### The introduction of Helical Fusion Co., Ltd.

October, 2023



#### VISION

## "Humanity evolves with nuclear fusion"

With our helical fusion reactors, we will create a sustainable and stable energy source that will enable the coexistence of humans and the Earth for the next million years.



#### Team



Junichi MIYAZAWA Co-Founder, Co-CEO Head of R&D





Takaya TAGUCHI Co-Founder, Co-CEO Head of Business/Finance



#### Our Goal

# 2034

# the world's first steady-state fusion reactor

#### Why us? - History

We are a spin-out company from the national institute on which the Japanese government has spent decades and billions of dollars.



https://www.chunichi.co.jp/article/454591

#### Why us? - Stable Operation



• Simple in structure, but quite difficult to operate continuously.



 Complex in structure, but good for operation and maintenance.
→Suitable for power generation

#### Why us? - Achievement

"LHD" is the only device in the world which has achieved 100 million degrees Celsius and plasma duration time for over 3,000 sec.



Large Helical Device (LHD) at National Institute for Fusion Science (Japan)

#### Why us? - Technological Maturity

#### We have already demonstrated the most challenging technology, plasma.

Milestones	Done	Doing	To Do
Plasma Performance			
Plasma Duration Time			
Engineering Technologies *High Temperature Superconductor, Liquid Blanket, etc.			
Construction of Prototype			
Operation of Prototype			•
Construction of First Pilot Plant			•
Operation of First Pilot Plant			•

### Why us? - Comparison of Fusion Methods

#### Only helical can overcome technical barriers



#### **Business/R&D Plan**



#### **Business Model A: 2028-**

Provide design of fusion reactor, and core technologies



#### **Business Model B: 2025-**

# Provide elemental technologies to fusion startups and Governments.



Fusion Startups and Governments

- 1. License fee
- 2. Joint research and development fee

## Let's start a revolution with

