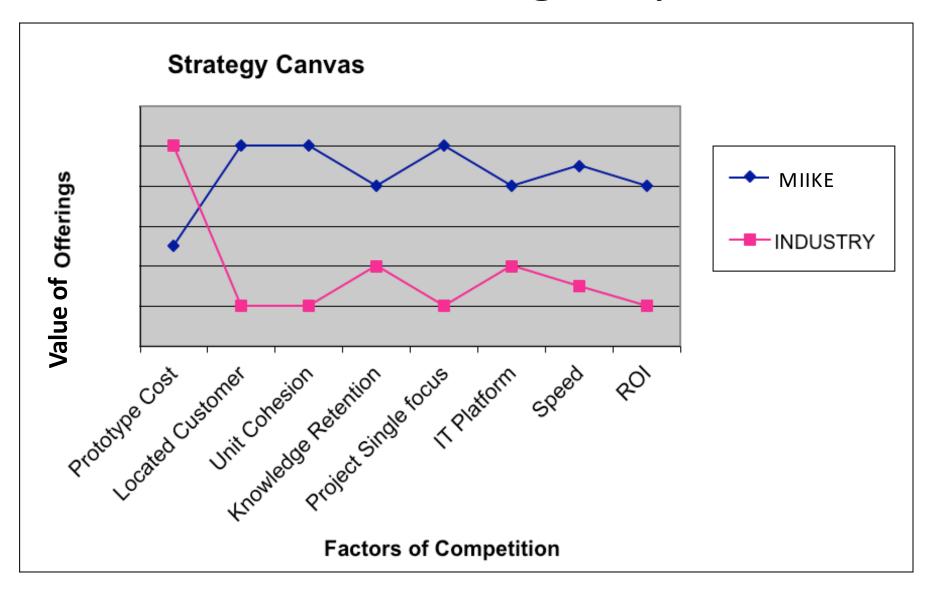
# Michigan Innovation Intermediary & Knowledge Exchange



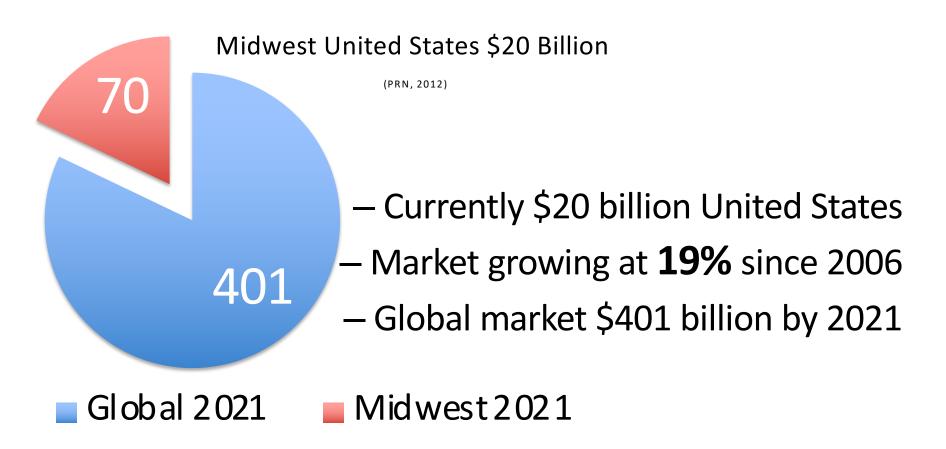
#### MIIKE's strategic keys



Adapted from Kim, W. C., & Mauborgne, R. (2005). Blue ocean strategy, 2009

#### What market is MIIKE in?

MIIKE serves the *efficient* internal combustion engine (ICE) market



#### Who is MIIKE?

- David Campbell
  - Founder / President
  - Concept originator, Ohmestar Spinning Engines

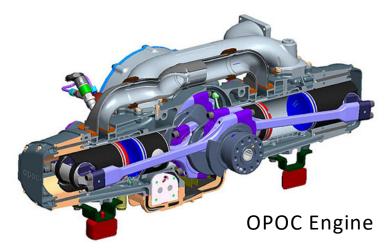
#### What does MIIKE do?

 MIIKE helps efficient ICE products being tested by small companies to find market share by developing new prototypes contracted as *external R&D pilot projects* targeting Multi National Corporations

#### Example of emerging ICE innovation

- OPOC Engine from Eco motors in Allen Park, Michigan
- Navistar agrees to develop diesel prototype with Eco motors.
- Bill Gates Backing the OPOC deal with Navistar with \$32m





Photos Source: Diesel Power Magazine, Thompson, J. 2011

## MIIKE'S Competitors

- All MNC's that produce engines
  - Heavy truck
  - Rail
  - Vessel
  - Agriculture etc...
- All small engine producers
- Internal Corporate Research & Development of any firm that seeks to develop similar technology based on performance and efficiencies
- External Corporate innovation projects
- Technology Brokers, etc...

## Why do investors need MIIKE?

- 90% of innovation investments fail.
- MIIKE takes the complex innovation investment process and streamlines it.
- MIIKE provides buying customer up front.
- MIIKE provides a single focus project team
- MIIKE provides data to make solid financial decisions.

Why R&D Fails...

90%

of the time

(Chesbrough, 2006)

BUSINESS UNIT MANAGERS COMPETE
WITH EACH OTHER FOR PROFESSION OF THE PROFESSION OF T BUSINESS UNITS ARE OFTEN SEPERATED

Administrative. Legal, accounting, financial management finance infrastructure Personnel, lay recruitment, training, staff plant Human resources management Product and Product and process design, production technology engineering, market testing, R & D development

Supplier management, funding, subcontracting, specification

INBOUND LOGISTICS Examples: Quality control; receiving; raw materials control: supply schedules

Procurement

Support Activities

Primary Activities

**OPERATION** Examples: Manufacturing: packaging; production control; quality control: maintenance

OUTBOUND LOGISTICS Examples: Finishing goods; order handling; dispatch; delivery:

invoicing

SALES & MARKETING Examples: Customer management; order taking: promotion; sales analysis; market

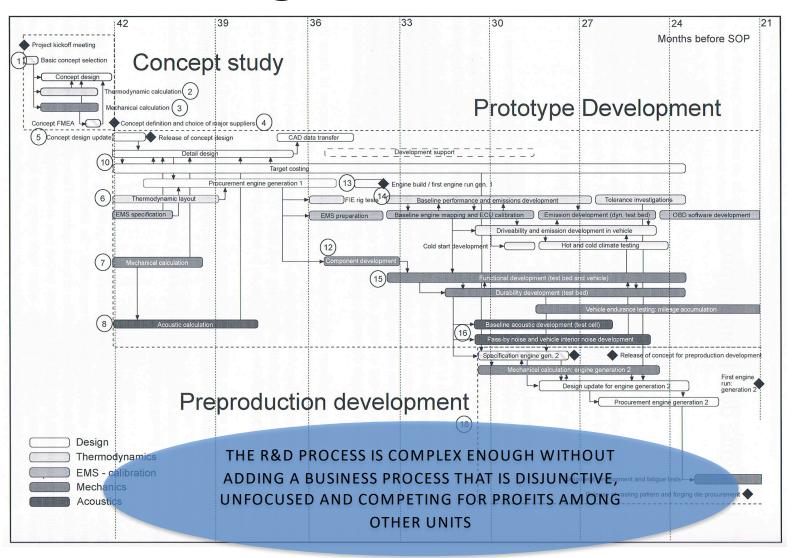
Value added less Cost = SERVICING Profit margin

Examples: Warranty: maintenance: education and training: upgrades

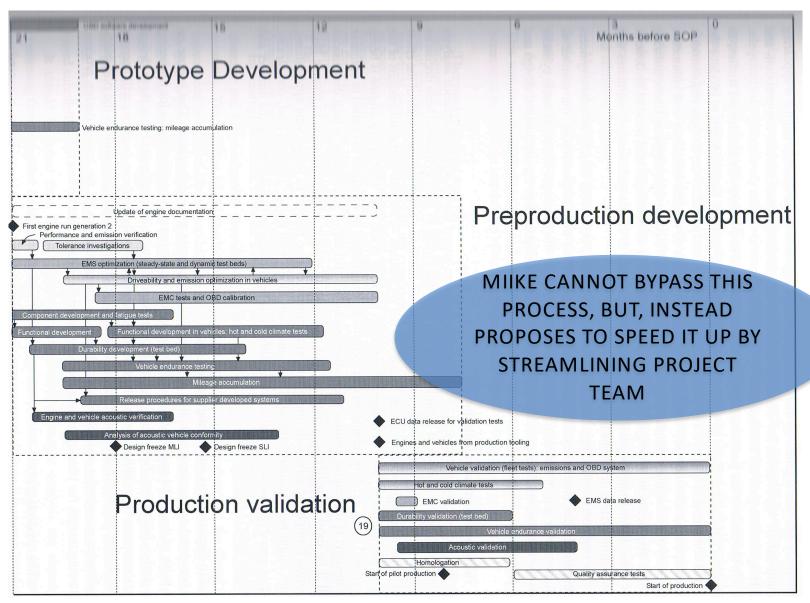
Porter's Value Chain (Source: Bua Consulting)

research

## SAE Engine R&D Process



#### SAE Engine R&D Process cont'd



## MIIKE's Business Model ALIGNS investor & customer then streamlines the project for SPEED

- Locate lead user prototype
- Locate customer to co-develop prototype
- Connect the innovation to customer
- Defines pilot project
- Locates CVC Investment opportunity with MNC
- Design/Build contract
- Assembles single focused project team
- Develops prototype
- Delivers end user data to investors

#### MIIKE's Business Model Creates Value

MIIKE locates customers in the MNC Market Space and invites them to invest in a design build project to co develop a prototype that will improve their market position. By offering a pilot project opportunity with the customer, MIIKE leverages the brand identity of the MNC, and creates market pull...

MNC Market Space Established Brand Identity

... BY CAPTURING INTANGIBLE VALUE & CREATING
CUSTOMER NEED
CUSTOMER NEED

Corporate Venture Capital Customer Co-development

- Design / Build
  - Pilot Project

Each Unit Competes for Profitability

S MNC
C
M

MIIKE's

IT PLATFORM
Pilot Project Contracts

Marketing Research Data Exchange

Data Capture After Sale

MIIKE STREAMLINES M, S, R&D DCAS By maintaining a single project focus, providing alignment

R

Each Unit is disjunctive

PROTOTYPE COMPANY

Seeks Market Share

MIIKE creates value by providing a single source of control for each project, contracts using a pilot program platform, and ensures data capture after sale

David Campbell, 2012

#### MIIKE Marketing and Sales

- Marketing and sales is directed to a specific target; customers that desire the performance outcomes and desire to co-develop a solution.
- Data is the goal
  - Prototype performance data is collected for up to 5 years
  - Sales projections are based on actual performance
- Marketing is done under the brand name of the MNC firm per pilot project and design / build agreements.

#### MIIKE Reduces Financial Risk

- Defines the market segment and locates lead user prototype.
- Provides customer up front who invests to codevelop the product: design / build contract.
- Provides Data

 Future big ticket financial investment is based on actual performance data

## Status / Timeline & Call to action

- MIIKE is currently looking for an Angel Investor who ALIGNS with the vision, mission and business model of MIIKE. We are conducting interviews.
- MIIKE's first project will be the Ohmestar Spinning Engine, a counter rotating, opposed piston engine concept designed by David Campbell.
- \$1.25m to establish MIIKE and begin our first project.
  - We would seek the Emerging Technology Fund Grant offered by the State of Michigan (matching \$1.4m for Phase I & II) (MEDC 2012)
  - We are planning to purchase a building in Acme, Michigan
  - We are establishing the administrative and governing body
  - We are looking for stakeholders who have a similar vision for Northern Michigan and willing to help design and execute the strategic vision and mission.

## Where will the money come from?

The money is in the 90% of 400 billion that will be invested on failure.

The money is already being spent and the trend to shorten to market time is now being federally supported.

A minimal investment by a forward thinking Angel Investor group to help develop the MII-KE business model and also to invest in one or two initial projects is what is needed to get MII-KE off the ground.

MII-KE will focus on prototypes already developed, locating markets where lead users are willing to codevelop a differentiated product and sell it in a market where data will be collected for 3-5 years.

This is a pilot project type business model, where obtaining the data is key to making determination whether to spin off or to begin an entirely new manufacturing plant.

All players must agree to manufacture in Michigan, especially Northern Michigan.

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