

Improving R&D Operational Effectiveness through Offshoring

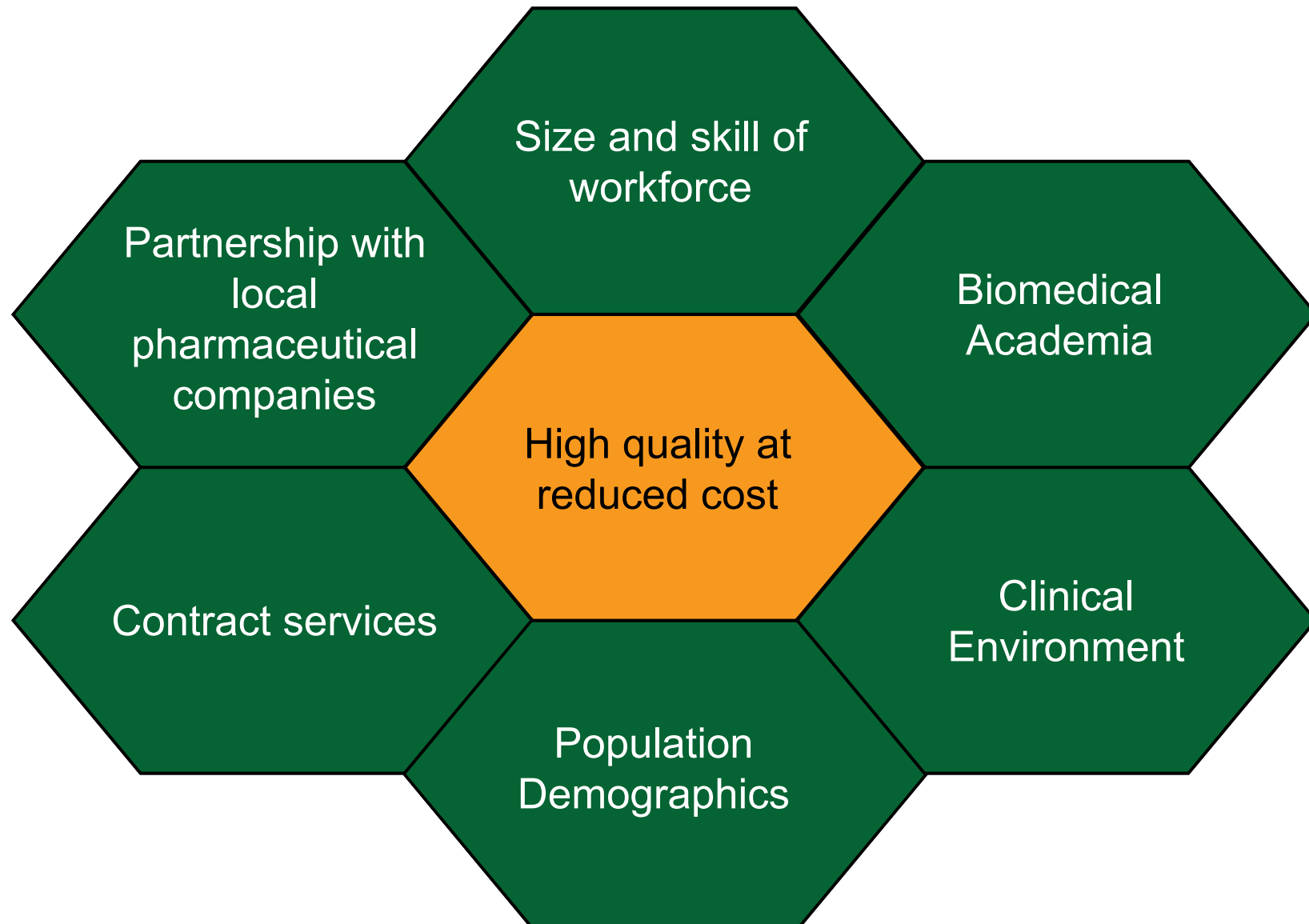
Andy Black
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FT Pharmaceutical and Biotechnology Conference
19th September 2006

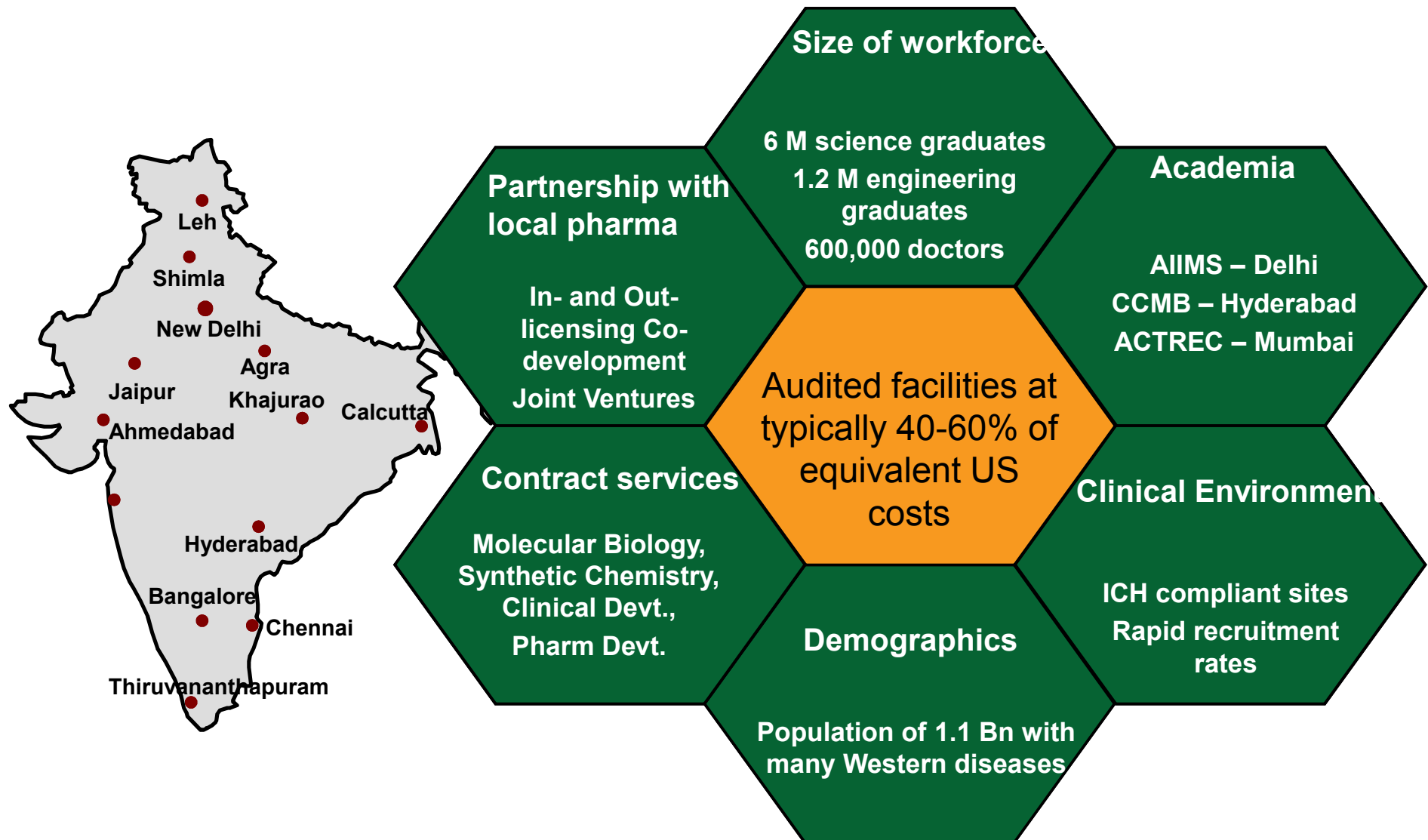
Offshoring: transferring the execution of an activity to a country different from the customer of the activity.

Outsourcing: transferring the responsibility to another organization for an activity originally managed and conducted in-house

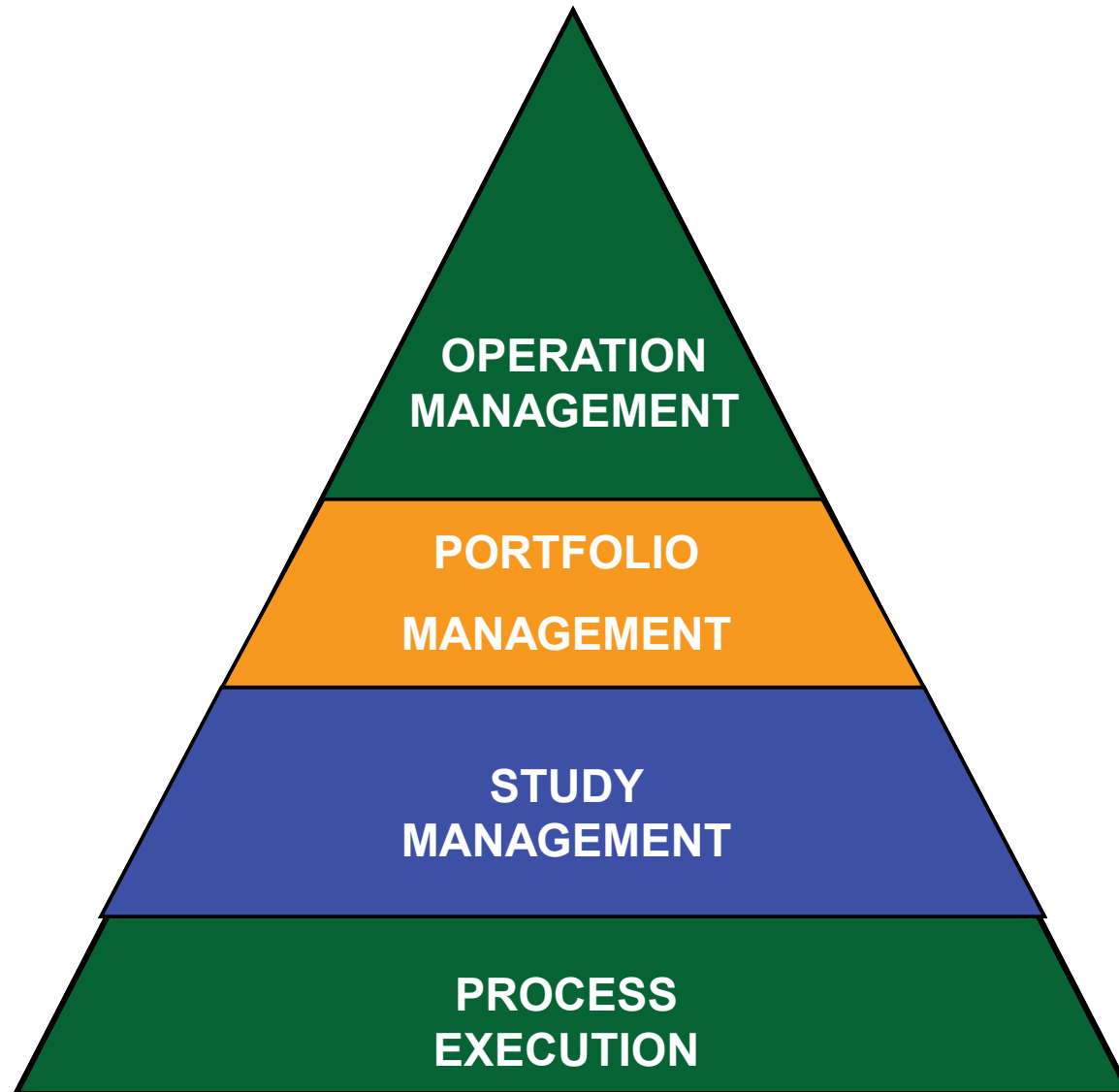
Drivers of R&D offshoring



On most offshoring criteria, India scores highly



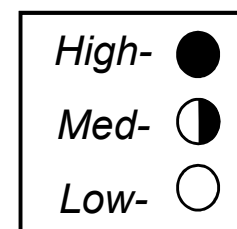
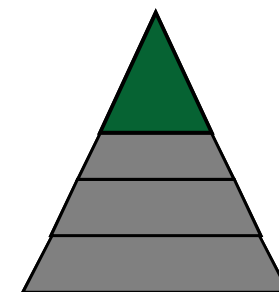
4 cases where offshoring can enhance operational effectiveness



Case 1: Establishment of a proposed operational hub operating within a global R&D organisation

R&D hub assessment in four candidate locations

Country	Australia	China	India	Singapore
Criterion				
Local Talent ¹	○	●	●	○
Current R&D Activity ²	◐	●	●	●
Business Environment ³	●	○	○	●
Infrastructure ⁴	●	◐	◐	●
Tax Incentives ⁵	◐	◐	◐	●
Geographical Centricity ⁶	○	◐	◐	●
Cost (Low cost = High) ⁷	○	◐	●	●
Current Level of Activity in Clinical Development ⁸	●	○	◐	○

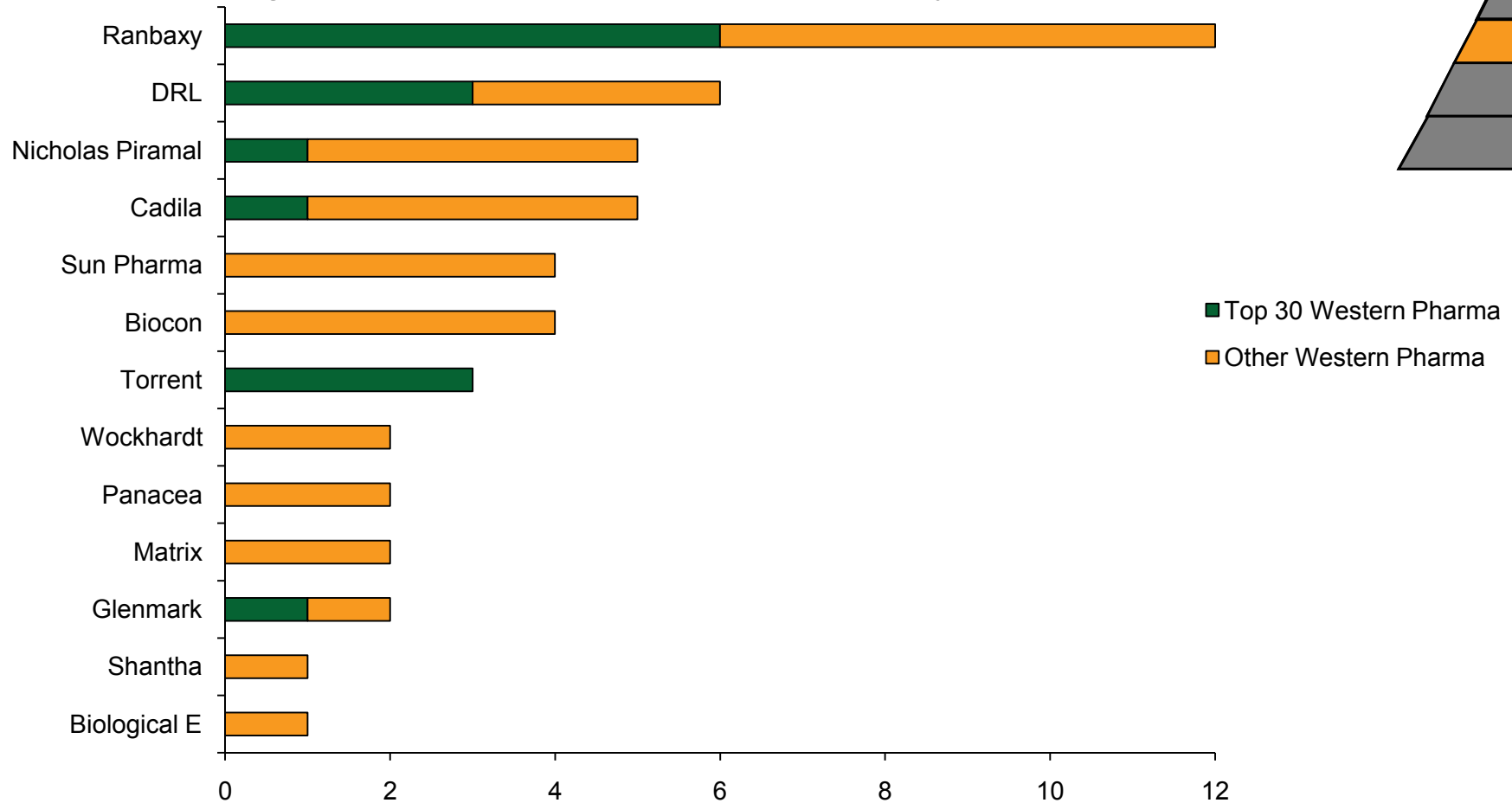


Sources: Assessments are based on Kinapse analysis of the following:

1. UNESCO Institute of Statistics Data; 2. UNCTAD World Investment Report 2006;
3. Wall Street Journal Index of Economic Freedom 2006; Freedom House 2006 Survey; World Bank Doing Business 2006;
4. Economic Intelligence Unit e-Readiness ranking 2006; World Economic Forum 2005; 5 Government web sites and other sources;
6. www.wcrl.ars.usda.gov; <http://www.oag.com>; 7. Mercer Global Pay Summary 2005/2006; 8. www.clinicaltrials.gov

Case 2: Licensing, co-development and acquisition activity between Indian Pharma and Western Pharma

Licensing, co-development and acquisitions by Indian pharma companies

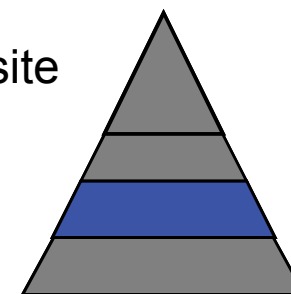


Sources: Biospectrumindia, domain-b.com, Indian Brand Equity Number of Deals between 1995-2005 Foundation, Indiainfoline.com, pharmabiz.com, Pharmapulse.com

Case 3: Clinical trial cost and patient recruitment differentials across geographies

Cost differential per evaluable patient and average recruitment per site

Region	Relative cost per evaluable patient ¹	Evaluable patients per site
Japan	120	4
USA	100	7
W. Europe (excl UK)	55	9
E. Europe	45	17
Asia Pacific	40	13
Latin America	35	11

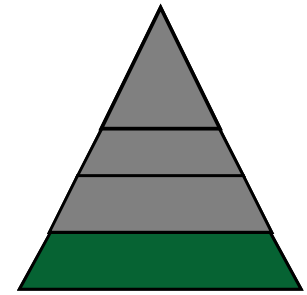
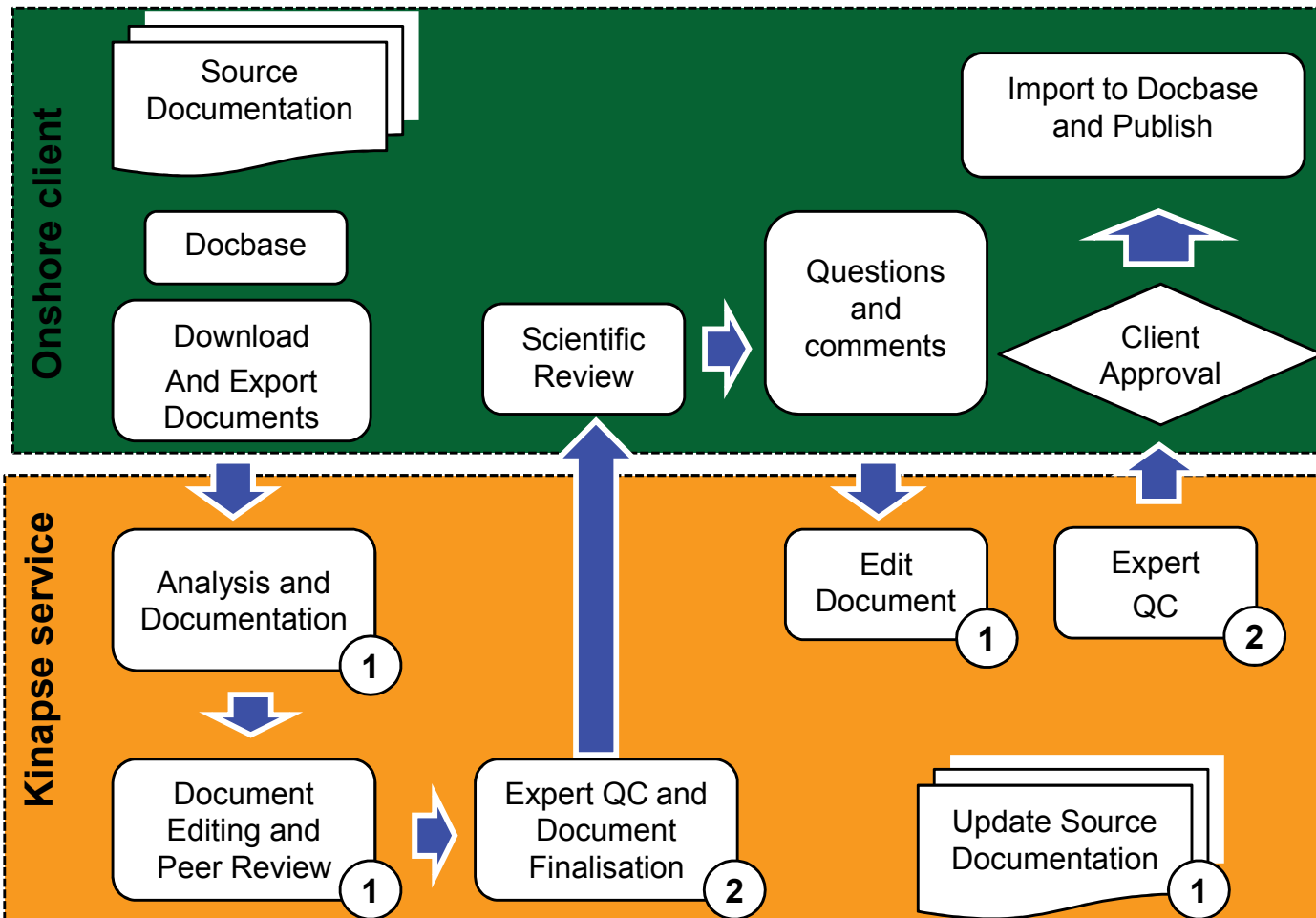


Note: Costs indexed to US = 100

Sources: Recruitment per site from Clinical Trial Management Systems. Cost assessment is a weighted average based on external cost savings informed by company benchmarks, survey data, CRO rate cards and Kinapse interviews.

FT Pharmaceutical & Biotechnology Conference, 18/19 September 2006

Case 4: Regulatory documentation delivered using a blended onshore- offshore model



- ① Offshore: Analysis and documentation, editing and peer review by highly qualified staff.
- ② Onshore: Project management and QC by experienced industry professionals

Implementation Considerations

ONSHORE IMPLEMENTATION Requires:

- Management of internal customers who will take the option of lowest perceived risk
- Constraining choice by offshoring an entire activity or process

INTERFACE MANAGEMENT Requires:

- Proactive management
- Cultural adjustment
- Clear specification and detailed process design
- Multi-media communications
- Virtual management
- Managed time zones

OFFSHORE IMPLEMENTATION Requires:

- Local management of all aspects of set up by experienced local management
- High training investments
- Role clarity
- Shared information and communications systems

Thank you

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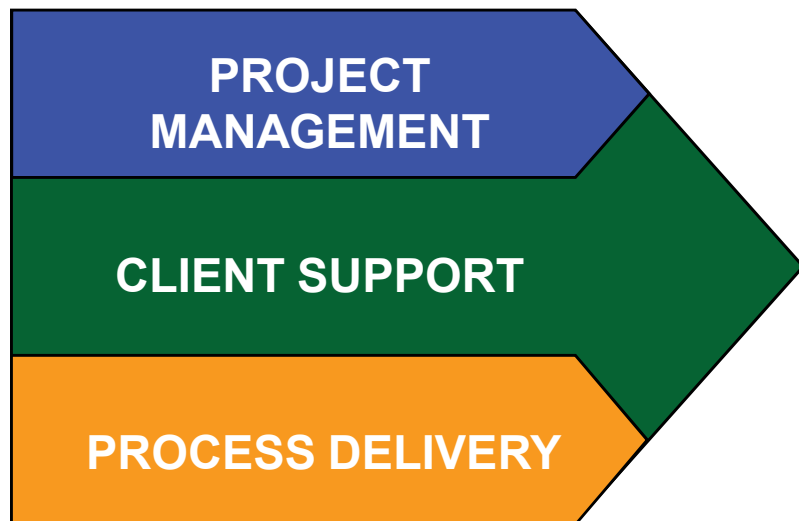
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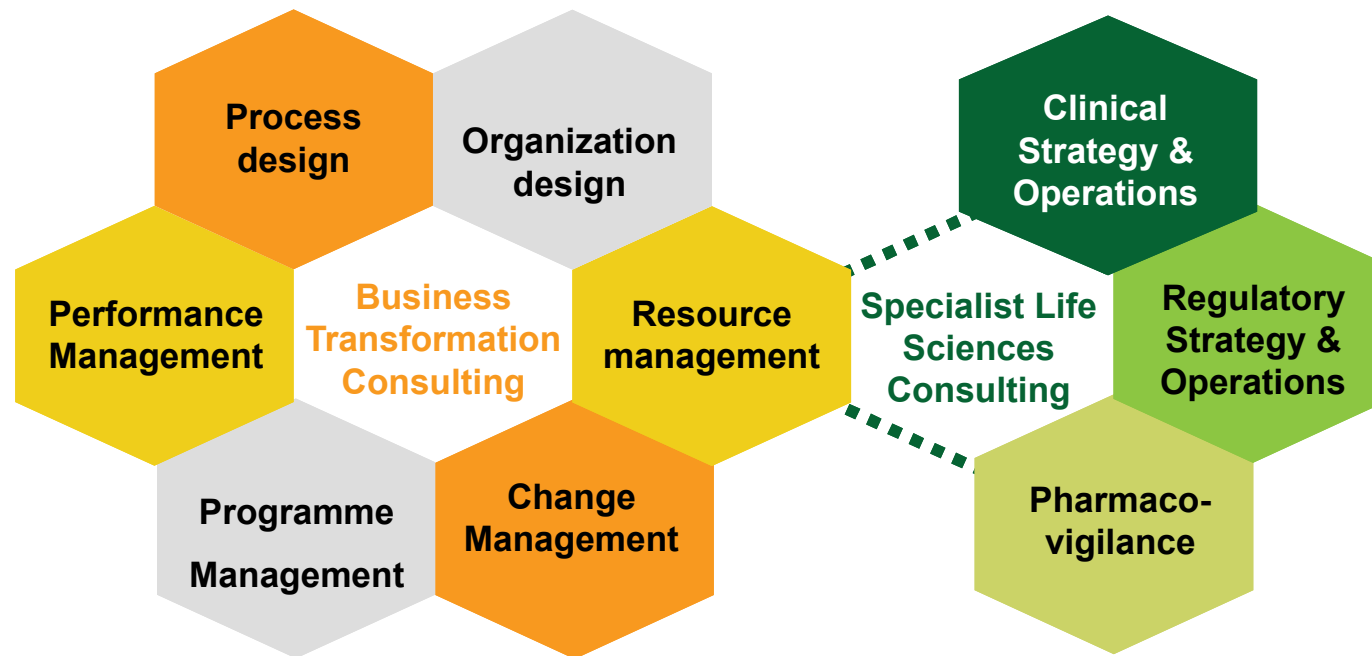
Kinapse provides
specialist information processing services
and **business consulting to**
life sciences R&D organisations at unmatched value.

- **Specialist** and **synergistic** services for life sciences R&D organisations
- **Proven** and **experienced** team of R&D professionals
- **Novel delivery model** for highest quality services at unmatched value
 - Blended onshore-offshore **Virtual Teams**, tailored to client's requirements
 - Industry-veteran **Consulting Partners** who bring deep experience and expertise
 - Exclusive **Service Partners** with distinctive, complementary services

Collation, analysis, reporting and maintenance of business-critical R&D information

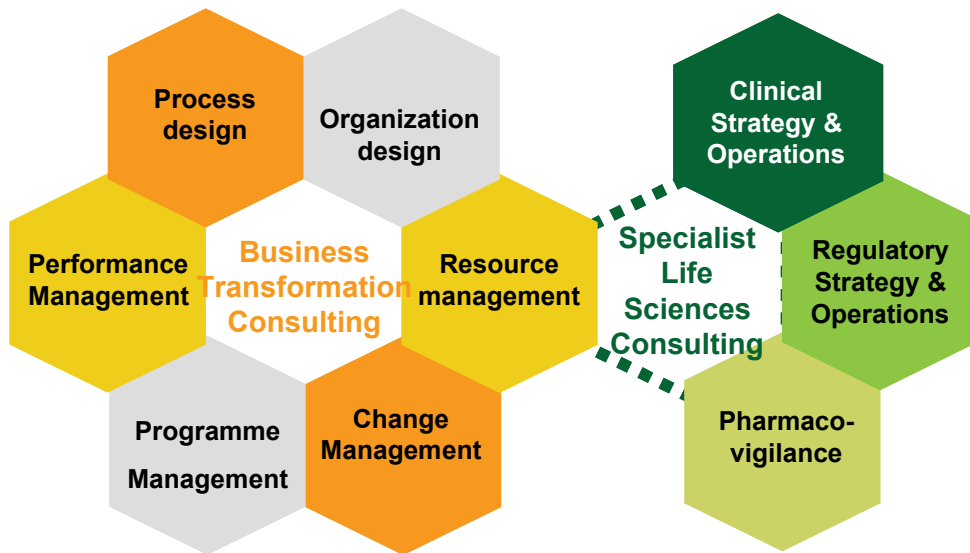


- **Clinical trial data publishing**
Clinical protocols and study reports
- **Scientific communications**
Medical and scientific writing for academic and commercial publications
- **Clinical and scientific data analysis**
Data entry, analysis, statistical modelling and reporting
- **Regulatory license maintenance**
Routine regulatory documentation updates across the product lifecycle
- **Productivity data maintenance**
Resource modelling, forecasting and capacity management data



- Kinapse provides specialist services to life sciences R&D organizations, with specific expertise in:
 - R&D process and organization design
 - Resource planning and management
 - Performance management including performance scorecards and benchmarking
 - Change and programme management.

Overview of Kinapse projects



Kinapse consulting projects include

- Globalizing clinical trials
- European clinical operations redesign
- Regional clinical development hub
- Offshore delivery centre implementation strategy
- Regulatory global organization design
- Global clinical process redesign
- Development change Programme management
- SOP training design and delivery
- Outsourcing management
- Outsourcing management
- Development performance management
- Medical governance organization design
- Safety Offshoring assessment

Kinapse information processing projects include

- Medical writing
- Regulatory documentation
- Clinical trial publishing support

