

Contents

Foreword	xiii
Acknowledgments	xvii
1 Who Are Today's Research Managers?	
<i>Susi Poli</i>	
Introduction	2
Structure of the Chapter	3
Setting the Context	3
Understanding Who We Are	6
Exploring Research Management in Theory and Practice	6
How Research Management Has Increased Legitimacy Inside and Outside the Community	15
Strengthening the Knowledge	18
A Field of Investigation, Roles, and Working Spaces in Research Management	18
Spotting Commonalities and Differences in Organizational Structures in Research Management	23
Widening the Perspective and Inspiring the Community	25
Research Management and the Legitimacy of the Profession—An Open Query	25
Looking at Frameworks of Professional Development and at Studies on Skills and Experiences	25
Further Issues in the Practice of Professional Development	28
Best Practices of Professional Development—Engaging RMAs With Research Into Professional Practice, Writing Articles, and Presenting at Conferences	29
Acknowledgments	29
2. The European Research Environment	
<i>Jan Andersen</i>	
Introduction	31
The European Research Landscape	32
From Framework Programme 1 to Horizon 2020	37
How to Get Horizon 2020 to Work	41

The Decision Process of a Framework Programme	49
European Research Agenda Stakeholders	55
Lobbying in Brussels	55
Acknowledgments	58

3. The Global Research Environment

Pamela F. Miller

International Contributors	60
Topic 1: What Is Your Role as a Research Manager?	60
Topic 2: How Does the Issue of Gender Impact Your Role as a Research Manager?	63
Topic 3: How Has the Research Environment in Your Country Changed Over the Last 30 Years?	64
Topic 4: Is Research Policy in Your Country Impacted by Regional Variations in History, Values, and Economy?	69
Topic 5: How Is Governmental Funding for Research Carried Out in Your Country?	71
Topic 6: What Are the Primary National Research Organizations in Your Country?	75
Topic 7: What Role Has Funding From the Private Sector Historically Played in Supporting Research Within Your Country?	77
Topic 8: What Efforts Exist (Government or Private) to Promote Cross-National Research?	78
Topic 9: What Is the Labor Market Like for Researchers in Your Country?	81
Topic 10: What Types of Programs Are Available to Prepare the Researchers of the Future?	82
Topic 11: How Is Research and Development Used as a Driver for Economic Growth and Competiveness in Your Country?	84
Conclusions	86
Acknowledgments	88

4. Organizational Structures

Susi Poli

Introduction	89
Looking at the Theory—Organizational Structures Found in the Literature	90
Dealing With Titles, Roles, and With Committees in Research Structures	91
Dealing With a Research Strategy	92
Shattock's "Small Turning Circle"	94
Looking at the Practice—Exploring Research Division in Different European Union Countries: A Sample of Case Studies	94
Looking at Further Case Studies—Connecting Theory and Practice	99
Decentralized Versus Centralized Research Services—A Case Study at the University of Bologna	99
Further Case Studies: Benchmarking Research Support Offices	102

A Report Exploring Organizational Structures in Europe and United States: Cases and Suggestions	103
Reshaping the Research Division—Case Studies of Restructuring the Research Division	105
Technical University of Denmark—Denmark	105
Tallinn University—Estonia	106
Conclusions	106
Acknowledgments	107
5. Research Strategy	
<i>Jan Andersen</i>	
Introduction	109
The Overall Framework for Developing Strategies in Research	110
History of Research and Its Role in Society	112
Current Metatrends	113
Conclusion	122
Research Strategy Context	122
Hierarchies of Research Strategies	123
What Is a Strategy	129
Conclusion	130
How to Develop a Strategy	130
Methodology	131
Setting the Framework	136
Conclusion	138
Cases of Research Strategies	139
General Remarks and Conclusion	144
Acknowledgments	145
6. Preaward—Project Preparation	
<i>Jan Andersen</i>	
Introduction	147
Project Life Cycle	148
Project Idea	150
Screening of the Idea	151
Identifying Funding Opportunities	151
Dissemination of Funding Opportunities	152
Advising and Training	153
Raising Awareness	154
Strategic Positioning	155
Nonpublic Information, Early Information, and Interpretations	157
Quantitative and Qualitative Analysis of the Funding and Organizational Participation	158
Application	159
Understanding the Call	160
Establishing the Consortium	161
Identifying Partners	163

Risk Analysis	163
Bibliometrics	164
Facilitating the Internal Approval Processes	165
Budget Support	166
Writing the Content	167
Ethics Check	168
Submission	168
Evaluation	169
Contract Negotiation	169
Consortium Agreement	170
Successful Contract	170
Project Handover	170
Rejection and Recycling of Projects	170
Conclusion	171
7. Postaward	
<i>Jan Andersen</i>	
Introduction	173
Contract Negotiation	175
Start, Duration, and Payment Installments	175
Intellectual Property Rights	176
Management	176
Consortium Agreement	177
Signature of the Contract	177
Establishing the Project	177
Project Setup	178
Kickoff Meeting	178
The Project Manager	179
Reporting	179
Financial Management	180
Ethics Management	182
Communicating Internal Procedures	182
Time Sheet Management	183
Dissemination and Communication of the Project	
Results and Outcome	184
Management of Dissemination	184
Reporting on Dissemination	185
Project Closing	186
Audit	186
Closing Remarks	186
Acknowledgments	187
8. Knowledge Exchange	
<i>Kristel Toom and Phil Clare</i>	
Technology Transfer	191
Technology Transfer Operations	193

Technology Transfer as Part of Research Management	193
Invention Disclosures	194
Market Research	195
Innovation Cycle	195
Commercialization Route—Spin-Out or License?	196
Intellectual Property	197
Patents as a Metric	201
Patent Offices and Databases	201
European Innovation Voucher Schemes	202
Technology Transfer Office—Roles and Staffing	202
Conclusion	202
Supporting Questions	203
Annex	203
Patent Offices Databases	203
Acknowledgment	203
9. Research Infrastructure	
<i>Kristel Toom and Pamela F. Miller</i>	
Research Infrastructures	205
What Is the European Strategy Forum for Research Infrastructures Roadmap?	206
Research Infrastructure in Europe 2020 Strategy	208
US Research Infrastructure	208
European Research Infrastructure Consortium	211
Funding Challenges for Research Infrastructure	212
10. Indicators	
<i>Kristel Toom</i>	
Measuring Research Funding	215
Measuring Research Publications—Bibliometrics	216
Academic Databases and Search Engines	216
Research Funding	222
Patents	223
PhD Defenses	223
Rankings	224
Academic Ranking of World Universities (Shanghai Ranking)	224
Times Higher Education World University Rankings	224
Leiden Ranking	224
U-Multirank	225
Webometrics	225
European Research Ranking	225
Benchmarking	226
Collecting Research Performance Data	226
Motivating to Collect	228
Evaluation and Assessment of Research	228
Recommendations	230

11. Dealing With Researchers and the Academic Community	
<i>Susi Poli</i>	
Introduction	231
Understanding Researchers	232
Exploring Tools and Resources for Research Support	240
Supporting Researchers Further	246
Acknowledgment	248
12. Shaping Next Generation Researchers	
<i>Kristel Toom</i>	
Introduction	249
Postgraduate Education	250
Graduate Schools	251
Supervising Doctoral Students	253
PRIDE Survey	256
Future Reading	260
Acknowledgments	261
13. Ethics and Integrity	
<i>Kristel Toom and Pamela F. Miller</i>	
Good Research Practice	264
Integrity in Research	265
Integrity of Individual Researcher	265
Integrity in Research Institutions	267
Research Ethics	268
Codes and Policies for Research Ethics	269
Ethical Decision-Making in Research	271
Examples	272
Promoting Ethical Conduct in Science	275
Ethics in the European Union Funding Schemes	276
Research Ethics in the United States	277
Financial Conflict of Interest	278
Public Health Service	278
National Science Foundation	279
Clinical Research in the European Union	280
Ethical Review	280
Open Research Data	282
Consent	283
Anonymization	284
Confidentiality	285
Intellectual Property Rights	285
Copyright	285
Licenses and Conditions of Use	286
Creating Data	286

14. Understanding Diversity, Gender Equality, and Cultures in Research Management and Administration	
<i>Susi Poli</i>	
Introduction	290
Setting the Context	291
Understanding Diversity	294
Looking at Diversity Through the Lens of Widening Participation	294
Understanding Cultures	296
Why Do We Need Intercultural Understanding?	298
Investigating the Gender Dimension in European Research	299
Looking at Tools	299
Gender Practices and Policies in Higher Education and Research Institutions	301
Functions in Higher Education Management in Relation to Gender and Research Management	303
Gender Projects Under Horizon 2020	303
Enhancing the Knowledge of Diversity and Cultures—Investing in Cross-Cultural Capability	307
Introducing Coaching Across Culture	308
The Importance of Reflecting on Everyday Practice	309
Best Practices Dealing With Cultures and Diversity in Research Management	311
Best Practices in Intercultural Communication	311
Looking at Best Practices and Case Studies	312
Gender and the Feminist Perspective: An Introduction	312
Promoting Gender Equality Through Best Practices: Training, National and Institutional Policies, and Women's Networks	313
Further Case Studies Showing Best Practices	314
Acknowledgments	317
15. Transferable Skills	
<i>Jan Andersen</i>	
Introduction	319
Between a Rock and a Hard Place	320
Being a Profession	320
Communication Skills	321
Support They Do Not Know They Need	321
Teamwork and Collaboration	323
Making Connections—Being a Broker	323
Know Your Organization	323
Diplomacy	324
Play With the Strong Sides	325
RMA as a Natural Part of the Scientific Process	325
Humor	326
Cultural and Diversity Skills	328
Adaptability and Change Management	329

Taking Initiative	329
Taking Responsibility	330
Conflict Resolution	330
Mentoring and Coaching	331
Reflections	332
Acknowledgments	332
Postscript	333
References	335
Index	343