Contents

Part I  Introduction

1  Towards Sustainable Living ..............................................  3
   Arjan van Timmeren and David V. Keyson
2  The Emergence of Living Lab Methods .................................  9
   Natalia Romero Herrera
3  Social Practices as a Main Focus in Living Lab Research ............  23
   Marco Hasselkuß, Carolin Baedeker and Christa Liedtke
4  Green Economy as a Framework for Product-Service
   Systems Development: The Role of Sustainable Living Labs ........  35
   Carolin Baedeker, Christa Liedtke and Maria Jolanta Welfens

Part II  Research Methods for Living Labs

5  Living Labs to Accelerate Innovation .................................  55
   David V. Keyson, Gregory M. Morrison, Carolin Baedeker
   and Christa Liedtke
6  Splashing: The Iterative Development of a Novel Type
   of Personal Washing ......................................................  63
   Lenneke Kuijer
7  Design with Intent and the Field of Design for Sustainable
   Behaviour .................................................................  75
   Dan Lockton
8  Architectural Research in Living Labs: Exploring Occupier
   Driven Changes in Homes ................................................  89
   Paula Femenias, Liane Thuivander, Cecilia Holmström,
   Lina Jonsdotter and Madeleine Larsson
### Part III  Sustainable Living Labs

9  **DARE2Build** .......................................................... 103  
   Shea Hagy, Peter Selberg, Larry Toups and Paula Femenias

10  **The Storyline for the Design Process that Shaped the HSB Living Lab** .................................................. 113  
    Peter Elfstrand, Gregory M. Morrison, Larry Toups and Shea Hagy

11  **Exploring the German Living Lab Research Infrastructure: Opportunities for Sustainable Products and Services** ............................. 131  
    Justus von Geibler, Carolin Baedeker, Christa Liedtke, Holger Rohn and Lorenz Erdmann

### Part IV  Living Labs and User Engagement

12  **In-Situ and Mixed-Design Interventions** ......................... 157  
    Natalia Romero Herrera

13  **Co-creation in Living Labs** ........................................ 169  
    Shea Hagy, Gregory M. Morrison and Peter Elfstrand

14  **Participatory Drawing in Ethnographic Research** ................ 179  
    Flora Bowden, Dan Lockton, Rama Gheerawo and Clare Brass

15  **Actor and Network Analysis** ...................................... 191  
    Carolin Baedeker, Marco Hasselkuß and Johannes Buhl

16  **Design Participation in Sustainable Renovation and Living** .... 205  
    Stella Boess

17  **Supporting Iterative Research and Design Explorations in the Living Lab Context** .............................................. 227  
    Tomasz Jaskiewicz, David V. Keyson and Jantien M. Doolaard

18  **Recruitment of Participants (Households in City District and Companies) for Insight Research and Prototyping** .......................... 241  
    Kamil Folta, Dan Lockton and Flora Bowden

### Part V  Sustainable Production and Consumption

19  **Analysing Social Milieus and Lifestyles—Their Contribution to a Better Understanding of Heating Practices** .......................... 249  
    Johannes Buhl, Kathrin Greiff, Carolin Baedeker and Christa Liedtke

20  **Material and Carbon Footprint of Household Activities** .......... 259  
    Kathrin Greiff, Jens Teubler, Carolin Baedeker, Christa Liedtke and Holger Rohn

21  **FoodWatch and Food Resource Flows** .............................. 277  
    Jesper Knutsson
Part VI  Case Studies on Exploring Energy Feedback and Visualisation with Users

22 Making Energy Feedback Understandable ........................................... 291
   David V. Keyson and Natalia Romero Herrera

23 Powerchord: Exploring Ambient Audio Feedback on Energy Use ........................................... 297
   Dan Lockton, Flora Bowden and Claire Matthews

24 Designing Ampul: Empowerment to Home Energy Prosumers ........... 309
   Natalia Romero Herrera, Jaap Rutten and David V. Keyson

25 Energy Feedback Objects ................................................................. 325
   Tomasz Jaskiewicz, Aadjan van der Helm and David V. Keyson


26 Relationship Between Building Technologies, Energy Performance and Occupancy in Domestic Buildings ........ 333
   Olivia Guerra-Santin

27 Influence of User-Behavior on Energy Efficiency ......................... 345
   Tanja Lovrić and Viktor Grinewitschus

Part VIII  The Way Forwards: Business Models for Living Labs

28 Concept House Village; A Next Step in the Development of Sustainable Housing in the Netherlands ............. 371
   Sacha Silvester, Bert Hooijer, Ria van Oosterhout and Floor van der Kemp

29 Commercial Consortia ................................................................. 385
   Maria Ådahl

30 Business Models for Sustainability in Living Labs ......................... 391
   Mike Burbidge, Gregory M. Morrison, Menno van Rijn, Sacha Silvester, David V. Keyson, Lali Virdee, Carolin Baedeker and Christa Liedtke

31 Reflecting on Living Labs and Future Trends ............................... 405
   David V. Keyson and Carolin Baedeker
Living Labs
Design and Assessment of Sustainable Living
Keyson, D.V.; Guerra-Santin, O.; Lockton, D. (Eds.)
2017, XI, 408 p. 117 illus., Hardcover
ISBN: 978-3-319-33526-1