Contents

Dedication	V
Contents	vii
Foreword	xiii
Preface	xvii
Acknowledgments	xix
About the Authors	xxi
Chapter 1: Nobody Goes Truffle Hunting on the Highway	1
1.1 The Innovator Stops You from Going Around in	
Circles	2
1.2 What Is at Stake for Companies with Contemporary	
Innovation?	3
1.3 From the Notion of Innovation to Actually Making It	
Happen	6
1.4 The Entrepreneur and the Scholar	8
1.5 Innovation Was, Is, and Will Be	9
Chapter 2: The Hidden Side of the Concept of the Swatch	11
2.1 The Great Watch Crisis of the Late 1970s, or When	
Managers Are No Longer Entrepreneurs	13

	2.1.1	The Watch Barons Ensnared by the Models of the Past	13	
	2.1.2 2.1.3	Precision Is No Longer a Measure of Quality The Hayek Report, or the Rapid	15	
	2.110	Concentration within the Sector	16	
2.2	Innova	ation versus the Crisis: The Empire Strikes		
	Back v	vith the Swatch	17	
	2.2.1	Head in the Cogs	17	
	2.2.2	The Unlikely Encounter	19	
2.3	The S	watch Project Did Not Simply Appear Out of		
	the Bl	ue	21	
	2.3.1	When the Watch Is the Best Way of		
		Diversifying Watchmaking	23	
	2.3.2	Carte Blanche for a Black Case, or Perfect		
		Peace for Two Dissidents	25	
2.4	The Innovative Design of the Swatch			
	2.4.1	From the Knowledge of the Plastics Process		
		to the Expanding of the Initial Concept	31	
	2.4.2	A Plastic-Welded Watch (Knowledge) That		
		Is Consequently Inexpensive (Concept)	35	
	2.4.3	A Plastic-Welded Watch (Knowledge) That		
		Is Consequently Resilient and Waterproof		
		(Concept)	35	
	2.4.4	A Plastic-Welded Watch (Knowledge) That		
		Is Consequently Unrepairable (Concept)	36	
	2.4.5	From the Knowledge of the Product to the		
		Growth of the Initial Concept	37	
	2.4.6	A Redefined Framework: A Simpler and		
		More Reliable Watch	37	
	2.4.7	The Advent of Marketing Knowledge or the		
		Fashion Dimension	42	
	2.4.8	From the Knowledge of Design to an		
		Expanded Concept and a Discreetly		
		Efficient Product	45	

			The Design of the Process of Manufacturing The Swatch Standardized the Production	49
		2.4.10	and Diversified the Product	49
		2 4 11	From the Initial Industrial Improvisation to	47
		2.4.11	Mass Production	51
		2 4 12	An Original Product with an Original	31
		2.4.12	Process and Vice Versa	51
	2.5			53
		2.5.1	9	F 0
			be Learned from Breakthrough Innovation	53
		2.5.2	1	55
		2.5.3	The Protection of a Mentor Leader	56
		2.5.4	Draw, Prototype, Represent	56
		2.5.5	The Reuse of Familiar or Unfamiliar	
			Knowledge	56
		2.5.6	Putting Up with Deviant Tendencies;	
			Preparing for the Breakthrough	57
		2.5.7	Do Not Make Hasty Negative Judgments	
			or Straightaway Think That Something Is	
			Impossible	58
		2.5.8	The Commercial Launching of the Swatch	59
		2.5.9	Time to Leave and to Move on to Something	
			New	60
		2.5.10	The Paternity of the Swatch	61
		2.5.11	The Father and the Mothers	62
		2.5.12		63
		2.5.13	The Subtle Link between Creativity and	
			Knowledge	66
0 1		2 6 14	A.T. I. D. of J.Th	
			A Truly Practical Theory of	67
bre			nnovation	
			ciling Concept with Knowledge	68
	3.2		t Approach of the Notion of Design	69
	3.3		neoretical Roots of the Design: Design	
		versus	Decision	71

	3.3.1 3.3.2	The Rule and the Object In Order to Design, Get Out of the	71
	5.5.2	Rapport "Problem/Solution"	72
3.4	The Ba	asic Notions of C-K Theory	73
	3.4.1	The Notion of Expansion	73
	3.4.2	The Notion of Partition	75
	3.4.3	The Notion of Knowledge (referred to	
		hereafter as K)	77
	3.4.4	The Notion of Concept (referred to	
		hereafter as C)	78
	3.4.5	The Concept of Wetness	80
3.5	The Re	easoning Behind the C-K Theory	81
	3.5.1	Disjunction and Conjunction	81
	3.5.2	The Operators of the Breakthrough Design	
		or the Design Square	83
3.6	C-K in	Action: Some Examples of C-K Cases	83
5.0	3.6.1	Designing a Flying Boat	83
	3.6.2	How to Design an Innovative Camping Chair	87
	3.6.3	Moving Around with One's Suitcase	91
	3.6.4	Re-asking Forgotten Questions: From	
		Welding Wood to Welding Bone	93
	3.6.5	Consuming Ten Times Less Water When	
		You Wash Your Hands or Designing a Tap	
		That Is No Longer a Tap	97
	3.6.6	Wash Better and Rinse Better	97
	3.6.7	Revolution Instead of Renovation	98
	3.6.8	Design the Sensorial	99
	3.6.9	The C-K Reasoning behind Smixin	101
	3.6.10	C-K in Practice: The KCP® Method	101
3.7	Conclu	usion: The Origins of the Concept	104
	3.7.1	The Concept Defined by an Oxymoron	105
	3.7.2	Distorting Oneself without Distorting	
		Oneself	105
	3.7.3	The Metaphor of the Pearl	107

	4: The Molecular Metaphor of Innovation:	444
Gas, Liq	uid, Crystal	111
4.1	The Innovator Blues	111
4.2	The Origins and the Status of the Molecular	
	Metaphor	114
4.3	The Molecular Metaphor of the Mental States of	
	Innovation	115
4.4	The Mental State of Gas	116
4.5	The Mental State of Liquid	118
4.6	The Mental State of Crystal	119
4.7	From a Dialogue of the Deaf to a Dialogue of the	
	Mental States	121
Chapter	5: The Metaphor of the Matriarch	125
5.1	How to Organize Breakthrough Innovation:	
	Creaholic, an Innovation Smith	125
5.2	Professional Inventors	126
5.3	Unique Organizational Principles	127
5.4	The Internal Organization of Creaholic	130
5.5	The Matriarch as a Metaphor of the Management	
	of Ambidexterity	132
5.6	Multidisciplinary and Multifertilization	137
Epilogue	e: Watches to be Watched: Connected Watches,	
or the In	novation War Raging on Your Wrist	141
From	n a Coordinated World to a Connected World	143
The	Economic War on Your Wrist	144
The	Wrist: An Innovative Spot	145
Wat	chmaking Seized by a Revolution	147
Conclusi	on: Innovation at Work	149
Referen	ces	155
Index		159