

2. Clinical Trials

Clinical trials are the result of promising new biotech and biomedical research. Once a new drug has been developed and tested on animals, the next step is clinical trials. Phase I clinical trials are conducted to confirm that a drug is not harmful. Phase II clinical trials measure the drug's effectiveness, while Phase III clinical trials further confirm a drug's efficacy, compare it to alternate treatments, and evaluate side effects.

a) Representative Operation – Clinical Trials Management

The representative operation modeled is a clinical trials management firm. As illustrated in Exhibit 3.62, this operation is characterized by:

- A leased office facility. (Because the representative operation is a management firm, hospital/clinical operations and related costs are not included in the operational model.)
- A workforce consisting primarily of clinical trial administrators
- Activities that mostly represent tax-eligible R&D activities.

The business is assumed to operate as a stand-alone profit center.

EXHIBIT 3.62 – CLINICAL TRIALS		
Clinical Trials Management – Summary of Operating Parameters		
Facilities Requirements		
Class A office space leased	10,000 ft2	(929 m2)
Other Initial Investment Requirements		
Office equipment – US \$'000	\$150	
R&D equipment – US \$'000	–	
Inventory – US \$'000	–	
Equity financing – % of project costs	85%	
Workforce		
Management	3	
Sales and administration	9	
Dedicated product development	38	
Other	–	
Total employees	50	
Energy Requirements		
Electricity monthly consumption/peak demand	50,000 kWh and 195 kW	
Other Annual Operating Characteristics		
Sales at full production – US \$'000	\$7,750	
Operating costs – % of sales	5%	
Investment in tax-eligible R&D – % of sales	60%	

b) International Results

International results are illustrated in Exhibit 3.63. These results reflect the combined impact of 26 location-sensitive cost components applied to the modeled operation. Detailed results, by key cost component, are presented in Exhibit 3.64.

c) Selected Cities

Exhibit 3.65 profiles results for selected cities, by country, from among the 95 cities featured in this report. Results for all other featured cities can be found in Chapter 4, Exhibit 4.7.

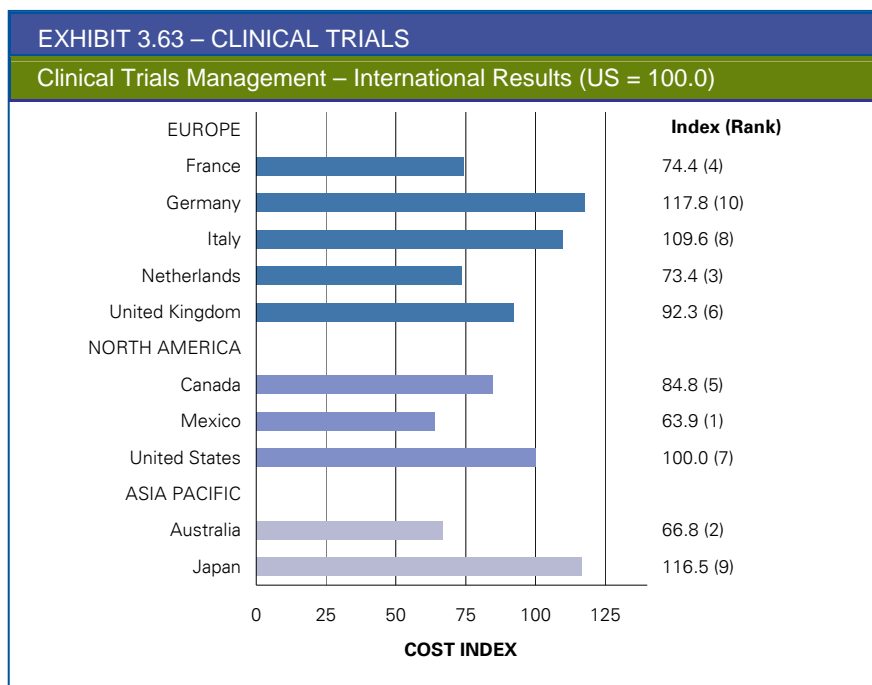


EXHIBIT 3.64 – CLINICAL TRIALS

Clinical Trials Management – Costs, by Major Component, US \$'000

	Europe					North America			Asia Pacific	
	France	Germany	Italy	Netherlands	UK	Canada	Mexico	US	Australia	Japan
Revenues	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500
Costs										
- Salaries & Wages	2,933	4,087	3,311	3,356	3,103	3,242	1,553	3,401	3,420	3,916
- Statutory Plans	1,299	627	699	413	306	233	117	286	436	389
- Other Benefits	616	898	978	1,041	1,037	750	438	1,020	818	950
- Total Labor & Benefits	4,849	5,612	4,989	4,809	4,446	4,225	2,108	4,707	4,675	5,255
- Facility Lease	520	293	293	216	557	314	238	293	353	599
- Transportation	-	-	-	-	-	-	-	-	-	-
- Utilities	53	80	134	78	82	52	85	67	87	79
- Interest & Depreciation	105	200	58	(126)	(33)	(28)	(399)	20	(269)	171
- Non-Income Taxes	50	-	27	3	-	1	31	33	-	10
- Location-Insensitive Costs	325	325	325	325	325	325	325	325	325	325
Profit Before Income Tax	599	(10)	675	1,195	1,124	1,612	4,113	1,056	1,330	62
- Income Taxes ¹	(1,767)	41	267	(1,225)	(246)	(176)	1,166	115	(1,459)	39
Effective Rate	(295.2%)	n/a	39.5%	(102.6%)	(21.9%)	(10.9%)	28.3%	10.9%	(109.7%)	61.8%
After-Tax Profit	2,366	(51)	409	2,420	1,370	1,788	2,947	941	2,789	24
Total Annual Costs	4,135	6,551	6,091	4,081	5,131	4,713	3,553	5,559	3,711	6,477
Index (US=100.0)	74.4	117.8	109.6	73.4	92.3	84.8	63.9	100.0	66.8	116.5
Rank	4	10	8	3	6	5	1	7	2	9

¹ Income taxes may be either positive or negative, irrespective of whether profit before income tax is positive or negative, due to the impact of specific expense deduction rules, minimum taxes, and refundable income tax credits. Effective tax rates are not shown where results are not meaningful because of low profitability.

EXHIBIT 3.65 – CLINICAL TRIALS

Clinical Trials Management – Results for Selected Cities, by Country

Country and City	Index	Rank ¹	Country and City	Index	Rank ¹	Country and City	Index	Rank ¹
International Locations – All Cities						North America – Selected Cluster Cities		
AU Adelaide	64.4	2	JP Osaka	114.4	93	CA Halifax, NS	72.5	14
Brisbane	65.2	5	Tokyo	118.7	94	Montreal, QC	78.1	19
Melbourne	65.4	6				Toronto, ON	91.4	42
Sydney	68.1	9	MX Mexico City	63.3	1	Vancouver, BC	85.8	26
			Monterrey	64.5	3			
FR Lyon	67.7	8				US Boston, MA	102.2	85
Paris	81.1	22	NL Amsterdam	74.5	18	Indianapolis, IN	93.1	51
			Brabant Stad	73.2	17	Minneapolis, MN	96.9	73
GE Berlin	114.0	92	The Hague	72.3	13	North Virginia (Metro DC)	98.7	81
Frankfurt	121.7	95	Utrecht	72.6	15	Philadelphia, PA	98.7	80
						Providence, RI	95.8	68
IT Milan	107.2	89	UK London	99.5	83	Raleigh, NC	93.6	55
Rome	112.0	91	Manchester	85.1	25	Trenton, NJ	100.2	84

¹ Rank among 95 cities.