

# Introduction

The questions below are designed to bring together, in a brief format, the most important information on your company and its flagship product. The information will provide the judges with a basic understanding of the value of the product's technological innovation and your company's potential to build significant revenue and profitability.

The survey evaluates companies and their flagship products from three perspectives:

- **Technology:** Both intellectual property and know-how
- **Application:** Product design for efficient and reliable performance in the field
- **Business Opportunity:** Potential for wide-scale application of this product in the market with a robust business behind it

In order to rank the most promising approaches to the different water resource challenges, the questionnaire asks you to choose a category that best defines what your flagship product does.

Many of the most important products that are emerging into the market bring several innovations together. The questionnaire provides you with an option of choosing a secondary as well as a primary category. A separate question asks you to identify the market that it will address first.

We also want to hear about any metrics that you can offer to demonstrate the sustainability of your product, from an economic, social and environmental perspective.

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*Note: The Artemis Project and the judging team for the Top 50 Company Competition will base its opinion on the material rendered in the company application. We assume that the companies have submitted this information in good faith and that the information is accurate.*

*We assume an optimistic perspective that the teams behind each of these companies can fulfill the promise of their early-stage ventures.*

*Applicants are invited to supplement this application with additional material. Keep in mind that judges will only refer to this supplemental material at their own discretion.*

*Details on the competition, eligibility and its schedule are available on the [Top 50 webpage](#).*

## Application

**Company Name:**

**Chief Executive Officer:**

**Primary Contact Person:**

**Work Phone:**

**Email Address:**

**Address 1:**

**Address 2:**

**City:**

**State/Province:**

**Postal Code:**

**Country:**

## Technology--Product Solution

**What solution does your product provide? Describe the basic mechanics of how the product introduces a disruptive or game-changing innovation in water resource management. How do you measure its benefits in terms of reduced costs and increased profitability for the user? *Please focus on the most important pieces of quantitative data that you have on your product's performance or expected performance.* (250 word limit)**

**IP and Know-How - Generally describe your IP. *What is your company's plan for protecting the intellectual property and know-how around your product and the innovation that it provides? Please list any relevant patents or other formal mechanisms for protecting your innovation. How much of that plan have you implemented to date?* (250 word limit)**

## Technology - Product Solution

From the listed categories, choose a primary and secondary that best defines what your technology does. Please type "primary" or "secondary" in the box next to your selected category.

*For example, you might type "primary" next to 'Waste to Energy' and "secondary" next to 'Modeling, analytics, and optimization.'*

### Asset Management

Sensing, detection and metering, including water quality monitors, biodetection, trace organics and trace metals, fouling sensors

Modeling, analytics and optimization

Coatings and surface covering to support water infrastructure, including engineered biofilms, polymers to fix pipes, etc.

Storage - drinking water and reclaimed water storage, as well as rainwater storage

Integrated on-site water management: Cooling towers

Integrated on-site water management: Onsite water reclaim

Integrated on-site water management: Onsite treatment for produced water

### Water and Waste Water Purification

Disinfection and destruction - approaches that change molecular configurations to render a substance inert - including UV, AOP, oxidation, organic destruction and supercritical

Contaminant removal - innovations that separate contaminants - including primary waste water treatment membrane processes, thermal, filtration, adsorptive media, deoiling technologies, water & plasma

Bioprocesses, including microbial fuel cells, and secondary treatment, anaerobic digestion, enzymes, bacteriophages, sludge treatment

### Waste Water Refining, Resource Recovery

Recovering valuable biproducts, such as phosphorus, lithium, metal plating, etc.

Energy recovery, waste heat recovery

Waste to energy

## Market Application

On which segment of the water industry is the company focusing the application of your flagship product? From this listing, choose one "primary" and "secondary" segment. Please type the word in the blank next to that segment.

*For example, you might type "primary" next to 'Chemical & refining' and "secondary" next to 'Waste water treatment.'*

### MARKET SEGMENT

#### Industrial

##### *Heavy Industry*

Oil & gas	<input type="text"/>
Chemical & refining	<input type="text"/>
Power generation	<input type="text"/>
Food & beverage	<input type="text"/>
Pulp & paper	<input type="text"/>
Mining & metals	<input type="text"/>

##### *Light Discrete Industrial*

High-tech (e.g., pharma, semi-conductor, wafers)	<input type="text"/>
Manufacturing (e.g., auto, white goods, equipment)	<input type="text"/>
Other	<input type="text"/>

#### Additional Focuses

Agriculture	<input type="text"/>
Outdoor on-site water management	<input type="text"/>
Institutional (e.g., universities and hospitals, real estate managers, retail operations, accommodations, etc.)	<input type="text"/>

#### Municipal

Water treatment	<input type="text"/>
Waste water treatment: Primary	<input type="text"/>
Waste water treatment: Secondary (biological, membrane)	<input type="text"/>
Waste water treatment: Tertiary	<input type="text"/>

**Other (25 word limit):**

## Business Viability

**What is the current status of your product introduction? Select one.**

- No current bench scale or lab testing
- Lab/bench scale proof of concept
- Pilot scale
- Full-scale operation
- Full-scale operation for more than a year
- Regulatory approval (permit to apply and sell in large-scale markets)
- Validated studies by regulated bodies sufficient for government or utility rebates

Please specify the approvals, verification and validation that your product has received. Please specify the organizations that have conducted the validation.

## QUALITY ASSURANCE / ENVIRONMENTAL & PERFORMANCE

**Please provide data on the environmental and performance claims of the product. Please cite the quality assurance/quality control information on the data and include all quality assurance/quality control information on the data collection, interpretation and analysis. Please send relevant reports at the end of this application process.**

## COST TO PROFITABILITY

**What are costs of gaining regulatory approval for your first major markets (US\$ amount)? What have been or will be the costs for bringing the product to wide-scale market penetration? (250 word limit)**

## Business Potential

### POTENTIAL MARKET SIZE

What is the potential market size for your specific application, given the current size and expected growth of that specific operation in that industry?

### MARKETING STRATEGY

Please describe your go-to-market strategy. What is the role of partners and pilots? Which partnerships and projects have you already confirmed? What is your distribution strategy for your primary product? What is the timeframe for key milestones for your penetration into the market?

### COMPETITION

Competitors are one of the most important signs of an established market opportunity. Please list the companies and services that you see as competition.

### TEAM

Please describe the skills and experience of your key operational executives (not including board members). Please indicate the qualifications and years of experience in terms of technical, operations and business experience. (250 word limit)



**Sources of capital. Select one.**

- Raised less than \$200K from any source
- Raised over \$200K from any source
- Received investment of over \$1M from standard venture capital fund (meaning that limited partners invested in a partnership to make high-risk, high-return investments)
- Received over \$4M in government or NGO grants
- Raised over \$10M from any source

**Revenues. Select one.**

- No revenues to date
- Less than \$500K
- Over \$500K
- Over \$1M
- Over \$5M

**SUSTAINABILITY – WATER NEXA**

**How does your company address the use of energy, water, waste and environmental resource management by your primary product as compared with conventional processes? How does this product change water management processes to more efficiently use energy, water and other environmental resources and reducing waste?**

**How does your company meet goals for economic, environmental and social sustainability?**

**What are your product's life-cycle costs – addressing estimates of materials used, life-time of operation and disposal?**