



Building the New Energy Future

IPPSA 2023 Confernece

March 13, 2023



The Strategic Context

Capital
Intensive

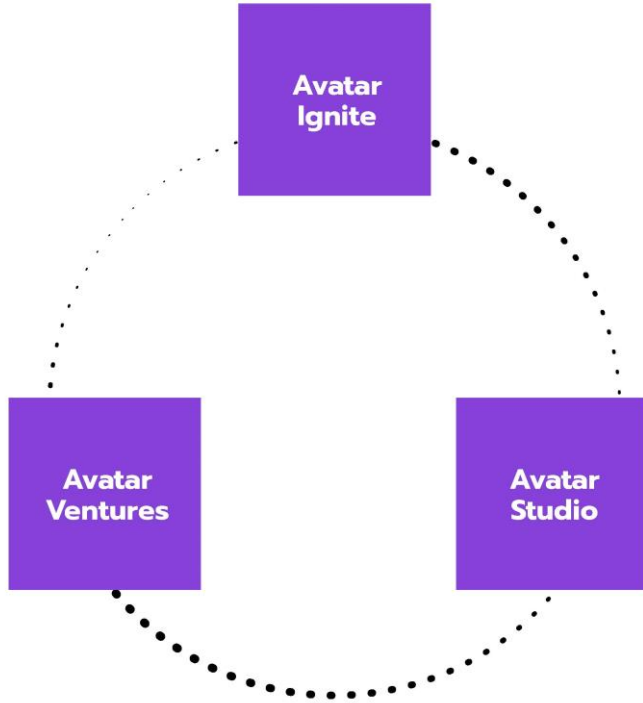


Highly
Regulated



Safety
Critical

The Three Pillars of The Avatar Program



Avatar Ignite

- Technology, Business & Idea Generation Process
- Emerging Professionals work together as semi-autonomous, cross functional teams under guidance of industry leadership

Avatar Studio

- Top Teams from Ignite enter Accelerator
- Prototyping, Customer Fit, De-risking
- Strategically sponsored teams enter co-development process with SAIT, UCalgary and Innovate Calgary to build investable technologies & businesses with a customer already in place

Avatar Ventures

- Accelerator teams pitch to Canada's top energy transition investors
- Support services provided to successful technologies and businesses to bring to market, commercialize and scale by Avatar Innovations

A Proven Leader in CarbonTech Innovation

Unstoppable Movement

Unprecedented industry demand

Nearly 2500 applications for Avatar Program in just over 2 years

Record-Breaker

Record Pace Bringing New Technologies to Market

Portfolio of 30 technologies already sponsored by industry. First post-revenue and commercial pilots underway.

Global Leader

Partnership with XPRIZE

Established Calgary as a global leader in Elon Musk's prestigious \$100M Carbon Removal technology competition,

Deal-Maker

Bringing new capital to oil and gas

Launched Calgary's first energy venture capital fund with Cenovus as the lead investor.

Industry Builder

Calgary Energy Transition Center created

Established a national headquarters for Canada's exploding CarbonTech ecosystem beside Canada's largest energy players.

International Demand

Houston Office Opened 2023

Exported this successful innovation model to Houston

Corporate Partners

Avatar Flagship Partners

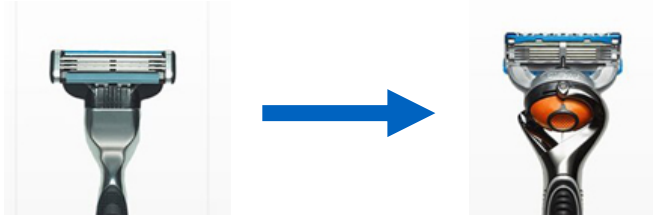


Avatar Champions



Avatar Builders





Sustaining Innovation

Problem is well understood

Existing Market

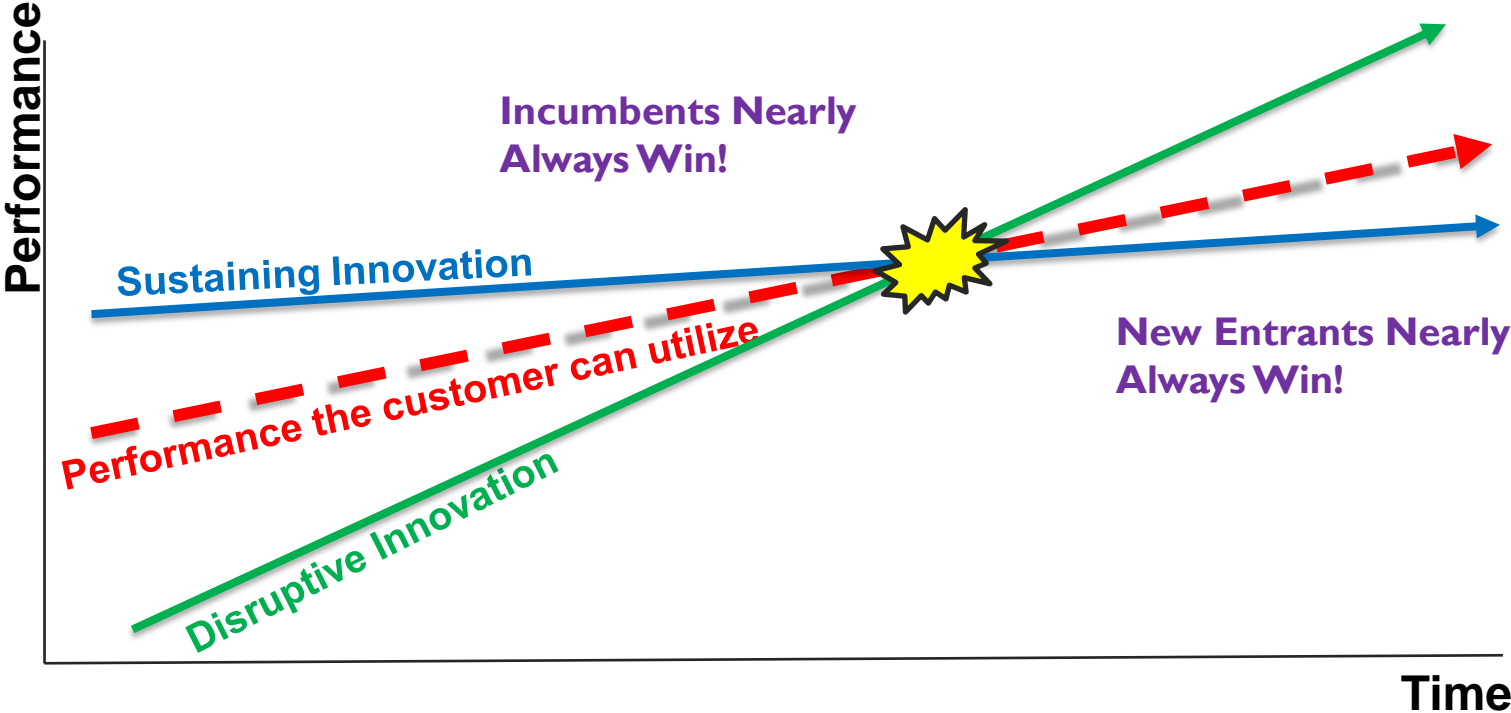
Innovation improves performance, lower cost incremental change

Customer is believable

Market is predictable

Traditional business models are sufficient

Sustaining vs Disruptive Innovation



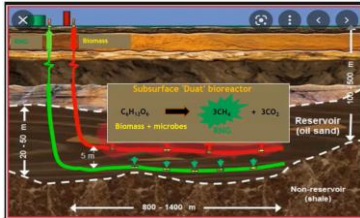
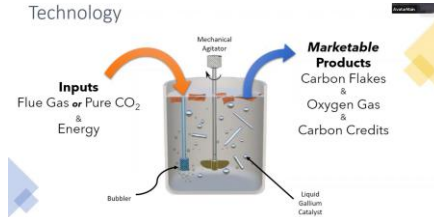
Source: Clayton Christensen

Avatar Ventures – A Small Sample

GOAT

- Packages carbon capture and conversion together and brings them directly to the emissions sources while generating additional potential revenue streams.
- Leading edge research based on Gallium, Oxygen Technology

Sponsored By:
cenovus
 ENERGY



Duat Bio-Reactors

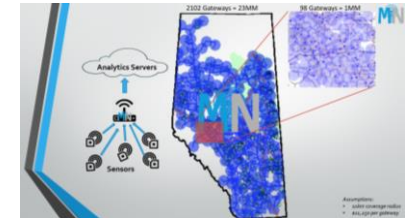
- Inject biomass into depleted petroleum reservoirs to produce renewable natural gas (RNG) from “Duat” (subsurface) bioreactors.
- Materially lowers cost of RNG production by bringing new feedstock sources online and lowering capex for anaerobic reactor construction

Sponsored By:
TC Energy

Mission Net

- Ingenious means of combining low bandwidth frequencies in a mesh net environment to pinpoint methane emissions in remote date operations

Sponsored By:
Shaw)





**There is a new energy future.
Let's go build it.**

Thank You.

