



TRANSFORMING HOW WE ENERGIZE THE WORLD

Matt Miles

generalfusion®

generalfusion

Fusion is the future of energy

Fossil Fuels



55,000 barrels of oil
and 23,500 tons of CO₂

Fusion Energy



... can be replaced by
1 liter of fusion fuel ...

(distilled from water)

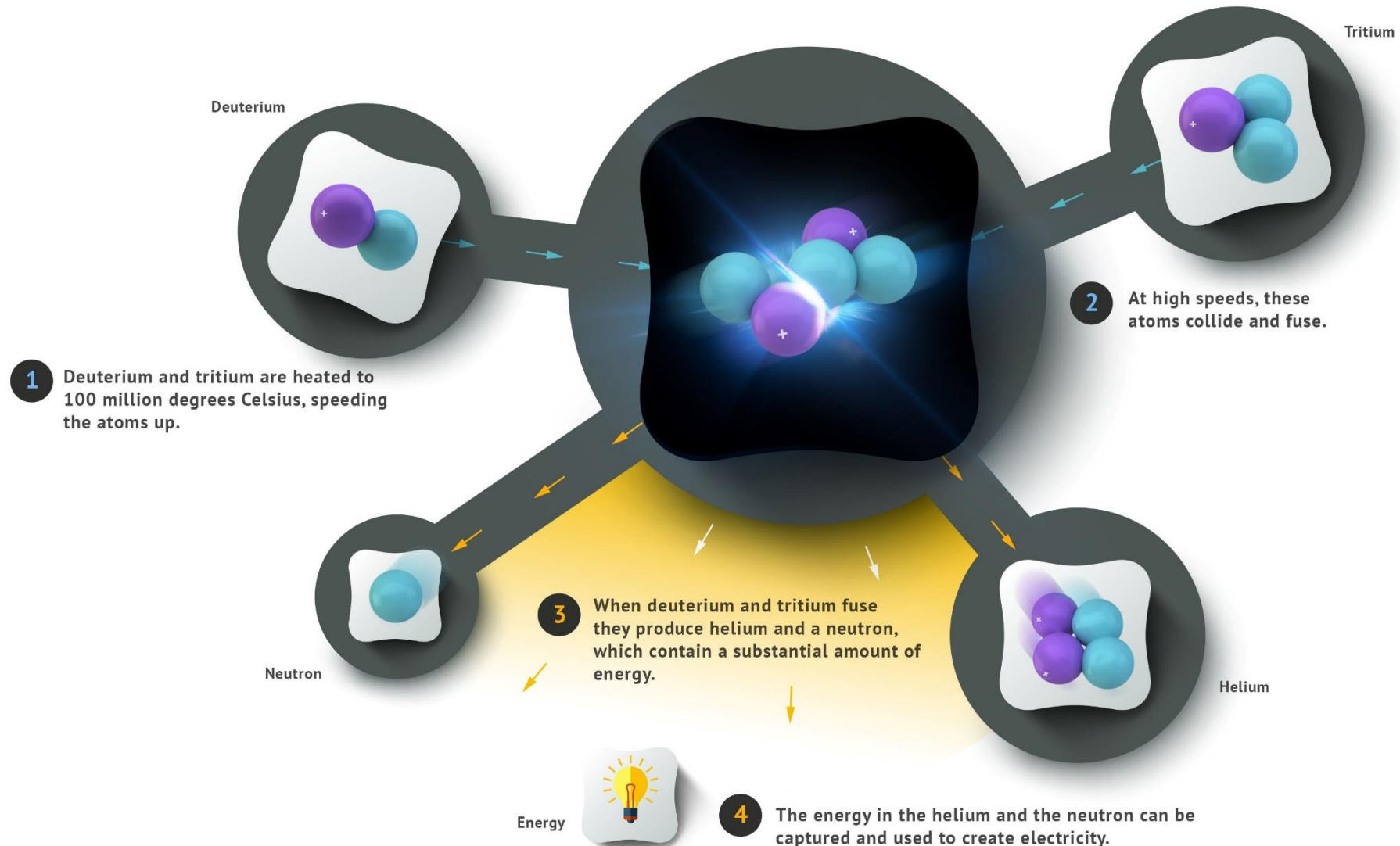
Electricity



powering **17,000 Jakarta homes**
for 1 year

100,000 Megawatt-hours

How does fusion work?



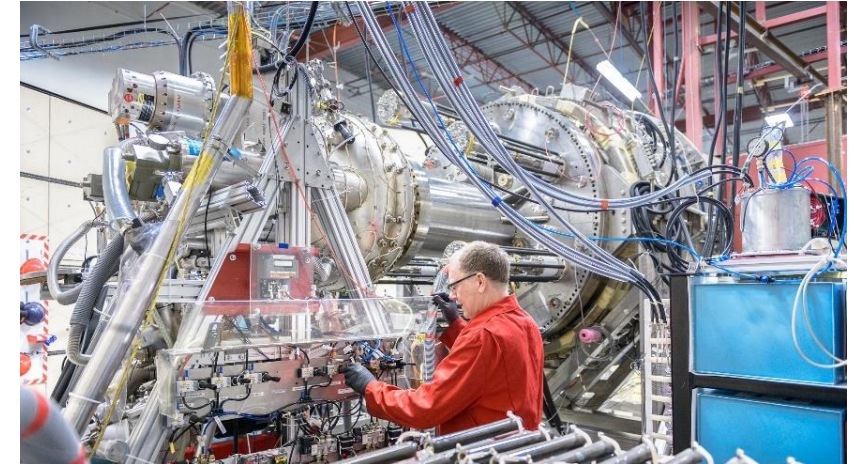
General Fusion: the world's most advanced private fusion venture

The Talent



- Proven, experienced management
- World's top fusion technologists
- Globally recognized partners

The Technology



- Industry leading plasma injectors
- Demonstrated plasma stability
- Prototyped compression system

198 Patents

15 Years of Development

150,000 Plasma Experiments

\$110M+ of Funded Research

Global investors and partners

Investors

BEZOS
EXPEDITIONS

 **CHRYSALIX**
VENTURE CAPITAL

cenovus
ENERGY


KHAZANAH
NASIONAL


SUSTAINABLE DEVELOPMENT
TECHNOLOGY CANADA™

bdc 

 **BRAEMAR**
ENERGY VENTURES

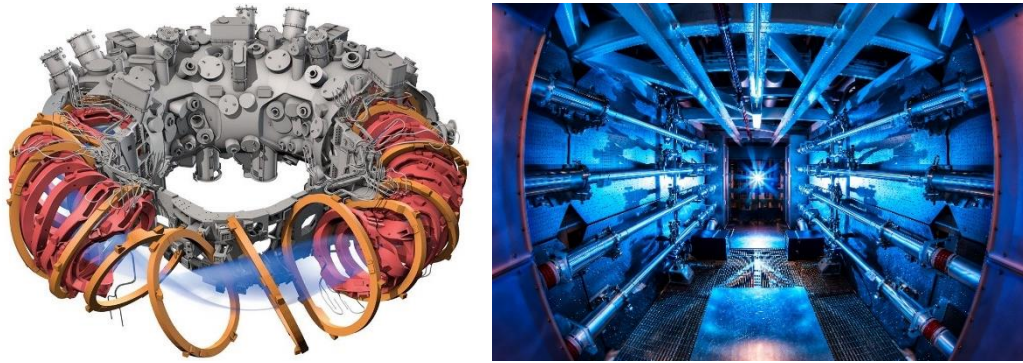

Entrepreneurs Fund

GROWTHWORKS

S E T Ventures

Commercialization of fusion energy is accelerating...

Progress of Fusion Science



- Plasma physics knowledge
- Advanced simulation codes (U.S. DOE Exascale Project)
- Experimental confirmation of fusion theory



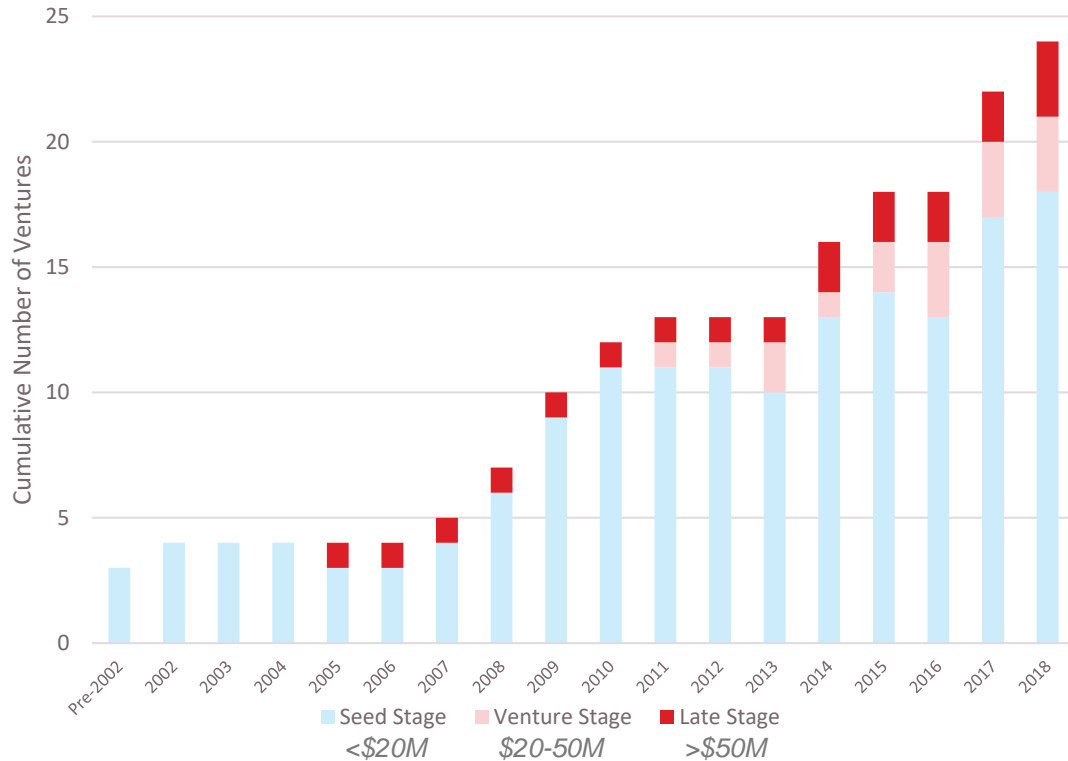
Maturing Enabling Technologies



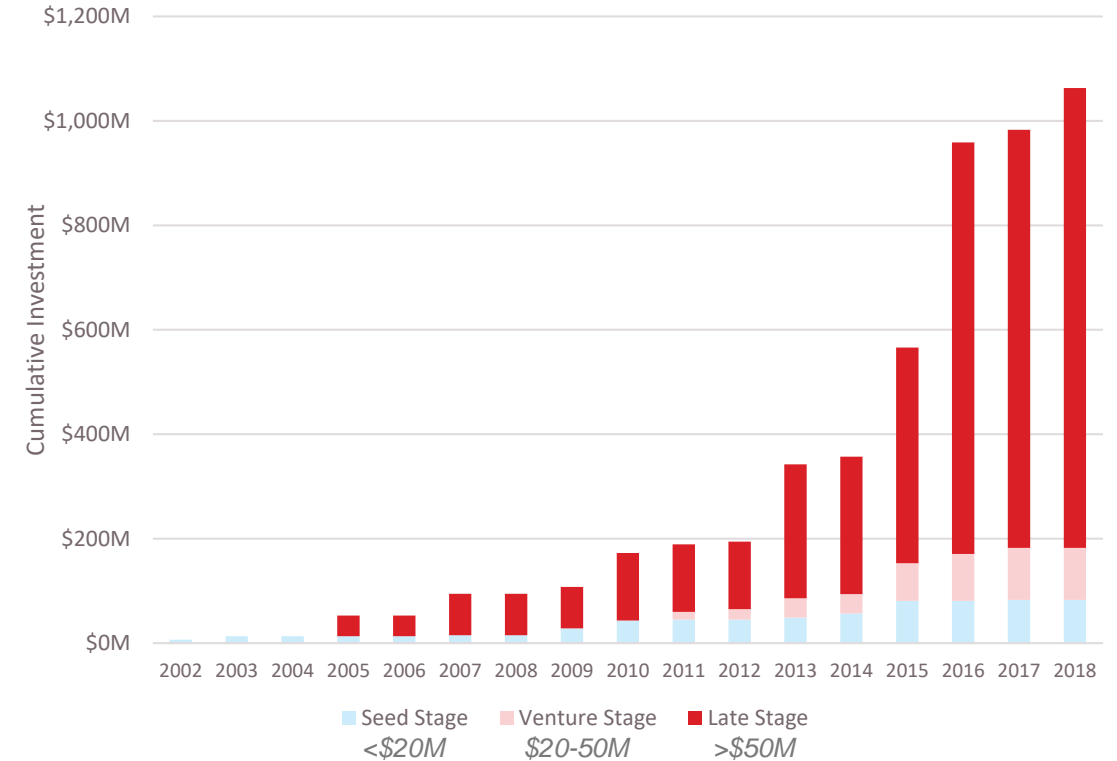
- Advanced manufacturing (3D printing)
- Computational power and big data analytics
- High speed digital control systems
- High temperature superconducting magnets

...Leading to New Innovative Ventures

Private Fusion Ventures



Investment in Private Fusion Ventures

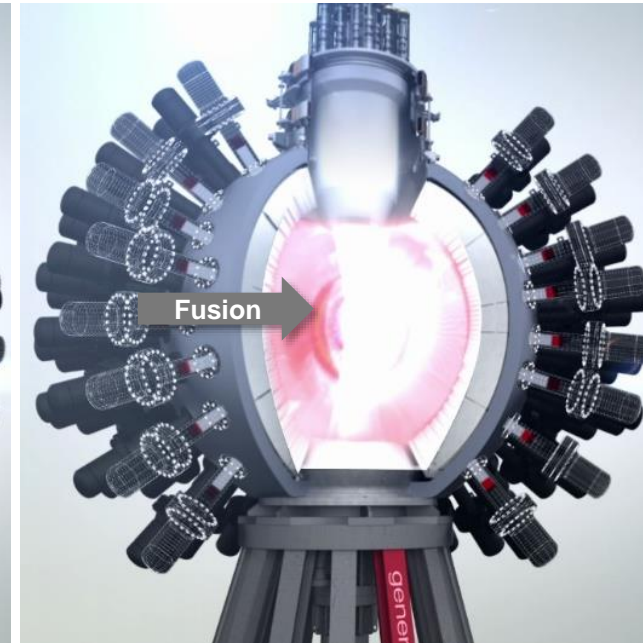
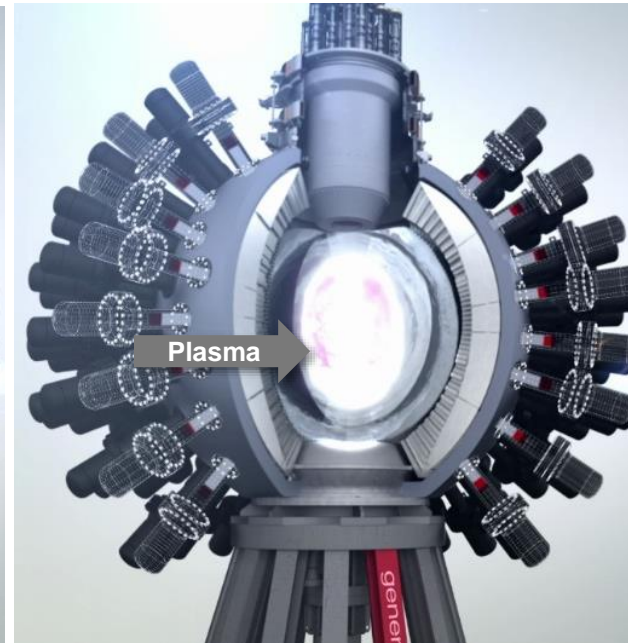
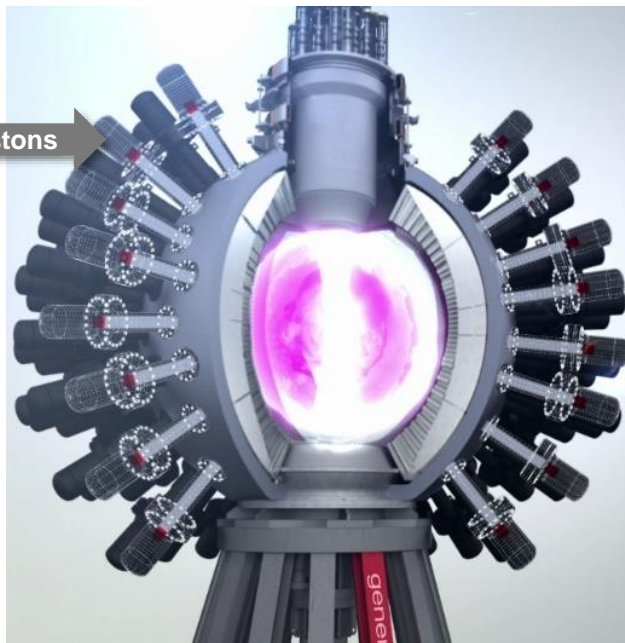
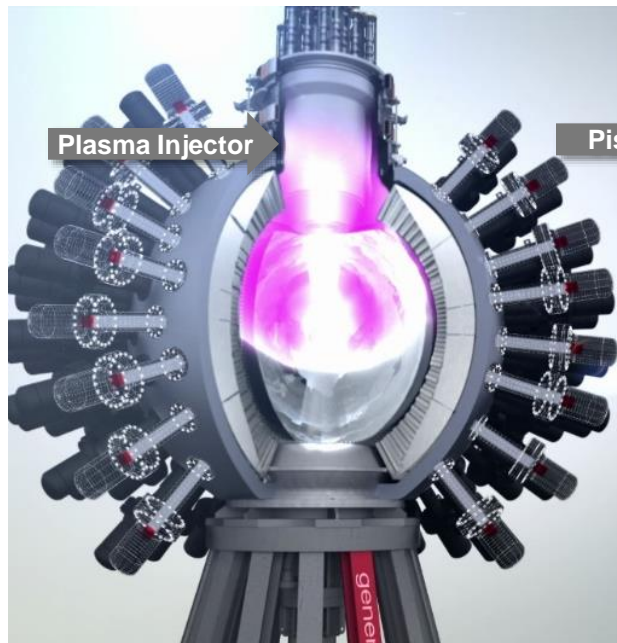


Architecture Provides Commercialization Pathway...

Plasma Formation & Injection

Plasma Compression

Fusion



- A hot magnetized plasma at 5 million degrees Celsius is formed by a plasma injector and inserted into an approximately three meter diameter compression chamber cavity inside the fusion vessel

- The inner chamber cavity is formed by a rotating liquid metal, which is quickly pushed inwards by a phased array of several hundred precisely synchronized pistons to symmetrically compress the plasma by factor of 1,000 in volume in several milliseconds

- Confined within the collapsing metal cavity, the plasma is compressed and heated to over 100 million degrees Celsius, creating fusion conditions
- Fusion energy is released and subsequently absorbed into the surrounding liquid metal, heating it to about 300 degrees Celsius

A pulsed machine - the fusion equivalent of a diesel engine

Consistently Advancing Towards Commercialization

2010

World's largest plasma injector constructed (Pi1)

2010

Pi1 achieved plasma density goal

2011

Full scale piston operated with liquid metal

2011

Full scale piston proof of concept for servo control (timing)

2012

14 piston sphere operated with liquid metal cavity

2013

Small Plasma Injector program achieved 1,000,000°C plasma temperature

2014

Small Plasma Injector program achieved World Record Spheromak Thermal Confinement (lifetime)

2015

12th plasma compression test broke threshold of 400% improvement in performance since start of program

2016

SPECTOR injector achieved 3 million °C plasma temperature with 1.5 ms plasma lifetime

2017

SPECTOR injector achieved 5 million °C plasma temperature, with plasma lifetime exceeding 2 ms for the first time

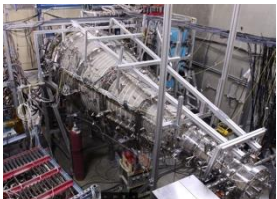
SPECTOR plasma compression test (14th overall) demonstrated plasma stability throughout compression for the first time, 100% better performance than 12th compression test

Pi3 large injector fully assembled, operations begin

2018E

Pi3 full power operation, achieved plasma performance objectives

Full spherical sub-scale cavity formation system constructed



Core Technologies are in Place

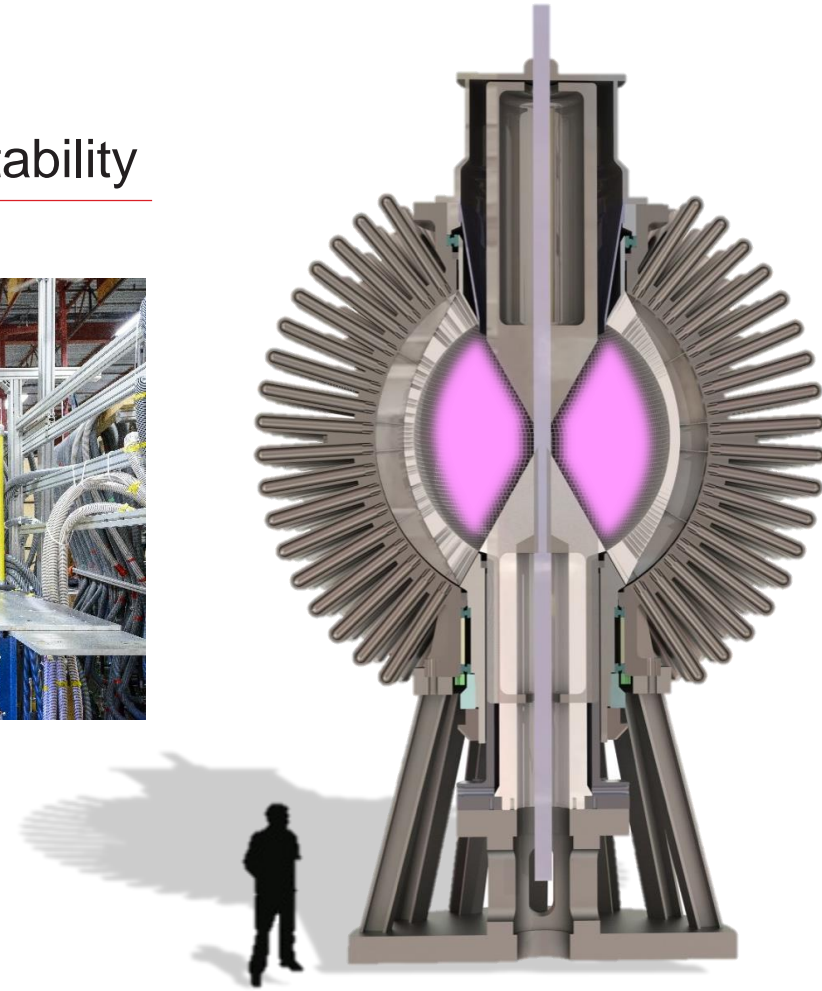
Plasma Injector System



Compression System



Fusion Process Stability



Backed by years of R&D progress, core technologies are in place, constructed, and tested at large scale

General Fusion demonstration program



- Preparing to build and operate a fusion demonstration plant, the only facility being developed to confirm complete end-to-end process capability to produce electricity from fusion energy
- Builds on key milestones that have confirmed the Company's approach to fusion, achieved industry-recognized fusion system performance, established industrial partnerships for enabling technologies, and captured government support

Experienced and Proven Management Team



Christofer Mowry
CEO

- Founder & CEO of mPower SMR
- GE and B&W executive leadership
- PE and VC portfolio management experience



Dr. Michel Laberge
Founder & CSO

- PhD, Plasma Physics
- Post-docs at Ecole Polytechnique & NRC
- Principal scientist & inventor at Creo Products



Bruce Colwill
CFO

- Pre-commercial technology veteran
- Multiple high-tech CFO roles
- Extensive fund raising experience



Michael Delage
CTO

- Co-Founder, VP Product Management, Energate Inc
- Deep strategic partnering experience
- Smart grid industry pioneer



Michael Donaldson
VP Fusion Island Engineering

- Experienced product development professional
- Multidisciplinary technical team leader at Creo Products
- 18 years of developing novel and disruptive technologies



Matt Miles
VP Business Development

- Proven global business development leadership
- Background in power and energy sectors
- Babcock & Wilcox Company – Senior Director Strategy & Growth



Jean-Francois Béland
VP Corporate Affairs & Strategy

- Former EVP of AREVA Canada Inc.
- Former policy advisor on Treasury Board and Governance in the Office of the Prime Minister of Canada

Recap

Commercially viable fusion energy will unleash sustainable, prosperous growth for the 21st century

- Fusion creates clean, safe power from water, without the challenges of renewables and nuclear power
- Proprietary technology uniquely resolves traditional long-standing barriers to practical fusion
- The only company building demonstration plant to confirm capability to produce electricity from fusion
- General Fusion leads growing \$1B+ wave of investment fueling 25 new private fusion ventures

A transformative clean energy technology

CLEAN ENERGY. EVERYWHERE. FOREVER.™

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