

Pharmaceutical Plant Markets 2010:

*- - World Markets of Plants, Equipment
and Services for the Pharmaceutical
Industries until 2010 -*

Table of Contents

1	EXECUTIVE SUMMARY	1.1
1.1	Markets	1.3
1.2	Strategies	1.7
1.2.1	Strategies for Plant Operators	1.7
1.2.1	Strategies for Plant Operators	1.8
1.3	Technologies	1.10
2	AIM AND SCOPE, DEFINITIONS, EXCLUSIONS	2.1
2.1	AIM AND SCOPE	2.3
2.2	Definitions and Exclusions	2.4
2.2.1	Country Definitions and their Attribution to Regions	2.4
2.2.2	Production Value, Shipments and Expenditures	2.5
2.2.3	Capital Expenditures	2.8
2.2.4	Production Investments	2.9
2.2.5	Project Costs	2.11
2.2.6	Operating Expenses	2.12
2.3	Market Segmentation of Plant-Related Products and Services	2.12
2.3.1	Segmentation by Plant Life-Cycle Phases	2.12
2.3.2	Segmentation by Plant-Related Products and Services	2.13
2.3.2.1	Overview	2.13
2.3.2.2	Overall Plant Services	2.14
2.3.2.3	Works-Specific Plant Services for Plant Equipment-Related Works	2.16
2.3.2.4	Works-Specific Plant Services for Plant Construction-Related Works	2.18
2.3.3	Segmentation by Plant Works	2.19
2.3.3.1	Overview	2.19
2.3.3.2	Manufacturing Execution Systems (MES)	2.20
2.3.3.3	Automation	2.21
2.3.3.4	Electrical Works	2.24
2.3.3.5	Mechanical Works	2.24
2.3.3.6	Civil and Structural Works	2.25

3	METHODOLOGY, ASSUMPTIONS AND SOURCES OF INFORMATION	3.1
3.1	Methodology	3.3
3.2	Important Assumptions	3.5
3.3	Sources of Information	3.8
4	PHARMACEUTICAL INDUSTRY – OVERVIEW (88 PAGES, 70 TABLES)	4.1
4.1	Pharmaceutical Industry - Basics	4.3
4.1.1	Scope and Definitions	4.3
4.1.2	Overall Trends	4.4
4.1.3	Stimulating Factors and Barriers	4.7
4.2	Worldwide Production Development in the Pharmaceutical Industry until 2010	4.8
4.2.1	Overview	4.8
4.2.2	Pharmaceutical Preparations	4.9
4.2.3	Active Agents	4.10
4.2.4	Diagnostics	4.10
4.2.5	Biological Materials	4.11
4.2.6	Veterinary Pharmaceuticals	4.11
4.2.7	Pharmaceuticals Produced by Biotechnological Means	4.12
4.3	Worldwide Development of Capital Expenditures in the Pharmaceutical Industry until 2010	4.18
4.3.1	Overall	4.18
4.3.2	Capital Expenditures in Conventionally Produced Pharmaceuticals	4.19
4.3.3	Capital Expenditures for Biotechnology-Based Pharmaceuticals	4.20
4.3.4	Production Investments in Pharmaceuticals	4.21
4.3.5	Production Investments by Types of Investments	4.22
4.3.6	External Project and Maintenance Expenditures by Supplier Structure	4.22

4.4	Worldwide Market Development of Plant-Related Products and Services in the Pharmaceutical Industry until 2010	4.33
4.4.1	Shares of Plant Works in Pharmaceutical Industry Project Costs	4.33
4.4.2	Worldwide Market Development of Plant-Related Products and Services in the Pharmaceutical Industry until 2010 - Overall Market/External Demand	4.33
4.4.3	Worldwide Market Development of Plant-Related Products and Services in the Food & Beverages Industry until 2010 - Overall Market/External & Internal Demand	4.34
4.4.4	Worldwide Market Development of Plant-Related Products and Services in the Food & Beverages Industry until 2010 - Segmentation by Works	4.34
4.4.5	Worldwide Market Development of MES-Related Products and Services in the Pharmaceutical Industry until 2010	4.35
4.4.6	Worldwide Market Development of Automation-Related Products and Services the Pharmaceutical Industry until 2010	4.35
4.4.7	Worldwide Market Development of Electrical Works-Related Products and Services the Pharmaceutical Industry until 2010	4.35
4.4.8	Worldwide Market Development of Mechanical Works-Related Products and Services in the Pharmaceutical Industry until 2010	4.36
4.4.9	Worldwide Market Development of Civil & Structural Works-Related Products and Services in the Pharmaceutical Industry until 2010	4.36
4.4.10	Worldwide Market Development of Overall Plant-Related Services in the Pharmaceutical Industry until 2010	4.37
4.4.11	Worldwide Market Development of Plant-Related Products and Services in the Pharmaceutical Industry until 2010 - Segmentation by Subsectors	4.37
4.4.12	Worldwide Market Development of Plant-Related Products and Services in the Pharmaceutical Industry until 2010 - Segmentation by Core and Auxiliary Processes	4.38
5	FORMULATION & PACKAGING – CONVENTIONAL PHARMACEUTICALS (33 PAGES, 48 TABLES)	5.1
5.1	Worldwide Production Values of Conventional Preparations until 2010	5.3
	Production Values for 2000, 2005 and 2010 by Countries	5.5
	Average Annual Growth Rates by Countries	5.6

5.2	Worldwide Development of Capital Expenditures in the Formulation and Packaging of Conventional Pharmaceuticals until 2010	5.7
	Capital Expenditures for 2000, 2005 and 2010 by Countries	5.7
	Average Annual Growth Rates of Capital Expenditures by Countries	5.8
	Production Investments for 2000, 2005 and 2010 by Countries	5.9
	Average Annual Growth Rates of Production Investments by Countries	5.10
5.3	Worldwide Market Development of Plant-Related Products and Services in Formulation and Packaging of Conventional Pharmaceuticals until 2010	5.11
	Plant-Related Products & Services – Project & Operation Phases	5.11
	Plant-Related Products & Services – Project Phase	5.13
	Plant-Related Products & Services – Operation Phase	5.15
	Overall Plant Services by Countries	5.19
	Civil & Structural Works – Products & Services by Countries	5.21
	Mechanical Works – Products & Services by Countries	5.23
	Electrical Works – Products & Services by Countries	5.25
	Automation Works – Products & Services by Countries	5.27
	MES – Products & Services by Countries	5.29
	Works by Regions – Overview 2000	5.31
	Works by Regions – Overview 2005	5.32
	Works by Regions – Overview 2010	5.33
	Plant-Related Products & Services by Core & Auxiliary Processes	5.34
6	ACTIVE AGENTS – CONVENTIONAL PHARMACEUTICALS (33 PAGES, 48 TABLES)	6.1
6.1	Worldwide Production Values in Active Agents Production of Conventional Pharmaceuticals until 2010	6.3
	Production Values for 2000, 2005 and 2010 by Countries	6.5
	Average Annual Growth Rates by Countries	6.6
6.2	Worldwide Development of Capital Expenditures in Active Agents Production of Conventional Pharmaceuticals until 2010	6.7
	Capital Expenditures for 2000, 2005 and 2010 by Countries	6.7
	Average Annual Growth Rates of Capital Expenditures by Countries	6.8
	Production Investments for 2000, 2005 and 2010 by Countries	6.9
	Average Annual Growth Rates of Production Investments by Countries	6.10

6.3	Worldwide Market Development of Plant-Related Products and Services in Active Agents Production of Conventional Pharmaceuticals until 2010	6.11
	Plant-Related Products & Services – Project & Operation Phases	6.11
	Plant-Related Products & Services – Project Phase	6.13
	Plant-Related Products & Services – Operation Phase	6.15
	Overall Plant Services by Countries	6.19
	Civil & Structural Works – Products & Services by Countries	6.21
	Mechanical Works – Products & Services by Countries	6.23
	Electrical Works – Products & Services by Countries	6.25
	Automation Works – Products & Services by Countries	6.27
	MES – Products & Services by Countries	6.29
	Works by Regions – Overview 2000	6.31
	Works by Regions – Overview 2005	6.32
	Works by Regions – Overview 2010	6.33
	Plant-Related Products & Services by Core & Auxiliary Processes	6.34
7	DIAGNOSTICS – CONVENTIONAL PHARMACEUTICALS (33 PAGES, 48 TABLES)	7.1
7.1	Worldwide Production Values in the Diagnostics Production of Conventional Pharmaceuticals until 2010	7.3
	Production Values for 2000, 2005 and 2010 by Countries	7.5
	Average Annual Growth Rates by Countries	7.6
7.2	Worldwide Development of Capital Expenditures in Diagnostics Production of Conventional Pharmaceuticals until 2010	7.7
	Capital Expenditures for 2000, 2005 and 2010 by Countries	7.7
	Average Annual Growth Rates of Capital Expenditures by Countries	7.8
	Production Investments for 2000, 2005 and 2010 by Countries	7.9
	Average Annual Growth Rates of Production Investments by Countries	7.10
7.3	Worldwide Market Development of Plant-Related Products and Services in Diagnostics Production of Conventional Pharmaceuticals until 2010	7.11
	Plant-Related Products & Services – Project & Operation Phases	7.11
	Plant-Related Products & Services – Project Phase	7.13
	Plant-Related Products & Services – Operation Phase	7.15
	Overall Plant Services by Countries	7.19
	Civil & Structural Works – Products & Services by Countries	7.21
	Mechanical Works – Products & Services by Countries	7.23

	Electrical Works – Products & Services by Countries	7.25
	Automation Works – Products & Services by Countries	7.27
	MES – Products & Services by Countries	7.29
	Works by Regions – Overview 2000	7.31
	Works by Regions – Overview 2005	7.32
	Works by Regions – Overview 2010	7.33
	Plant-Related Products & Services by Core & Auxiliary Processes	7.34
8	BIOLOGICALS – CONVENTIONAL PHARMACEUTICALS (33 PAGES, 48 TABLES)	8.1
8.1	Worldwide Production Values in Biologicals Production of Conventional Pharmaceuticals until 2010	8.3
	Production Values for 2000, 2005 and 2010 by Countries	8.5
	Average Annual Growth Rates by Countries	8.6
8.2	Worldwide Development of Capital Expenditures in Biologicals Production of Conventional Pharmaceuticals until 2010	8.7
	Capital Expenditures for 2000, 2005 and 2010 by Countries	8.7
	Average Annual Growth Rates of Capital Expenditures by Countries	8.8
	Production Investments for 2000, 2005 and 2010 by Countries	8.9
	Average Annual Growth Rates of Production Investments by Countries	8.10
8.3	Worldwide Market Development of Plant-Related Products and Services in Biologicals Production of Conventional Pharmaceuticals until 2010	8.11
	Plant-Related Products & Services – Project & Operation Phases	8.11
	Plant-Related Products & Services – Project Phase	8.13
	Plant-Related Products & Services – Operation Phase	8.15
	Overall Plant Services by Countries	8.19
	Civil & Structural Works – Products & Services by Countries	8.21
	Mechanical Works – Products & Services by Countries	8.23
	Electrical Works – Products & Services by Countries	8.25
	Automation Works – Products & Services by Countries	8.27
	MES – Products & Services by Countries	8.29
	Works by Regions – Overview 2000	8.31
	Works by Regions – Overview 2005	8.32
	Works by Regions – Overview 2010	8.33
	Plant-Related Products & Services by Core & Auxiliary Processes	8.34

9	FORMULATION & PACKAGING – BIOTECHNOLOGICAL PHARMACEUTICALS (33 PAGES, 48 TABLES)	9.1
9.1	Worldwide Production Values of Biotechnological Preparations until 2010	9.3
	Production Values for 2000, 2005 and 2010 by Countries	9.5
	Average Annual Growth Rates by Countries	9.6
9.2	Worldwide Development of Capital Expenditures in Formulation and Packaging of Biotechnological Pharmaceuticals until 2010	9.7
	Capital Expenditures for 2000, 2005 and 2010 by Countries	9.7
	Average Annual Growth Rates of Capital Expenditures by Countries	9.8
	Production Investments for 2000, 2005 and 2010 by Countries	9.9
	Average Annual Growth Rates of Production Investments by Countries	9.10
9.3	Worldwide Market Development of Plant-Related Products and Services in Formulation and Packaging of Biotechnological Pharmaceuticals until 2010	9.11
	Plant-Related Products & Services – Project & Operation Phases	9.11
	Plant-Related Products & Services – Project Phase	9.13
	Plant-Related Products & Services – Operation Phase	9.15
	Overall Plant Services by Countries	9.19
	Civil & Structural Works – Products & Services by Countries	9.21
	Mechanical Works – Products & Services by Countries	9.23
	Electrical Works – Products & Services by Countries	9.25
	Automation Works – Products & Services by Countries	9.27
	MES – Products & Services by Countries	9.29
	Works by Regions – Overview 2000	9.31
	Works by Regions – Overview 2005	9.32
	Works by Regions – Overview 2010	9.33
	Plant-Related Products & Services by Core & Auxiliary Processes	9.34

10	ACTIVE AGENTS – BIOTECHNOLOGICAL PHARMACEUTICALS (33 PAGES, 48 TABLES)	10.1
10.1	Worldwide Production Values in Active Agents Production of Biotechnological Pharmaceuticals until 2010	10.3
	Production Values for 2000, 2005 and 2010 by Countries	10.5
	Average Annual Growth Rates by Countries	10.6
10.2	Worldwide Development of Capital Expenditures in Active Agents Production of Biotechnological Pharmaceuticals until 2010	10.7
	Capital Expenditures for 2000, 2005 and 2010 by Countries	10.7
	Average Annual Growth Rates of Capital Expenditures by Countries	10.8
	Production Investments for 2000, 2005 and 2010 by Countries	10.9
	Average Annual Growth Rates of Production Investments by Countries	10.10
10.3	Worldwide Market Development of Plant-Related Products and Services in Active Agents Production of Biotechnological Pharmaceuticals until 2010	10.11
	Plant-Related Products & Services – Project & Operation Phases	10.11
	Plant-Related Products & Services – Project Phase	10.13
	Plant-Related Products & Services – Operation Phase	10.15
	Overall Plant Services by Countries	10.19
	Civil & Structural Works – Products & Services by Countries	10.21
	Mechanical Works – Products & Services by Countries	10.23
	Electrical Works – Products & Services by Countries	10.25
	Automation Works – Products & Services by Countries	10.27
	MES – Products & Services by Countries	10.29
	Works by Regions – Overview 2000	10.31
	Works by Regions – Overview 2005	10.32
	Works by Regions – Overview 2010	10.33
	Plant-Related Products & Services by Core & Auxiliary Processes	10.34
11	DIAGNOSTICS – BIOTECHNOLOGICAL PHARMACEUTICALS (33 PAGES, 48 TABLES)	11.1
11.1	Worldwide Production Values in Diagnostics Production of Biotechnological Pharmaceuticals until 2010	11.3
	Production Values for 2000, 2005 and 2010 by Countries	11.5
	Average Annual Growth Rates by Countries	11.6

11.2	Worldwide Development of Capital Expenditures in Diagnostics Production of Biotechnological Pharmaceuticals until 2010	11.7
	Capital Expenditures for 2000, 2005 and 2010 by Countries	11.7
	Average Annual Growth Rates of Capital Expenditures by Countries	11.8
	Production Investments for 2000, 2005 and 2010 by Countries	11.9
	Average Annual Growth Rates of Production Investments by Countries	11.10
11.3	Worldwide Market Development of Plant-Related Products and Services in Diagnostics Production of Biotechnological Pharmaceuticals until 2010	11.11
	Plant-Related Products & Services – Project & Operation Phases	11.11
	Plant-Related Products & Services – Project Phase	11.13
	Plant-Related Products & Services – Operation Phase	11.15
	Overall Plant Services by Countries	11.19
	Civil & Structural Works – Products & Services by Countries	11.21
	Mechanical Works – Products & Services by Countries	11.23
	Electrical Works – Products & Services by Countries	11.25
	Automation Works – Products & Services by Countries	11.27
	MES – Products & Services by Countries	11.29
	Works by Regions – Overview 2000	11.31
	Works by Regions – Overview 2005	11.32
	Works by Regions – Overview 2010	11.33
	Plant-Related Products & Services by Core & Auxiliary Processes	11.34
12	BIOLOGICALS – BIOTECHNOLOGICAL PHARMACEUTICALS (33 PAGES, 48 TABLES)	12.1
12.1	Worldwide Production Values in Biologicals Production of Biotechnological Pharmaceuticals until 2010	12.3
	Production Values for 2000, 2005 and 2010 by Countries	12.5
	Average Annual Growth Rates by Countries	12.6
12.2	Worldwide Development of Capital Expenditures in Biologicals Production of Biotechnological Pharmaceuticals until 2010	12.7
	Capital Expenditures for 2000, 2005 and 2010 by Countries	12.7
	Average Annual Growth Rates of Capital Expenditures by Countries	12.8
	Production Investments for 2000, 2005 and 2010 by Countries	12.9
	Average Annual Growth Rates of Production Investments by Countries	12.10

12.3	Worldwide Market Development of Plant-Related Products and Services in Biologicals Production of Biotechnological Pharmaceuticals	12.11
	Plant-Related Products & Services – Project & Operation Phases	12.11
	Plant-Related Products & Services – Project Phase	12.13
	Plant-Related Products & Services – Operation Phase	12.15
	Overall Plant Services by Countries	12.19
	Civil & Structural Works – Products & Services by Countries	12.21
	Mechanical Works – Products & Services by Countries	12.23
	Electrical Works – Products & Services by Countries	12.25
	Automation Works – Products & Services by Countries	12.27
	MES – Products & Services by Countries	12.29
	Works by Regions – Overview 2000	12.31
	Works by Regions – Overview 2005	12.32
	Works by Regions – Overview 2010	12.33
	Plant-Related Products & Services by Core & Auxiliary Processes	12.34
13	OUTSOURCING SERVICE PROVIDERS INDUSTRY (33 PAGES, 48 TABLES)	13.1
13.1	Worldwide Production Values in the Outsourcing Service Providers Industry until 2010	13.3
	Production Values for 2000, 2005 and 2010 by Countries	13.5
	Average Annual Growth Rates by Countries	13.6
13.2	Worldwide Development of Capital Expenditures in the Outsourcing Service Providers Industry until 2010	13.7
	Capital Expenditures for 2000, 2005 and 2010 by Countries	13.7
	Average Annual Growth Rates of Capital Expenditures by Countries	13.8
	Production Investments for 2000, 2005 and 2010 by Countries	13.9
	Average Annual Growth Rates of Production Investments by Countries	13.10
13.3	Worldwide Market Development of Plant-Related Products and Services in the Outsourcing Service Providers Industry until 2010	13.11
	Plant-Related Products & Services – Project & Operation Phases	13.11
	Plant-Related Products & Services – Project Phase	13.13
	Plant-Related Products & Services – Operation Phase	13.15
	Overall Plant Services by Countries	13.19
	Civil & Structural Works – Products & Services by Countries	13.21
	Mechanical Works – Products & Services by Countries	13.23

Electrical Works – Products & Services by Countries	13.25
Automation Works – Products & Services by Countries	13.27
MES – Products & Services by Countries	13.29
Works by Regions – Overview 2000	13.31
Works by Regions – Overview 2005	13.32
Works by Regions – Overview 2010	13.33
Plant-Related Products & Services by Core & Auxiliary Processes	13.34