

# BlueSpark Accelerator

Translating Marine Science into Climate Solutions

## The Need

More than half of Mediterranean fish stocks are overexploited, invasive species continue to transform ecosystems across the Eastern Mediterranean, and marine heatwaves are becoming more frequent and severe. Yet, many of the technologies needed to address these challenges never leave the laboratory. Across the world, promising environmental innovations fail during the critical transition between scientific discovery and real-world deployment because the systems that produce scientific discovery are often not structured to carry innovations through testing, validation, and deployment. BlueSpark was created to close this gap. We are bringing together researchers, industry, government agencies and philanthropic leaders to accelerate the translation of research into deployable solutions for marine and climate resilience, while strengthening public engagement around this critical topic.

## Overview of Project

BlueSpark is based in the Blue Technologies Hub at the Kadas Nexus Centre for Climate Change Solutions, within the Leon H. Charney School of Marine Sciences at the University of Haifa — **ranked #1 in marine science research in Israel**. The Accelerator brings together multidisciplinary research, technological innovation, field operations, and environmental monitoring, supported by Mediterranean field access, international collaborations, and deep institutional infrastructure in marine-climate science.

BlueSpark operates at the intersection of academia, industry, government, and philanthropy — enabling researchers and innovators to test ideas directly with the stakeholders who will use them. Broad objectives include strengthening climate resilience, advancing translational marine research, and positioning the University of Haifa as a regional and international leader in marine innovation. Expected outcomes span research outputs, operational deployments, strategic partnerships, and external funding.

Implementation will proceed in phased stages over three years, moving from planning and infrastructure development through operational rollout, partnership expansion, and evaluation. National and international collaborators will contribute scientific expertise, technological development, and policy translation throughout.

### **Project Impact**

The initiative will strengthen marine-climate research capacity while generating practical environmental solutions with regional and international relevance. Expected impacts include expanded environmental monitoring, improved translational research capacity, strengthened public engagement, increased interdisciplinary collaboration, and the development of scalable tools and frameworks to address climate adaptation, biodiversity protection, marine sustainability, and ecosystem resilience. The programme will also increase the University of Haifa's visibility as a leading institution for marine and climate innovation.

### **Expected Five-Year Outcomes**

- Advance 10 technologies to proof-of-concept stage
- Launch 15 pilot projects with industry or government partners
- Create 3-5 new marine-climate startups
- Train more than 70 students, researchers, and entrepreneurs
- Generate at least \$5–10 million in follow-on investment and grant funding
- Develop solutions supporting sustainable aquaculture, marine monitoring, biodiversity protection, and climate resilience

### **Evaluation and Assessment**

Evaluation will be conducted through annual milestone reviews, operational reporting, scientific outputs, stakeholder feedback, partnership tracking, and measurable project indicators. Assessment criteria will include research productivity, programme participation, environmental monitoring outputs, prototype or technology deployment, public engagement outcomes, partnership growth, and long-term institutional impact. External advisors and institutional oversight mechanisms will support accountability and strategic evaluation.

## Academic Leadership – Blue Technologies Hub



**Prof. Dan Tchernov** - *Director, Leon H. Charney School of Marine Sciences and founder of Kadas Nexus; COO of Project CETI & Marine Biologist*

**Research Interests:** Coral physiology, bleaching mechanisms, coral–algae symbiosis, climate impacts on reefs.



**Dr. Shai Einbinder** - *COO & Founder of Kadas Nexus; Marine Biologist; CCR Instructor*

**Research Interests:** Coral ecology and conservation (Red Sea & Eastern Mediterranean); scientific diving & CCR operations; long-term monitoring and applied conservation.



**Dr. Yaron Bogin** – **Head of Blue Technologies Hub**

**Research Interests:** Yaron is building a collaborative hub that brings together marine scientists, technologists, students, entrepreneurs, and government agencies to advance bluetech and sustainable agriculture. By blending cutting-edge research with market forces, he is driving tech innovation and scaling this vital ecosystem.

## Why Support Matters

We are funded through donor support and research grants (**raising \$55 Million to date**). Traditional research grants fund scientific discovery, but rarely support the activities required to transform research into deployment-ready solutions. Entrepreneurship training, industry engagement, prototype development, market validation, and early-stage innovation support are typically ineligible under most academic funding programmes. Philanthropic investment provides the flexible capital needed to bridge this critical gap. The Hub and Bluespark Accelerator is housed within the Leon H. Charney School of Marine Sciences at the University of Haifa and benefits from existing institutional infrastructure, faculty support, laboratory facilities, and the broader Kadas Nexus ecosystem. **Philanthropic support will leverage these existing investments rather than duplicate them.**

## Annual Budget

| Item                          | Details                                                                                    | Amount<br>USD per annum |
|-------------------------------|--------------------------------------------------------------------------------------------|-------------------------|
| Personnel                     | Programme Director and Management; Innovation support, technicians and student fellowships | 600,000                 |
| R&D                           | Prototype development fund, seed grants, lab and tech development                          | 700,000                 |
| Field operations              | Operations and administration                                                              | 600,000                 |
| Communications and engagement | Events, workshops and training, impact reporting and metric monitoring                     | 100,000                 |
| <b>Total</b>                  |                                                                                            | <b>\$2 million</b>      |

Estimated annual operating costs are **\$2 million**, depending on project scale and infrastructure requirements. Major infrastructure initiatives may require multi-year capital investment. **Opportunities for naming partnerships, endowed programmes, fellowships, laboratories, innovation accelerators, outreach programmes, and operational sponsorships are available.**

## Giving Tiers

- **\$5M Founding Partner (spread over 5 years)**
- **\$2M Annual Programme Sponsor**
- **\$500K Innovation Prototype Fund**
- **\$250K Fellowship Programme**
- **\$100K Innovation Challenge Sponsor**

## Sustainability

Sustainability will be achieved through institutional integration within the University of Haifa, competitive grants, industry partnerships, philanthropic support, collaborative research networks, translational innovation pathways, and long-term operational planning.

## Contact Information

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