

Safety Management System in MN Companies

Marcello Taglietti
KMG Italia



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KMG overview



KMG Overview

a leading global specialty chemicals supplier



Electronic Chemicals

Integral to the semiconductor manufacturing process

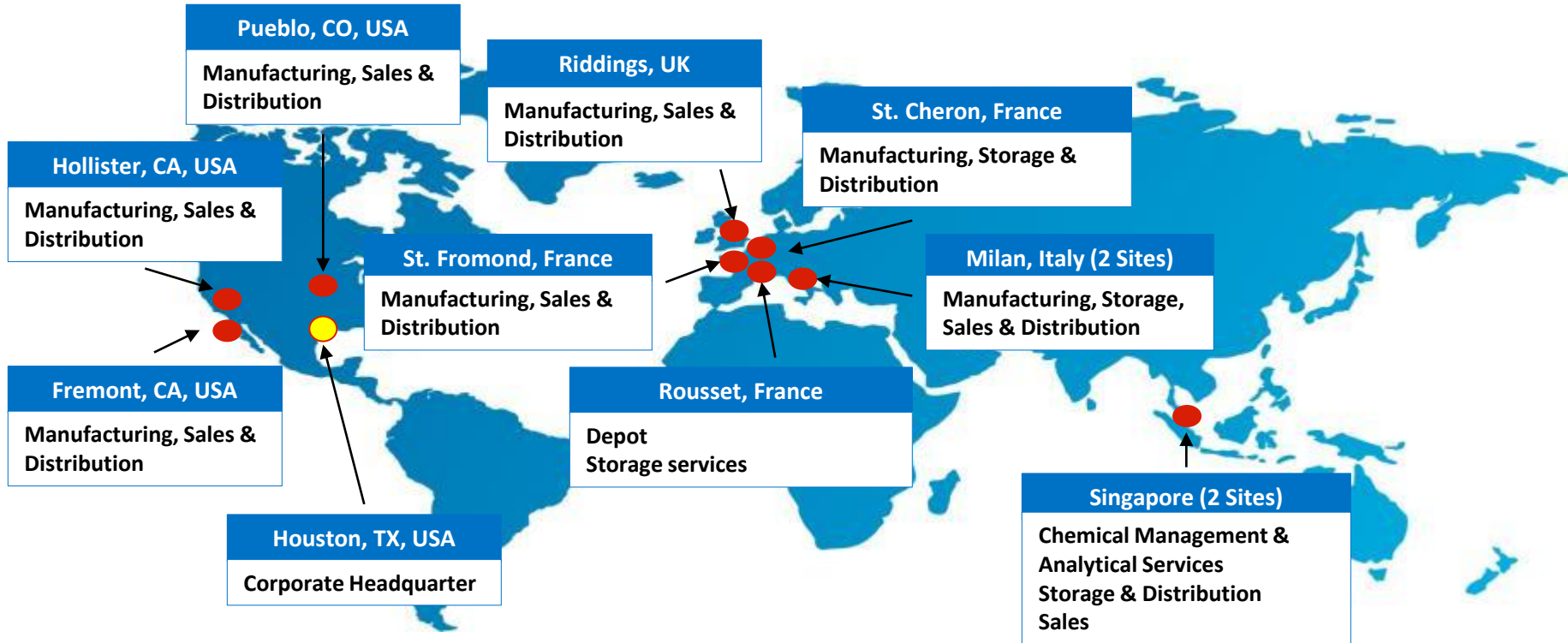


Wood Treatment Chemicals

preserve and protect wood used for industrial applications

KMG Overview

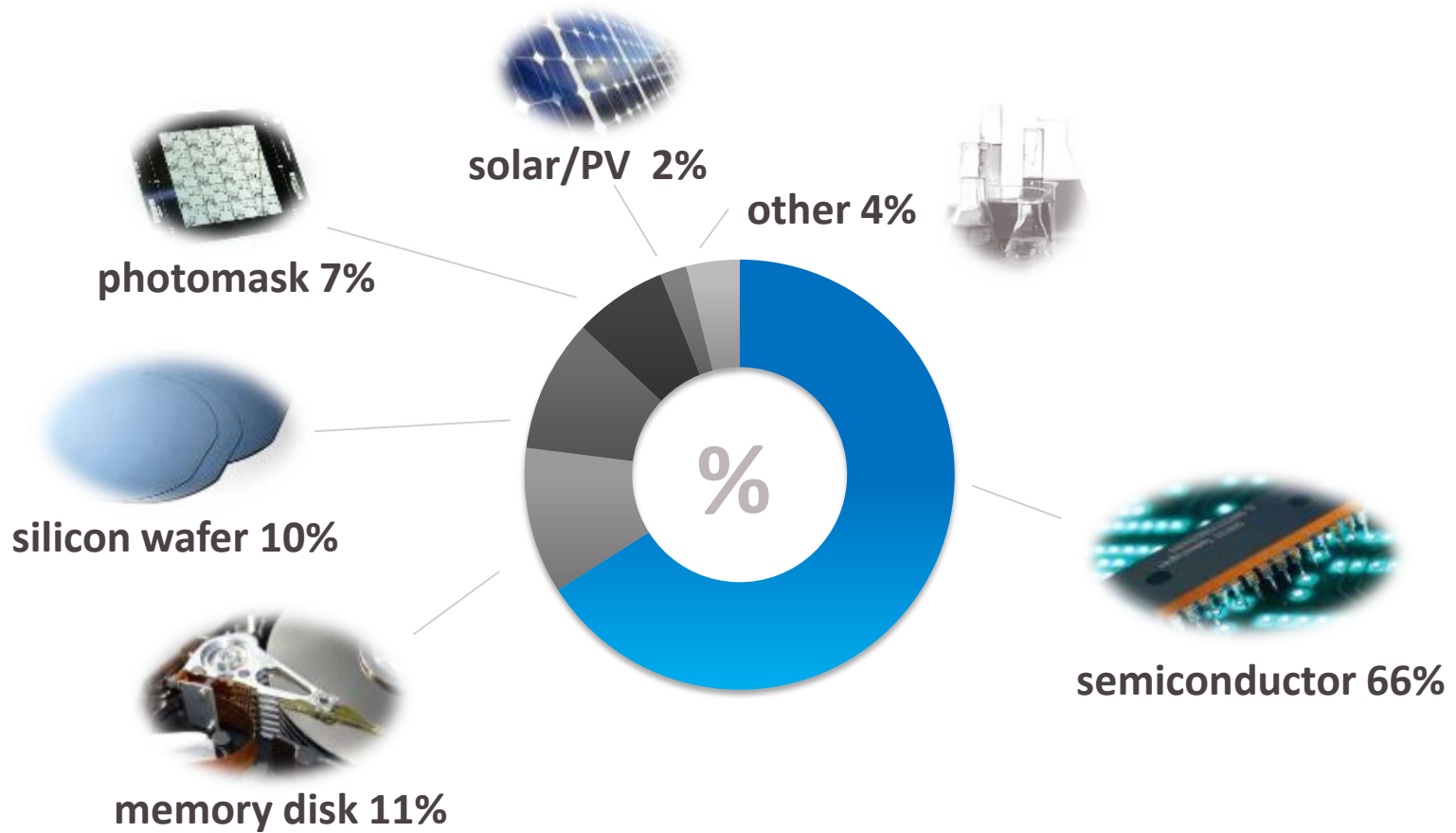
a global company



11 facilities and ~ 700 employees globally serving 800 customers

KMG Overview

market sectors



KMG Overview

standard product range

ACIDS

Acetic, Hydrochloric, Hydrofluoric, Hydrogen Peroxide, Nitric, Phosphoric, Sulphuric, Mixes

BASES

Ammonia Solution, Ammonium Fluoride, Potassium Hydroxide, Sodium Hydroxide, TMAH, BOEs

SOLVENTS

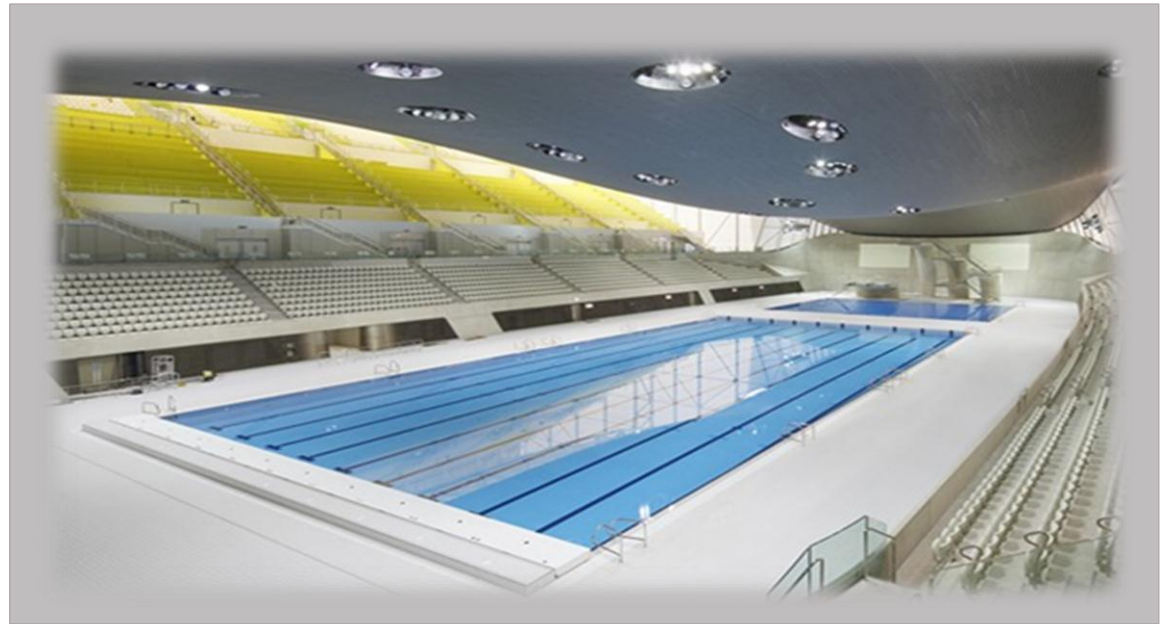
Acetone, DMSO, Ethyl Lactate, HMDS, Isopropanol, Methanol, N-Butyl Acetate, N-Methylpyrrolidone

KMG Overview

purity level: microelectronics chemicals quality requirements

Chemicals

Maximum 10 ppt (10 ng /kg)



Safety Management System in MN Companies

Safety Management System



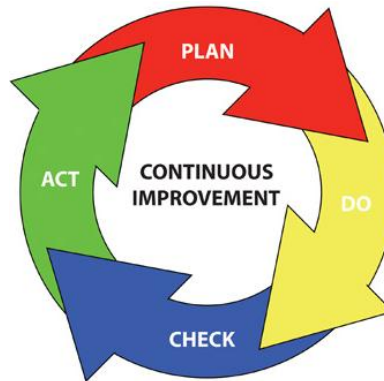
Safety Management System

continuous improvement

Management review
Actions corrective/preventive
Improvement plans

Monitoring/Check

- Metrics/KPI
- Incidents & Nearmiss
- Investigation
- Audit
- Inspections



Policy Objective Planning

- Regulations
- Know-how
- Risk Analysis
- Resources
- Changes

Processes

- Qualified Personnel
- Procedure & Work Instructions
- Safety Work Permits & Maintenance
- Emergency Plans

Safety Management System

MN companies global settings

All Policies & Manuals have been set according to a global criteria in compliance with Corporate guideline & directive and applied to all Regional levels (NA, EU, Asia)

- **Integrated Management System covering both Quality and HSE**
(Policies, Procedures, Work Instructions, Audits, Objectives, ...)

Safety Management System improvements

Audit/Inspection highlights that Corporate Policies & Manuals could be simplified and improved by better covering specific aspects linked to local Seveso's SMS

The Quality & HSE Integrated Management System was too complex and heavier than it was required by Seveso's SMS

- increased admin paperwork
- human error whilst generating the documentation

Safety Management System improvements

Employees safety behavioral sensibilization, training, contractors

- Corporate Safety Behavioral Program not fully integrated within Seveso's SMS requirement
- Employee Training program often OSHA focused and not fully applicable to local requirements (ie: quarterly info/training)
- Maintenance Contractors Management

Safety Management System changes

Main areas

- Corporate Policies & Manuals
- Safety Procedure & Work Instruction
- Corporate Safety Behavioural Program
- Training Matrix
- Maintenance contractors management

Safety Management System changes

Corporate Policies & Manuals

- **Split Corporate Policies & Manuals by creating local Policy & Manual for Health & Safety** covering all SMS aspects and easy/flexible for the implementation; separate Quality & Environmental keeping Corporate guideline & directive
- **Add references to Corporate Standards & Procedure** regarding the local changes/implementation

Safety Management System changes

Corporate Policies & Manuals

- **Safety Procedure & Work Instruction have been linked to Health & Safety Manual but still checked/audited by the same surveillance team** (Internal audit, cross-site audit, corporate audit).
- Action tracking database tool has been kept as part of the integrated management system

Safety Management System changes

Corporate Safety Behavioural Program

adjusted by including additional requirements as per Seveso's SMS, ie:

- training compliance
- area safety meeting (cascade within layer organization)
- task safety observation (mainly focus on scenario's process incident)
- near miss (by area and/or company shared info)
- safety conditions as predictive technique

Integration between the two requirements, Corporate & Seveso's SMS ended with the result of **avoiding duplication of the system/efforts**

Safety Management System changes

Training Matrix

Maintain the Corporate Training Tracking database tool and the Training Matrix with the required safety local training, including frequency, by job role, by internal specific qualification:

- first aid
- forklift driver
- work at height
- confined space
- ...

Safety Management System changes

Training Matrix

Specific focus was on all the info/training that could impact, positively/negatively, on the site scenario incident, always balancing with Corporate Std whenever applicable

Particular focus on Seveso's SMS needs

- ERT Training including practice of incident scenario simulation
- Quarterly Info/Practice to all Employee which job tasks could end up with a Seveso incident

Safety Management System changes

Maintenance contractors management

Implemented, independently from Corporate, a local system to manage site maintenance contractors (resident and external), ie:

- local safety requirement
- site safety (procedure, risks, ERP, ..)
- interference risks
- resident contractors included into site safety training matrix as well site emergency drill, monthly safety meeting, quarterly seveso's info/training
- info/training test acknowledgement

Safety Management System

conclusions

Main benefits and results

The maturity of the Corporate SMS as well as the flexibility and the willingness to meet local requirements, have made it possible to integrate the two system avoiding activities' duplication and even enabling their simplification

Thank you

Marcello Taglietti
KMG Italia

