

Compound Management

**One Size Fits All ?
And Other Pit Falls**

Abstract

The past ten years of compound management has been an extremely dynamic period of development and growth. During this period all of the major pharmaceutical companies and many of the larger biotechnology companies have invested heavily in their compound management capabilities. Much success has been achieved and through a partnering with technology vendors, compound management has become an inherent part of successful drug discovery. However, the past ten years has been a time of rapid change and a myriad of paths have been pursued in drug discovery, as a result many of the compound management solutions delivered have been the victims of planning, design and implementation pitfalls. This presentation will expose several common pitfalls of compound management and discuss options for avoiding the same pitfalls in future compound management endeavors.

Common Pitfalls of Compound Management

1. One Size Fits All
2. Monolithic Silos of Excellence
3. Only Compound Management can manage compounds
4. Ignoring Outsourcing Options

One Size Fits All ?



Logistics

Positioning of Goods and Services

Customer Focus

Non-Direct

Direct

Custom

1

2

Market
Focus

Standard

3

4

"Logistics is that part of the supply chain process that plans, implements, and controls the efficient, effective flow and storage of goods, services, and related information from the point of origin to the point of consumption in order to meet customers' requirements."

Council of Logistics Management

•Each quadrant represents the combination of possible focuses.

•Each quadrant triggers a list of implications for the market search and the managing strategies.

D. A. Riggs, The Executive's Guide to Supply Management Strategies, p. 119, AMACOM, 1998

Characteristics and Strategies

Customer Focus

Non-Direct

Direct

Custom

Market Focus

Standard

<p>1</p> <ul style="list-style-type: none"> • <u>Not directly</u> connected to the end customer • Contribute significant <u>supporting</u> capability • Consumer requirements vary site to site • Local • Seek out low-cost supplier • Trailing edge technologies 	<p>2</p> <ul style="list-style-type: none"> • <u>Directly</u> connected to the end customer • Contribute significant <u>creative</u> capability • Consumer requirements vary site to site • Local • Seek out innovative supplier • Leading edge technologies
<p>3</p> <ul style="list-style-type: none"> • <u>Not directly</u> connected to the end customer • Contribute essential <u>support</u> capability • Consumer requirements do not vary site to site • Centralized • Seek out low-cost supplier • Trailing edge technologies 	<p>4</p> <ul style="list-style-type: none"> • <u>Directly</u> connected to the end customer • Contribute significant <u>competitive</u> capability • Consumer requirements do not vary site to site • Local • Seek out innovative supplier • Leading edge technologies

Positioning of Goods and Services

Customer Focus

Non-Direct

Direct

Custom
Market Focus

1

- Registration
- Restrictions management
- HTS Follow-up support
- Collaboration support

2

- Closed Loop Screening
- CFAR (Centralized Facility for Automation Resources)
- Physiochemical analysis

3

- Corporate Archive
 - Risk Mitigation
- HTS Deck Preparation
- Compound Acquisition
- Import / Export Compliance

4

- LE Support
- TA / DWG Support
- Assay Ready Plating
- Nano dispensing

Standard

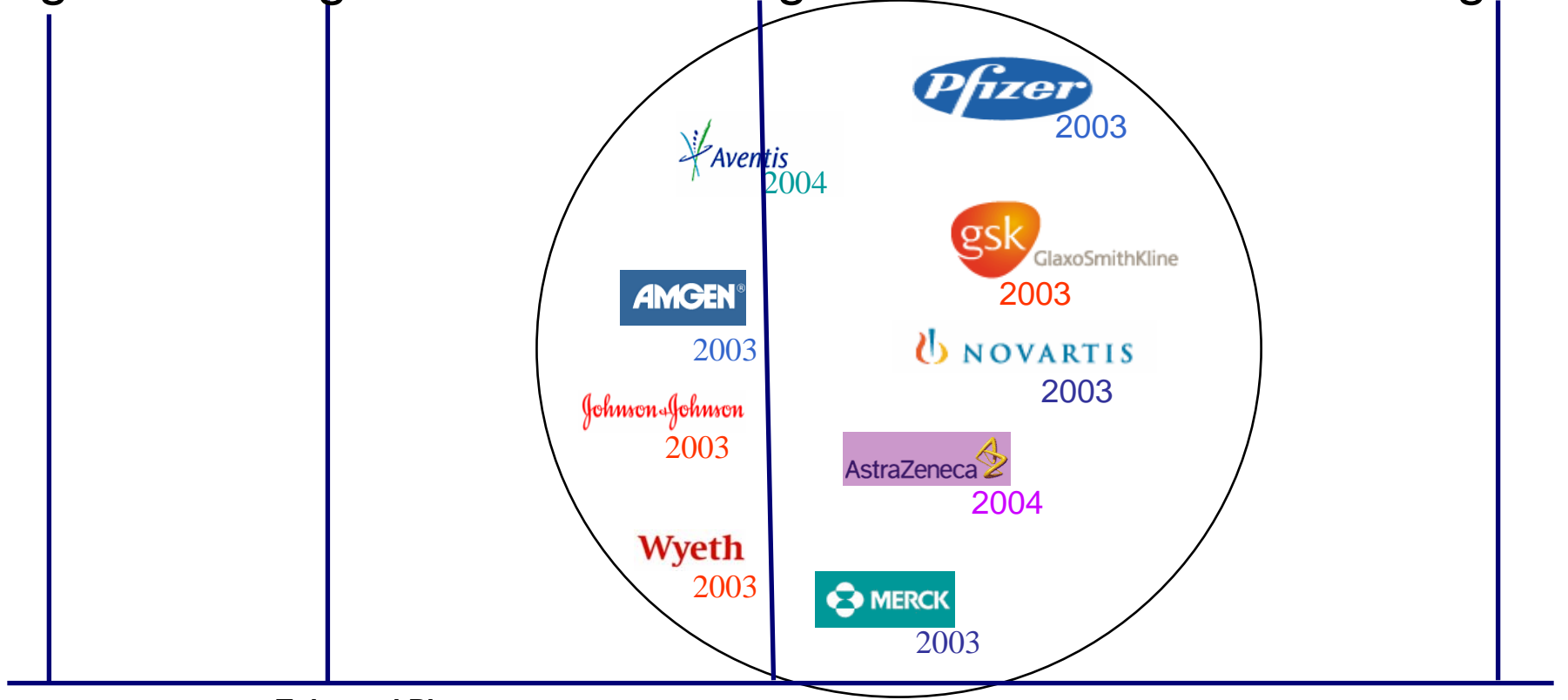
Advances in Compound Management

Stage 1

Stage 2

Stage 3

Stage 4



Local Plate Based Inventory

Tube and Plate Based Inventory

Multi-site Integration

Global Integration



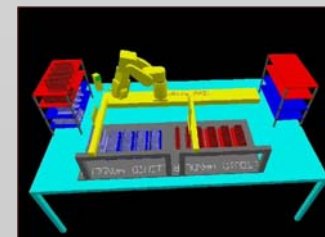
What are Monolithic Silos?

- **Bespoke Solutions**
 - Development and Implementation timelines are almost equal to the life of the system
 - Change requires significant costs and reengineering
 - Systems manage one container type or service very well
- **Avoiding Monolithic Silos**
 - Select solutions that can be implemented quickly
 - Select tools that are reusable and can change or are less effected by change in your end customer's business
 - Systems should be capable of managing a variety of container types
 - Adapt to the tool rather than trying to build a custom tool



sans Compound Management

- Closed Loops and CFARS
 - Compound Management methods and solutions positioned in the end customer's area
 - Allows for compound management quality while making the customer self reliant
 - Can include automation and non-automation solutions
 - A good choice for focused screening and TA support
 - Can be designed to feed diversity into the HTS collection



Reasons why we avoid Outsourcing

- Fear
 - We might be talking about our own jobs?
- Pride
 - Years of investment building our internal capabilities?
 - Belief that only we can meet the customer's needs?
- Lack of understanding
 - How can they do it for less cost?



There's outsourcing

And then there's

OUTSOURCING !

This is **OUTSOURCING** !

BusinessWeek online

January 30, 2006

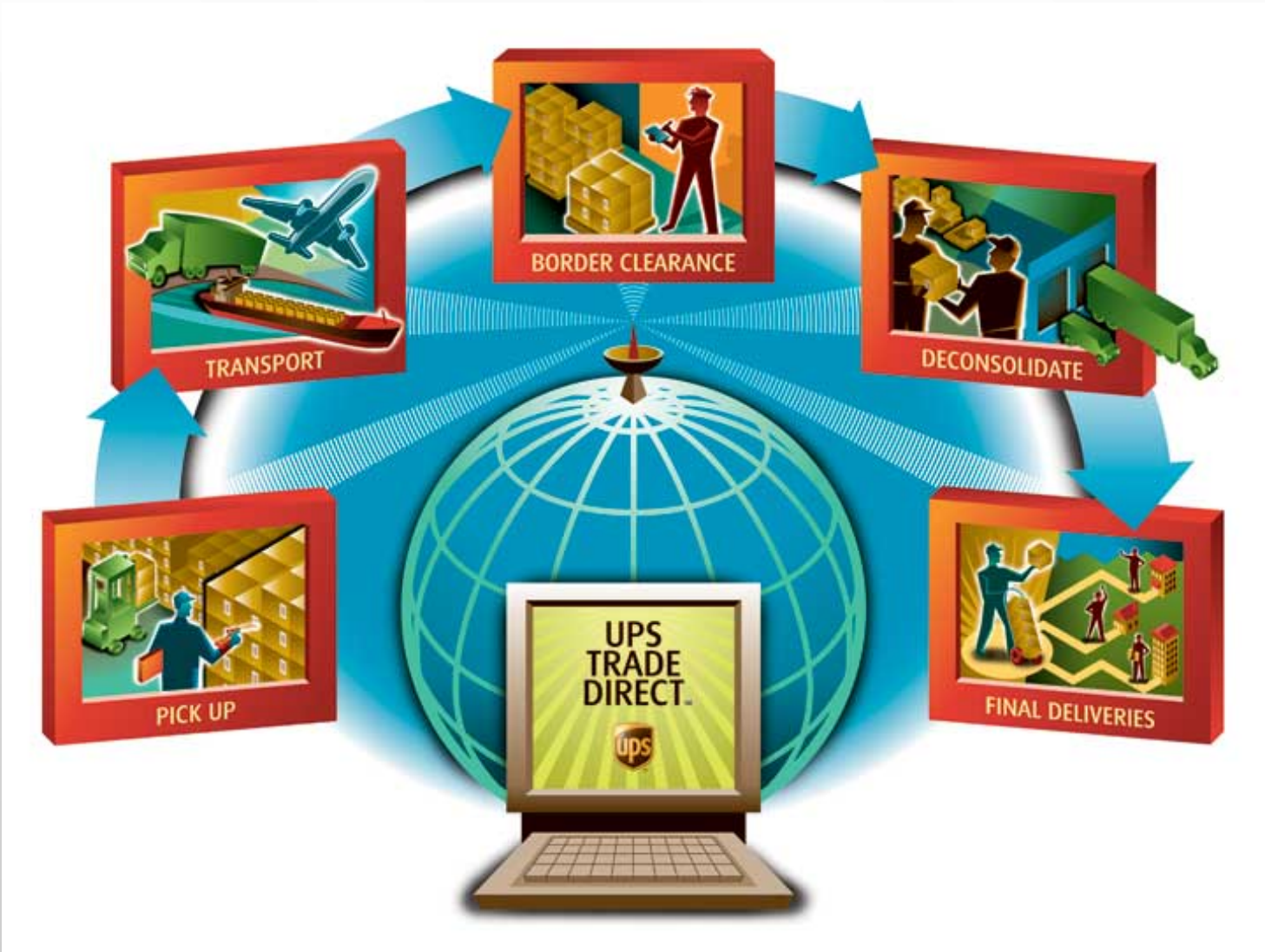
SPECIAL REPORT -- OUTSOURCING/Online Extra

Lilly's Labs Go Global

To cut costs and speed development, the drugmaker steps up R&D outsourcing including clinical trials to countries such as India and China...

Lilly isn't the only member of Big Pharma relocating R&D operations to the developing world... Pfizer... Astra Zeneca... Novo Nordisk...

This is outsourcing



Contract Compound Management Services

- Chemistry and Biology are core competencies
 - Compound Management is an enabling technology
- Can be an excellent option for Standard / Non-Direct services
 - Corporate Archive
 - » Risk Mitigation and Business Continuity
 - Screening Deck preparation
 - Compound Acquisition
 - » In-processing of new acquisitioning
 - Import / Export Compliance
- Cost Structuring
 - Fixed costs can be spread across multiple clients to become variable costs
 - » Depreciation
 - » Overhead
 - » Staffing to meet peak demands is leveled
 - Multiple shifts to meet demand
 - » Short-term investments and projects
 - Specialization reduces costs
- Implementation timelines are shortened
- Capabilities are equal
 - Same technology, automation and methods
- **Allows you to focus on custom and direct services for which outsourcing is not an option.**
 - **Not a monster but an opportunity for collaboration !**



The Future?

- Budget constraints are likely to continue
 - Personnel
 - Capital
- Demand will continue to increase
 - Shifting focus from LD to LE and beyond
- Look for alternatives
 - Diversified Approach
 - Decentralization
 - Increased Flexibility

Interesting Reading

- D.A. Riggs, *The Executive's Guide to Supply Management Strategies*, AMACOM, 1998
- F. A. Kuglin, *Customer-Centered Supply Chain Management*, AMACOM, 1998
- J.A. Tompkins, *The Distribution Management Handbook*, McGraw Hill, 1994
- J.H. Gardner, *Automated Compound Storage & Retrieval: World Markets, Trends & Opportunities*, Kalorama, 2002
- B.J. Gibson, *MicronPC: Redesigning Supply Chain Processes to Revitalize Business Performance*, Auburn University
- B.L. Robeson, *The Economics of Research Compounds*, **American Laboratory**, November 2003

The background of the slide features a series of parallel diagonal stripes that create a sense of depth and movement. The stripes are light gray and are set against a slightly darker gray background, all on a white gradient. The stripes are oriented from the top-left towards the bottom-right.

Questions?