SINGAPORE – THE BIOPOLIS OF ASIA
OCTOBER 2012
Singapore EDB

OUR ROLE
Shaping Singapore’s Economic Future

OUR VISION
A Global Leader, A Great City and a Home in Asia, For Business, Innovation and Talent.

OUR MISSION
We create for Singapore, sustainable economic growth with vibrant business and good job opportunities.

Attract Foreign Investment  Grow Industry Verticals  Enhance Business Environment
Singapore – The Biopolis of Asia

Singapore has one of the world’s top 10 Medical Technology players are located in Singapore.

Top 10 Healthcare Services infrastructure with over 660K foreign patients visiting yearly.

10 of the world’s top ten global Pharmaceutical players with 15 blockbuster drugs produced in Singapore.

R&D
> 50 companies
> 4,300 researchers
> $1B R&D expenditure

Manufacturing
40 leading companies in > 50 plants
>$27B output in 2011
> 15,000 employees

Headquarters
> 30 leading BMS companies with RHQ
8 out of the top 10 Pharma & Biotech
All of top 10 Medtech
A gravity shift towards Asia
Creating opportunities and challenges

GROWTH

Asia’s growth continues to outpace rest of world despite global uncertainties.

AFFLUENCE

Global middle class is likely to triple to 1.15 billion in 2030, two-thirds from China and India.

DEMographics

5 of the top 10 most populous cities in the world will be in Asia by 2025.

The Singapore Advantage
A secure beachhead to grow in Asia

TRUST, STABILITY AND SECURITY
- >7,000 global investors and long-lasting partnerships formed with key investors
- #1 for ease of doing business and IP protection

CONNECTEDNESS & VIBRANCY
- Established cluster of Pharma investors allowing opportunities for partnerships and insights
- Vantage point for Asia Pacific and beyond

CULTURE OF INNOVATION
- Strong government investment in translational clinical research
- Manufacturing process development R&D and new models of healthcare delivery

ACCESS TO TALENT
- Established talent pool
- Commitment to partnerships with companies to build managerial talent
- Openness to talent

WITHIN A COSMOPOLITAN CITY

Best place in Asia to work, live and play (Mercer 2010)
Singapore for Quality Global Production

Strong track record in in-house manufacturing...

Quality & Operational Excellence
- Zero major observations with regulators
- Track record of producing for global markets

Process R&D and manufacturing technology
- Pilot and clinical scale facilities
- ICES and BTI as R&D partners

Underpinned by a strong government-industry partnership
- Charting industry direction together (BMAC)
- Strategic manpower training

... combined with the flexibility to respond to changing manufacturing strategies

Contract manufacturing partners

Lonza

Principals & Contract Manufacturing HQs

GSK Case Study

- Foothold in Asia through first plant in Singapore in 1972
- Grew into a campus with multiple manufacturing modalities and pilot plant
- Complemented by EMAP HQ and R&D Centre

Goods & procurement of manufacturing services
Sale to global affiliates
Optimised structure
Control of quality and operations
Technical leadership and support
# A World Class Hub for Business

## A Globally Competitive Business City
- Home to 7,000 MNCs
- Located in the heart of Asia-Pacific: 7h flight-time radius from key markets
- Competitive tax regime and tax incentives to facilitate business growth and expansion

"World’s Easiest Place to Do Business” – World Bank

## Access to Asia’s Top Business Talent
- With 1.2 million resident expatriates, the best place in Asia to live, work and play
- A “Global Schoolhouse” – with a host of world class management and business universities and programs
- Human Capital Leadership Initiative – to develop business thought leadership in Asia

"First Choice for Asian Expatriates” – ECA International

## A Vantage Point to Capture Business Growth Opportunities
- A neutral location to manage Asia and international operations
- A vibrant cluster to connect with key partners and service providers
- A base to develop and test new business and market growth strategies, e.g. for emerging markets, fast-growing business segments
Public Translational Research Infrastructure
Combining disease biology understanding & clinical expertise

World class infrastructure and Institutes

Biopolis & Fusionopolis
Shared scientific facilities
2,000 scientists
20 companies
4.1 million ft²

7 Biomedical Research Institutes

BMRC Consortia

Investigational Medicine Unit

3 Public Investigational Medicine Units
- Located in academic medical centres
- For POC and first in man trials, latter phased studies also supported

World Class Talent

Specialty Institutions & Medical Schools

TCR Flagship Programs

- Gastric Cancer
- Glaucoma
- Schizophrenia
- Diabetes
- Dengue
GSK-Singapore Partnership
Including the 10-Year Strategic Roadmap (2009)

R&D
- Primary R&D Pilot Plant (1st in Singapore)
- Neural Pathways DPU
- Academic Centre of Excellence collaboration
- GSK-Singapore Green & Sustainable Manufacture

Manufacturing
- 4 Primary API Plants, including Singapore’s 1st pharmaceutical manufacturing
- Biologics bulk vaccines plant (Synflorix)
- Stiefel Laboratories Formulation

Commercial
- Emerging Markets & Asia-Pacific Headquarters
- NUS Initiative to Improve Health in Asia (NIHA)
Case study – Partnership with Lonza

AN EARLY PARTNERSHIP

• Singapore was Lonza’s first site in Asia
• Risk-sharing: EDBI took an equity stake in JV
• Manpower development: STRAT program to train up suitable talent
• Incentive support from EDB

JOINTLY BUILDING A LONG TERM STRATEGY

• Continued relationship and support from EDB throughout ramp-up and growth
• Joint planning on the growth of the mfg campus to secure resources to respond to future opportunities

BUILDING NEW CAPABILITIES FOR THE FUTURE

• Continued investments in new mfg modalities: cell therapy
• Control of APac business: Asia Pacific RHQ
• Partnerships with public research institutes for bioprocess development R&D
Singapore: A Home in Asia

1. Global manufacturing campus
   A secure foothold and beachhead in Asia
   - Complete life cycle manufacturing capabilities: Product launch to commercial manufacturing
   - Innovative process development
   - Control of regional internal & external supply

2. Translational research in Asia
   Enhancing R&D productivity and insights into Asian clinical populations
   - Accelerating, translating scientific discovery and development for diseases prevalent in Asia
   - Partnerships with leading biomedical, clinical, science & engineering capabilities

3. Control tower to drive growth in Asia
   Unlocking value in emerging markets
   - Access to business talent and corporate partners
   - Public health, policy leadership
   - Regional healthcare leadership and networks
Thank You

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