



THE
OCEAN COLLECTIVE
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Innovative Solutions Showcase

Addressing Marine Environmental Challenges through Nanofibers

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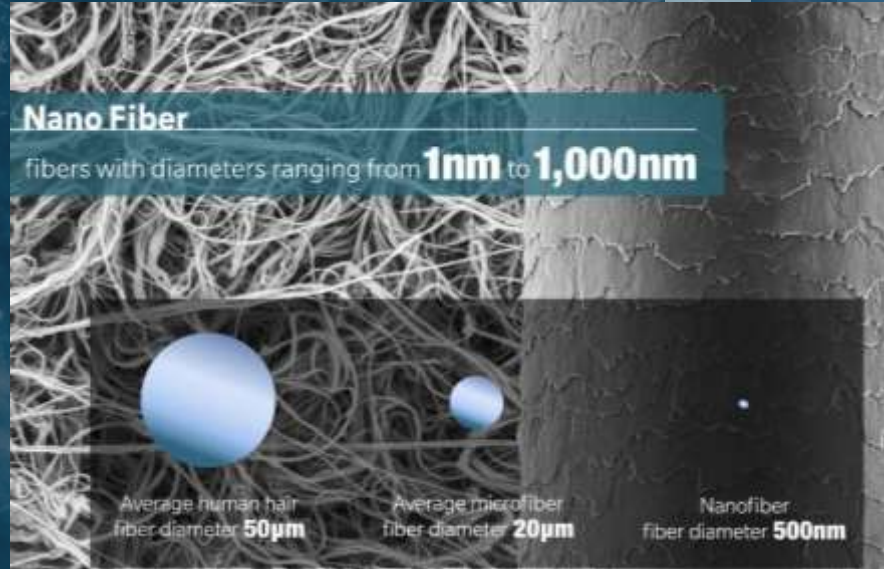


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What is Nanofiber?

- Ultra-fine fibers with diameters of 1 to 1000nm
- The same size as virus
- Fine diameters provide unique properties



History of Nanofiber

WORLD

1980s, basic nanofiber research has begun

Experiment Only

M-TECHX

2015, developed unique manufacturing process

Mass Production

We have achieved commercialization for the first time in the world.

Applications

Items we are developing for commercialization

Oil Absorbent



Agriculture



Sound Absorption



Insulation



Filtration



Apparel



Medical Supplies



Defense & Law Enforcement



Demonstration of Magic Fiber



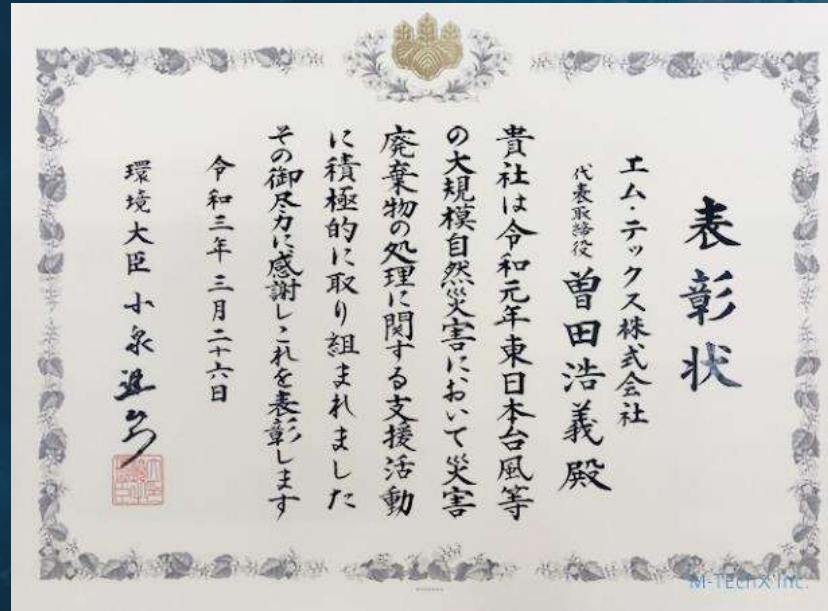
Use Case Examples (2019 in Saga, Japan)



Due to the heavy rain that hit northern Kyushu Japan in August 2019,

九州北部に大豪雨

Received the Minister of the Environment Award



2020 in Japan

Use Case Examples (2020 in Mauritius)



Use Case Examples (2023 in the Philippines)

Oil spill off the coast of Pasir Gudang Port
(approximately 800,000 liters)



Key Factors in Oil Spill Response

	Japan	Mauritius	Philippines	Others
Material	Magic Fiber	Magic Fiber	Magic Fiber	Ordinary Pads / Chemicals
Framework	Contingency Plan	None	Contingency Plan	Depends
Effectiveness	High	Low	Low	Depends
Time	1 Week	Not finished	Not finished	Depends

Fast response is the key

Key Factors in Oil Spill Response

1. Innovative material that quickly collects oil
→ Magic Fiber is effective
2. A system that effectively collects spilled oil
→ An optimal system is needed.

At the site, environmental organizations are volunteering to take swift action.

WE PEACE ENVIRONMENT ASSOCIATION



1. Concept

Up until now, UN has taken the lead
→ "Environment" has become popular

From now on, "We" should take the lead
→ A new word "peaceful environment"

2. Function

A platform to unite environmental organizations for swift response

WE PEACE ENVIRONMENT ASSOCIATION



- Unite environmental organizations
- Access to funds and resources
- Introduction of innovative materials



Respond to oil spills without being constrained by national frameworks.

Collaboration with SeaKeepers

More Innovation

Improve innovative materials in parallel with creating innovative systems.

1. Re-extract Oil

Extract and reuse the absorbed oil

2. Biodegradable

Commercialize biodegradable Magic Fiber



To Utilize Innovative Solutions

- Presented examples of utilizing nanofiber oil absorbents
- Innovative materials and systems that can use them effectively are crucial
- A system that enables a swift response is necessary

Create a system that unites environmental organizations for rapid responses outside the governments frameworks.



WAVES OF CHANGE

Uniting Business in Ocean Conservation



THANK YOU