Dow’s Bold Approach to EH&S Performance
Presenter

• Responsible Care Leader, Dow Korea
• 23 years in Dow
Presentation Overview

• Dow Vision
• Dow Culture
• Dow Work Processes
• Dow’s Journey
Dow Vision

Human Element at work
About Dow

Founded in 1897 by Herbert H. Dow in Midland, Michigan
About Dow

Specialty chemical, advanced materials, agrosciences and plastics
About Dow

Delivering solutions to customers in 180 countries
About Dow

6,000 products manufactured at 201 sites in 35 countries
About Dow

53,000 employees worldwide
Mission
To passionately innovate what is essential to human progress by providing sustainable solutions to our customers

Vision
To be the most profitable and respected science-driven chemical company in the world

Values
Integrity Respect for People Protecting Our Planet

Corporate Strategy
Preferentially invest in a portfolio of technology-integrated, market-driven performance businesses that create value for our shareholders and growth for our customers

Financial Discipline Sustainability Strategic Growth Performance Culture
Infusing Safety & Sustainability into Our Strategy

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Financial Discipline  Sustainability  Strategic Growth  Performance Culture
Mission
To passionately innovate what is essential to human progress by providing **sustainable solutions** to our customers.

Vision
To be the most profitable and **respected** science-driven chemical company in the world.

Values
- Integrity
- Respect for People
- Protecting Our Planet

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Financial Discipline, Sustainability, Strategic Growth, Performance Culture
Dow’s Foundation of EH&S Excellence

“If you can't do it better, why do it?”

– Herbert H. Dow
The Results of Aggressive EH&S Goals

ROBERT W. CAMPBELL recipient AWARD
PRESENTED BY THE National Safety Council
The Results of Aggressive EH&S Goals

Green Cross for Safety
MEDAL RECIPIENT
PRESENTED BY THE National Safety Council
Dow Culture
The Dow Family

Employees, contractors, seasonal and temporary employees
Feedback Drives Success

Be heard. Inspire change.

• I am held accountable for doing my work in a manner that is safe.
• People in my work area are protected from health and safety hazards.
• Work related stress does not interfere with doing my job well.
• Dow has a sincere interest in the health and well-being of its employees.
• Dow provides a supportive work environment that encourages me to practice healthy behaviors.
Three-Pronged Approach to EH&S

- Work Processes
- Culture – Aggressive Goal Setting
- Leadership Commitment
Dow Work Processes

ACT

PLAN

EH&S

CHECK

DO
Strong Management Systems and Processes

Our processes enable EH&S success

- Behavior Based Performance
- Business Risk Review
- Management of Change
- Corrective and Preventive Actions
- Root Cause Investigations
- Self-Assessment
- Build and Modify
Strong Management Systems and Processes

EH&S infused into management systems through Plan, Do, Check, Act

- **BOARD**
  - EH&S POLICY
  - Board of Directors
  - EH&S Committee

- **EXECUTIVE COMMITTEE**
  - PLAN

- **SUSTAINABILITY TEAM**
  - ACT

- **EH&S GOVERNANCE**
  - CHECK

- **EH&S/BUSINESS/FUNCTIONS/GEOGRAPHIES**
  - DO
“When you have completed 95 percent of your journey, you are only halfway there.”

– Japanese proverb
The 1990s

Unplanned Events and Emissions Reduction
In 1996, we committed to:

Reducing by 90%:
- Injuries/illnesses per 200,000 work hours
- Leaks, breaks and spills
- Transportation incidents
- Process incidents

Reducing by 50%:
- Motor vehicle incidents
Dow Employee & Contractor Injury/Illness Rate
1994 - Current

- Annualized
- Year-to-Date
- New Dow Portfolio
- Dow History, Before 2009
- Acquisition 2015 Goal
Proud of Our EH&S Accomplishments

![Diagram showing Loss of Primary Containment Incidents](image)
Early 2000s

Energy Conservation
2005 EH&S Goals Delivered Results

- Reduced personal safety and health incidents by 84%
- Reduced solid waste by 1.6 billion pounds
- Reduced water use by 183 billion pounds
- Saved 900 trillion BTUs of energy

= Saved more than $5 billion with a $1 billion investment

Working at Dow is 20x safer than working at a grocery store!
2005 Sustainability Goals Delivered Results

Environmental Savings

- Reduced solid waste by 1.6 billion pounds
- Reduced water use by 183 billion pounds
- Saved 900 trillion BTUs of Energy

Waste savings that could have filled 415 football fields 1 meter deep
Water savings that could have served 170,000 homes for a year
Energy savings that could have powered 8,000,000 single-family homes for a year

Economic Savings

- Invested $1 billion
- Saved $5 billion

Source: Dow 2005 Environment, Health & Safety Goal Reporting
2015 Sustainability Goals

• Build on accomplishments of 2005 EH&S Goals
• Non-traditional, external focus
• Progress is regularly reported and transparent
2015 Sustainability Goals Continue to Deliver

**EH&S Improvements**
Due to our reduction rate efforts in our Local Protection of Human Health & the Environment Goal, to date we have:

- **>6,000** Fewer spills
- **>275** Fewer process safety incidents
- **>4.3 billion** Fewer tonne-miles of transporting hazardous materials
- **>175** Fewer hazardous materials transportation spills
- **>1,100** Fewer injuries due to enhanced focus on safety

**Economic Savings**

- Improved operational efficiency with net cost reduction of **~$1 billion**
- Energy savings **$380 million**
- Illness and injury avoided **$240 million**
- Process safety incidents avoided **$180 million**
- By-product synergy **$100 million**
- LOPCs avoided **$90 million**
The Future
By 2030, the world’s population will reach 8.3 billion, requiring:

- 50% more food
- 45% more energy
- 30% more water
Dow’s 2025 Sustainability Goals introduce the notion of a collaborative *blueprint* for sustainability, building upon previous ten-year commitments focused on the company handprint (2006) and footprint (1995).

**Footprint:** World-leading operations and supply chain performance

**Handprint:** Products and services that help customers meet their challenges

**Blueprint:** Changes in technology, public policy, and the value chain that lead human society toward sustainability
Vision of Zero

We started focusing more on behaviors, building a safety mindset of prevention, teamwork and accountability.
The Dow Difference

- Ambitious goals
- Disciplined processes
- Employee engagement
  - We are all leaders in EH&S
- Evolving culture
  - Safety is personal
- Continuous improvement
- Recognition
- Zero is attainable
Keys to Our Success

EH&S Management Systems & Processes
Leadership commitment
Employee engagement
Transparency
Thank You