

The Auto Sun is Rising

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***SAE Detroit Section
State of the Industry Meeting***

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Manufacturing– An Amazing Level of Ignorance

Challenge for Manufacturing

- s High Fixed Cost
- s Unattractive to Investors
- s High Level of Ignorance
- s Staffing
- s Slow Time to Market

“Building America’s Tomorrow”

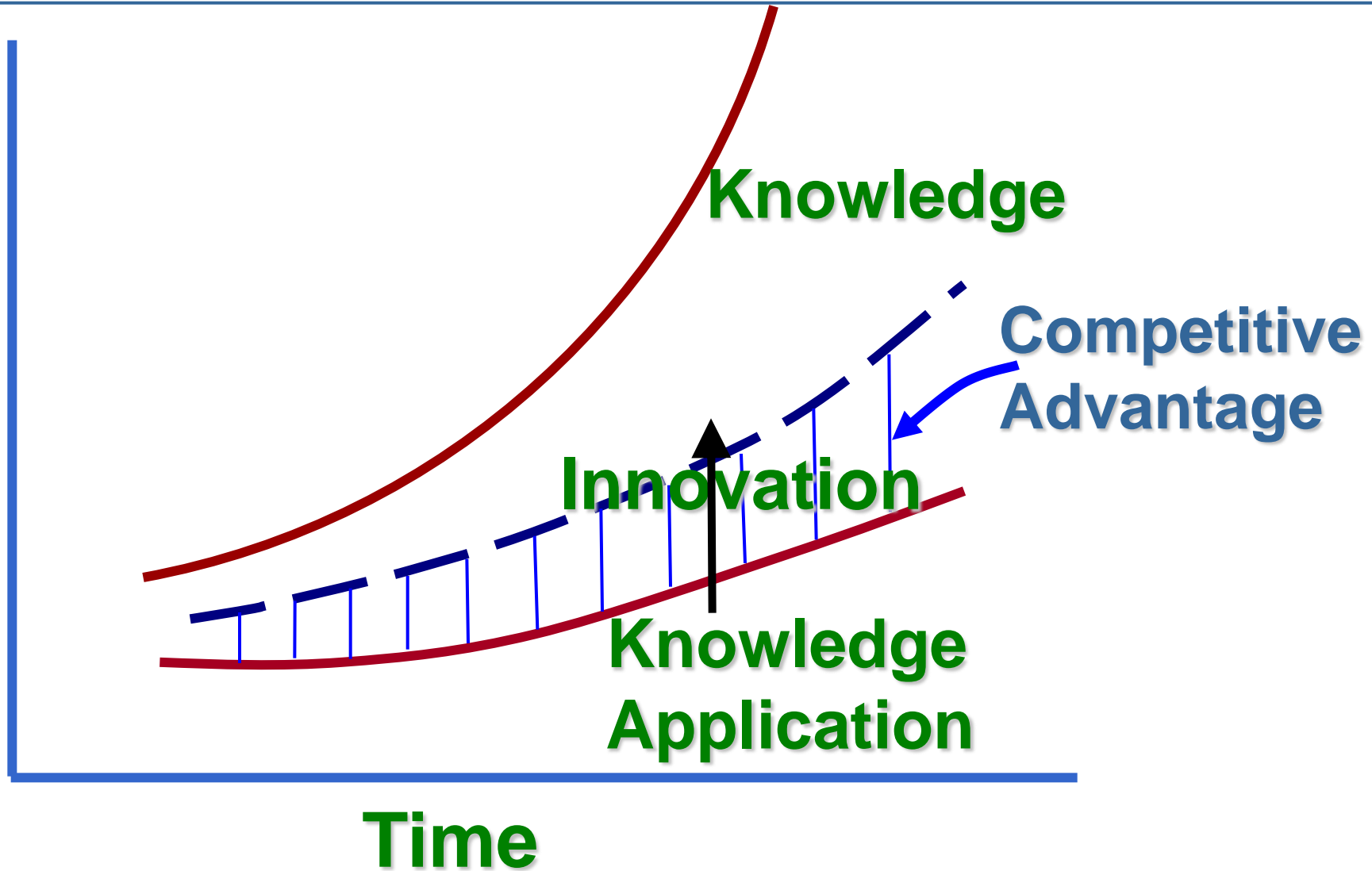
**Auto Industry -
Thousands of New Jobs – But Only
for the Educated**

Manufacturing Choke Points?

- ◆ Staff
- ◆ Tooling
- ◆ Suppliers
- ◆ Equipment
- ◆ Natural Events
- ◆ Materials

Knowledge

The Competitive Edge



Coming Soon: “Auto Harvest”

AutoHarvest Interest Group

AutoHarvest.org

Collaborate, Innovate and Win

The collage features a wide array of logos from automotive, manufacturing, and research organizations. Key logos include GM, Chrysler, Ford, Delphi, NARTRON, IBEF, Ubiquti Inc., 3M, covisint, BorgWarner, ASME, TechTown, NCMs, APMA, EDGE, USCAR, NREL, TechShop, faurecia, ERNST & YOUNG, IDEATION, OHIO STATE UNIVERSITY, NEXTENERGY, TARDEC, InfoReady, AUTOMATION ALLEY, AUTO21, U.S. DEPARTMENT OF HOMELAND SECURITY, Homeland Security, ESD, MICHIGAN ECONOMIC DEVELOPMENT CORPORATION, Sandia National Laboratories, Visteon, NNSA, FABLAB, ICAP, OCEAN TOMO, Lawrence Tech, Michigan Tech, MICHIGAN ROSS SCHOOL OF BUSINESS, OAKLAND COUNTY MICHIGAN, SPARK, THEORY AND PRACTICE, SEMA, MICHIGAN STATE UNIVERSITY, Kettering UNIVERSITY, CENTRAFUSE, MICHIGAN, Ohio Manufacturing Institute, MICHIGAN MANUFACTURERS ASSOCIATION, and CLEMSON UNIVERSITY.

Auto Technology

At the edge of a revolution?

Future Power Plants

- **Gasoline**
- **Diesel**
- **Hybrid**
- **Fuel Cell**

The Answer – ?

Future Fuels

- **Petroleum**
- **Bio**
- **Hydrogen**
- **NH₃**

The Answer – ?

**Future Gasoline Price –
\$ 1.50 – \$ 5.00 /gallon**

Future Café – 54 MPG?

Key Developments

- s Lithium Batteries

- s Cellulosic Bio Fuels

- s Connected Vehicle

The Invention is Here!

Future Direction

It's All a Matter of Economics