CONTENTS

Foreword			ix
1	The	Problem and the Plan	1
PA	RT 1		
Th	e Pro	blem: Economics is not a Science	5
2	Tow	ard the roots of unsustainability	7
	2.1	Dig deeper 7	
	2.2	Narratives 12	
	2.3	Laws and regulations 16	
3	Fou	r Spheres of thoughts and actions	19
	3.1	Words, narratives, policies, effects 19	
	3.2	Interventions in the Four Spheres 26	
4	Intrinsic sustainability		33
	4.1	Glued-on versus intrinsic sustainability 33	
	4.2	The Broad Holloway 35	
5	Impetus words: Concepts that need to be thrown away		42
	5.1	The birth of science 42	
	5.2	17th century, physics and astronomy: impetus 44	
	5.3		
	5.4	Economics: value, profit, externality, ownership etc. 49	

6	Protoscience		58
	6.1	The seven characteristics of protoscience 58	
	6.2	Schools 60	
	6.3	Pattern recognition and illusions 64	
7	Eco	74	
	7.1	Automatisms 74	
	7.2	More myths 77	
	7. <i>3</i>	Copied methods 79	
	7.4	Oversimplification 83	
	7.5	Lack of replicable experiments 85	
	7.6	Economics is a myth 87	
	7.7	Conclusion: economics is a protoscience 90	
8	The	unsustainable success of economics	91
	8.1	Scientific success 91	
	8.2	Growth 93	
	8.3	Profit 101	
9	A bitter success: Homo Solitarius, the Lonesome Human		109
	9.1	Alienation from nature 110	
	9.2	Alienation from each other 116	
	9.3	Alienation from society 122	
	9.4	Conclusion 127	
10	Collapses that may bring our final demise		129
	10.1	Growth patterns 129	
	10.2	Theoretics of catastrophe 132	
	10.3	First signs 135	
	10.4	The final demise 141	
11	The	inevitable conclusion: proto-economics	145
	11.1	Seven characteristics 145	
	11.2	Economics, magic, religion, protoscience 152	
PA	RT 2		
Th	e Plai	n: Omniconomics, the new Science	155
12	Buy	ing time with the SDGs and more	157
	12.1	The SDGs & the Earth Charter 157	
	12.2	System inertia 161	

13	The c	concept of understanding	165
	13.1	Connecting the dots 165	
	13.2	Connecting upside down 176	
		Connecting upside down in economics 182	
14	Characteristics of science		190
	14.1	Magic, Religion, Philosophy, Science 190	
	14.2	Philosophy of science 194	
		Values-based science 199	
	14.4	Aggregation levels 201	
15	The e	eightfold path to science	207
	15.1	New physical equipment 208	
	15.2	New mental equipment 208	
	15.3	New patterns 209	
	15.4	New words 211	
	15.5	New narrative 212	
	15.6	New successes 213	
	15.7	New questions 214	
	15.8	New fire 216	
16	Characteristics of omniconomic science		221
	16.1	Scientific criteria: coherent, reflective, methodical, empirical 222	
	16.2	Systemic criteria: complex, complete, multilevel, unifying 223	
	16.3	Sustainability criteria: intrinsic, dynamic, strategic, peaceful 224	
	16.4	Engagement criteria: values-based, inclusive, purposeful,	
		accountable 225	
17	The complexity of the omniconomic world		228
	17.1	New equipment: complexity 228	
	17.2	New words: homeostasis, attractors 232	
	17.3	New equipment: simulations 234	
18	Tegular unification		243
	18.1	New equipment: network theory 243	
	18.2	Level transitions 244	
	18.3	The rooftile structure 248	
19	On the road to success: evolution towards sustainability		251
	19.1	New equipment: self-learning systems 252	
	19.2	New narrative: evolution towards intrinsic sustainability 257	
	193	Survival of the Suctainablest 261	

viii Contents

20	Participatory democracy: society directs science		267
	20.1	Support 268	
	20.2	Inclusivity 272	
	20.3	Personal message to the reader 279	
Ack	nowledg	gments, Credits, Literature, Appendices	281
Notes			283
Index			292