APPENDIX IV TO CHAPTER III

LIST OF TECHNOLOGIES DEVELOPED BY R&D CENTRES OF VARIOUS COMPANIES IN INDIA

SECTOR: AGRICULTURAL

S. No	Name of the company	Technologies Developed
1.	Advanta India limited	1. 1994-96 – moisture tolerant hybrid of sunflower 2. 1998-2000: hybrid rice 3. 1999-2004: 00 quality Brassica Hydla hybrids.
2.	Monsanto Research Centre	1. The first high lysine corn products that improve nutritional value of animal feed 2. improved soy beans and canola for healthier oils and proteins with low linolenic soy beans 3. increasing omega 3 content of soy bean oil (2003) 4. Ballgard Hybrid cotton seeds 5. Pipe line includes crop plants with improved tolerance on environmental stress such as cold, drought, disease resistance, nitrogen efficiency.
3.	Pioneer Hybrid International Seeds India Limited	1. Hybrid Corn / Maize. 2. Pearl Mullet. 3. Hybrid rice. 4. Improved harvestable Sorghum. 5. Improved harvestable Sunflower.
4.	Seagram R&D Centre, Seagram India Private Limited	1. 1999 – A new process for cellulose production using DDGS, Syrup etc 2. 2000 – process for production of pro-biotics using distillery by products like distillers solubles 3. 2005 – A lab scale process of Bio conversion of Fusel oil to produce flavour components (Alcohol Acetates) by using commercial lipases.
5.	Seminis Vegetable Seeds India Limited	1. In 2001 – 10 improved varieties in Okra, Gourds, Eggplant and Onion 2. In 2002 – six improved varieties of Gourds, eggplant. 3. In 2003 - . Six improved varieties of Gourds, eggplant, okra and onion.

		4. In 2004 – nine improved varieties of coriander, palak, gourds, onion and eggplant. 5. In 2005 – five improved varieties of gourds and eggplant.

SECTOR: AUTOMOBILE

S. No	Name of the company	Technologies Developed
1.	Daimler Chrysler Research Centre India	1. Encryption image/ single processing. 2. CAD / CAM/ CAE and PDM 3. Software engineering and development using established and leading edge technologies (C++, J2EE, Web sphere, Lotus Notes).
2.	Delphi Technical Centre India	1. Embedded software for electronic control systems. 2. Advanced mobile multimedia systems
3.	Toyota – Kirloskar Motor Private Limited	1. Engine technology. 2. Safety.

SECTOR: BIOTECHNOLOGY AND PHARMACEUTICAL

S. No	Name of the company	Technologies Developed
1.	Astra Zeneca R&D	1. Cardiovascular 2. Infection 3. Neuro Science 4. Obestrics & Gynaecology 5. Oncology 6. Respiratory
2.	Gangagen Biotechnologies Limited	Library of over 400 bacteriophages which kill a variety of bacteria present in over 1100 clinical isolates.
3.	Intervet India Private Limited	1. Fertility Hormones 2. Poultry Vaccines 3. Canine Products
4.	Indus Bio Sciences Private Limited	1. CarboHydrate Derivatives 2. Heterocyclic Building Blocks 3. Reagents and Building Blocks 4. Chiral Agents and Building Blocks 5. Nitriles, Acids and Amidines 6. Pyridines, Piperidines, Pyrimidines & Indazoles

5.	John F Welch Technology Centre (GE)	1. More Efficient Refrigerators 2. Energy Efficient Motors That Last Longer 3. Locomotives That Perform Better With Improved Fuel Efficiency 4. Un-frosted Head Lamps for Automobiles 5. Quieter Machines and Appliances 6. Injection Moldable Magnetic Products 7. Improved Diagnostic and Treatment Protocols 8. Advanced Risk Dashboards 9. Automobiles That Help Conserve Fossil Fuel 10. New Colors 11. Better Patient Care 12. NDE Imaging Lab 13. NDE Modelling Lab 14. Polymer and Synthetic Materials 15. Information and Design Technologies 16. Micro and nano-structure technologies 17. Electronic and Photonic Technologies 18. Advanced Mechanical Technologies
6.	Merck Development Centre Private Limited	1. Anti biotics 2. Anti malarials 3. Cardiologicals 4. Cough and cold formulations 5. Dermetologicals 6. Haematinics 7. Neurologicals 8. ORS 9. Non-steroidial anti inflammatory drugs.
7.	Novartis India Limited	1. Arthritis and bone metabolism 2. Cardiovascular and metabolic diseases 3. Dermatology/Immunopathology 4. Infectious disease 5. Nervous system disorders 6. Oncology 7. Ophthalmics 8. Transplantation
8.	Novo Nordisk India Private Limited	1. 2 Insulin analogues – Novomix 30 and Novo Rapid (in 2003) 2. Insulin Delivery device – Novolet 3. A third generation durable insulin

		delivery device – Novopen
9.	PharmaNet India Clinical Services Private Limited	1. Drug-eluting stents 2. Implantable drug/device delivery systems 3. Catheter-based drug-delivery technologies 4. Co-packaged combination products
10.	Pliva Research India Private Limited	1. Antiinfectives 2. Cytostatics 3. Diuretics 4. Various Api 5. Nutraceuticals
11.	Roche Scientific Company India Limited	1. Transplantation 2. Oncology 3. Hepatitis 4. HIV

SECTOR: CHEMICAL

S. No	Name of the company	Technologies Developed
1.	BASF India Limited	1. Several leather chemicals 2. Several textile chemicals 3. Several paper chemicals 4. Several agrochemicals 5. Backward integration 6. Import substitutions of several chemicals 7. Other special research
2.	Hindustan Lever Research Centre	**PRODUCTS:** 1. Technology for Saving Water: 2. Technology for Safe Water Technology: 3. Technology for Iodine Protection in salt: **4.** totally safe, non-corrosive, Eutectic coolant **PROCESS:** 1. In-house machine development 2. Energy conservation
3.	SABIC Research and Technology Private Limited	CO2 treatment technology with environmental benefits, Improved EPS technology resulting in improved quality of SABIC's polysterene

		products, Butane -1 technology ,SABCAT – 1 – a new catalyst to produce Butane 1 which reduces production costs and improves quality, Acetic Acid technology,Linear Alpha Olefin process in partnership with Linda AG, Germany.

SECTOR: COMPUTER HARDWARE AND SOFTWARE

S. No	Name of the company	Technologies Developed
1.	Lucent Technologies India Private Limited	1. Network Management Software for Next-Generation IP Networks 2. WiCAT: Wireless Coverage and Assurance Tool 3. Next-Generation Naming Services 4. Low-Cost Networking for Rural Areas
2.	Texas Instruments India Private Limited	1. Amplifiers & Linear 2. Digital Signal Processors 3. Data Converters 4. Interface 5. Logic 6. Micro Controllers 7. Power Management
3.	Xilinx India Limited	1. Developing programmable gate array (FPGA) solutions targeted at high growth markets such as consumer electronics, automotive and communications. 2. Xilinx programmable silicon platform (90nm devices)

SECTOR: OTHERS

S. No	Name of the company	Technologies Developed
1.	SANDVIK ASIA LIMITED, R&D Centre	1. Tooling for differential case for automobiles – 1998 2. High speed boring bars for 2 wheelers - 1998 3. Recycling system in CVD coating – 1999 4. development for new resource for cobalt - 1999

		5. 6” DTH Hammer – 2000 6. New cutting heads and cartridges – 2001 7. Cobalt grade for gang saw blades – 2002 8. Process monitoring system – 2002, etc.
2.	Sanyo LSI Technology India Private Limited	1. Software IP optimized for ARM9 2. H.264 encoder and decoder 3. GSM-AMR encoder and decoder 4. MP3 encoder and decoder.