List of Figures and Tables

Figures

CHAPTER 1

1.1 Industry 4.0 Concepts 3
1.2 Organisation of the ERIA Industry 4.0 for Circular Economy Assessment Framework 20
1.3 Methodology for ERIA Industry 4.0 Assessment for the Circular Economy 22

CHAPTER 3

3.1 Schematic Representation of the Determinants of Industry 4.0 Readiness 63
3.2 Circular Economy-focused Industry 4.0 Readiness Matrix 72

CHAPTER 4

4.1 ASEAN-5 Policy Readiness in Critical Pillars 124
4.2 Viet Nam and Cambodia’s Policy Readiness in Critical Pillars 124
4.3 Matching Industry 4.0 Readiness and Circularity 126

CHAPTER 5

5.1 Innovation and Institutions 150
5.2 Obstacles to the Circular Economy 150
CHAPTER 6

6.1 Hierarchical Structure of the Industry 4.0 Readiness Assessment from ICT Perspectives at the Firm and Industry/Sector Levels

CHAPTER 7

7.1 a Thailand 4.0 Scheme – Based on an innovation-driven economy

7.1 b Thailand 4.0 Scheme – With five new S-curve industries and five first S-curve industries identified

7.2 a Thailand as a Production Hub for Cars – In 2017 (12th world ranking)

7.2 b Thailand as a Production Hub for Cars – With 18 international brands

7.2 c Thailand as a Production Hub for Cars – With production hubs in the central and eastern regions

7.2 d Thailand as a Production Hub for Cars – GDP

7.3 a Thailand’s Automotive Industry – History

7.3 b Thailand’s Automotive Industry – Structure

7.4 a Status of the Manufacturing Industry in Thailand – Robotics and automation level
10.5 Login Webpage 330
10.6 Readiness Assessment of Resource Consumption Management 332
10.7 Determinant 2 – Plant and Equipment 334
10.8 Sample Questions for Area 1: Regulatory and Institutional Framework and Reforms 336
10.9 Example of Completed Results of a Firm Self-Assessment 340
10.10 Circular Economy-focused Industry 4.0 Readiness Matrix 341

Tables

CHAPTER 1

1.1 Characteristics and Enabling Factors of a Circular Economy 5
1.2 Technological Developments for Industry 4.0 and the Circular Economy 9
1.3 Comparison of Measurement Frameworks for Industry 4.0 Readiness 14
1.4 Indices for Measuring the Readiness of Industry 4.0 15
1.5 Comparison of Frameworks for Assessments of Readiness for the Circular Economy 16
1.6 Selected Indicators for Measuring Sustainability 18
1.7 Structure of the Chapters in the Book 25

CHAPTER 2

2.1 Global Manufacturing Competitiveness Index for the First 10 Countries 34