

Contents

<i>Table of Case Law</i>	xiii
<i>Table of Legislative Materials</i>	xv
<i>Abbreviations</i>	xix

I. INTRODUCTION

1. Introduction	3
1. Research Scope, Contribution, Methodology, and Book Structure	3
1.1 Research Scope and Contribution	3
1.2 Methodology	6
1.3 Book Structure	8
2. The Un(der)regulated and Accelerating Transition Towards New Modes of Digital Public Governance	10
3. Light-Touch Risk-Based Self-Regulation of Digital Technologies	15
3.1 Risk-Based Approaches to Digital Technology Regulation	15
3.2 The Emerging Model in the EU and the UK	20
4. Plugging the Regulatory Gap Through Procurement?	22
2. The Two Roles of Procurement in the Transition Towards Digital Public Governance	25
1. Introduction	25
2. Procurement, Gatekeeping, and Digital 'Regulation by Contract'	25
2.1 Trustworthiness or Responsibility	30
2.2 Explainability, Intelligibility, or Interpretability	32
2.3 Transparency	33
2.4 AI Minimization	35
2.5 Technological Neutrality, Openness, and Interoperability	37
2.6 Cybersecurity	38
2.7 Recapitulation	38
3. Procurement Digitalization as a Case Study of Experimentation with Digital 'Regulation by Contract'	40

II. REGULATING PUBLIC SECTOR
DIGITALIZATION BY CONTRACT

3. Regulating Public and Private Interactions Through Procurement	45
1. Introduction	45
2. Mapping the Logic of Public and Private Interactions in the Procurement of Digital Technologies	49
2.1 Public-Private Market Interactions, and the ‘Weak Public Buyer’ Problem	54
2.1.1 Public-private market interactions	54
2.1.2 The ‘weak public buyer’ problem	57
2.2 Public-Public Interactions, Capture, and Procurement’s Institutional Embeddedness	59
2.2.1 Public-public interactions	59
2.2.2 The adopting public sector entity as a potentially captured principal	61
2.2.3 Procurement’s institutional embeddedness	63
2.3 Decentred Interactions	65
3. Overlaid Agency and Gatekeeping Duties: Two-Sided Gatekeeping?	68
4. Bringing the Procurement of Digital Technologies Back to an Agency Logic	70
4. Procurement Tools for Digital ‘Regulation by Contract’	73
1. Introduction	73
2. Tender Preparation and Design	78
2.1 Preliminary Market Consultations	79
2.2 Choice of Procedure	81
2.3 Exclusivity Claims	83
3. Tender Execution	85
3.1 Tenderer Selection	86
3.2 Tender Evaluation	90
3.2.1 Technical specifications and minimum technical requirements	90
3.2.2 Award criteria	94
4. Contract Design and Implementation	97
5. Conclusion	99
5. Discharging Procurement of the Digital Regulation Role	103
1. Introduction	103
2. Creating External Oversight: A Notional ‘AI in the Public Sector Authority’	106
2.1 AIPSA as a Way to Avoid Regulatory Fragmentation	110
2.2 AIPSA as a Way to Promote the Public Interest	110
2.3 AIPSA as a Way to Boost Public Sector Digital Capability	112
3. Mandatory Requirements for Public Sector Digitalization	113
3.1 Standards Tailored to Public Sector Digitalization	114
3.2 Governance Requirements for Public Sector Digitalization	116
4. Discharging Procurement of the Digital Regulation Role	119

III. EXPERIMENTING WITH PUBLIC SECTOR DIGITALIZATION

6. The Technological Promise of Digital Governance: Procurement as a Case Study of 'Policy Irresistibility'	123
1. The Promise of Digital Procurement Transformation	123
1.1 Digital Procurement Governance as Transformation	126
1.2 Exploring the Governance Risks of Seeking Transformation	128
2. Procurement Governance: Goals and Challenges	129
2.1 Information Intensity and Complexity as Key Governance Challenges	129
2.2 A 'Tech Fix' for Information-Related Governance Challenges?	132
3. Digital Technologies and Procurement Information Intensity	133
3.1 Automation of Information Retrieval, Cross-Checking, and Exchange	134
3.2 Information Verification and Integrity	136
4. Digital Technologies and Procurement Information Complexity	138
5. Factors Contributing to Hype and Policy Irresistibility	140
5.1 Multi-Level Procurement Governance	142
5.2 Innovative Procurement (of Innovation)	142
5.3 The Public Sector Digital Capability Gap	143
6. Conclusion	145
7. Revisiting the Promise: A Feasibility Boundary for Digital Procurement Governance	149
1. Understanding Digital Technologies in the Procurement Governance Context	149
2. Robotic Process Automation (RPA)	151
3. Machine Learning Implementations	154
3.1 Recommender Systems	158
3.2 Chatbots	161
3.3 Automated Screens (or Red Flags)	164
3.3.1 Levels of ambition (and complexity) in the use of red flags	165
3.3.2 Breadth and depth of the data underpinning the red flags	167
4. Distributed Ledger Technology Systems and Smart Contracts	168
4.1 Distributed Ledger Technology Systems	168
4.2 Smart Contracts	173
5. Internet of Things and Oracles	175
6. The Crucial Relevance of (Big) Data, and the Difficulties in Generating It	176
6.1 (Open) Procurement (Big) Data	177
6.2 Other (Big) Data Required to Extract Advanced Insights	182
6.3 Recapitulation of Data Issues	183
7. The Crucial Relevance of Data and Systems Integrity: A Displacement of Governance Risks?	184
8. A Feasibility Boundary for Digital Procurement Governance	185

8. Identifying Emerging Risks in Digital Procurement Governance	191
1. Introduction	191
2. Data and Technology Risks in Digital Procurement Governance	192
2.1 Data Governance Risks	192
2.1.1 (Potentially) open data	194
2.1.2 Data subject to the rights of others	198
2.1.3 Balancing data governance risks	201
2.2 Technological Dependency Risks	203
2.2.1 Algorithmic transparency, technological lock-in, and technical debt: open source by default?	203
2.2.2 Technological dependency and skills base erosion	207
3. System Integrity Risks: Cybersecurity and Procurement Governance	209
4. ‘Future-Proofing’ Procurement Governance: The Need for Skills, and Their Continuity	214
5. Difficult Trade-Offs and the Risks of Deploying Immature Technologies	218
6. Embedding Risk Assessment to Avoid Governance Pitfalls	219
9. Governing the Assessment and Taking of Risks in Digital Procurement Governance	223
1. Introduction	223
2. Emerging European Approaches: Voluntary Assessment and Largely Unconstrained Risk-Taking	225
2.1 Governance of Procurement Digitalization in the EU	225
2.2 Governance of Procurement Digitalization in the UK	229
2.2.1 AI adoption, digital procurement guidance, and spend controls	231
2.2.1.1 AI adoption guidance	231
2.2.1.2 AI procurement guidelines	231
2.2.1.3 Technology and digital spend approval	232
2.2.2 Algorithmic transparency standard	235
2.2.3 Recapitulation	237
3. The Need for Strengthened Digital Procurement Governance	238
3.1 Self-Regulation: Outsourcing Impact Assessment Regulation to the Private Sector	239
3.2 Self-Assessment: Inadequacy of Mechanisms for Contestability and Accountability	242
4. Conclusion	245

IV. CONCLUSION

10. Conclusion	249
<i>Bibliography</i>	255
<i>Index</i>	289

Table of Case Law

EUROPEAN UNION

<i>ANTEA POLSKA and Others</i> [2022] ECLI:EU:C:2022:888.	95n.119, 180n.122, 195n.24
<i>Commission v Netherlands (Max Havelaar)</i> [2012] ECLI:EU:C:2012:284.	89n.85
<i>Delta</i> [2019] ECLI:C:2019:826	87n.69
<i>EVN and Wienstrom</i> [2003] ECLI:EU:C:2003:651	92n.96
<i>Forposta and ABC Direct Contact</i> [2012] ECLI:EU:C:2012:801	87n.68
<i>Informatikgesellschaft für Software-Entwicklung</i> [2020] ECLI:EU:C:2020:395	204n.87
<i>Klaipėdos regiono atliekų tvarkymo centras</i> [2021] EU:C:2021:700	97n.131, 97n.134
<i>Luxembourg Business Registers</i> [2022] ECLI:EU:C:2022:912	202n.74
<i>Montte</i> [2018] ECLI:EU:C:2018:752	91n.92
<i>NV Construct</i> [2023] ECLI:EU:C:2023:47	86n.66, 88n.79, 97n.131
<i>Pizzo</i> [2016] ECLI:EU:C:2016:404	86n.66
<i>Roche Lietuva</i> [2018] ECLI:EU:C:2018:865	93n.109
<i>SIAC Construction</i> [2001] ECLI:EU:C:2001:553	94n.117, 94n.118
<i>VAR and ATM</i> [2018] ECLI:EU:C:2018:568	92n.97