

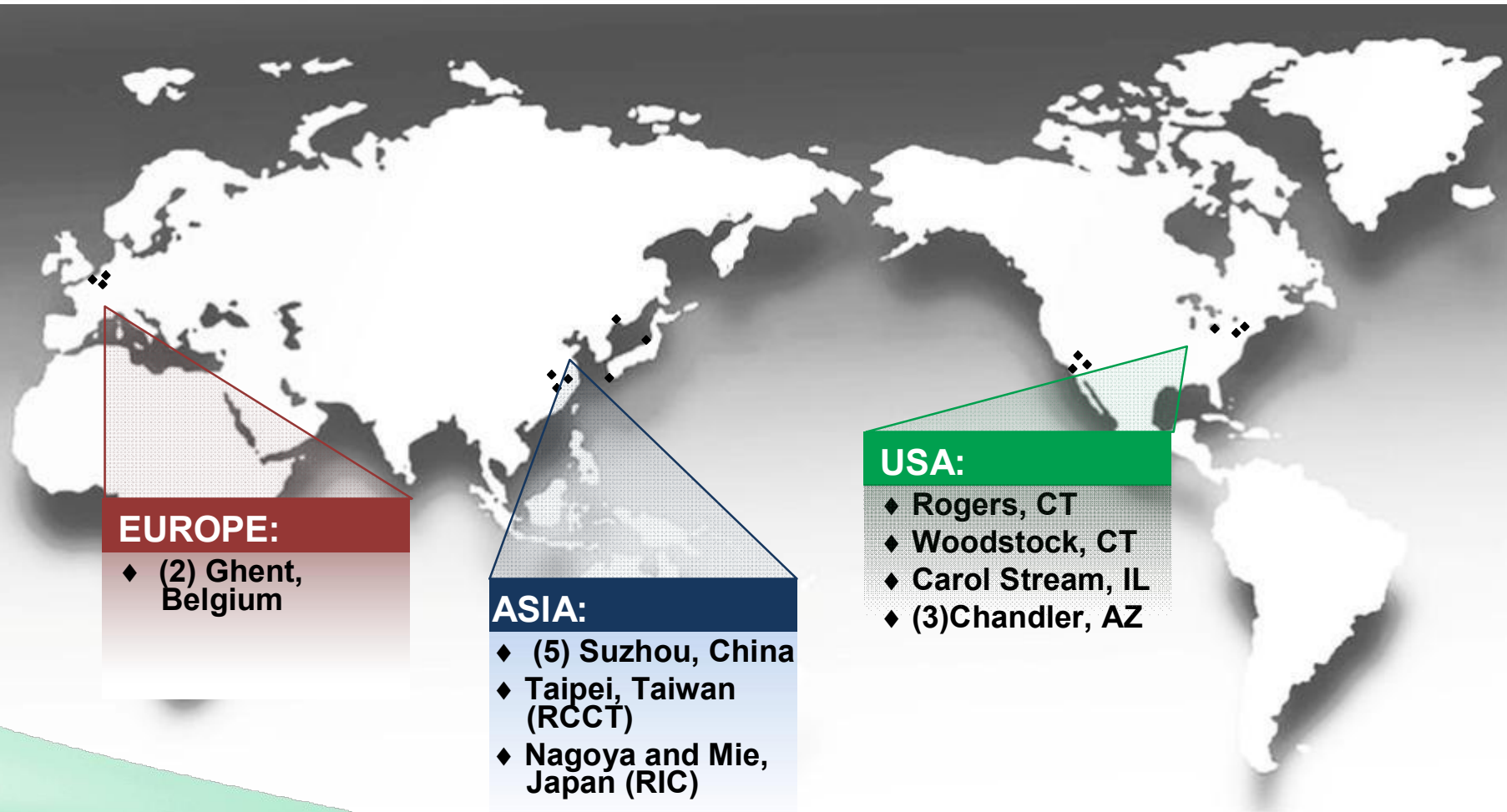
EU – REACH Journey

Anita Jain
Rogers Corporation
May 6, 2009



-  **177 years as a company!**
-  **2008 Sales \$365 Million**
-  **Global Operations - China, USA, Europe**
-  **Approx. 2000 employees worldwide**
-  **Very diverse product offerings**

Global Presence: Manufacturing



EUROPE:

- ◆ (2) Ghent, Belgium

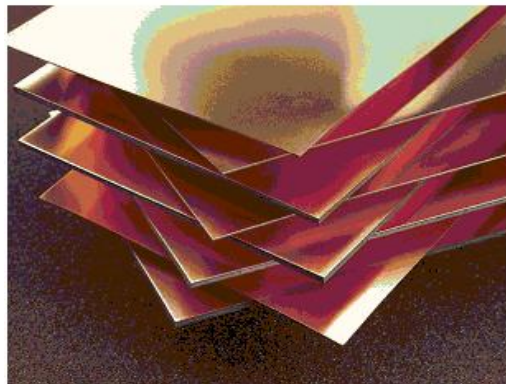
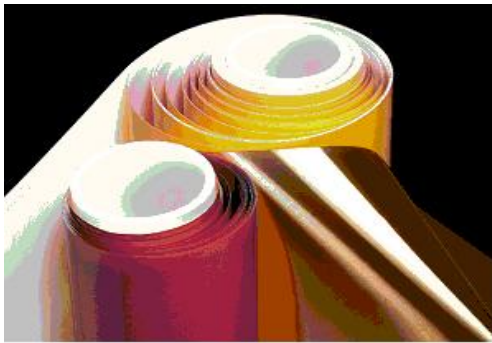
ASIA:

- ◆ (5) Suzhou, China
- ◆ Taipei, Taiwan (RCCT)
- ◆ Nagoya and Mie, Japan (RIC)

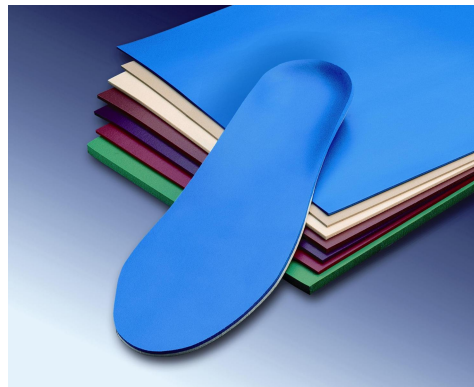
USA:

- ◆ Rogers, CT
- ◆ Woodstock, CT
- ◆ Carol Stream, IL
- ◆ (3) Chandler, AZ

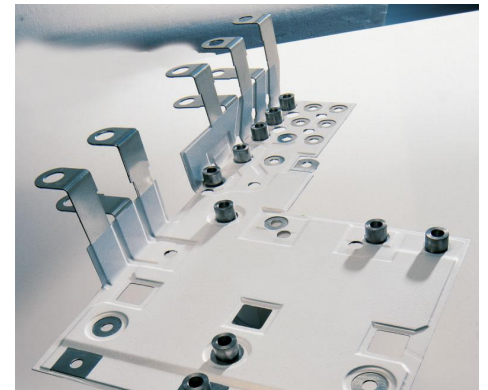
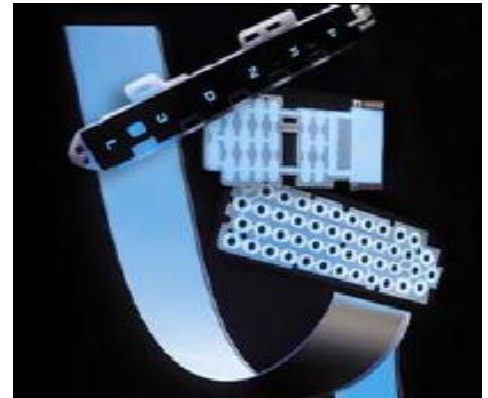
Printed Circuit Materials



High Performance Foams



Custom Electrical Components



PORTABLE COMMUNICATIONS



DSL Repeater



Antennas



Base
Stations





Diverse Customer Base



DELPHI



SHARP.



ZTE中兴



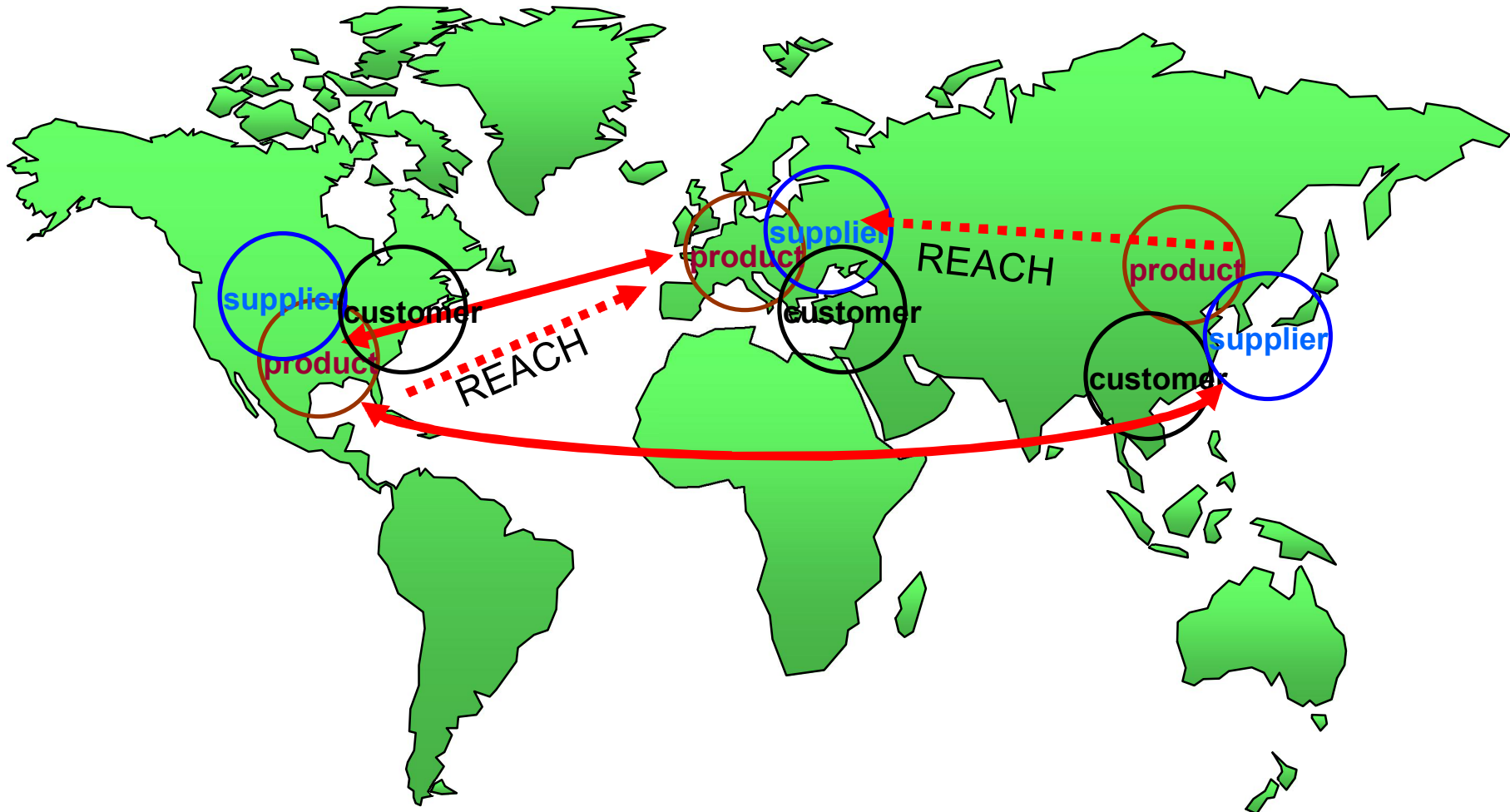
Invented for life



BOSCH

NOKIA
Connecting People

Supply Chain Routes



Scope:

- All imported **substances** – either on itself, in **preparations** or to be **intentionally released from articles** – need to be (pre-)registered with European Chemical Agency.
- From Dec 1, 2008.
- If not => import is illegal.

 **REACH** gives priority to **Substances of Very High Concern (SVHC)** and large volume substances.

Substances: A chemical substance and its compounds in the natural state or obtained by any manufacturing process. For example: chemicals, metals, etc.

Preparations: A mixture of solution composed of two or more substances. The function is more determined by the chemical composition than by its shape, surface or the design. For example: Paints, Resins, Alloys, etc.

Article: An object which during production is given a special shape, surface or design which determines its function to a greater degree than does its chemical composition.

- Who takes the ownership of REACH compliance responsibility?
 - EH&S, Product Managers, Supply Chain, R&D.
- Created a global REACH team with representation from US, China, and Europe.
- Provided basic training to all key personnel throughout the corporation.

- Determined import/export status of all raw materials and products.
- Identified who is importer on record: Rogers – Europe or a Distributor.
- Classified each imported material into Substance, Preparation or Article with no intended release.
- Calculated imported volume (tonnage) to E.U.
- Identified monomers of polymers.
- Finalized REACH pre-registration list.

		Form. 1	Form. 2	Form 3	Form 4	Form 5	Tons
Substance A SVHC	110-00-0	1.55%	1.55%	1.55%	1.55%	1.55%	1 - 10
Substance B	111-00-0	10.66%	10.66%	10.66%	10.66%	10.66%	1 - 10
Substance C	112-00-0	20.77%	20.77%	20.77%	20.77%	20.77%	10 - 100
Substance D	Proprietary	30.88%	25.00%	26.00%	27.46%	28.57%	100 -1000
Substance E	Proprietary	20.99%	31.25%	32.19%	32.97%	34.01%	10 - 100
Substance F	113-00-0	17.00%	13.13%	20.21%	11.30%	10.23%	10 - 100

- How to protect intellectual property information?
 - Use Third Party or Only Representative?
- Negotiated lengthy contract with Only Representative.
- Establishing a long term relationship with OR due to registration deadlines until 2018.
- Annual cost of retaining OR services.

- Not able to pre-register.
 - Manufacturer won't provide info.
 - No longer polymer (not on market prior to Jan. 6, 2008).
 - New to the EU market, not on EINECS.
- Evaluated all products for SVHC.
- Prepared responses to customer inquiries.

- ❑ Rogers is not planning to Register.
 - Too \$\$\$.
 - We don't have the right information and control over the materials we purchase.
- ❑ For every substance, we have to find a solution to have our **imported volumes** covered by a registration.
 - Needs to be in place at the latest by the registration deadline (2010, 2013, 2018).
 - No solution means no import in EU.
- ❑ We also have to make sure that our “**use**” is covered by the registration.

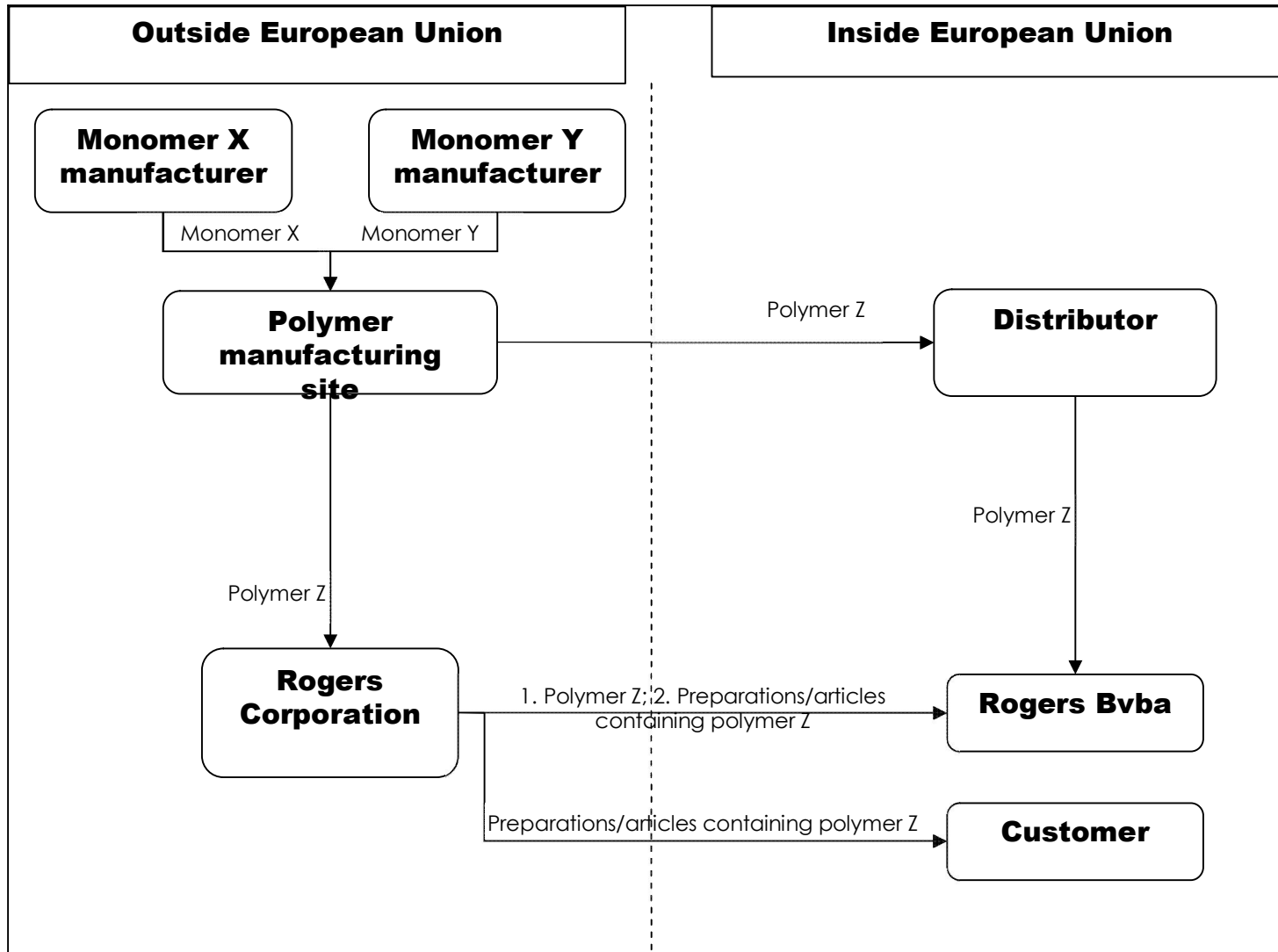
Options (1):

- Purchase raw materials from EU manufacturers.
 - Manufacturers have to register.
- Keep aggregated volumes < 1 ton/year per substance.
- Import raw materials through an EU importer.
 - EU importer must find a solution.
 - Would not be a solution for the product imports.

Options (2):

- Rely on the registration done by the non-EU manufacturers' Only Representative or an OR higher up in supply chain.
 - Complex.
 - Requires a lot of negotiation with the supply chain.
 - They are not obliged to accept it !
 - Has to be covered contractually to mitigate risks.
 - We have to report our imported volumes.
- Register ourselves.
 - \$\$\$!





Vendor of Critical Products:

- May not register or not register for our intended “use”.
 - Some specialty chemicals may be phased out due to high registration cost.
- Withdrawal from market (business continuity).
 - User may have to reformulate their products and re-qualify with the customers.
 - User or importer may have to register themselves.
 - User has to do the chemical safety assessment.
 - Cost
- May increase their prices due to registration costs.
- Substances of very high concern may be subject to use restrictions.
- May pre-register, but not register ... => ☹️

New products.



Harmonization

- RoHS – REACH – SVHC
- MSDS – SDS (REACH Compliant)
- GHS

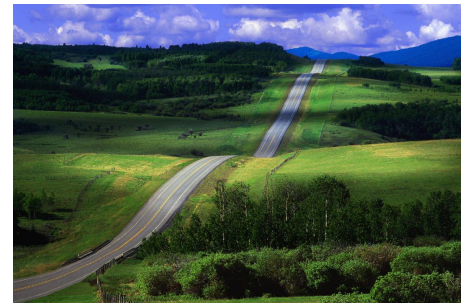
 To spend less resources on compliance and more resources on DfE programs.

 Availability of green raw materials and strong market demand for green products.

What is Needed

A sustainable approach is needed:

- To maintain global market access.
- At lowest cost.
- To minimize business disruptions.
- To minimize legal liabilities.
- On-time product development.



**“Capture as a Business Opportunity
instead of Liability”**

Product Life Cycle

**New
Focus**

End of Life

R&D

Distribution
Throughout
the World

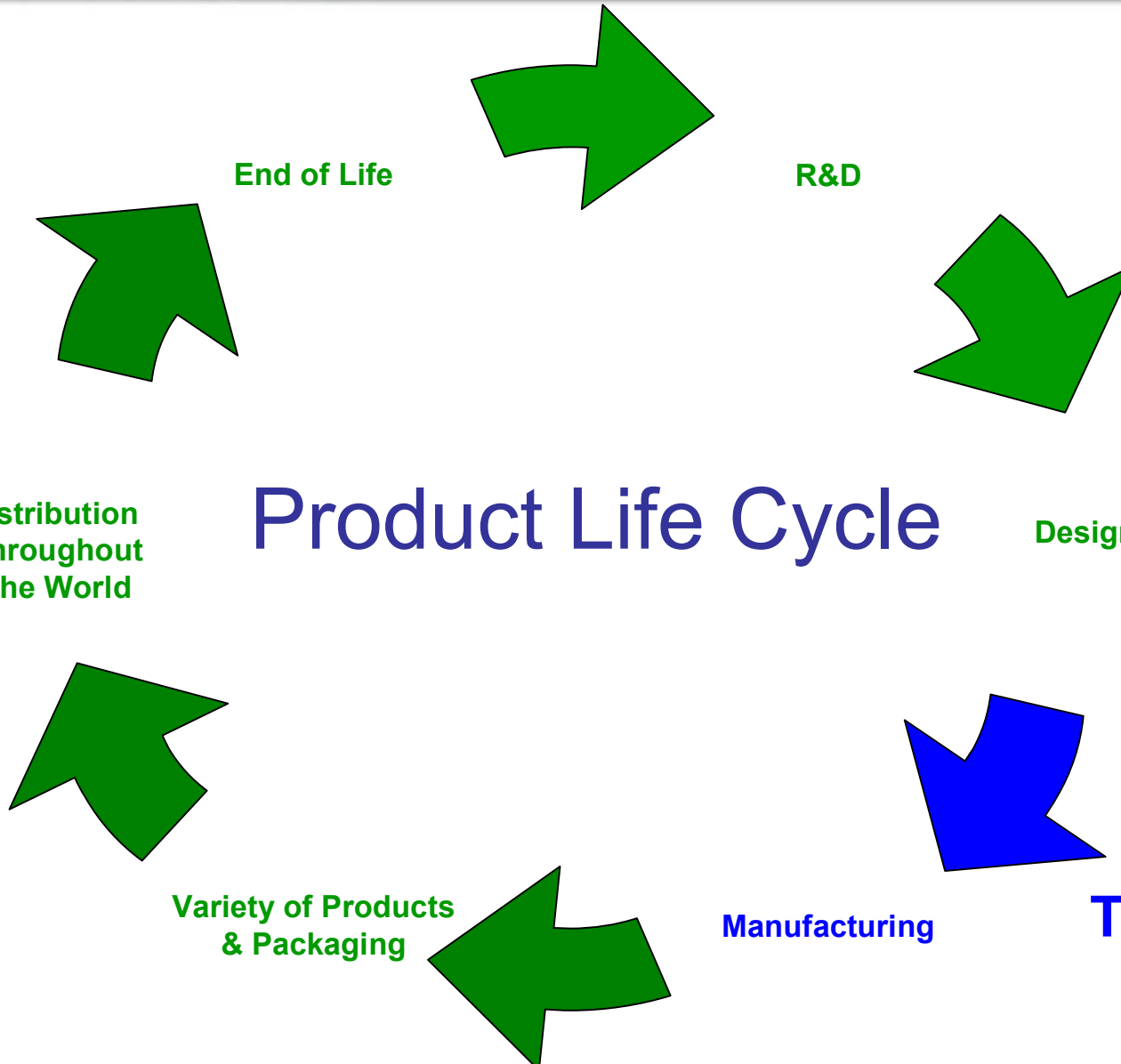
Product Life Cycle

Design

Variety of Products
& Packaging

Manufacturing

**Traditional
Focus**



MATERIAL REVIEW PROGRAM

- Robust system for reviewing all incoming raw materials (including R&D chemicals).
- Use a flag system to identify all restricted (voluntary to regulatory) substances.
- A notification system is in place to notify all affected parties.

Chemical Inventory

Chemical Inventory 2007 - [Inventory - Material Approvals (0) FM 1132 BLACK M.C.]

File Modify Data Reports Utilities Window Help

1 of 369

Main Div/Using Area IH/Safety PPE/Stor./Remarks RCRA/Disp. EU Classification Regulations PeopleSoft

Trade: FM 1132 BLACK M.C.

Generic: PHENOLIC MOLDING COMPOUND

Vendor: ROGERS-MOLDABLE COMPOSITES DIVISION (MCD - MANCHI) Show Latest

PO BOX 550

MANCHESTER CT

CAS #	Flags	Perc	Chemical Name	Description
50-00-0	235ABCEGHKLPQSUabdfhnp	<1	FORMALDEHYDE	FORMALDEHYDE
108-95-2	2ABDEFHKLORVadfgi	<5	PHENOL	PHENOL
67-56-1	ABEKLOUadfnz	<5	METHYL ALCOH	METHANOL
1333-86-4	BCEGOU	<1	CARBON BLACK	CARBON BLACK
9004-34-6	BOU	<30	CELLULOSE	CELLULOSE FIBE
*				

Sent to ChemTrec ☐ TSCA 12(b) Notification Required

MSDS # 0 Date 3/29/1999

HMIS Chronic: Health: 1 Flammability: 1 Reactivity: 1 PPE: X

State: ☐ Solid ☐ Liquid ☐ Gas

Purity: ☐ Substance ☒ Preparation

☒ VOC Undefined

DOT #: NR Class: NR Pkg Grp: NR

Division	Ref #	Division Name	Division Coordinator
199		ROGERS PRODUCT M	CORPORATE
*			

CYTEC

Cancel

CAS # in Flag List

Chemical Inventory - [Flag List]

File Modify Data Reports Utilities Window Help

CAS #: 50-00-0

Chemical Name: FORMALDEHYDE (1910.1048)

TLV: PEL: 0.75 ppm C 2mg/m3

STEL: (C)0.3 ppm (C)0.37 mg/m3 EPA Waste Code: U122
(Only P's and U's)

☒ Show All

☒ (A) Toxic Chemical Release Inventories (MD & NJ)

☒ (B) ACGIH/OSHA

☒ (C) Carcinogens

☒ (D) Extremely Hazardous Substances

☒ (E) HAP - CT

☒ (F) Priority Pollutants

☒ (G) Prop 65 - Carcinogens

☐ (H) Toxicity Characteristic Leaching Procedure

☐ (I) Ozone Depleting Class I

☐ (J) Drug Enforcement Agency

☒ (K) CERCLA

☒ (L) HAP - Federal

☐ (M) Prop 65 - Reproductive

☐ (N) Ozone Depleting Class II

☐ (O) FIFRA (Biocides)

☒ (P) Process Safety Management OSHA/EPA

☒ (Q) Clean Air 112(R)

☐ (R) Total Toxic Organics

☒ (S) Risk Mgt. Plan

Information

D 500 TPQ

K 100 RQ

S 1000 lbs.

http://130.11.53.73/lo/FPPro?-db=list_of_lists.fp5-lay=Detail-format=browse.htm-max=100-op=eqTRI=Y-find

<http://www.epa.gov/tri/chemical/ry1998chemicallist.pdf>

<http://www.pirg.org/reports/enviro/waters98/page7.htm>

Compounds Print Flags Cancel

Checks Are For
Lists That
Formaldehyde Is
On

Links for Toxic Chem.
Release Inventory

Questions and Comments





The world runs better with Rogers.®