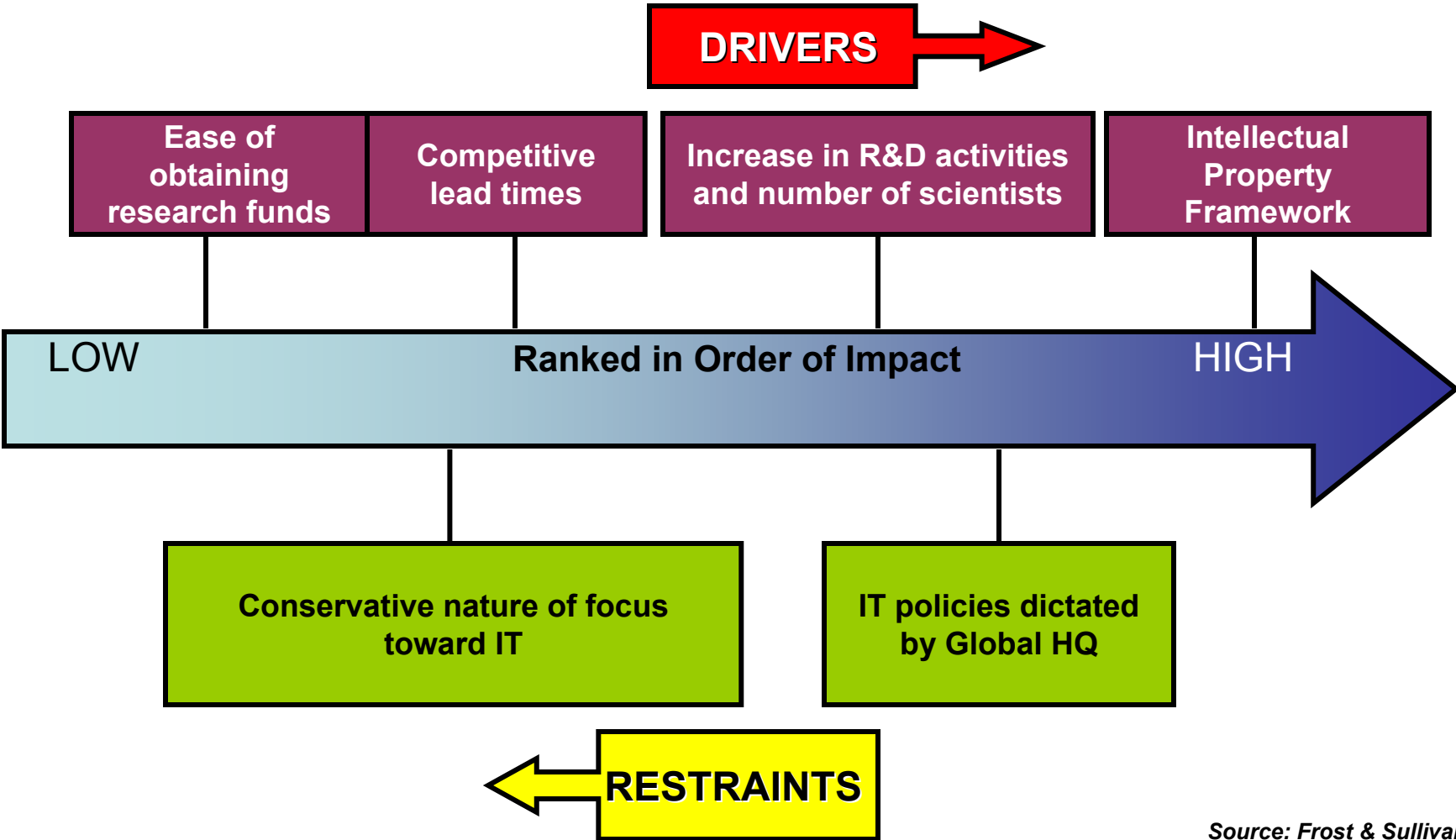


# Major Research Findings

- The Singapore pharmaceuticals and life sciences IT market is in its growth phase.
- IT spending of pharmaceuticals and life sciences companies accounted for xx percent (\$xxx.x million) of the total pharmaceutical and life sciences market (\$xxx.x million) in 2007. The IT market is expected to grow at a compound annual growth rate (CAGR) of xx.x percent from 2007 to 2014, with potential revenues estimated to reach \$xxx.x million in 2014.
- The pharmaceuticals market was valued at \$xxx.x million in 2007 and is expected to grow at a CAGR of x.x percent from 2007 to 2014. By 2014, the market is expected to reach \$xxx.x million in revenues.
- In 2007, the life sciences market was valued at \$xxx.x million at a CAGR of xx.x percent from 2007 to 2014. With a vibrant biomedical sciences industry propelling the growth of the life sciences market, potential revenues are estimated to reach \$xxx.x million in 2014.

# Drivers and Restraints Affecting the Singaporean Pharmaceuticals and Life Sciences IT Market

Pharmaceutical and Life Sciences IT Market: Drivers and Restraints Affecting the Pharmaceuticals and Life Sciences IT Market (Singapore), 2008-2014



Source: Frost & Sullivan

# Key Market Participants



i n v e n t



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# Research Overview



# Research Objectives

- This research service aims to provide a comprehensive country-based overview with the latest update and insights for the pharmaceuticals and life sciences IT market in Singapore.

The objectives of this study are to :

- Map the IT adoption curve for the pharmaceutical and life sciences companies in Singapore, analyze the current state of adoption, and project future requirements.
- Understand the critical IT application needs of the pharmaceutical and life sciences companies in Singapore with relation to their key business activities.
- Analyze the pharmaceutical and life sciences companies with respect to their present IT adoption and IT investment priorities.
- Analyze the competitive landscape in the pharmaceuticals and life sciences IT space and estimate the total market size in the base year and the expected growth rate from 2008 to 2014.
- Analyze the key trends in the pharmaceuticals and life sciences IT market of Singapore and the implications of these trends.

# Research Methodology

- This research service covers the pharmaceuticals and life sciences IT market in Singapore. The historical period covered is from 2004 to 2006, whereas the forecast period is 2008 to 2014, with 2007 as the base year.
- Primary research was conducted with phone and/or self completion of questionnaires with marketing and sales managers of leading pharmaceuticals and life sciences IT vendors in Singapore to ascertain the market size and expected growth rate.
- Primary in-depth interviews were also conducted with the IT managers of major pharmaceutical and life sciences companies in Singapore such as Abbott Laboratories, AstraZeneca, Baxter Healthcare, Bayer Healthcare, Bayer Schering Pharma, Boehringer Ingelheim, Bristol-Myers Squibb, Eli Lilly Genzyme, GlaxoSmithKline (GSK), Janssen-Cilag, Novartis, Novo Nordisk, Merck Serono, MSD, Pfizer, Sanofi-Aventis, Schering-Plough, UCB and Wyeth Singapore to get the end-user perspectives.
- Key opinion leader (KOL) interviews were conducted to garner valuable insights into the future IT adoption trends driving the pharmaceutical and life sciences companies in Singapore. The KOLs are prominent personalities frequently cited in the respective industries in terms of experience, opinions, valuable contributions, and papers published.
- This was supported by secondary research efforts, which included reviewing Frost & Sullivan's internal database, company annual reports, trade/technical journals, published statistics and information from the respective country's Economic Development Board, Biomedical Sciences Industry, Agency for Science Technology and Research, Singapore Medicine, Singapore Association of Pharmaceutical Industries (SAPI) and Internet Web sites to cross-confirm and complement primary research efforts.

# Research Assumptions

## Market Definition

For the purpose of this research service, Frost & Sullivan has defined the pharmaceuticals and life sciences IT market, as the total IT spending of the pharmaceuticals and life sciences companies on IT solutions used in the following departments such as:

- R&D such as laboratory information management systems (LIMS), solutions for drug discovery, clinical trials management, and others
- Operations and distribution such as enterprise resource planning (ERP), production planning, quality control, and others
- Sales and marketing such as customer relationship management (CRM), sales force analytics, and others
- Enterprise-wide solutions such as business intelligence, data warehousing, knowledge management, and others

# Research Assumptions (Contd...)

Average price of the pharmaceutical IT solutions for the purpose of this study refers to the total value of contracts during the implementation of these solutions including:

- Pre-sales consulting
- Integration and project management costs
- Software license fees
- Grant fees
- Maintenance and support services costs
- Cost of essential hardware

## **Industry Classification**

Based on revenue, companies in the pharmaceuticals industry are classified into three main categories, namely :

- MNCs - large global pharmaceutical firms with local office
- Large local companies – Singapore-established company with sizable revenue turnover or with overseas branches
- Small and medium businesses (SMEs) – Mainly small CROs or local distributors and suppliers

Companies in the biotechnology industry are similarly classified into the above three categories.