FOCAPO 2003
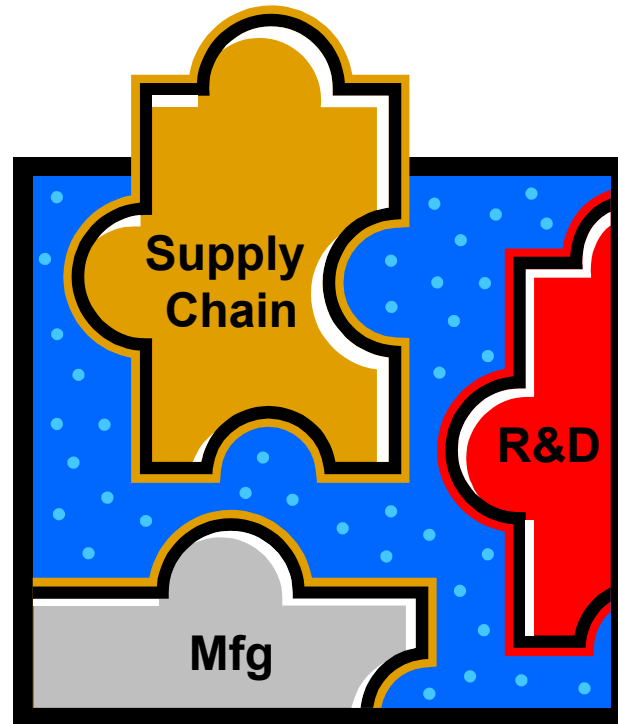
Integration of R&D, Manufacturing, and the Global Supply Chain
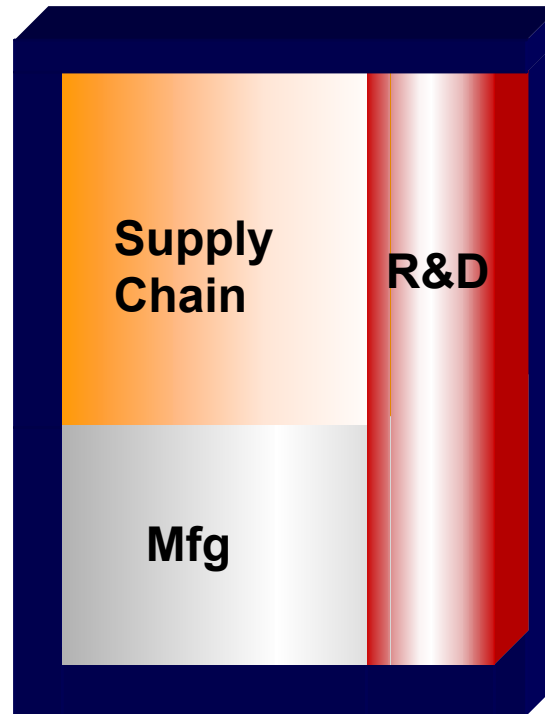
FOCAPO 2003

BRP / ERP

data integrity & integration for decision support

Supply Chain
- asset allocation
- inventory planning
- distribution & logistics
- S&OP
- PP&S
- etc.

Mfg
- dynamic DS
- CI; 6 sigma
- MES
- etc.

Supply Chain

R&D

Mfg

R&D efforts
- multi-stage / multi-product / multi-site PP&S
- operation under uncertainty
- dynamic optimization
- etc.

R&D direction
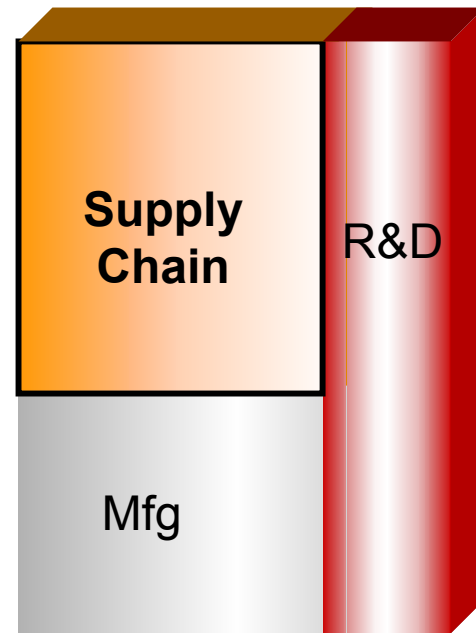- resource allocation (D&RA)
- computational / systems approaches
- etc.

Process Operations: tools & methodologies

FOCAPO 2003:
Supply Chain Applications

- **Chemicals**

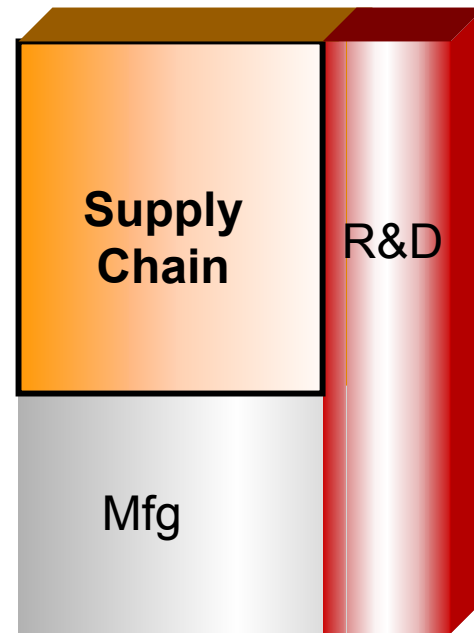- **Petroleum**

- **Pharmaceuticals**

Supply Chain

R&D

Mfg

FOCAPO 2003:
Supply Chain Applications

- **multi-site collaborative planning**

- **scenario testing / what-if assessments**

- **capacity expansion under significant uncertainty**

- **pipeline management & risk analysis**

Supply Chain

R&D

Mfg

FOCAPO 2003:
Supply Chain Applications

Franz-Josef Tölle, Bayer
An Integrated System Solution for Supply Chain Optimization in the Chemical Process Industry

Jose Pinto, University of Sao Paulo
Supply Chain Optimization in Petroleum Refineries

Nilay Shah, Imperial College
Pharmaceutical Supply Chains: Key Issues and Strategies for Optimization