

DENSO

Global Manufacturing Strategies

Management Briefing Seminars

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Humble Beginnings and a Few Mistakes

Our Environmental "Consciousness" Was
Awoken Early in Our Heritage

Global Supplier of Advanced Automotive Technology, Systems and Components with **\$38.4 Billion in Sales**

For fiscal year ending March 31, 2012



More than
200

Subsidiaries
& Affiliates

In **36**

Countries
& Regions

Employing
more than
130,000

People 
Worldwide

DENSO in North America



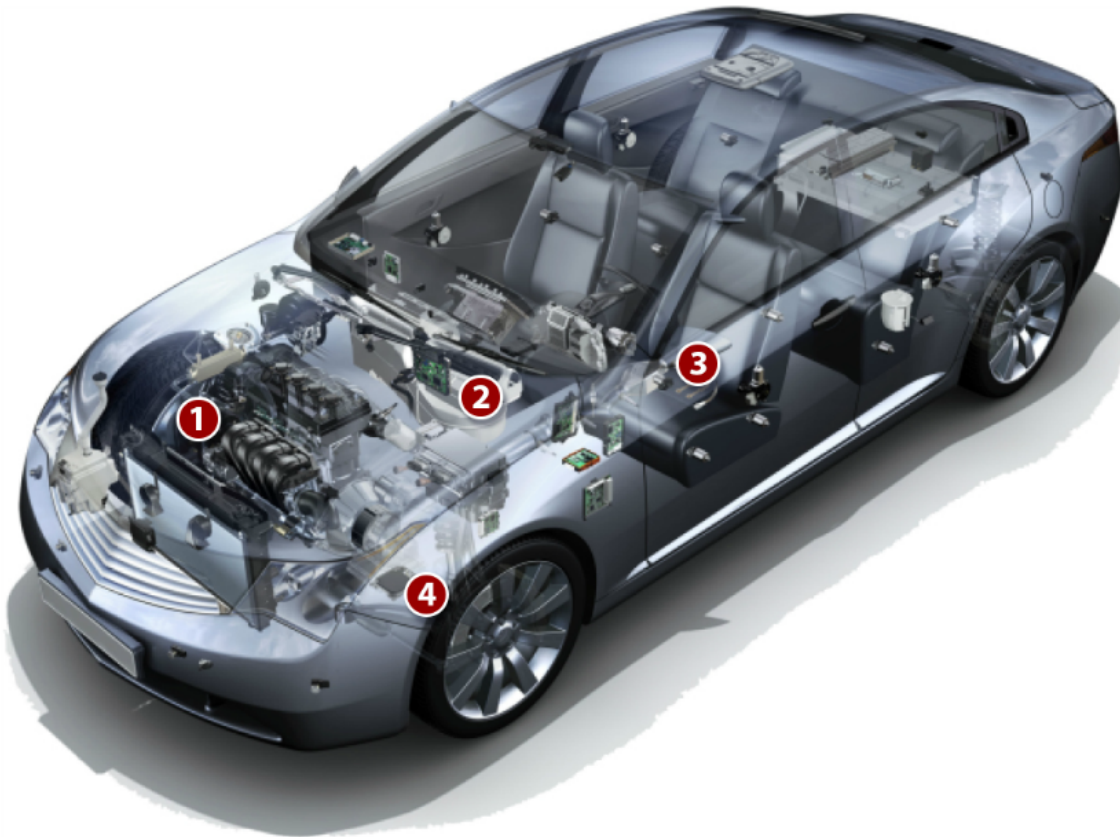
32 **With** **28**

Companies
& Affiliates

Manufacturing
Locations

DENSO

Product Portfolio



- 1 Powertrain Control System**
Engine management system, Gasoline direct injection, Hybrid components, Starter, Alternator, etc.
- 2 Thermal Systems**
Heating Ventilation Air Conditioning (HVAC), Compressor, Heat exchangers, Battery thermal management, etc.
- 3 Information & Communication Systems**
Instrument Cluster, Head-up Display, Human Machine Interface technologies, Horn, Keyless entry, Wireless phone charger, etc.
- 4 Driving Control & Safety Systems**
Passive safety technologies, Airbag sensing system, Active safety technologies, Traction control system, Antilock braking system, etc.

WHAT WE KNOW

What we did in the past to be successful is very different than what we have to do to be **successful in the future**.

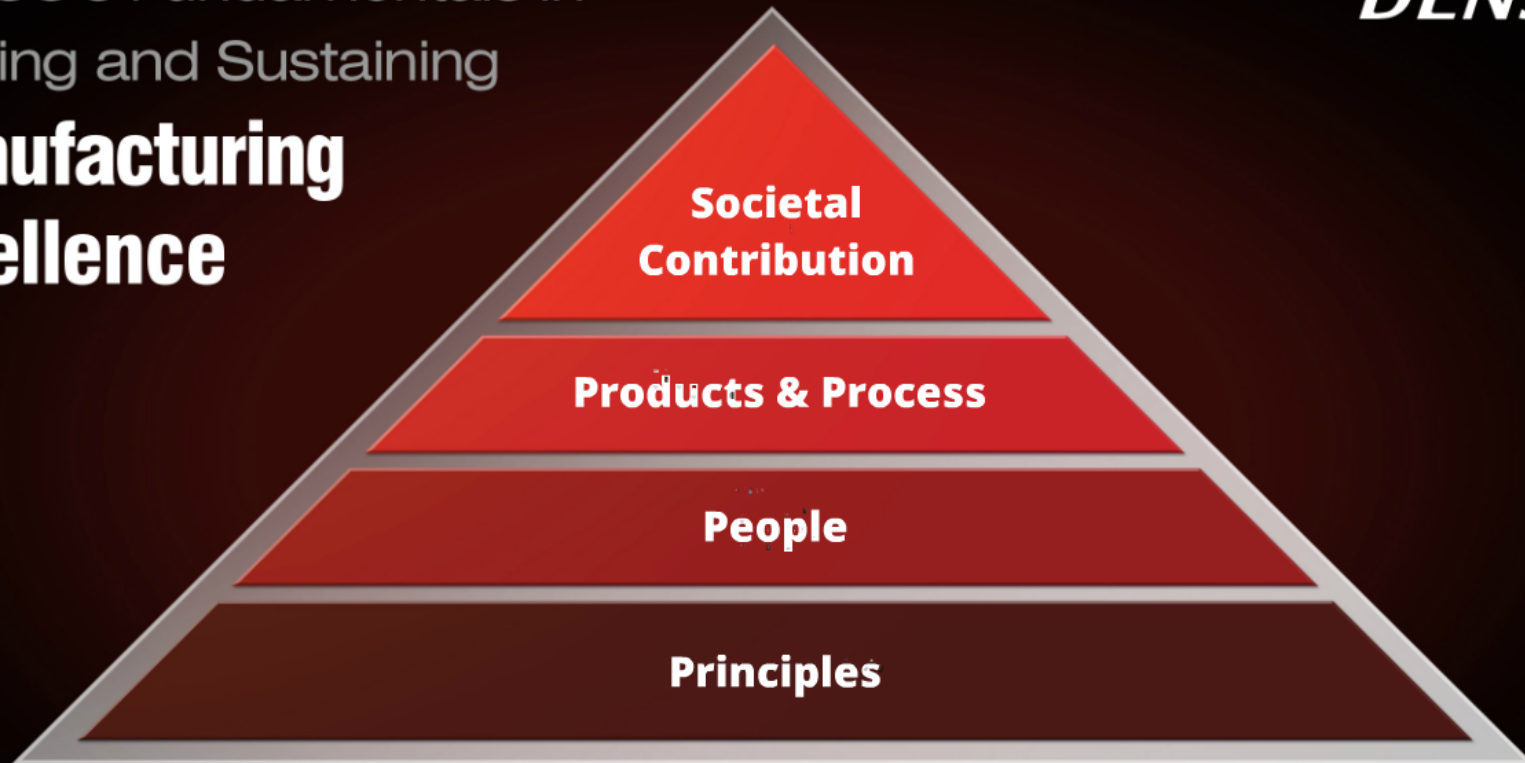
OUR GREATEST CHALLENGE IS

How can we change to be successful while still staying true to our **core principles**?

DENSO's Fundamentals in
Building and Sustaining

Manufacturing Excellence

DENSO



Our Principles

People, Customers, Quality and Society



Basic Operating Policy

To be located in the region, **near the customer**, where our products are bought and utilized

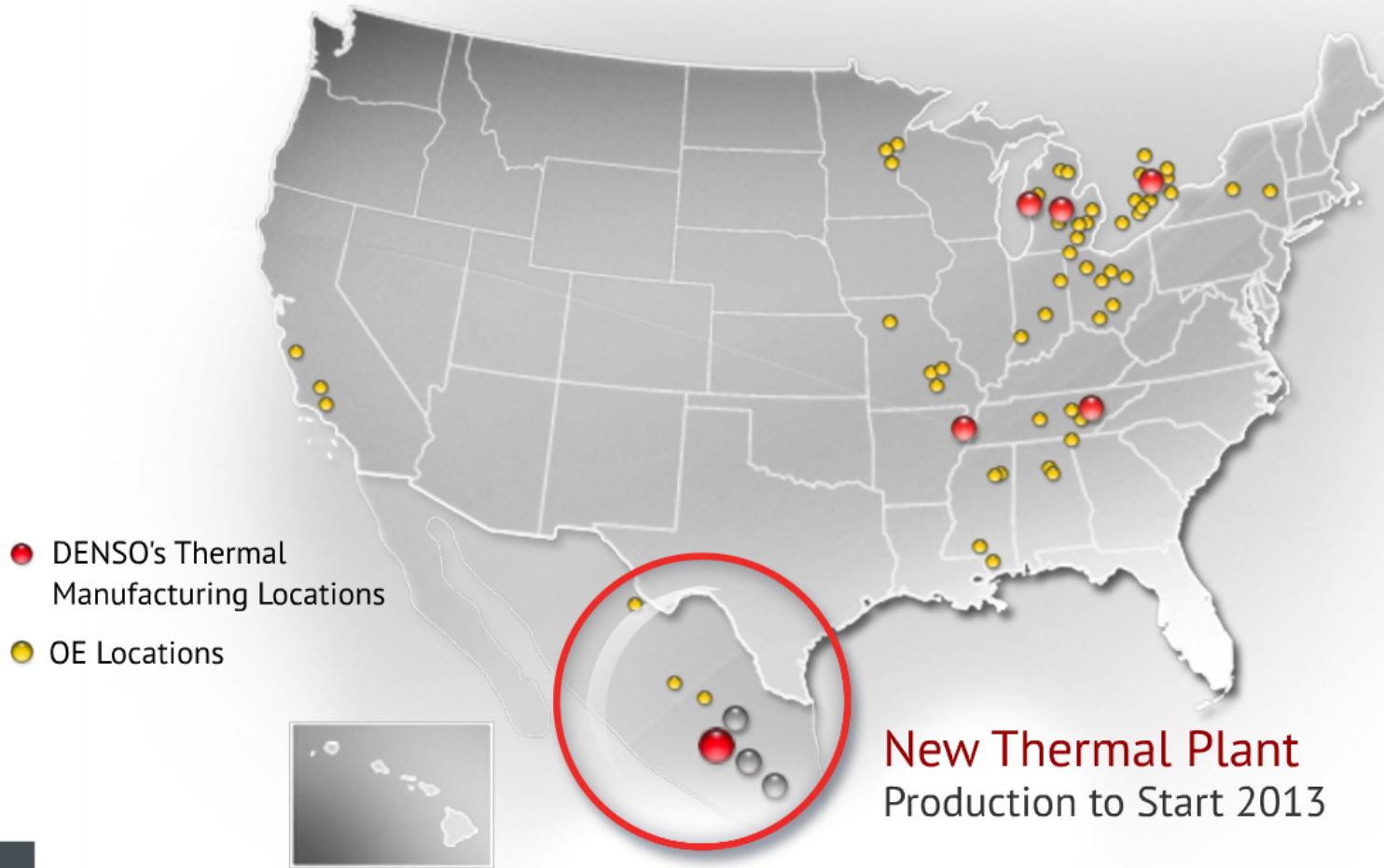
Challenge

Economic challenge to be at the location for the long-term and be **globally competitive**



DENSO

North American Thermal Footprint



Continue to Strengthen North American Footprint

INVESTING NEARLY
\$1 BILLION
IN NORTH AMERICA
Over the Next Four Years

Drastically localize products, processes and R&D capabilities to support our customers

Basic Operating Policy

Long-term commitment to **environmental consciousness**, safety and quality-excellence

Challenge

Finding and creating **environmentally friendly** solutions both in our products and processes



DENSO's Environmental Policy | EcoVision

Eco-Management

Eco-Product

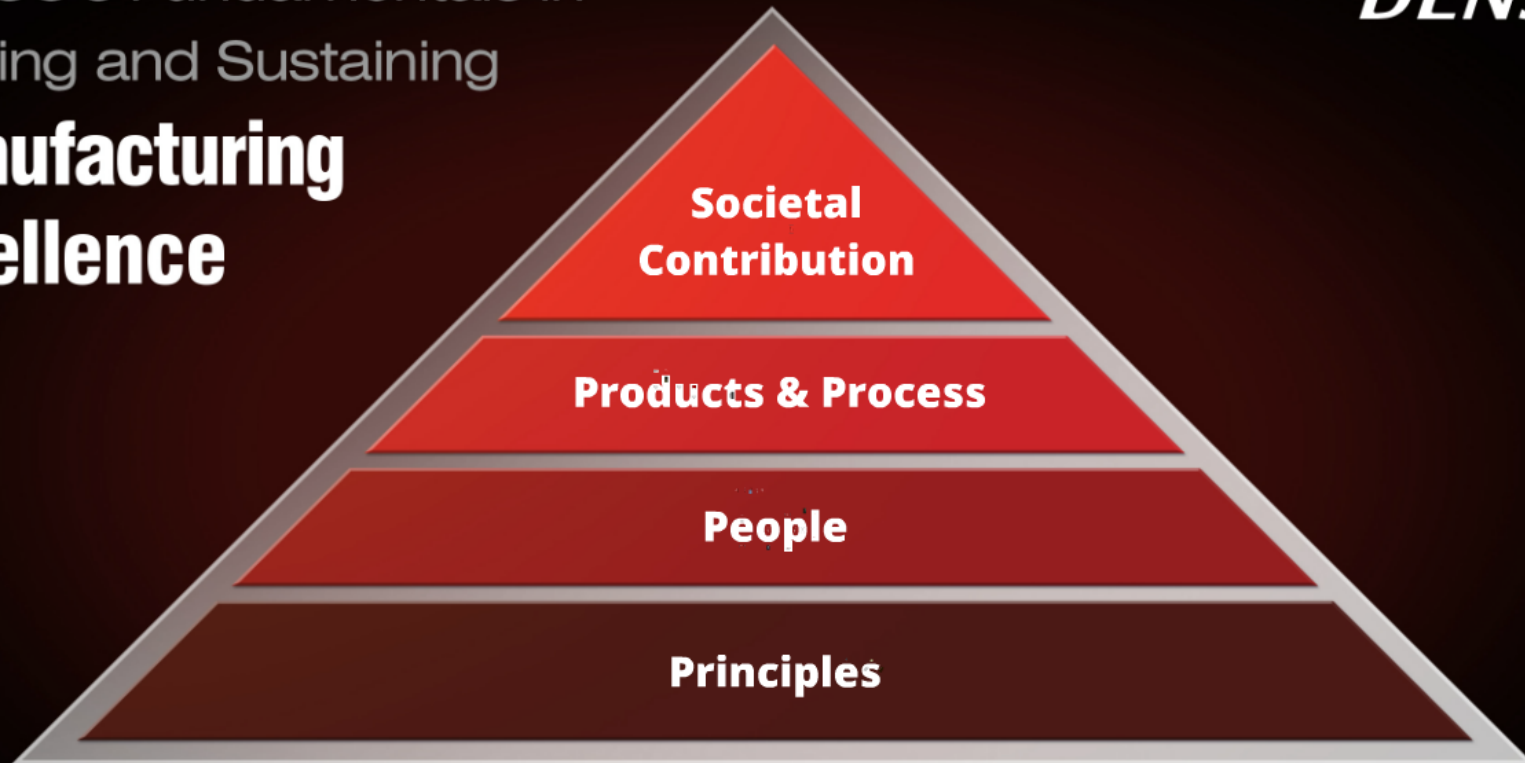
Eco-Factory

Eco-Friendly

DENSO's Fundamentals in
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Manufacturing Excellence

DENSO



DENSO's Key Differentiator is our Ability To Make Things

We design, develop and make our key manufacturing equipment, including robots



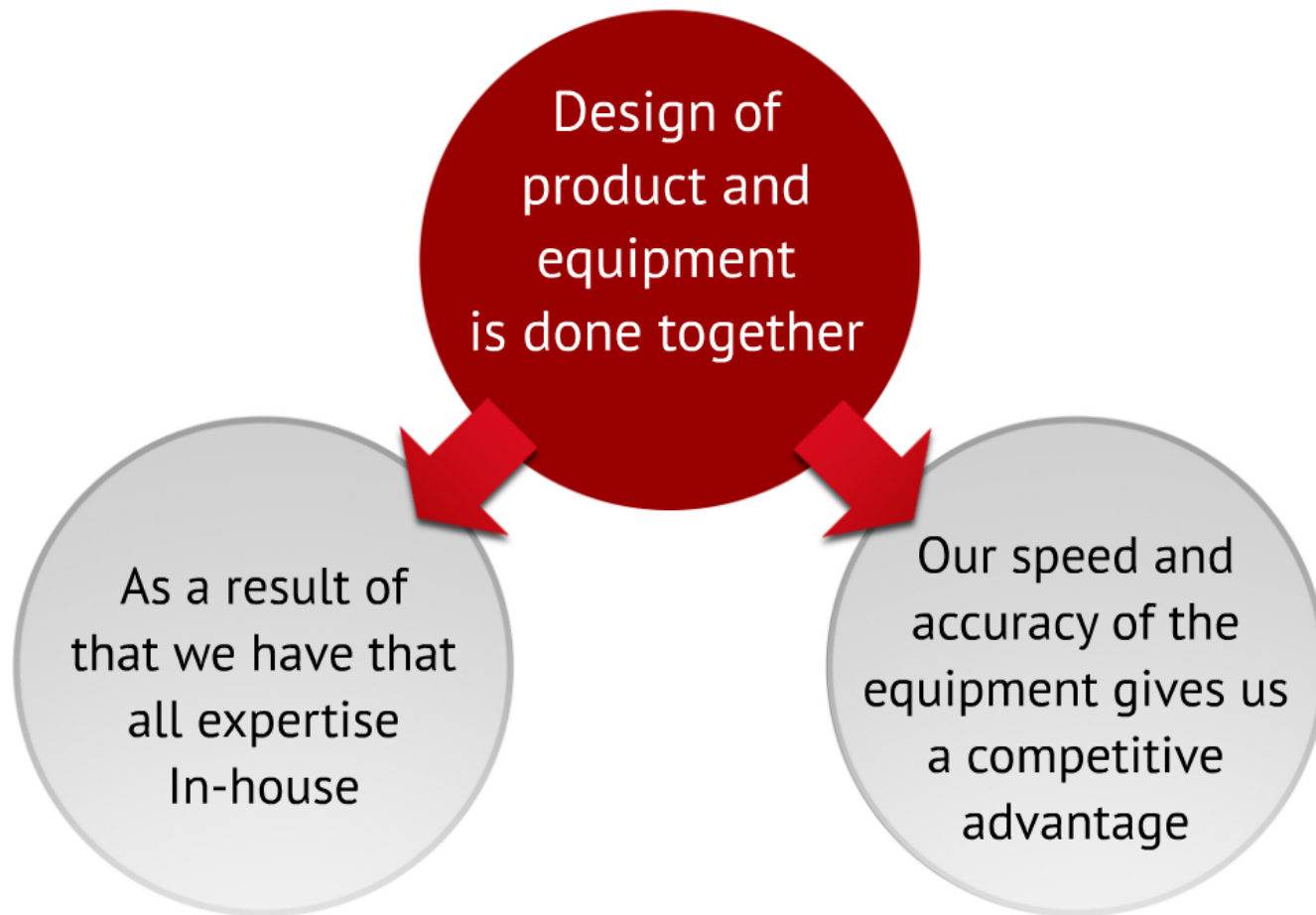
Monozukuri

(The Art of Making Things)

Why We Do This



The Unique Value of Monozokuri



Monozukuri

(The Art of Making Things)

Why We Do This



Cost/Efficiency Example

Current Technology

Batch Size	100
Process Integration	Separate
Space	100

Improved Technology

Batch Size	1
Process Integration	Multiple
Space	50

**These numbers are for presentation purposes and have no value

Eco-Factory

How does this fit into Eco-Factory

Decrease in space

Decrease in energy usage

Decrease in submaterial

Less processing time



Challenge in North America: Localization of Tools and Equipment

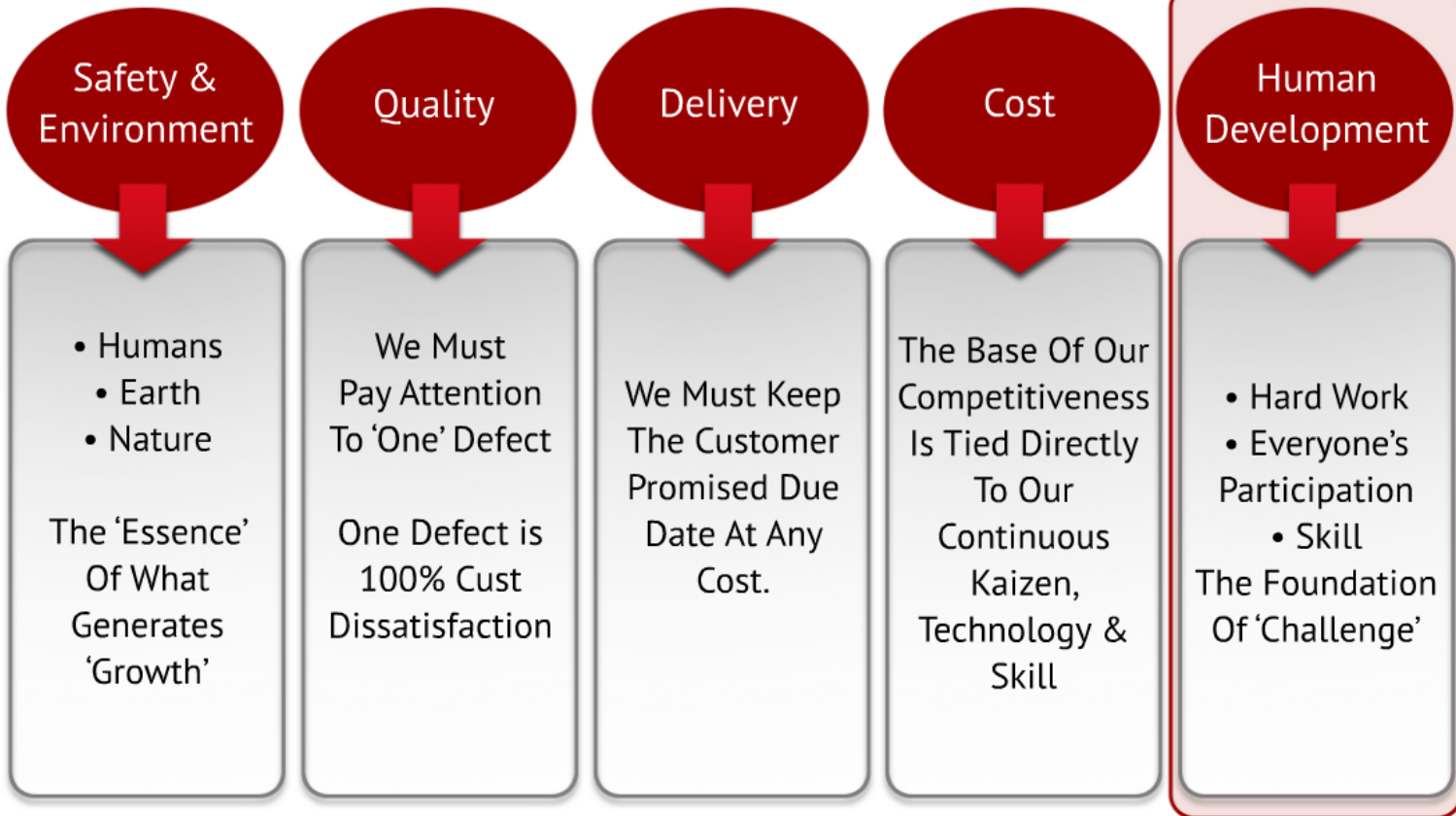
We are starting to localize this ability
DENSO Manufacturing Tennessee

Challenge within Challenge:
Reliance on Outside Partners

Monozukuri

(The Art of Making Things)

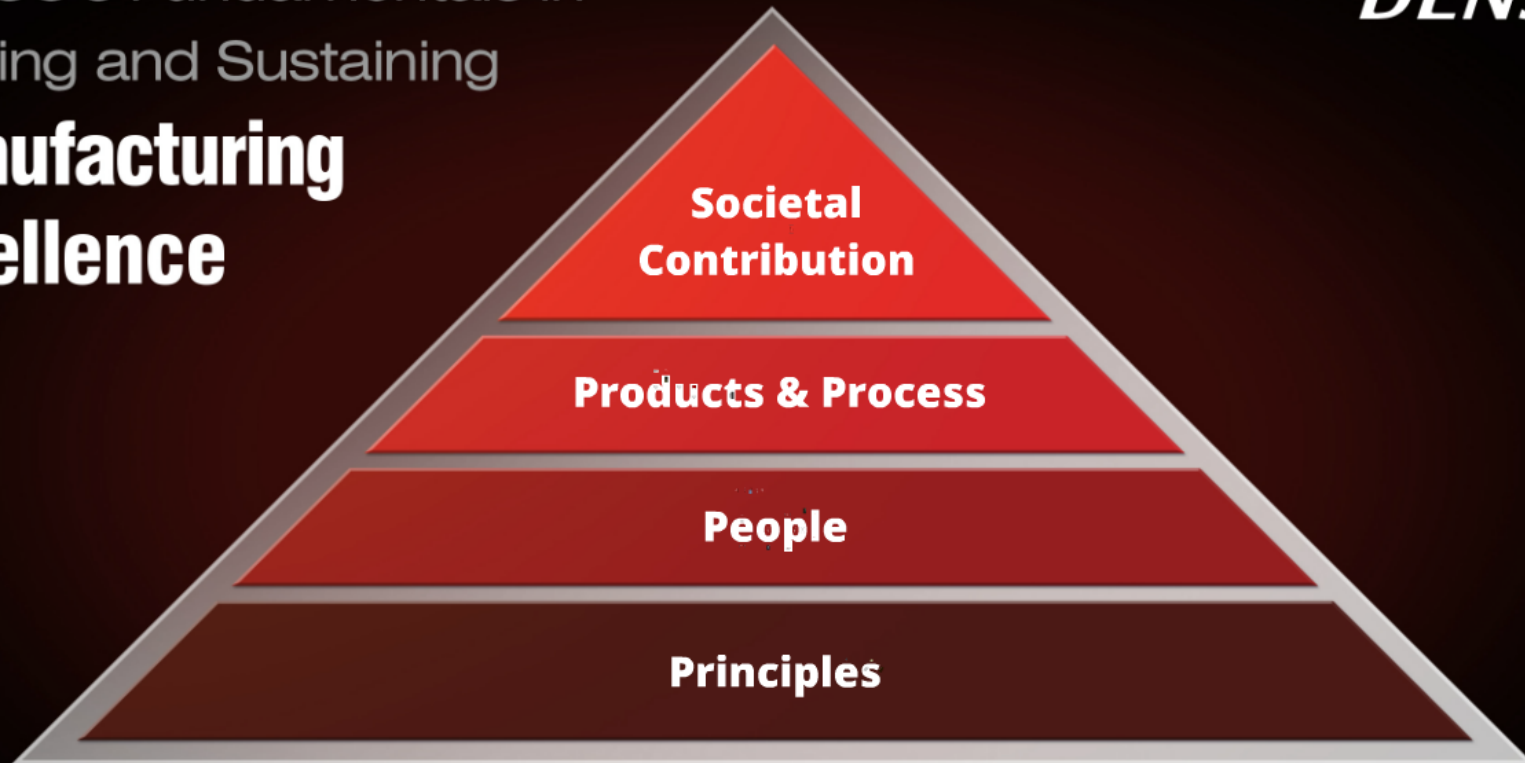
Why We Do This



DENSO's Fundamentals in
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DENSO



**How do we design? How do we produce?
And how do we manage to be competitive?**

People

Every person at every function has a voice.

Continuous Improvement at Every Level

Using Life Experiences to Bring
Continuous Improvement to the Workplace






PEOPLE

Everyone has a **unique value** to offer that needs to be **identified**, **cultivated** and **leveraged** to create a win/win scenario for the individual and the company – reaching full potential

MIND I Own This

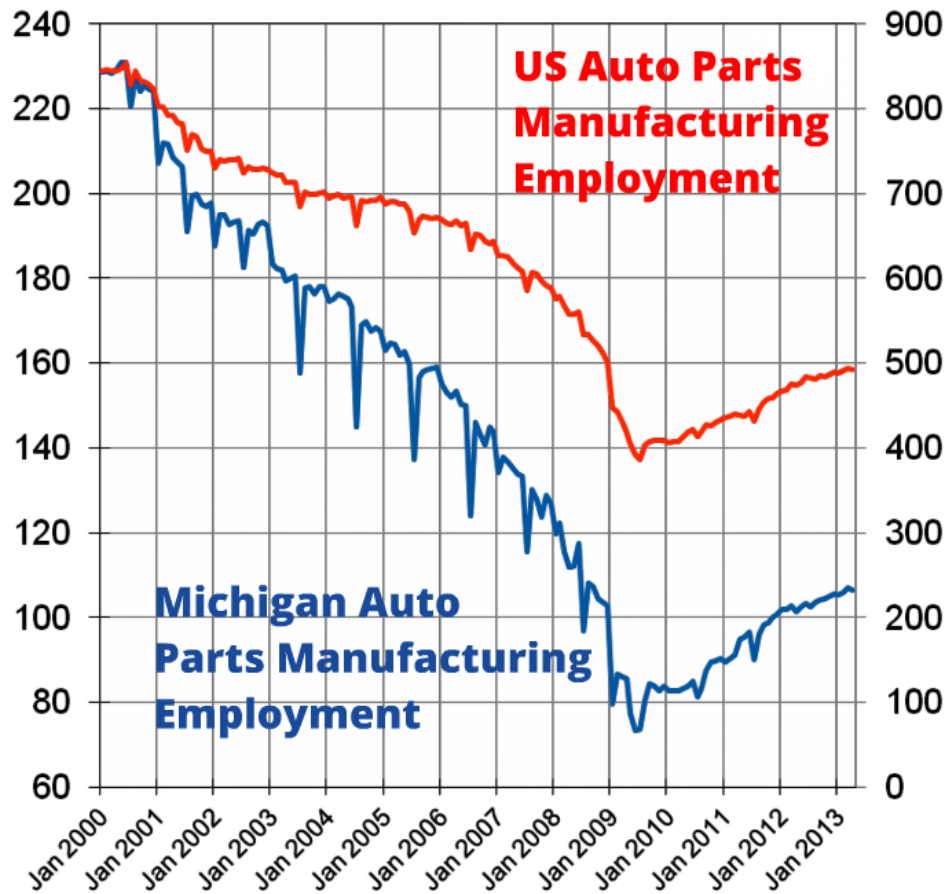
HEART Passion

BODY Learn by Doing

A wide-angle photograph of a large industrial factory floor. The space is filled with rows of green assembly stations. Workers in blue uniforms are seen at various stations, some handling large stacks of metal components. The ceiling is high with numerous fluorescent lights. The floor is marked with yellow lines. In the foreground, there are stacks of metal parts and a sign that says "Máquina 1".

Find the Right People
to do the Right Thing
at the Right Time

MI Parts Mfg - Thousands



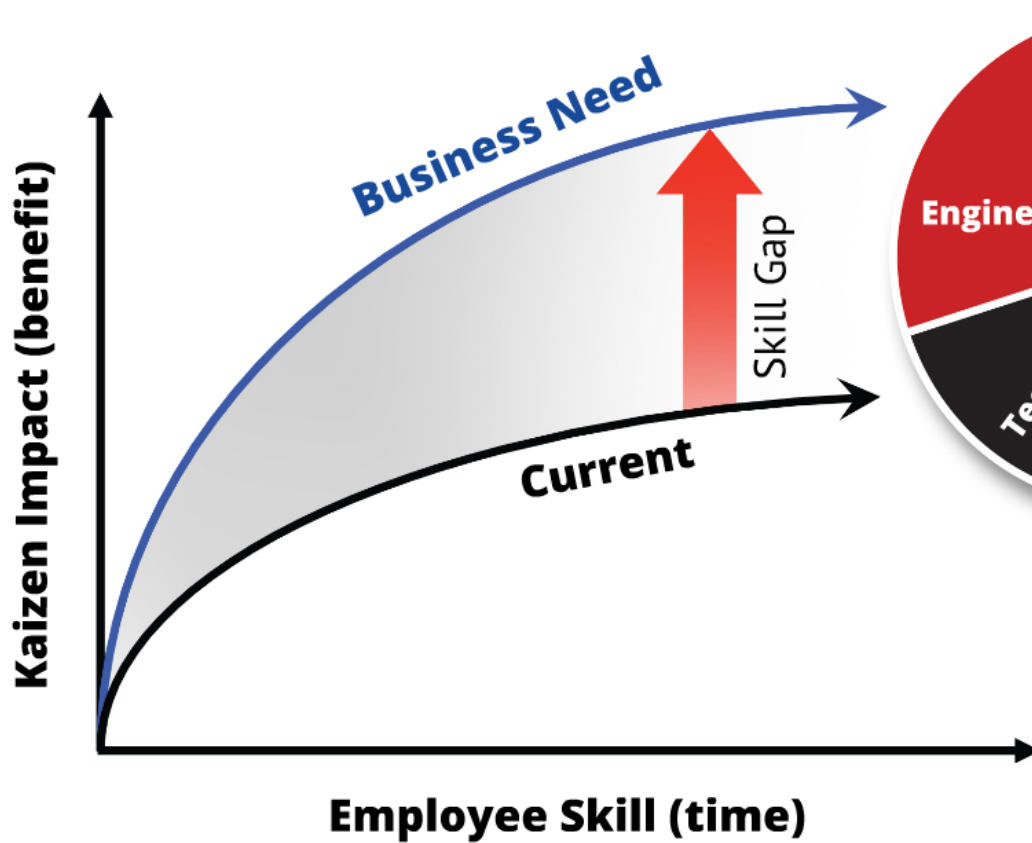
Erosion of U.S. Manufacturing

- In January 2000, U.S. parts manufacturing employed 845,000 people.
- In, July 2009 that number was 390,000
- As of March 2013, it rebounded to a projected level of 493,500 employees.
- Michigan supplier sector had 229,000 people in January 2000 versus a projected level of 105,800 in March 2013.
- Supplier employment will comeback slowly.

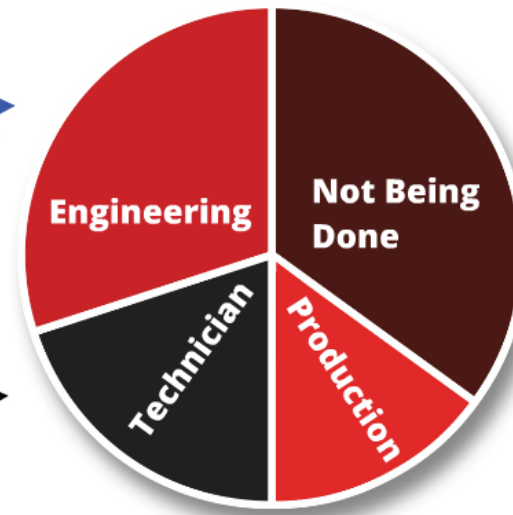
Two Challenges

1. Skills shortage
2. Branding challenge

Challenge 1: Skill Gap



Kaizen



Our Skill/Capability to Continuously Perform Higher Level Kaizen is Critical.

We Need Higher Skill at ALL Levels of the Organization!

We Must Close The Gap To Be Competitive!

Two Things Creating This Skill Gap

1. Internal: Not Training People Fast Enough
2. External: Not Enough People have the Necessary Skillset

Skills Shortage

1. Internal: Not Training People Fast Enough

Japan is a strength, but North America continues to be a challenge.

Skills Shortage

2. External: Not Enough People Have the Necessary Skillset

Just like STEM education, we need to place an emphasis on the skilled trades early in our education system.

This challenge isn't unique to North America.



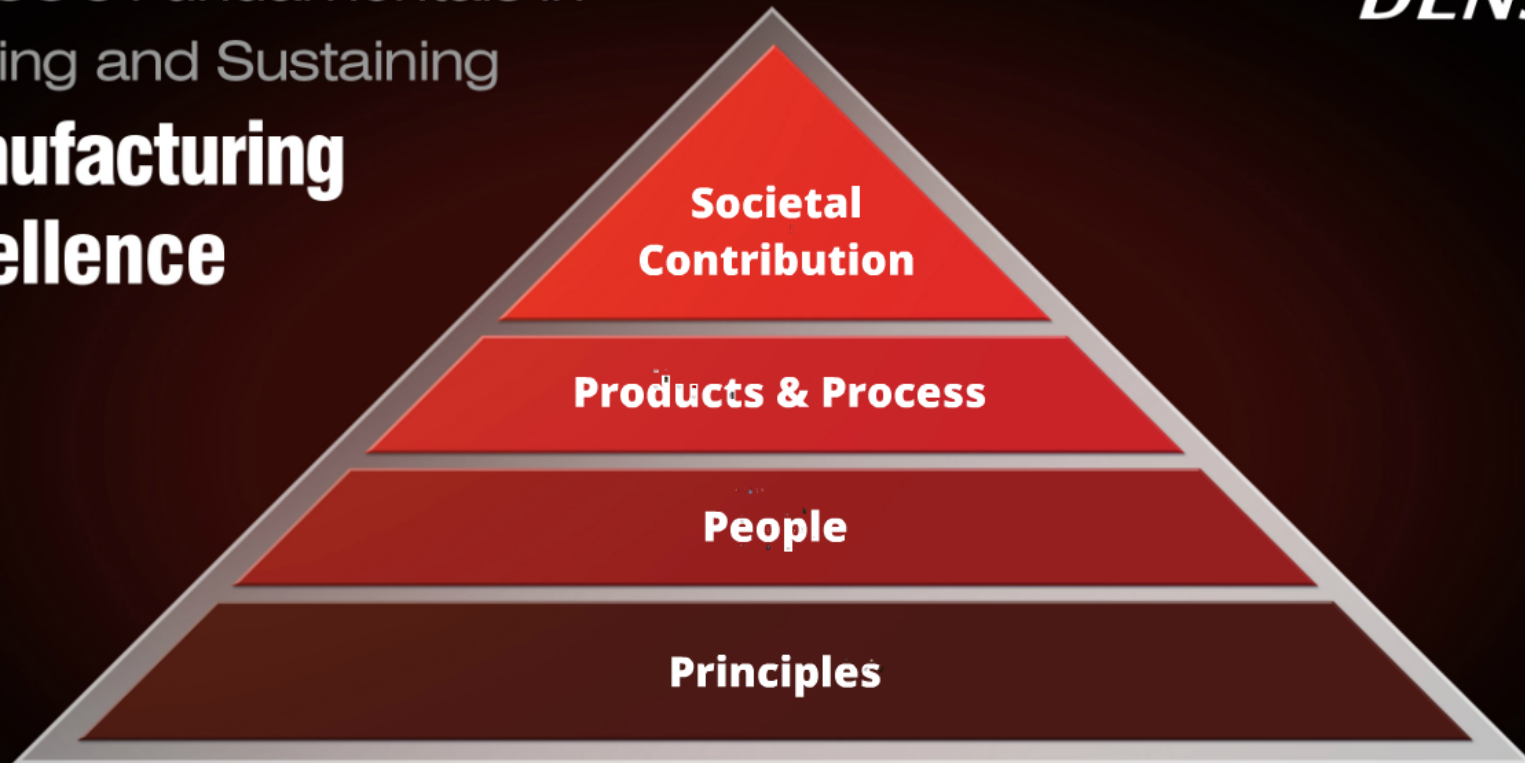
Challenge #2 Brand Image

Manufacturing isn't a glamorous or sought after job.

DENSO's Fundamentals in
Building and Sustaining

Manufacturing Excellence

DENSO



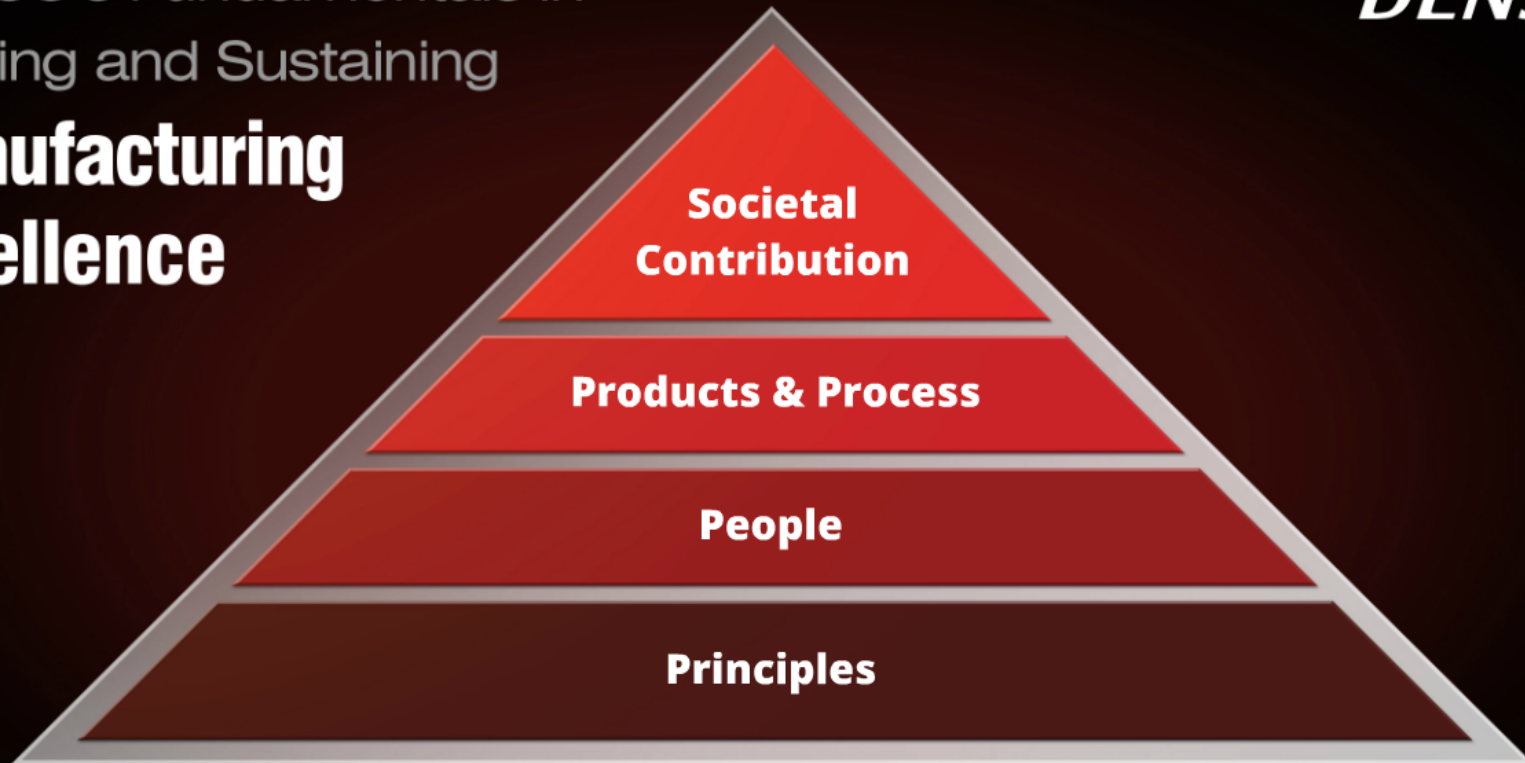
DENSO's societal responsibility must be equal or greater than its business size and scope. And given our size, we have a significant amount of responsibility.

DENSO must consider society and people first – not just focusing on financial numbers and short-sighted business decisions.

DENSO's Fundamentals in
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Manufacturing Excellence

DENSO



We, as an industry, have a lot of work to do
to remain **competitive** in the regions



Thank You