



R&D process innovation in the pharmaceutical industry

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Industry driving forces

- The cost/profit gap
 - Increasing R&D spending
 - External cost pressure
- Improved discovery
 - More drugs being discovered
 - Selection/Prioritization
- Time-to-market
 - Speeding up R&D: From 6-12 to 5-6 years
 - High throughput screening / Combinatorial chemistry
- M&A
 - Integration
 - Rationalization



Historical competitive mechanisms

- Blockbuster drugs
 - The needle in the hay-stack
- Vertical integration
 - Big is beautiful
- Mass-markets
 - One size fits all
- Generics
 - Me-too drugs



Strategic challenges

- Portfolio management
- Partnering/alliancing
- Human Resource Management
- Information Management
- Discovery/Patenting
- Development
- Licensing
- Marketing

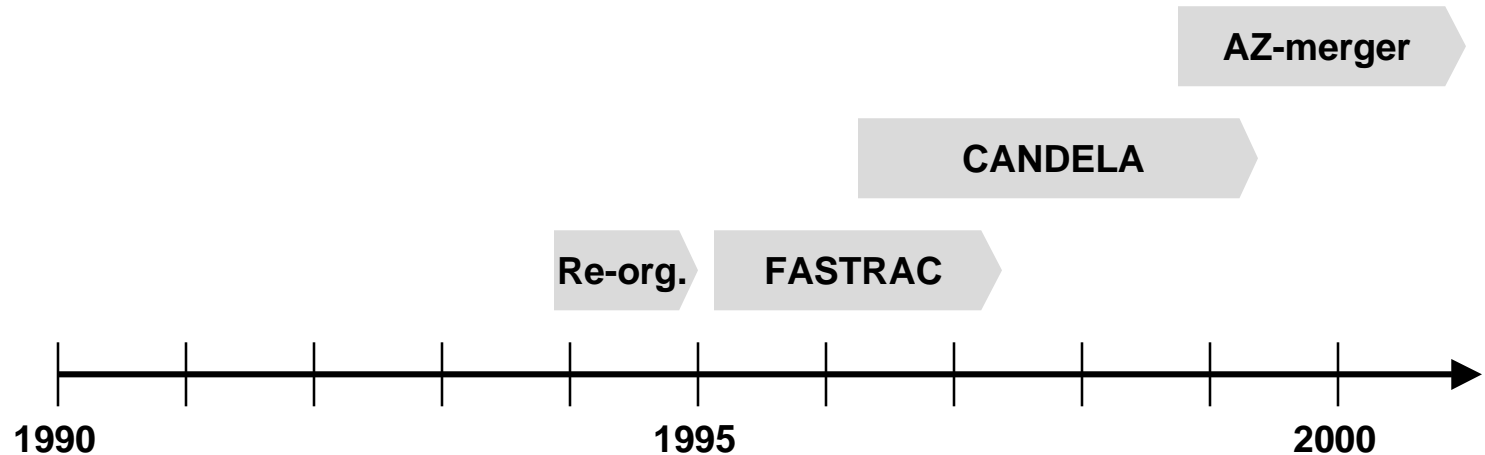


Short and long term

- Short term
 - Profit
 - Shareholder value
 - Speeding up R&D (clinical)
- Long term
 - R&D investments
 - Asset and inventory management
 - Human Resources



AstraZeneca (Hässle)



CANDELA

Astra Group R&D (corp.)
Processes, IT-infrastructure

FASTRAC

Astra Hässle R&D
Processes, IT-infrastructure

Re-organization

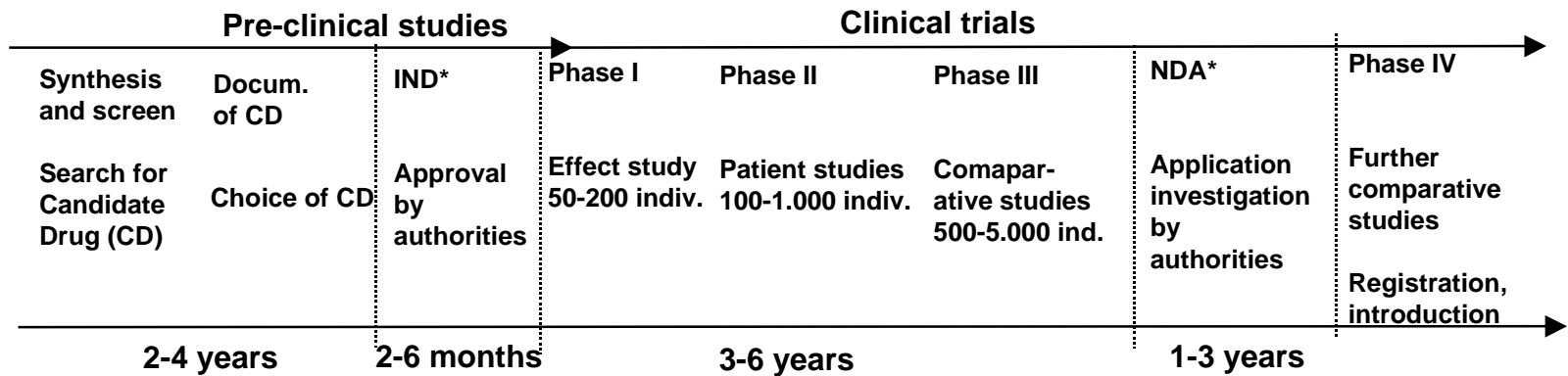
Improved coordination
De-centralized decisions

AZ-merger

AstraZeneca integration
Processes, IT
Organizational structure
Portfolio management
...



Pharmaceutical R&D



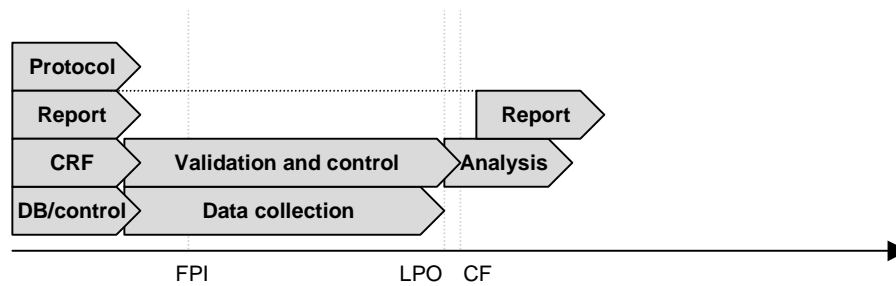
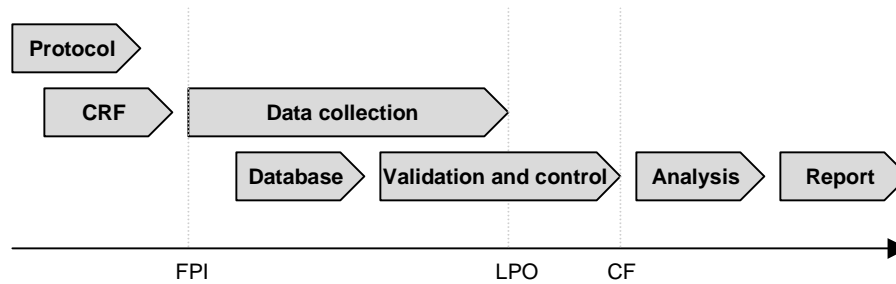
* IND: Investigational New Drug

NDA: New Drug Application



Clinical R&D process

(old and new)



Abbreviations:
FPI-First Patient In
LPO-Last Patient Out
CF-Clean File
CRF-Case Report Form
DB-Database



Data Collection

(old & new & very new)

