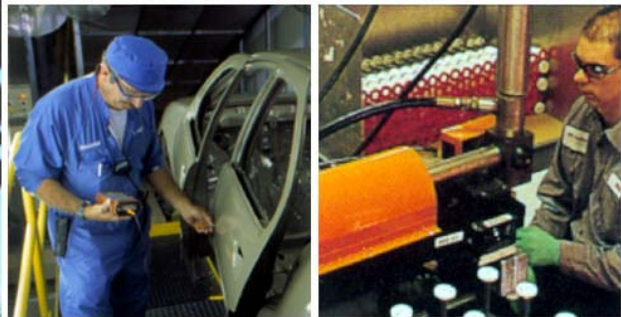




**GMMP**



# CHEMICALS MANAGEMENT PROGRAM in POLAND

*Barbara Mucha - PPG*  
*San Francisco 24th of Oct. 2007*

## Chemicals Management Program at GM plant in Gliwice, Poland:

- The Beginning.....
- Stage I
- Areas of Responsibility
- Stage II
- Module Structure
- Benefits of Integrated Modular System
- Tier II Management
- Products Portfolio
- Global CM Template Implementation
- Win-Win Partnership
- Challenges to CM Introduction

# GM Manufacturing Poland

- Greenfield site
- Turnkey concept
- 10 years old
- Capacity:  
180 000/year
- 3 500 employees







# GM Manufacturing Poland

## MODELS PRODUCED

- Agila
- Astra C
- Zafira

MARKET P

WHOLE E





# GM Manufacturing Poland

## NEW MODEL

ASTRA III

SOP -  
August '07



# Stage I

- 1997 - General Motors Plant was built in Gliwice, Poland
- 1998 - Start of production with Process & Chemicals Management concept



# Areas of Responsibility

	Water House	Waste Water	Waste Disposal	Warehouse & logistic	Purchasing	Cavity Wax
Process Control	PPG	PPG	PPG	PPG	PPG	PPG
Production	PPG	PPG	On site Logistic PPG	Operation/ JIT Delivery PPG	Ordering PPG	PPG
Maintenance	Premier	Premier	Off site Logistic ALBA	PPG	Releasing PPG	Premier
Cleaning	Premier	PPG Premier	Disposal ALBA	PPG	Follow up PPG	Premier

Paint Shop  
Next Slide



# Paint Shop Areas of Responsibility

	Phosphate	E-coat	Sealers	Primers	Topcoats
Process Control	PPG	PPG	PPG	PPG	PPG
Production	PPG	PPG	GM PPG	GM PPG	GM PPG
Maintenance	GM Premier	GM Premier	GM Premier	GM Premier	GM Premier
Cleaning	PPG Premier	PPG Premier	Premier	PPG Premier	PPG Premier



2005 - General Motors Chemicals Management Global Template for indirect products

- Direct products are applied to the vehicle
- Indirect products are used in support of the process

2006 - Request for quotation

2007 - Introduction of Global CM Template aligned with existing Process Management operation .



# Integrated Modular System

Chemicals Management Program in General Motors Manufacturing Poland (Gliwice) include:

- ✓ Chemicals Management
- ✓ Paint Shop Process Management
- ✓ Material Procurement

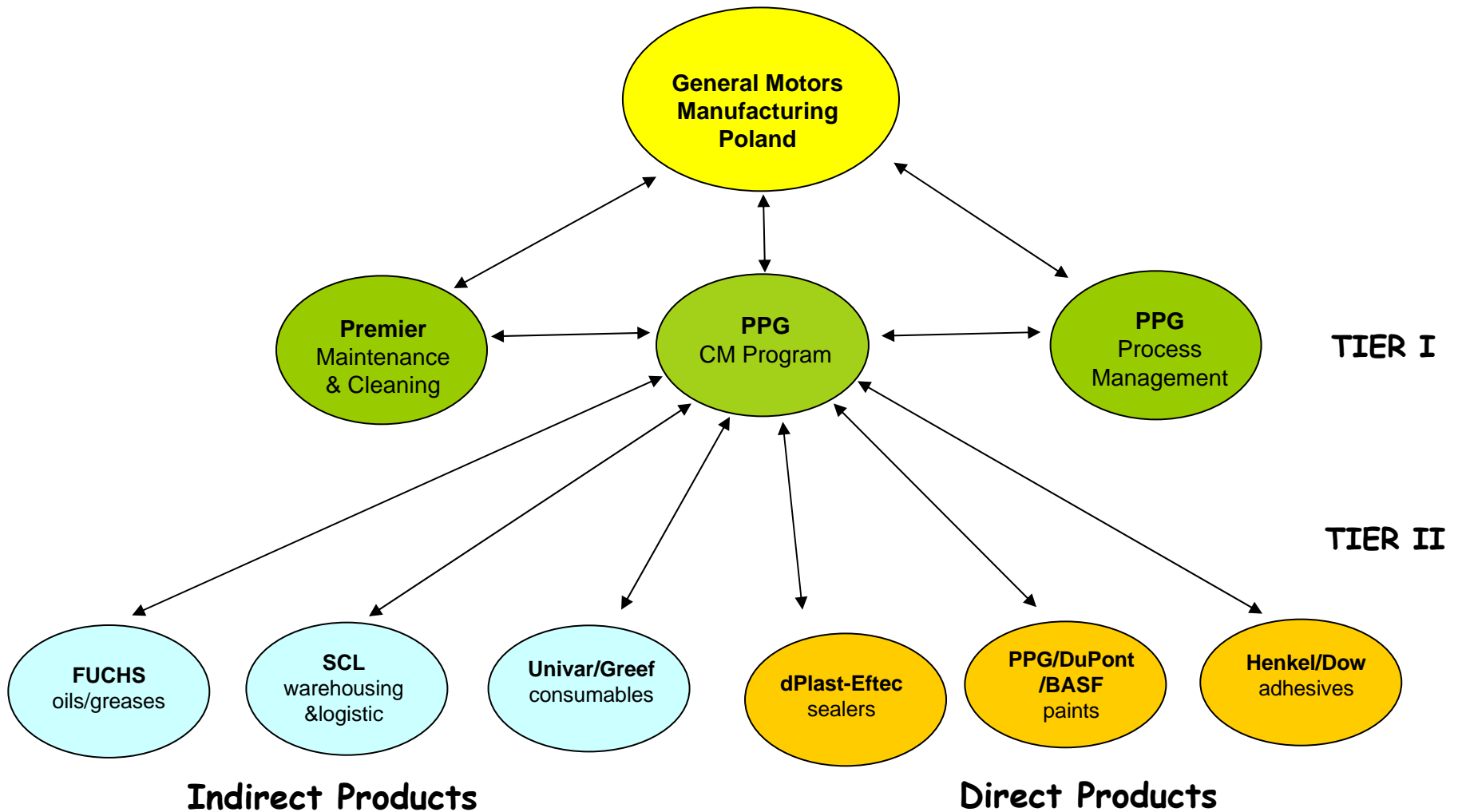


# Benefits of Integrated Modular System

- ✓ Manpower saving
- ✓ Shared responsibilities of personnel
- ✓ Easy to cross train - allows for back up personnel
- ✓ Awareness of linked processes and their influence
- ✓ High effectiveness of complex problem solving and project development
- ✓ Comprehensive aligned optimisation of whole area



# Tier II Management



560 products to 1200 No. of locations

- ✓ Scope of products:
  - ❑ 40 items base on cost per unit basis
  - ❑ Pass through - 520
    - ❑ Direct - 60 items
    - ❑ Indirect - 380 items
    - ❑ Non-chemicals - 80 items

Σ 560 products, 1 200 locations

JIT delivery to the point of use

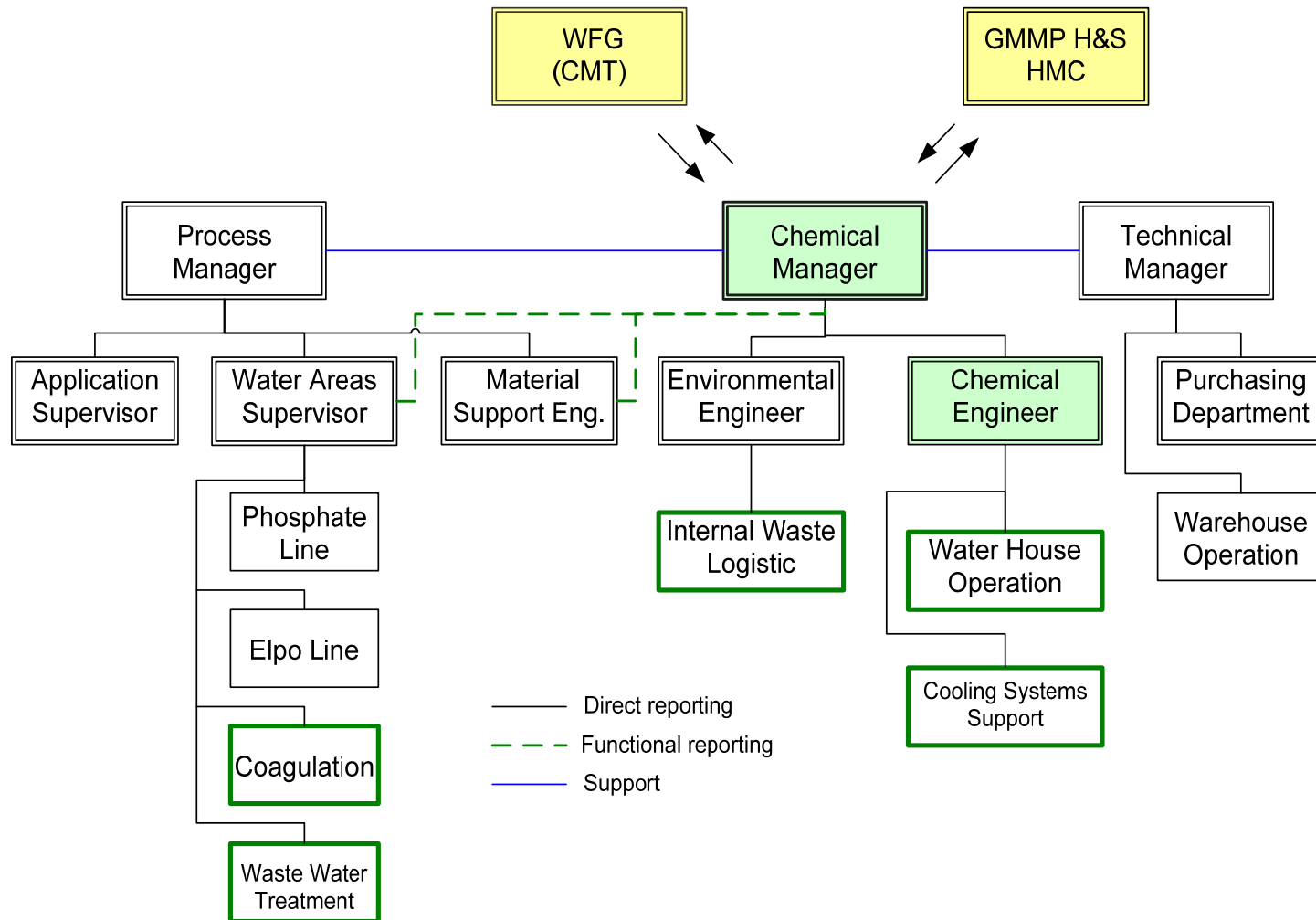


## Implementation of the Global CM Template:

- ✓ Structure
- ✓ Material List
- ✓ Database
- ✓ Index Pricing
- ✓ Chemicals Management Administration Team
- ✓ Purchasing Coordination

# Chemicals Management

## 1. PPG Structure in place from May 2007



2. List of materials developed
  - o delivery points were clarified
  - o end users were defined
  - o direct/indirect material classified
  
3. Chemical database prepared
  
4. Proposals in development for “index pricing” for indirect products

Target -> end of November 2007

5. Chemicals Management Administration Team created & championed by GM Manufacturing Poland  
-> meets monthly
  
6. Procedures in development for communication and coordination of new material introduction and changes aligned with revised GM Purchasing initiatives



# Win-Win Partnership

**Establish agreed upon goals :**

**Define** - the greatest influence on total cost

**Measure** - your actual total cost

**Analyze** - use tools: 5 Whys, value stream mapping

**Improve** - one of the most effective ways is to implement  
CMS

**Control** - control of product use is easy due to PPG  
managing on-site services



# Win-Win Partnership

- Safety standards are maintained
- The mechanisms for continuous improvement are provided
- Information management is improved
- Comprehensive on-site service is provided in :
  - Product technology
  - Application expertise
  - Process knowledge
  - Chemical monitoring techniques

# Win-Win Partnership

- Quality is improved
- Chemical lifecycle tracking
- Environmental impact is minimized:
  - the number of chemicals used are reduced
  - the volume of chemicals used are reduced
  - the emissions (air, water and waste) are reduced
- Inventory is reduced
- Total system costs are reduced
- Plant Personnel are able to better focus on core business activities



# Win-Win Partnership

- ✓ Products and services meet customer global template
- ✓ Highly qualified and experienced personnel are dedicated to constant improvements in every area of business
- ✓ Job performed correctly the first time, to the full satisfaction of the customer

# PPG Challenges to European CM Introduction

- ✓ Union resistance - Job protection / job losses
- ✓ Cultural Influence - Mainly Japanese and Korean transplants
- ✓ Most existing Western European plants are already lean - less potential for savings
- ✓ Resistance to change
- ✓ "Not invented here " mentality

# Challenges to CM Introduction

- ✓ Normally a purchasing / central driven initiative ...not plant owned
- ✓ Full life cycle costs not fully understood by customers
- ✓ Customers concerned over losing price control
- ✓ Customers reluctant to accept sharing price risk - They want CM manager to take all risk
- ✓ Impact of REACH concerning ownership and accountability





# THANK YOU



# GMMP