Nouha BEN ZBIR

Nouha Ben Zbir is a **food industry engineer** driven by innovation and sustainability in the food sector. Holding a degree in Food Industry Engineering from Polytechnical University ULT, she specializes in HACCP and ISO 22000 standards with a focus on process optimization.

Her professional journey includes impactful projects, such as the valorization of whey for the development of a bakery sourdough which she holds a patent and the creation of a natural antifungal cream based on whey and specific oil, aimed at reducing the ecological footprint of cosmetic products. Her experience in laboratory work, particularly in microbiological analysis of food and cosmetic products, strengthens her commitment to high-level food safety.

THE PROJECT : "Valorization of whey for sourdough formulation in bread making" aims to **enhance the use of whey**, a byproduct of cheese production, for producing sourdough in bread-making."

Whey, rich in nutrients and with a high biological oxygen demand, is often considered a pollutant when discarded into the environment. The research seeks to utilize whey to **improve bread quality** by replacing baker's yeast with sourdough. The results have shown significant improvements in the quality of bread made with whey-based sourdough.



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KEEA

Hadil RBIB



Hadil Rbib is an **agronomist** from Morocco with an academic background in plant and environmental protection. Currently pursuing a Master's at the CIHEAM Chania in Greece, her research focuses on the involvement of women in sustainable olive farming, exploring solutions that support gender inclusion in Morocco and Greece. Alongside her studies, **Hadil is the founder of KEEA**, a startup

dedicated to creating eco-friendly nail products that draw inspiration from Morocco's rich olive oil heritage and waste management. She also serves as the "Women in Agriculture Project" Coordinator for the International Association of Students in Agricultural and Related Sciences.

THE PROJECT : The Moroccan olive oil industry produces waste known as margines, which contains harmful phenolic compounds that threaten aquatic ecosystems. To address this, the project aims to repurpose margines through a **circular economy** approach, **extracting polyphenols** for use in **nail care**.

Polyphenols, recognized for their antioxidant, anti-microbial, and anti-inflammatory benefits, will be used in two products: a nail polish that combines vibrant color with nail-strengthening properties, and a nail balm that offers deep moisturization and is ideal for sensitive or weakened nails.

This approach not only **reduces pollution** but also adds value by **transforming waste** into a **health-focused resource**.



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NOCEANOUS

Sea Rangers Video Games

Alexandra MARTINEZ

Alexandra Martinez is the **founder and director of Noceanous**. She has over 13 years of experience in communications, advertising, marketing, gaming and marine conservation. Her passion for the ocean and commitment to the environment have led her to dive in incredible places, encounter spectacular marine life, learn daily about the importance of protecting the sea, and build a solid network around marine conservation. Driven by the need for change, she founded Noceanous to merge her love for technology with her mission to protect the planet.



"Through Sea Rangers, an educational video game, we aim not only to entertain but to inspire millions to fall in love with the ocean and protect it, as I do every day. I believe it's never too late to embrace sustainability, and together, we can make a real difference."

THE PROJECT : Noceanous develops **video games to protect and conserve the oceans** by combining entertainment with social responsibility. Its mission is to educate players on environmental issues and inspire them to care for marine life, using innovative, engaging gaming experiences to foster a positive impact on the planet.

Through serious casual games and immersive experiences, Noceanous promotes knowledge and awareness of the oceans, highlighting their vital role in climate regulation, oxygen production, food supply, and global commerce.



Instagram: @noceanous
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MYCELIUM

Mohamed FAWZY

Mohamed Fawzy is an **experienced mycologist** driving global change with mycelium technology: pioneering sustainable solutions in materials, food, and medicine to catalyze the transition to a new era of biotechnology. He launched Mycelium startup 2020 to acquire new professional skills such as business and product development, enabling him to convert scientific ideas into marketable products. He managed to secure a seed fund for his start-up in less than a year from launch.



THE PROJECT : The project uses **mushroom cells (mycelium)** to **convert agricultural waste into valuable products** like edible mushrooms and materials that replace single-use plastics and meat, all while saving water and energy.

By turning waste into mycelium compost and spawn, it aims to **reduce greenhouse gas emissions** from burning waste and provide sustainable waste management.

Customers can grow fresh mushrooms easily at home, enjoying a sustainable and fresh food source in just seven days. Additionally, it allowed to recycle spent substrate to create mushroom-based alternatives to plastic packaging.



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REGEN-R8



Hasan JAAFAR

Hasan Jaafar is the **Co-Founder and Chief Operating Officer of YY ReGen**, a pioneering company based in Lebanon. With a strong background in mechanical engineering and a master's degree in renewable energy, Hasan brings a wealth of technical expertise and innovative thinking to the field of sustainable development. Hasan's commitment to sustainability is further evidenced by his involvement in the local startup scene. His work is marked by a passion for

innovation and a dedication to fostering community and resilience in the face of adversity. In recognition of his contributions and achievements, Hasan was listed on Forbes Middle East's 30 Under 30 2023 list, a testament to his influence and leadership in the renewable energy sector. Beyond his professional achievements, Hasan is an advocate for renewable energy education and frequently speaks at industry events and conferences, sharing his insights and experiences to inspire others in the field.

THE PROJECT : Regen-R8 is a cloud-based, **AI-enabled platform** that offers on-demand **renewable Energy-as-a-Service**, empowering farmers with sustainable agriculture solutions that reduce water use, lower carbon emissions, and provide clean energy.

ReGen-R8, is a modular, **plug-and-play solar power system**, delivers reliable, eco-friendly energy for agriculture needs, from watering crops and maintaining livestock barns to cooling produce and running equipment.

With a rental model that includes operation and maintenance, ReGen-R8 units reduce farmers' energy costs by up to 40-50% compared to diesel generators, supporting both cost savings and sustainable farming practices.



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FOODSIGHT



Fidèle EL-ACHKAR

Fidèle El-Achkar is a dynamic entrepreneur, food economic consultant, and leadership expert with over 12 years of experience in the agro-food sector across the MENA region. She is the **Founder and CEO of FoodSight**. Through her work, she has pioneered innovative solutions in food security & food safety, quality management, and market access, helping businesses grow sustainably while meeting global standards.

Fidèle holds a Master's degree in Food Formulation and Development from the Lebanese University and has

worked with both public and private sectors, NGOs, and international organizations.

As an advocate for youth and women empowerment, Fidèle has trained and mentored hundreds of entrepreneurs through different regional and international programs.

Her work in leadership development has been recognized globally, including accolades such as the Best Women-Led FoodTech Business in the Middle East, and the Lebanese Agripreneur of the Year.



THE PROJECT : FoodSight is a **digital marketplace** on a mission to transform the agro-food industry by **connecting experts with producers** to tackle challenges like limited job opportunities and inadequate technical support.

Through its platform, FoodSight fosters sustainability, food safety, and economic growth by providing a wide range of services: access to regulatory information, a network of service providers, and freelance experts, plus project management tools, market insights, compliance support, and networking opportunities.

FoodSight empowers the agro-food sector to adopt sustainable practices, enhance product quality, and drive positive change in the industry.



Instagram : <https://instagram.com/myfoodsight?gclid=1uodhagit3yq8>

LinkedIn : <https://www.linkedin.com/company/myfoodsight>

Youtube : <https://youtube.com/channel/UC2hdN1KMpRjKhdZcWmjrwe>