D. Nestlé and patentability of food

The impacts of the patentability of food due to the TRIPs Agreement are exemplified by the largest international food company, Nestlé. Nestlé is a conservative food company. It focuses on classical food products, especially convenience products. Nestlé has just started investing in R&D of functional food. It is active in Germany, in China, and in Brazil to a large extent and only to a smaller extent in India.

The philosophy of Nestlé regarding developing countries can be summarized by the statement of its Chief Executive Officer *Brabeck-Letmathe*:

> "When we talk about long-term responsibility and development, we do it with nearly 100 years of experience in manufacturing in the developing world and an even longer history of the company overall. Our basic business principle is to favor long-term development over short-term profit. We aim to build companies over decades, which we expect to last for centuries, industrializing the developing world in the process."[270]

Nestlé's greatest social impact is not in funding projects, but in poverty reduction by means of its basic business development. A recent survey in 16 countries asked the public to name a socially responsible company and then to mention a company that they assume to be socially irresponsible. Nestlé is one of the companies that ranked top of the list of responsible companies. Eight nationals of developing countries spontaneously mentioned Nestlé as a socially responsible company for every 1 who listed Nestlé as irresponsible.[271] This would seem to reflect the fact that Nestlé firmly supports the principles of the United Nations Global Compact and is committed to reflecting these in its business principles and practices. In January 1999, former United Nations Secretary-General *Annan* announced the Global Compact initiative under the mission statement:

> "Let us choose to unite the power of markets with the authority of universal ideals. Let us choose to reconcile the creative forces of private entrepreneurship with the needs of the disadvantaged and the requirements of future generations."[272]

The patenting activity of Nestlé is rather low compared to its trademark activities. Currently Nestlé holds 340 strategic brands protected by 75,000 trademark registrations. Additionally Nestlé holds 6,000 local brands protected by 28,000 trademark registrations.[273] Nestlé owns 9,018 granted national patents as well as 6,127 pending patents.[274] This clearly shows that the main intellectual property focus of Nestlé lies within the field of trademarks.

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270 The UN Global Compact and Nestlé's Experience in Corporate Responsibility for Development, United Nations Global Compact Symposium, Geneva, October 29, 2003, available at www.r0.un-ctad.org/gcandswissbusiness/presentations/Brabeck.pdf.

271 *Brabeck-Letmathe,* The UN Global Compact and Nestlé's Experience in Corporate Responsibility for Development, United Nations Global Compact Symposium, Geneva, October 29, 2003, 9.

272 Available at www.unglobalcompact.org/Portal/Default.asp.

273 WIPO, Nestlé: Streamlining IP to stay on top, WIPO Magazine/Nov.-Dec. 2005, 19.

274 WIPO, Nestlé: Streamlining IP to stay on top, WIPO Magazine/Nov.-Dec. 2005, 19.

Straus[275] points out that "The relative inactivity and low propensity towards patenting on the part of large multinational food companies, which instead rely on their market power, may (...) present an opportunity for innovative biotech companies and research institutions outside the industry."

Nestlé's food-related patent applications have been continually increasing since 1990, as shown in table 7. It is worth mentioning that Nestlé has applied for most patent applications in Brazil, where it already has a strong market position. Nestlé applied for 30 food-related German patent applications in 1990. This number rose rather constantly to its maximum in 1996, with 75 German patent applications. The decrease in the recent years, with 1 application in 2001, is due to the database effect described above.

Nestlé's food-related Brazilian patent applications rose rather constantly from 11 in 1990 to a maximum of 58 in 1998. The abolition of the exemption in Brazil in 1997 did not lead to an increase of food-related patent applications, which dropped from 54 in 1996 to 42 in 1997. This is contrary to the 80% rise of all food-related Brazilian patent applications in 1996-97. The constant rise of Nestlé's food-related patent applications in Brazil indicates that Nestlé's patent strategy has been at least in the short term independent of the patentability of food.

Nestlé has applied for more and more food-related patent applications in China with 7 in 1990 and a maximum of 43 in 1998-99. The decrease to 3 patent applications in 2001 is due to a database effect. The abolition of the exemption in 1992 led to an increase in food-related Chinese patent applications, from 9 in 1992 to 15 in 1993. Then there was a constant increase to 39 in 1996. This indicates that the patentability of food had a long-term effect on Nestlé's patent strategy in China. However, the increase might also be due to Nestlé's increased economic interest in China.

Nestlé has increasingly applied for food-related Indian patents, though the absolute number falls short of those in Brazil and China. This corresponds to Nestlé's lower concentration in India, where it holds only a small share of the food sector. Nestlé applied for 2 food-related Indian patent applications in 1990 and 9 in each of the following 2 years. The peak was 19 in 1997, corresponding to nearly half of Nestlé's German and Brazilian patent applications. The decline from 1999 on could again be caused by a database effect.

275 *Straus*, Genomics and the food industry: outlook from an intellectual property perspective, in: *Vaver&Bently* (eds.), Intellectual property in the new millennium – Essays in Honour of William R. Cornish, Cambridge 2004, 124, 136.

Table 7:
Nestlé's food-related national German, Brazilian, Chinese and Indian patent applications with priority in 1990-2001.[276]

Year	Germany	Brazil	China	India
90	30	11	7	2
91	29	16	12	9
92	27	15	9	9
93	31	18	15	5
94	49	33	21	9
95	55	29	36	18
96	75	54	39	11
97	47	42	30	19
98	43	58	43	17
99	26	57	43	6
00	16	43	31	0
01	1	32	3	0

Table 8 shows Nestlé's food biotechnology-related German, Brazilian and Chinese patent applications, which have been rather low. Nestlé has only applied for 5 food biotechnology related German patent applications from 1990 to 2001. Nestlé's food biotechnology-related Brazilian and Chinese patent applications even exceed German applications from 1993 on, with 2 patent applications each and a maximum of 7 in Brazil in 1999-2000 and 6 in China in 1999. The abolition of the exemption in 1997 did not lead to a substantial increase in food biotechnology-related Brazilian patent applications with 1 in 1996 and 3 in 1997. The same applies to China's abolishing the exemption in 1992. Nestlé filed no food biotechnology-related Chinese patent applications in 1992 and only 2 in 1993.

276 Food-related patent applications are the IPC subclasses of table 1. It is referred to the first priority date that is claimed by the respective national patent application. This data was collected by the author in cooperation with *Schmoch* in 2004 at the Fraunhofer Institute for Systems and Innovations Research in Karlsruhe using PLUSPAT, a database developed by Questel-Orbit.

Table 8:
Nestlé's food biotechnology-related German, Brazilian, Chinese and Indian patent applications with priority in 1990-2001.[277]

Year	Germany	Brazil	China	India
90	1	0	0	0
91	1	1	1	0
92	5	1	0	0
93	1	2	2	0
94	2	3	3	0
95	3	2	4	0
96	1	1	3	0
97	2	3	2	0
98	0	3	2	0
99	3	7	6	0
00	3	7	2	0
01	0	3	0	0

The effects of the TRIPs Agreement are a harmonized 20-year patent duration and the possibility of patenting food worldwide, especially in the important markets of Brazil and China. Patent litigation is, however, still a problem. In practice, Nestlé does not litigate infringements of its patents in developing countries. Though the national laws have theoretically become more strict due to the minimum standards of the TRIPs Agreement, patent enforcement is often difficult in developing countries. There are mostly insufficient sanctions for patent infringers. Moreover, the national court systems often have a frail infrastructure. Consequently, patents in developing countries do not in reality confer the same protection as in developed countries.[278]

277 Food biotechnology-related patent applications are IPC subclasses of table 1 linked with IPC subclasses of table 2. It is referred to the first priority date that is claimed by the respective national patent application. This data was collected by the author in cooperation with *Schmoch* in 2004 at the Fraunhofer Institute for Systems and Innovations Research in Karlsruhe using PLUSPAT, a database developed by Questel-Orbit.

278 According to an interview with former head of interim of the patent division of Nestlé, NESTEC S.A., Vevey, Switzerland, *Wavre,* November 21, 2003.

E. Assessment

The TRIPs Agreement has had an enormous effect on the food sector with regard to patentability of food. Food-related inventions are now eligible for patent protection in most countries worldwide with the exemption of plant- and animal-related inventions. Plant varieties have to be protected at least by an effective *sui generis* system. The TRIPs Agreement led to an increase of food-related patent applications in developing countries, where food had often been excluded from patentability.

Brazil, China and India, before being Members of WTO and Parties to the TRIPs Agreement, had excluded food from patentability. China introduced the patentability of food in 1992, even before its WTO entry in 2001, Brazil did so in 1997 along with the ratification of the TRIPs Agreement and India in 2005 making use of the full transition period under Art. 65(2)(4) of the TRIPs Agreement. Plants and animals are excluded from patentability in Brazil and India usint the room to maneuver under Art. 27(3)(b) TRIPs Agreement. China has excluded only animal species and plant varieties. Brazil, China and India have each established a plant variety protection system thus, meeting the requirements of Art. 27(3)(b) of the TRIPs Agreement. Brazil and China have adopted the UPOV Convention of 1978, whereas India has established its own plant variety protection system.

The idea that there is the necessity to prevent monopolies in the arae of nutrition has led to the exemption to patentability of food in developing countries as well as in developed countries. The same reasons that led to the exemption in the German Patent Act of 1877 also led to the exemption in Brazil, China and India.

Two paradoxes dominate public opinion about the food sector. *Straus*[279] summarizes the first anomaly with respect to the TRIPs Agreement and the patentability of food as follows:

> "Whenever the impact of intellectual property rights, especially patents, on modern societies, be it developed or developing, is discussed, two topics dominate the debate: health and medicines, and the fact that the adoption of (...) (TRIPs) in 1994 will, eventually, oblige all (...) (WTO) Members to provide for patent protection for pharmaceuticals. Surprisingly, an equally important aspect of health, namely nutrition and food, and the TRIPs general obligation to patent food products, which before TRIPs in many countries had shared the fate of pharmaceuticals, i.e. had not been eligible for patent protection, is not even touched upon."

279 *Straus*, Genomics and the Food Industry: Outlook from an Intellectual Property Perspective, in: *Vaver&Bently*, Intellectual Property in the New Millennium – Essays in Honour of William R. Cornish, Cambridge 2004, 124.