Curriculum Vitae

Personalia

Name:	Robert Kirschbaum
Date of birth:	03-03-1952 Heemstede
Education :	Coornhert Lyceum HBS-B: 1964-1970
	Technical University Delft (Master of Science; Chem. Eng.): 1970-1977
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Myers-Briggs/Keirsey	E-S/N-T/F-J

Work Experience

2009- current DSM Innovation Center; **Vice President Open Innovation**

- In this role, I combine the outside-in en inside-out activities of DSM (hunting for new technologies as well as finding partners or licensees for DSM intellectual property) with representing DSM internationally in large organizations like CEFIC, SUSCHEM, EIRMA and IRI.

2007-2009 DSM's Performance Materials Cluster**: Vice President Innovation**

- Responsible to search for- and develop new business opportunities across and beyond the innovation spaces of the existing Business Groups (DSM Resins, DSM Engineering Plastics, DSM Dyneema).

2001-2007 DSM Venturing& Business Development: **Vice President Innovation**

- As leader of the New Business Creation department, I was responsible for selecting the best business opportunities from both the internal (mostly Research) and external (through Venture Capital Funds) dealflow.
- I have pioneered/lead the process of bringing the theory of "Open Innovation" into practice for DSM Business Groups and DSM Research

1997-2001 DSM Research: **Sr. Director New Business Development**

- Responsible for the bottom line of that development company. Set-up several internal start-ups (Melapur ,Stamypor , Hybrane , ConQuest) and started the (Corporate) Venturing activity for DSM by first investing in VC Funds , quickly followed by investing in Start-ups.
- Member of the management team DSM Research.

1991-1996 DSM Engineering Plastics: **General Manager Stanyl (Nylon 4.6)**

- Responsible for the bottom-line of this innovative product line for which (unfortunately) at first instance a wrong application (fibres) was choosen. Building the global business from a loss making activity into cash flow positive "pearl of DSM's materials portfolio", was one of the greatest challenges and achievements in my career.

1989-1991 Corporate Planning: **Project Director/Business manager Geltechnology**

- Responsible for both the technology development (solution processing & biaxial drawing of UHMwPE) and market/business development for high performance films (Textile, Membranes, Electronic applications). Leading and co-ordination of all Research activities was included in this role.

1986-1989 DSM Research- MT: **Section manager Geltechnology**

- Lead a R&D department of 35 people, targeting the solution processing and ultra-orientation of various intractable Polymers and inorganic polymeric filled systems

1985-1986 DSM Research-OK: **Project Integrator Materials Technology**

- Responsible for the integration of fiber/film formation- and solid state processing activities as well as the R&D output of those.

1984-1985 DSM Research-OK: **Research & Development manager Dyneema**

- Coordination of the polymer feedstock activities, the Dyneema fiber activities and the Application developments (textile and composites). Responsible for feedstock selection and R&D output of the DSM-Toyobo partnership (later Joint Venture called Nippon Dyneema)

1980-1984 DSM Research-OK: **Manager Fiber Technology Department**

- Responsible for the technical service Caprolactam (Poly/extraction/recovery) targeting Europe, India, Taiwan, Korea and Thailand. Pioneered the Dyneema Fiber spinning process; license to Allied Fibers and responsible for the technical cooperation with Toyobo

1978-1980 DSM research-OPP: **Team leader PVC**

- Responsible for the PVC pilot plant: design of development programs and translated/implemented results into the full scale factory

Other experience

1977-1977	Ducilo Saic (Buenos Aires): “trouble shooter” in a Nylon 66 tire cord plant.
2001-2005	Board member Triton Bio Systems (a start-up company in Boston: targeting to destroy cancer tumors with hyperthermia)
2001-2005	Advisory Board member Yet2.com (www.yet2com)
2001-current	Founder/organizer of the Dutch Corporate Venturing network (www.cvnn.eu)
2002-current	Board member Royal Dutch Chemical Society subgroup (www.kncv.cmg.nl)
2003-current	Board member of New Venture (Dutch business plan competition) (www.newventure.nl)
2003-current	Board member of SupraPolix (start-up in Eindhoven; www.suprapolix.com)
2003-2008	Board member Oxford Performance Materials (start-up close to Boston)
2003-2007	Member of the CVSE (Corporate Venturing Senior Executive Forum) as founded by the Henley Incubator (H-I Network London)
2005-2008	Member of the “Sounding Board” Ministry of Economic Affairs (Innovation).
2006	Member of the Proton Europe jury (Best University Incubator Award)
2007-2012	Board member of Qlyte (start-up company in Amsterdam/Delfzijl) (www.qlyte.com)
2008-2009	Member of the ICIS chemical magazine jury (Innovation Awards)
2010-current	Member of the University of Amsterdam Innovation Award Jury
2010-current	Board member of Suschem Nederland
2013-current	Member Steering Group Materials (KIVI-NIRIA)

Lecturing

1999-current	Lecturer at the DSM Business Academy (Innovation, Entrepreneurship)
2000-current	Frequently (> 5 times/year) public speaker on (Open) Innovation, Emerging Business Area's, Radical/breakthrough Research and Entrepreneurship.
2005-current	Erasmus University/RSM (Technology Management, Innovation, Corporate Venturing)
2008-current	Lecturer at the ESADE course on Corporate Venturing and Entrepreneurship (Professor Henry Chesbrough and Kenneth Morse)
2013	Guest lecturer at the University of Maastricht (Department of Health Services research)
2013	Guest lecturer at UNU-MERIT (Innovation System in the Global Economy)

Publications

Title	Open Innovation in Practice
Author	Robert Kirschbaum
Reference	Research Technology Management 06/2005; 48(4):24-28
Title	Knowledge management challenges in corporate venturing and technological capability building through radical innovations
Authors	W. Vanhaverbeke, J.J. Berends, R. Kirschbaum, F. Brabander de
Reference	ECIS wp90 2003, February
Title	Building new competencies for new business creation based on breakthrough technological innovations
Authors	W. Vanhaverbeke, R. Kirschbaum
Reference	ECIS wp91, Eindhoven Centre for Innovation Studies 2003, February
Title	Knowledge management challenges in new business development: Case study observations
Authors	H. Berends, W. Vanhaverbeke, R. Kirschbaum
Reference	Journal of Engineering and Technology Management Volume 24, issue 4, December 2007

Languages

English and Dutch (Fluent), German (Good), French (Moderate), Spanish (Moderate), Japanese (some)

Personal information

Married, 3 children
Hobbies include: Piano playing, Tennis and indoor Soccer

Award

In May 2010 the Giulio Natta Award was assigned to me. See next page.

Promoting committee «Giulio Natta e Nicolò Copernico»
Awards for the Scientific Research and Technological Innovation

"Giulio Natta" Award 2010

has been assigned to

Robert Kirschbaum

Robert Kirschbaum played as co-inventor and even more as innovator a significant role in the advancement of 2 performance materials:

1) For **Dyneema** he lead the team that developed the special grade of UHMwPE, as well as the technology to convert that into **the strongest fiber of the world.**
2) He initiated and brought through **Nylon 4.6 as an engineering plastic (Stanyl)** with superior properties, mainly with outstanding temperature resistance and easy processing.
3) He pioneered and implemented the concept of **Open Innovation** at DSM

As a result, DSM's actual business based on the above listed breakthroughs reaches several hundreds of mio Euro/year.

In addition, his broad spectrum of actions includes successes in:

- Hyperbranched polyesteramides for natural gas exploitation
- Melamine based flame retardants, to make environmentally friendly (halogen free) engineering plastics
- and in a convincing concept and successful start for a platform of bio renewable polymers

In short: Generating, innovating, teamleading and successful marketing **of *Advanced plastics for a better life***, describes him best.

Ferrara, May the 15th 2010

The Committee President
Prof. Pietro Dalpiaz