



Technology to Market...Making it Matter

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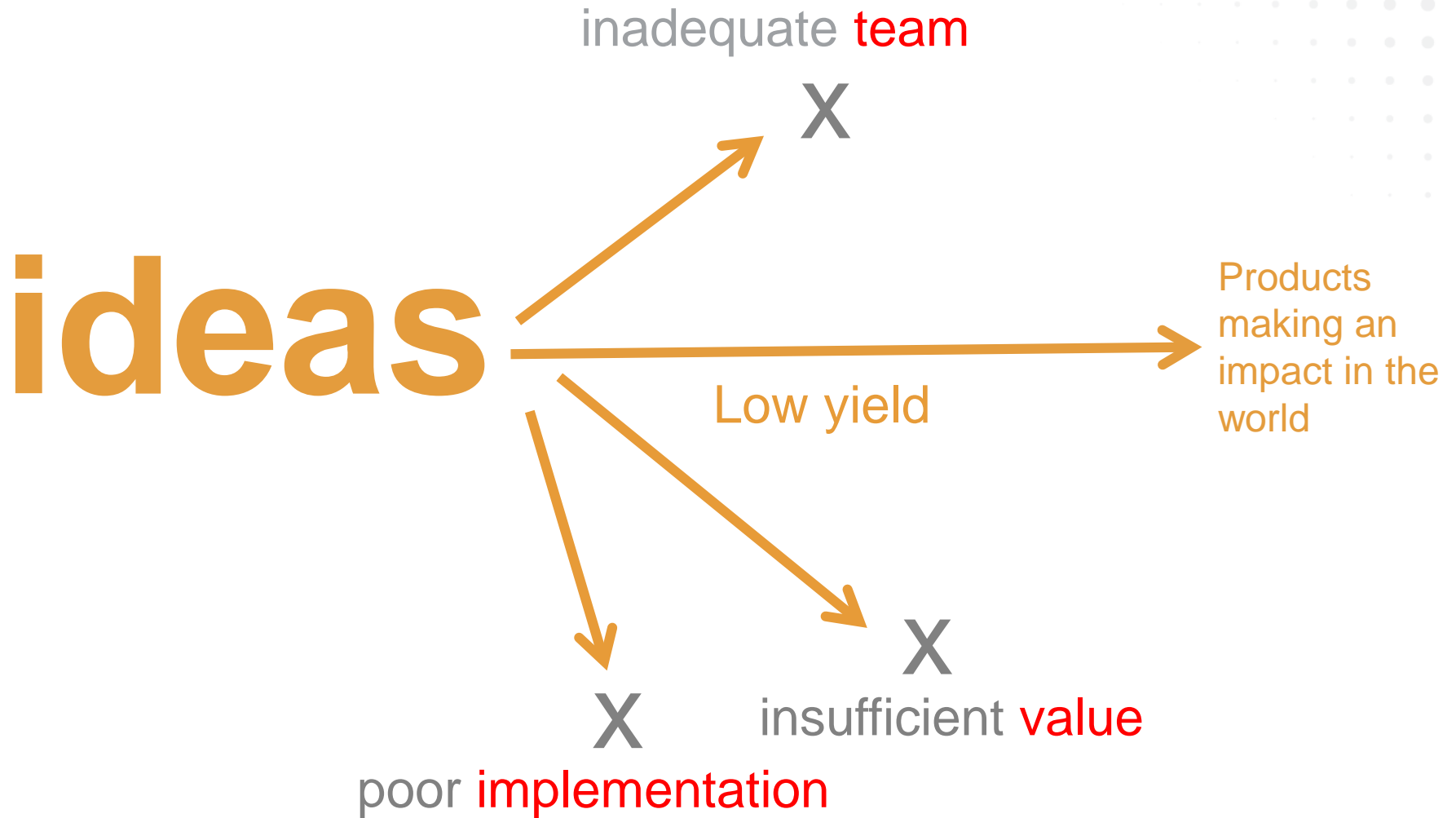
Harwich Partners

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Topics

- ▶ Introduction
- ▶ Technology to Market learning
- ▶ A few cool new things
- ▶ Demonstration keys to success
- ▶ Questions

Improving the Yield



Changing the Model

ideas



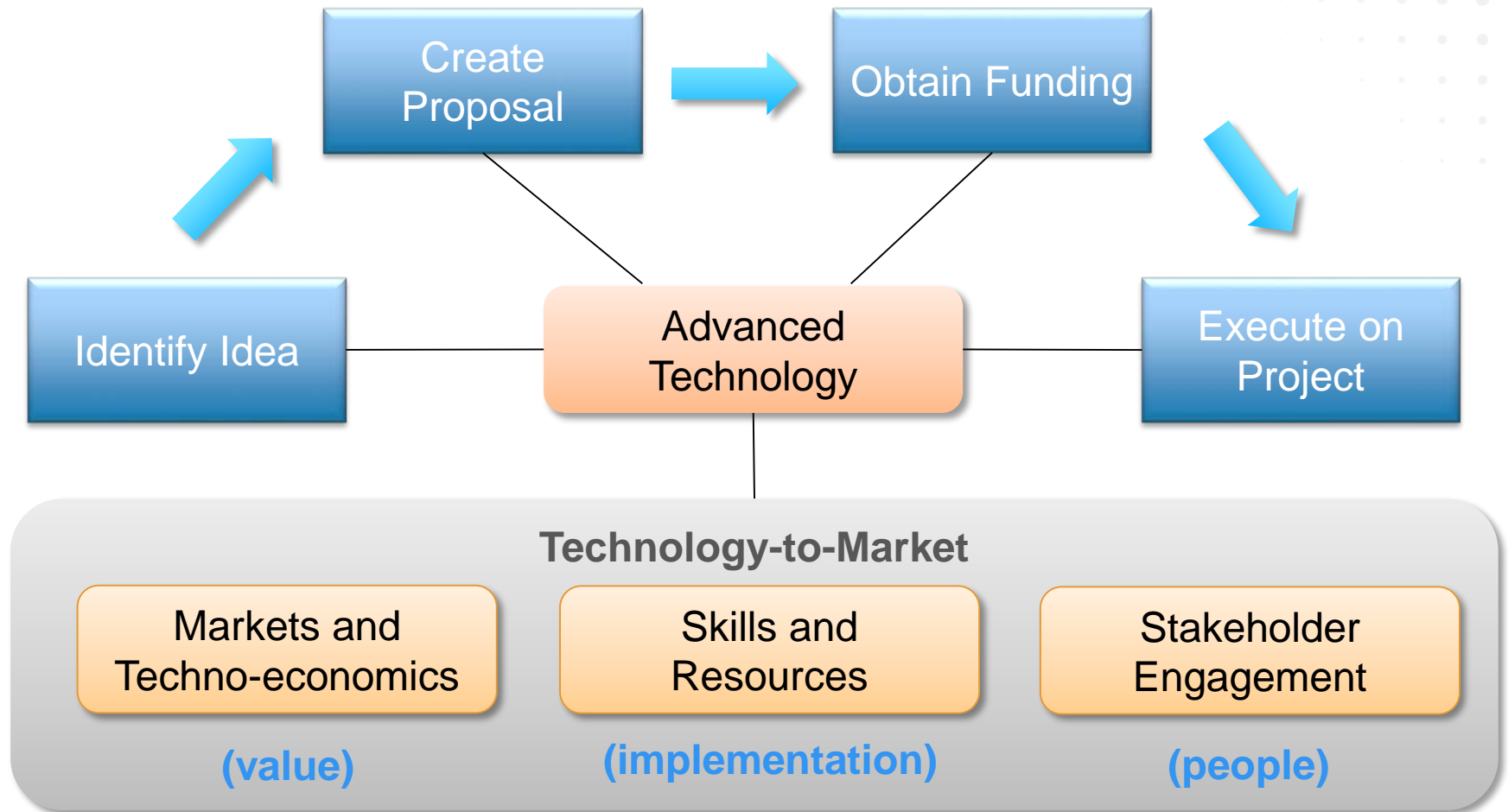
Products
making an
impact in the
world

+ value

+ team

+ implementation

Changing the Model



Observations

The Frame Matters

Thinking from the End
Is Critical

Embracing Information
Is Essential

Relationships
Take Time

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FORO

LONG-DISTANCE HIGH-POWER LASERS

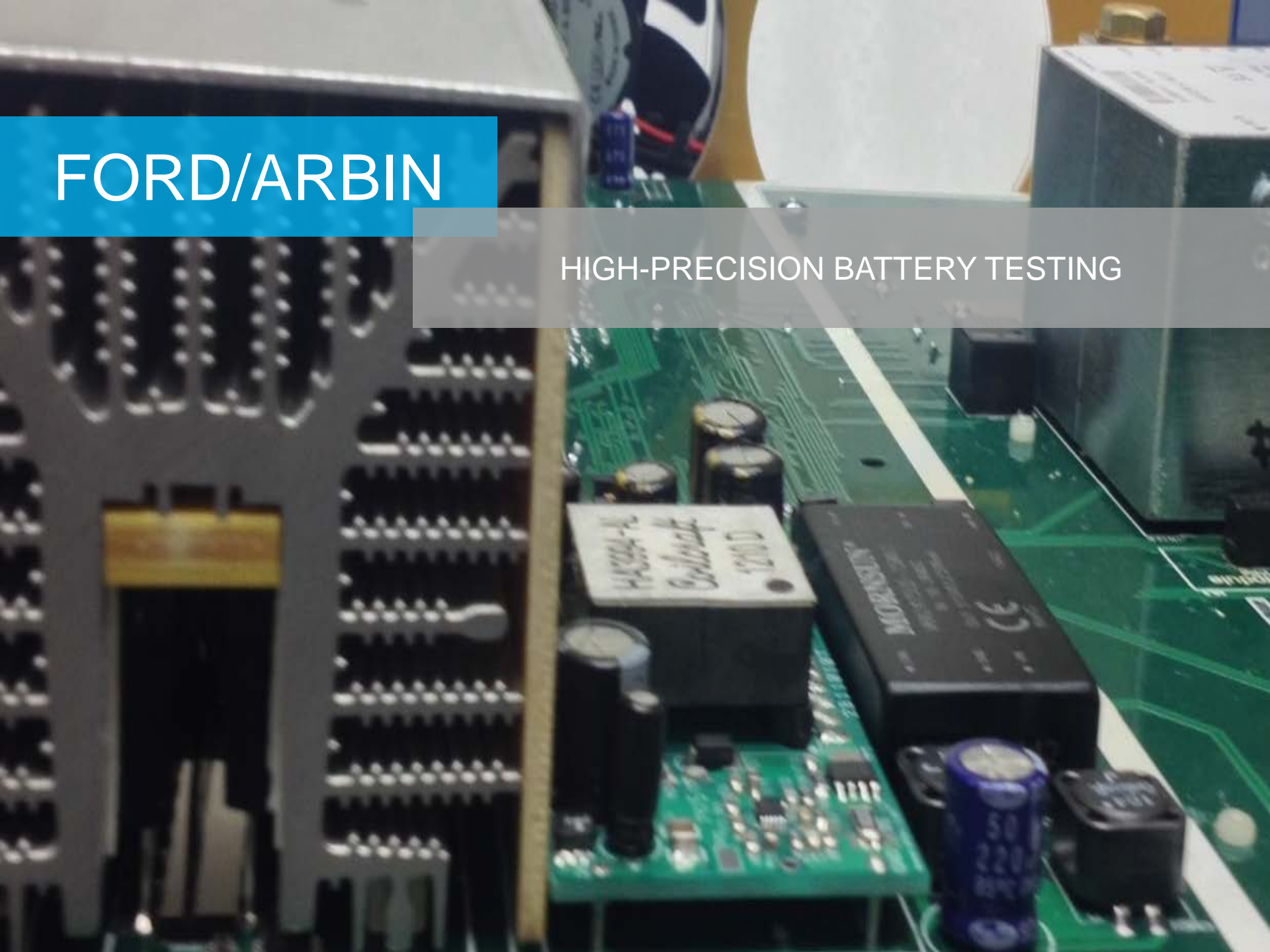


OTHERLAB

LOW-COST HELIOSTATS

FORD/ARBIN

HIGH-PRECISION BATTERY TESTING



Scanning electron micrograph (SEM) showing a highly porous, interconnected network of fibers or membranes, likely a gelled ionic liquid membrane. The structure consists of a dense, interconnected network of fibers or membranes, creating a highly porous, interconnected network. The fibers are dark and form a complex, interconnected web. The overall appearance is that of a porous, interconnected network of fibers or membranes, likely a gelled ionic liquid membrane. The structure is highly porous and interconnected, with a complex, interconnected network of fibers or membranes. The fibers are dark and form a complex, interconnected web. The overall appearance is that of a porous, interconnected network of fibers or membranes, likely a gelled ionic liquid membrane.

CU-BOULDER

GELLED IONIC LIQUID MEMBRANE FOR CO₂
CAPTURE

STANFORD

A photograph of a Stanford University building with a highly reflective, metallic roof. The roof is tilted and reflects the sky and clouds. In the background, other campus buildings and trees are visible under a blue sky with scattered white clouds. A blue banner is overlaid on the top left, and a semi-transparent grey banner is on the top right.

RADIATIVE COOLING

What is a demonstration?

- ▶ Single technology
 - New product with improved features
 - Product has similar components, risks, etc as existing installed product
- ▶ Multiple technologies and/or new system
 - Enhanced benefit to site but requires system level changes
 - Components may not have been tested together at a system level
- ▶ Business model
 - Technology has been demonstrated elsewhere
 - Demonstration will look at new business models, differing roles/responsibilities, new ways of engagement among participants

What do you want from a demonstration?

- ▶ Very different perspectives depending on where you sit
 - Technology provider
 - Demonstration of prototype benefits at larger or system level scale; obtain data for certifications, warranties, funding
 - Facilities manager
 - New capabilities desired to drive site or agency/company goals, reduce costs, gain capabilities
 - Funding sponsor
 - Information needed for policy guidance; establish benchmarks as critical part of roadmap development
- ▶ Bottom Line
 - Value needs to be defined for all participants

Finding potential partner(s)

- ▶ Alignment of interests
 - How does (could) the value chain work?
 - What is my product and what value am I bringing?
 - How does it fit into a system?
 - What problem does it solve? For whom?
 - What is the competition?
- ▶ Funding
 - What type / size demo is needed?
 - How much will it cost (\$ and time)?
 - Where could funding come from?
 - What is relationship between \$ and timing?
- ▶ Timing
 - Start looking earlier than you think
 - Plan for contingencies

Planning for success

- ▶ Agree up front on objectives
 - Meet in person, if possible
 - Write down objectives
 - Be specific
 - Test with everyone who needs to be involved
 - Agree on timing
- ▶ Risks (yes, there are some)
 - Use Pareto chart or other tools to map risks
 - Test your assumptions
 - Agree on mitigation plan
- ▶ Metrics
 - Write them down
 - Define the pass/fail as well as the Go/No Go
 - Make them measurable, specific and time-bound
 - Metrics should not be aspirational
- ▶ Share your learning



Thank You

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