



# OZAYATECH **GECC** Tech

**Green | Environmental | Clean | Climate | Technologies**

---

"Resilience Hub Innovative Technology Solutions"

# The Need for Helpful Technology!

We are faced with an urgent need to develop and implement comprehensive, effective technologies across diverse sectors to combat the rapidly accelerating climate change and environmental degradation. Current technologies and practices are inadequate to address these mounting challenges, leading to severe repercussions for ecosystems, economies, and communities. Moreover, community resilience is undermined by a critical lack of resilient infrastructure, increasing vulnerability to environmental stresses. This situation highlights the necessity for innovative, sustainable technological solutions that not only mitigate environmental impacts but also bolster economic stability and enhance the resilience and well-being of communities. Addressing this multifaceted problem requires a coordinated effort to advance technologies that can deliver lasting, positive outcomes without creating future issues.



## SOLUTIONS

Oxayatech's innovations are designed with the future in mind, prioritizing solutions that reduce environmental impact and promote ecological balance. From renewable energy systems to sustainable agriculture practices, our technologies help preserve the planet's natural resources, ensuring that we don't sacrifice tomorrow for the needs of today.



## **Helpful Technology**

Our approach is rooted in pioneering the development and deployment of transformative green technologies that address the urgent challenges we face today. We're committed to innovating solutions that drastically reduce carbon emissions, turn waste into renewable resources, and optimize the use of natural assets. By focusing on sustainable practices that integrate seamlessly across industries, we are not just mitigating environmental impact but actively restoring and enhancing ecosystems. This holistic approach ensures that our efforts lead to lasting, positive changes, empowering communities to thrive in harmony with the planet. Through these initiatives, we are setting a new benchmark for sustainability and resilience on a global scale.

**GECC Tech**

---

**Green | Environmental | Clean | Climate | Technologies**

### **MICROFLUIDIC WATER FILTER**

Ozayatech is committed to solving one of the most critical challenges facing communities worldwide: access to clean water. By investing in GECCTech, you are supporting innovative technologies that ensure safe, reliable, and sustainable water resources for communities, enhancing their resilience and overall well-being.

## **Access to Clean Water**

Advanced filtration and purification technologies that make contaminated water sources safe for drinking and everyday use. Our solutions are scalable and adaptable, making them suitable for diverse environments—from urban centers to remote rural areas—ensuring that clean water is accessible to all.



Resilience Hub Innovative Technology Solutions

## Areas We Address

### **Climate Change Mitigation and Adaptation:**

Addressing the urgent need to reduce greenhouse gas emissions and develop strategies to adapt to changing climate conditions.

### **Environmental Protection and Resource Conservation:**

Focusing on the preservation of natural resources, reducing pollution, and promoting sustainable practices to protect ecosystems.

### **Community Resilience and Economic Development:**

Empowering communities to become more resilient to environmental, economic, and social challenges through sustainable development and equitable access to resources.

### **Technological Innovation for Sustainable Development:**

Advancing and integrating new technologies to drive sustainability across various sectors, ensuring that communities can thrive in a rapidly changing world.

The areas we address are not isolated targets but interconnected threads that, when woven together, create a tapestry of resilience, sustainability, and equity. Ozayatech GECC Tech is more than a solution provider—we are visionaries and architects of a future where humanity and nature coexist in harmony, where technology serves the common good, and where every community has the opportunity to thrive. Our journey is just beginning, but with each step, we are moving closer to realizing this vision—a future where the principles of sustainability, resilience, and equity are not just ideals but lived realities for all.

# Innovative Solutions

Green, Environmental, Clean, & Climate, Technologies



## Individual Recycling & Waste Treatment:

### Description

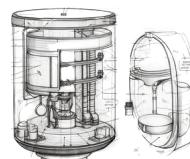
As the world grapples with increasing waste and environmental degradation, the need for efficient and localized waste management solutions has never been more critical. Individual recycling and waste treatment systems offer a powerful way to empower communities and individuals to take control of their waste, reduce their environmental footprint, and contribute to a more sustainable future.



## Room Temperature Prototype

### Description

Industrial users need an efficient heat-generating engine that can produce high temperatures — hot enough to generate steam or to dry materials. However, today's technology requires them to burn natural gas or coal, or to run large amounts of electricity through a resistor — electricity which, today, is typically also made from fossil fuels.



## Microfluidic Water Filters

### Description

Microfluidic devices contain tiny channels, often no wider than a few hair-widths, through which water is passed. These channels can be designed to target specific contaminants based on size or other properties, effectively separating them from water. Some microfluidic devices also use surface properties of the channels to attract or repel certain contaminants, enhancing the filtration efficiency.

## Cutting-edge Technologies

Traditional solutions often fail to address the root causes of these issues or provide equitable access to resources and opportunities for all. This is where innovative solutions come into play: they offer new ways to harness technology, rethink systems, and create sustainable, scalable impact. By developing cutting-edge approaches that prioritize inclusivity and resilience, we can ensure that every community has the tools and opportunities to thrive in an uncertain future. The pursuit of these solutions is not just a response to today's challenges, but a proactive step towards a more equitable and sustainable world.



# Resilience Hubs

Through equal access provided by Resilience Hubs, we aim to foster community engagement, address critical challenges, and drive sustainable economic growth. Our approach integrates advanced technology and community-led initiatives, ensuring that every community member, regardless of their background, has the tools needed to thrive and contribute in achieving the United Nations Sustainable Development Goals (SDGs).

## COMMUNITY RESILIENCE FRAMEWORK

Outcomes include stronger community cohesion, sustainable economic opportunities, and youth retention, ensuring that communities are not only prepared for present challenges but also positioned for future success. This adaptable framework addresses immediate needs while laying the foundation for a resilient and prosperous future.



# Community Resilience Framework

CRF + GECC Tech

Developed by the Stemtac Foundation, NuTerra Research and Development Center (NuTerra RDC), and powered by Ozayatech's Green Environmental Clean Climate Technology (GECCTech), the Community Resilience Framework (CRF) leverages Resilience Hubs as central pillars of community empowerment. These hubs serve as focal points for innovation, education, access to technology, and opportunities, enabling communities to build resilience from within. By focusing on youth-led stewardship, these hubs ensure that the younger generation is equipped with the skills and opportunities needed for leadership in green technologies and sustainable practices.



---

GECCTech is at the forefront of a technological revolution that is transforming how communities around the world address the challenges of sustainability and resilience. By investing in GECCTech, you are empowering communities to build a future where they are not only surviving but thriving in the face of environmental, economic, and social challenges.



## Resilience Hub Innovative Technology Solutions

### Solar Microgrids

Solar panels combined with battery storage systems to provide uninterrupted power during grid failures, ensuring that resilience hubs remain operational during emergencies.

### Smart Water Management Systems

Automated systems that monitor water quality and manage water distribution, including rainwater harvesting and filtration, to ensure clean water availability in resilience hubs.

### Internet of Things (IoT) Sensors

Networks of sensors that monitor environmental conditions, such as air quality, temperature, and humidity, providing real-time data to inform decision-making and resource allocation.

### Emergency Communication Platforms

Digital platforms that enable real-time communication between resilience hub coordinators and the community, ensuring the timely dissemination of crucial information during crises.

**Green | Environmental | Clean | Climate | Technologies**



## Drones for Surveillance and Delivery:

### Description

**Delivery:** Drones equipped with high-resolution cameras and sensors can monitor large areas, assess damage, and identify hazards in real-time during disasters. They can also be used for delivering critical supplies, such as medical kits, food, and water, to hard-to-reach areas, ensuring that communities connected to resilience hubs receive timely aid.



## Vertical Farming Systems:

### Description

Indoor agriculture technologies that use minimal space and resources to grow food, ensuring a steady supply of fresh produce for the community, even during supply chain disruptions.



## 3D Printing Technology

### Description

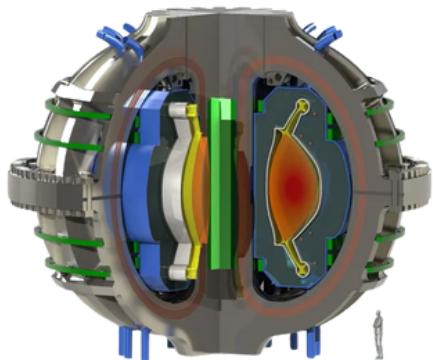
On-site 3D printers capable of producing essential supplies, such as medical equipment, tools, or building components, reducing dependency on external supply chains.



## The Chimera Cell : The Future of Solar Power

### Description

Introducing the Chimera solar cell, a multi-layered technology that combines multiple components to create an all-weather solar cell. The upper boundary layer of the Chimera solar cell features a specialized acoustic transfer system that converts sound and vibration energy into usable electricity. This is accomplished through the use of a piezo-electric crystal lattice that generates an electrical current when subjected to mechanical stress or vibration.



## HempBlock Technology

### Description

HempBlock is an innovative, sustainable building material developed by Ozayatech, made from a blend of industrial hemp and eco-friendly binders. It serves as a carbon-negative alternative to traditional concrete and brick, offering excellent thermal and acoustic insulation while reducing carbon emissions. HempBlock accelerates construction, with pre-fabricated blocks that minimize time and cost, while ensuring affordability and sustainability.

# Agrotechnology

Ozayatech is at the forefront of agrotechnology, transforming the way we produce food and manage natural resources to ensure a sustainable and resilient agricultural future. By integrating cutting-edge technology into agricultural practices, we're paving the way for innovations that will feed the world while protecting the planet.



## AUTOMATED AND SMART FARMING SYSTEMS

We are leading the way in developing automated farming systems that increase efficiency and reduce labor costs. From robotic harvesters to AI-driven farm management software, our technologies make farming more efficient, scalable, and resilient to changes in climate or market conditions.

# Green Technology Market

## Key Market Segments

- Renewable Energy
- Energy Efficiency and Smart Grids
- Sustainable Agriculture and Water Management
- Waste Management and Circular Economy
- Sustainable Transportation
- Drones (Unmanned Aerial Vehicles - UAVs)

### CHALLENGES

The global green technology market is expected to grow from \$23.6 billion in 2024 to around \$83 billion by 2032, with a compound annual growth rate (CAGR) of approximately 19.5%. This growth is fueled by rising investments in renewable energy, sustainable infrastructure, and green technologies.

### MARKET GROWTH AND SIZE

The current market for green technologies is experiencing significant growth, driven by increased environmental awareness, stringent regulations, and advancements in technology.





# Our Team

---

Our team of visionary engineers and scientific pioneers is dedicated to creating transformative solutions that align with the Sustainable Development Goals (SDGs), ensuring equal access to resources and opportunities for all. We push the boundaries of what's possible by designing advanced technologies and sustainable systems that empower communities and enhance resilience. By focusing on equitable outcomes, we avoid labels that diminish potential and instead emphasize the universal right to opportunity and progress. Together, we are building a future where everyone can thrive, supported by cutting-edge innovations that drive meaningful change on a global scale.



## Al Herron

*CEO & Founder*

Al Herron is a dynamic Entrepreneur and Particle Physicist currently pursuing a PhD in Business Management with a specialization in Strategy and Innovation. Al has spent his career pushing the boundaries of Compact Linear Accelerator Technology and driving new business development opportunities. His relentless pursuit of educational and economic equity in underserved areas has made him a powerful advocate for change. Serving on multiple boards, Al is dedicated to creating environments where STEM education thrives, empowering communities, and building resilient futures.

## Nic Reese

*Director of Marketing*

Nicolas Reese (Nic) is also the associate executive director of Stemtac Foundation. With a background in student services, including tutoring, dorm management, and academic resources, Nic brings strong leadership skills and a collaborative vision to the organization. Leveraging self-taught marketing expertise, Nic effectively oversees Stemtac Academy social media, communication, and digital presence, contributing to the organization's success.

## Frank Clay

*Director of Operations*

Frank Clay currently serves as the Assistant Director of Operations for Stemtac Foundation and IVCG. With an expansive career of over twenty years in operational management, data stewardship, and real estate, Frank has consistently enhanced business processes and data governance across various industries. His substantial expertise in data handling and operational strategy is evident, showcasing a steadfast journey through technological and managerial roles, all supported by a solid foundation in systems analysis and business analytics.



## **Michael Torrey**

*Founder of Torrid Labs*

Michael Torrey, Founder of Torrid Labs, brings a diverse background in mechanical engineering and senior executive leadership. His extensive experience in validating components of a system and data, machine processing and inspection, CAD, and simulation across various engineering disciplines is crucial for the development of cutting-edge solutions. Michael's leadership and technical expertise are key to the successful implementation of NuTerra's engineering initiatives, ensuring the highest standards of quality and innovation .



## **Dennis Day**

*Director of Technology & Information Systems*

With over fifteen years of experience in interactive marketing, web design, web applications, graphics, and information technology, Dennis Day II, is a visionary in the field. As the Director of Technology and Information Systems, Dennis brings innovative solutions and strategic implementation of technology. His work not only drives operational efficiency but also opens up new avenues for community engagement and technological access, making a significant impact on the lives of many.



## **Twyla Jackson**

*Director of Fund Development*

Twyla is a passionate advocate for advancing BIPOC communities through emerging technologies. Leveraging her extensive expertise in agricultural technology, construction, real estate, and community development, Twyla plays a crucial role in securing funding and building strategic partnerships that drive impactful innovation. Her efforts focus on ensuring equitable access to emerging technologies and resources for underrepresented communities, with a strong emphasis on sustainable practices and resilience hub development.



**Resilience Hub Innovative Technology Solutions**

---

# Our Partnerships

---

Our success is deeply rooted in the strength and vision of our partnerships. We collaborate with a diverse network of organizations, thought leaders, and innovators who share our commitment to creating a more resilient, equitable, and sustainable world. These partnerships are the cornerstone of our approach, enabling us to amplify our impact and drive transformative change on a global scale.



## STEMTAC Foundation

The STEMTAC Foundation is committed to advancing STEM education, entrepreneurship, and social justice within the Puget Sound region. By focusing on accessible, customized training and business incubation, STEMTAC empowers individuals and communities to thrive in the rapidly growing STEM sector. Their work is guided by four pillars: Education Enrichment & Career Training, Entrepreneurship & Business Support, Social Justice, and Community Engagement, ensuring that STEM resources are a right for all, not a privilege. Through strong partnerships and innovative programs, STEMTAC is creating a more equitable and inclusive future[



## NuTerra Research & Development Center

NuTerra RDC is a pioneering micro-national laboratory designed to address regional and global challenges through scientific innovation, sustainability, and community empowerment. It is owned and operated by BIPOC (Black, Indigenous, and People of Color) leadership and serves as a hub for research, education, and technological advancements that drive equity and innovation. A Micro-Regional laboratory differs from traditional national labs in its focused, agile, and community-centered approach. Unlike large institutions that often face bureaucratic inefficiencies and limited local engagement,



## Torrid Labs

Torrid Labs is revolutionizing the field of 3D printing and additive manufacturing, driving advancements that transform how we design, produce, and innovate. By leveraging cutting-edge technology, we develop sustainable manufacturing processes that reduce waste, increase efficiency, and enable the creation of complex, high-performance components across various industries. Our focus on additive manufacturing allows us to push the boundaries of what's possible, offering scalable solutions that are not only economically viable but also environmentally responsible. Through our innovative approach, Torrid Labs is shaping the future of manufacturing, delivering customized, on-demand solutions that meet the evolving needs of a rapidly changing world.

# Join Us in Shaping a Future of Equal Access and Sustainable Progress

We invite you to be part of a movement dedicated to crafting transformative solutions that rise to the challenges of our time. As our world faces unprecedented shifts—environmental, social, and economic—the need for innovative approaches that prioritize equity and sustainability has never been more critical. By joining us, you become a vital contributor to a collective effort that harnesses the power of technology, science, and human ingenuity to create systems where everyone has equal access to the resources and opportunities needed to thrive.

Together, we can move beyond traditional methods, developing groundbreaking solutions that address the root causes of global issues and ensure resilient, adaptable communities. Whether you're passionate about advancing the Sustainable Development Goals (SDGs), committed to environmental stewardship, or driven by a desire to close the gap on access disparities, there is a place for you in this mission.

Your involvement will help us innovate and deploy cutting-edge technologies that empower communities, protect our planet, and pave the way for a future where progress is sustainable and inclusive. Join us in this vital work—let's drive meaningful change, foster resilience, and build a thriving world where every individual has the opportunity to reach their full potential. Together, we can shape a future that leaves no one behind.

## ALIGNING CAPITAL WITH PURPOSE FOR LASTING IMPACT

Intentional investors carefully select opportunities that align with their values, whether it's supporting clean energy projects, funding education and healthcare in underserved areas, or backing companies committed to ethical practices. The goal is to generate a return that goes beyond profit—creating a ripple effect of positive change that benefits people and the planet.



Green, Environmental, Clean, & Climate, Technologies

# Thank You!!

---



**Green | Environmental | Clean | Climate | Technologies**

"Resilience Hub Innovative Technology Solutions"

