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Advance Praise for The Cambridge Handbook of Public-Private Partnerships, Intellectual Property Governance, and Sustainable Development

"At a time in which prospects for normative and technical assistance initiatives to address access to public goods have been overwhelmed by new challenges arising from globalization, digitization, and the failure of multilateralism, this book offers a careful study of public-private partnerships (PPPs) in a variety of sectors, using case studies that offer guidance to policymakers, raise new questions for scholars, and, collectively, outline the contours of new pathways in the design and governance of PPPs, with a distinctive path to advancing access to knowledge and access to technology. The book is a should have — and a must read."

Ruth Okediji, Harvard Law School and the Berkman Klein Center

"We cannot realistically approach attainment of the Sustainable Development Goals (SDGs) without transformative innovation in public health, energy, and agriculture, and without effective and equitable dissemination of the fruits of this innovation. The SDGs recognize the vital contribution of innovation and of partnership between public and private actors for sustainable development: indeed, the SDGs in a sense epitomise the pressing need for public-private partnership on a grand scale. At another level, each intellectual property (IP) right can be construed in itself as a kind of public-private partnership, devised in principle to harness private capacities and resources to deliver welfare-enhancing public goods. This timely publication explores the complex linkages between the broad policy context defined by the SDGs, and the concrete task of using the intellectual property system to forge practical partnerships that yield tangible results, examined through the lens of how intellectual property rights are managed within a diverse selection of public-private partnerships. In distilling practical and policy insights from this rich vein of experience, and analysing equally diverse approaches to managing intellectual property rights to leverage public benefit, this landmark volume opens up possibilities for a more nuanced, more grounded, and more enabling understanding for policymakers of the complex roles and potential contributions of the intellectual property system in efforts to achieve the SDGs; and it equally provides direct guidance for those engaged in the practical planning and management of knowledge-based programmes for sustainable development. In illuminating and documenting the linkages between the wider policy context and actual programme design and delivery, it marks a substantial advance towards the informed and empirically grounded inquiry that is sorely needed if we are to ensure that the intellectual property system fulfils its potential contribution to the SDGs."

> Antony Taubman, World Trade Organization

"This timely book covers a very important trio of topics, and is a 'must-read' for anyone interested in current issues relating to intellectual property and its broader social and developmental goals."

Edward Kwakwa, World Intellectual Property Organization

"The twenty first century will be increasingly driven by the globalization of knowledge goods. How should intellectual property be governed in public–private partnerships if they are to comply with sustainable development goals? This impressive collection brings together concrete experiences to draw lessons for future directions in global governance of knowledge."

Sakiko Fukuda-Parr, The New School

"This book makes a long overdue contribution to the understanding of public-private partnerships (PPPs) and their role in global knowledge governance. PPPs are often found on the intersection of private intellectual property and public interest. Their variety is as plentiful as the views expressed in this book which makes it a must read for anyone interested in the question of whether PPPs address intellectual property and development challenges effectively or worsen them."

Ellen 't Hoen, Medicines Law & Policy and Global Health Unit, University Medical Centre Groningen



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THE CAMBRIDGE HANDBOOK OF PUBLIC-PRIVATE PARTNERSHIPS, INTELLECTUAL PROPERTY GOVERNANCE, AND SUSTAINABLE DEVELOPMENT

Public—private partnerships (PPPs) play an increasingly prominent role in addressing global development challenges. United Nations agencies and other organizations are relying on PPPs to improve global health, facilitate access to scientific information, and encourage the diffusion of climate change technologies. For this reason, the 2030 Agenda for Sustainable Development highlights their centrality in the implementation of the Sustainable Development Goals (SDGs). At the same time, the intellectual property dimensions and implications of these efforts remain under-examined. Through selective case studies, this illuminating work contributes to a better understanding of the relationships between PPPs and intellectual property considered within a global knowledge governance framework that includes innovation, capacity-building, technological learning, and diffusion. Linking global governance of knowledge via intellectual property to the SDGs, this is the first book to chart the activities of PPPs at this important nexus.

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The Cambridge Handbook of Public-Private Partnerships, Intellectual Property Governance, and Sustainable Development

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life cycle, including biobanking, clinical research pathways, and market access, with the aim to promote access to safe, effective, and affordable therapies, including personalized treatments.

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Foreword

The book I am pleased to introduce is the first in-depth consideration of the connections between intellectual property (IP) and public—private partnerships (PPPs), which have become an important feature of the global development landscape. The Sustainable Development Goals (SDGs) affirm the unique role of partnerships in the implementation of the 2030 Agenda for Sustainable Development adopted by members of the United Nations in September 2015. In particular, SDG 17 addresses partnerships to achieve the aims of the other SDGs, under the assumption that PPPs have great potential as a means of implementation to contribute to many areas of sustainable development. Nonetheless, despite their growing importance in global governance for sustainable development, PPPs remain under-examined, under-evaluated, and under-researched.

The United Nations' experience with partnerships was acknowledged and endorsed by the Millennium Development Goals (MDGs), in effect from 2000 to 2015, and gained prominence as well from work undertaken in connection with the 2002 World Summit on Sustainable Development. Since then, the role of the private sector in development-oriented activities has expanded enormously. But it is only more recently that IP issues have taken prominence in the PPP discourse. In this context, this book is a pioneering attempt to have a closer look at PPPs and IP operating in different development domains, including public health, education, information and communication technologies (ICTs), agriculture, and climate change.

The book's primary goal is to contribute toward a better understanding of the diversity of partnerships operating at the juncture of IP and sustainable development, and to build a larger picture of their knowledge governance activities through case studies and analysis. In this regard, it examines innovation activities across a variety of development fields, assesses the current landscape of illustrative PPPs, and suggests possible directions for future policy and research. As explored by different experts in this book, various benefits and costs of partnership-driven knowledge governance strategies can already be perceived. The book's final section contains perspectives on institutional design and global knowledge governance. Situated within a larger knowledge governance framework, its concluding chapter synthesizes findings regarding whether and how PPPs encourage innovation, build innovation capacity, engage in technology sharing, or otherwise ensure wide dissemination and diffusion of innovation results across borders toward the advancement of the SDGs.

Taken together, the contributions to this book discern many significant practical, policy, and conceptual dimensions of the relationship between IP, PPPs, and the SDGs. It is deliberately designed to consider and better understand different perspectives,

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whether generally supportive or critical, of the nexus between these areas. With this view in mind it brings together authors from different backgrounds, representing a mixture of views on the issues at hand.

The contents of this book build on the initiative taken by the International Centre for Trade and Sustainable Development (ICTSD), in collaboration with Seattle University School of Law, to convene in 2013 and 2016 two dialogues with experts and practitioners to explore emerging issues at the interface of PPPs, knowledge governance, and sustainable development. The initiative is also in line with ongoing work by ICTSD to explore the contributions that both trade and trade policy could make to key objectives of the 2030 Agenda for Sustainable Development.

The collaboration between ICTSD, Seattle University School of Law, and the authors in this volume builds on our long-standing efforts to help achieve progress in various international processes and frameworks at the intersection of trade, IP, and sustainable development. ICTSD has been actively engaged in these areas since its establishment more than twenty years ago. We continue to pursue concrete responses to the challenges and opportunities posed by rapidly advancing technologies and emerging global policy frameworks, through multi-stakeholder dialogues and targeted policy-oriented research.

The backdrop to ICTSD's work in this area is the conviction that, in a knowledgedriven global economy, a better understanding of IP-related issues is the key to guaranteeing informed policymaking in virtually all areas of development. This is particularly important in an area as underresearched as PPPs. The editorial focus of the book has been on ensuring that international processes take into account a diversity of perspectives and strive toward designing appropriate policies and norms that are supportive of sustainable development objectives and international commitments.

We hope that you find this publication to be a useful contribution – in the well-established tradition of ICTSD – to building bridges between different stakeholders and to advancing mutually acceptable solutions to complex issues.

Ricardo Meléndez-Ortiz Chief Executive Officer, International Centre for Trade and Sustainable Development (ICTSD)



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This project would not have been possible without crucial support and input. Two events stand out. In July 2013, the International Centre for Trade and Sustainable Development (ICTSD), together with Seattle University School of Law, cosponsored a Dialogue on Public-Private Partnerships in Intellectual Property Governance, where early discussions of this topic took place among various representatives of public–private partnerships (PPPs), foundations, United Nations agencies, and delegates. In a second workshop held in July 2016, Public-Private Partnerships, Global Intellectual Property Governance, and Sustainable Development, many of the book's contributors discussed the specific impacts PPPs could have on the promotion of the United Nations Sustainable Development Goals (SDGs). These two dialogues not only shaped the major themes and particular case studies contained in this book but also advanced the sharing of knowledge about this emerging yet underanalyzed area more generally. Both events were undertaken jointly with ICTSD's Programme on Innovation, Technology and Intellectual Property and supported capably by numerous ICTSD staff members. In addition, Fabrice Lehmann, Emily Bloom, Jimena Sotelo, and Colette Holden were instrumental in making sure that all the important and minute details of book production were completed.

At Seattle University School of Law, we were fortunate to be able to rely on the expert administrative support of Nora Santos, as well as research assistance and cite-checking by law students Mio Asami, Natasha Khanna, Jeanna McClellan, and Lauren Sewell. Reference librarians Kerry Fitz-Gerald and LeighAnne Thompson provided much-needed assistance when needed. Dean Annette Clark and other senior administrative and faculty colleagues provided an environment strongly conducive to sustained research and scholarship.

The book's contents are the culmination of many other dialogues with supporters too numerous to thank individually but whose genuine interest and generous input have been critical over the last several years. In Seattle, which has become a hub for nonprofit involvement in biomedical research and development, conversations between Margaret Chon and Curt Malloy (then at Infectious Disease Research Institute) about the ways in which intellectual property law can impact global health via PPPs sparked an initial interest in exploring this complex area further. A subsequent residence by Chon as a senior fellow at the Jean Monnet Center for International and Regional Economic Law and Justice at New York University in 2011–2012 provided timely incubation for the concepts and theories underlying the nexus of PPPs, knowledge governance, and sustainable development. During that period, many kind colleagues at NYU and elsewhere shared their thoughts about the project. Since then, various international conferences

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supplied additional opportunities for exploring this intersection, including those sponsored by the Congress of the Association for the Teaching and Research of Intellectual Property, the International Intellectual Property Roundtable, and the Global Congress on Intellectual Property and the Public Interest. At one of these Global Congresses, Chon and Ahmed Abdel-Latif (then at ICTSD) concurred that this topic of growing importance merited further inquiry and ultimately pursued this book project together with Pedro Roffe, who has a long and distinguished track record of work and advocacy at the intersection of intellectual property, trade, and development. The book project benefited from the encouragement and support of ICTSD's senior management team, in particular, Chief Executive Ricardo Meléndez-Ortiz as well as Managing Directors Andrew Crosby and Deborah Vorhies. Our editor at Cambridge University Press, Matt Gallaway, was immediately supportive as well.

It has been an honor and pleasure for the three editors (Chon, Roffe, and Abdel-Latif) to work with the various contributors to this book. Together, these authors have created a substantial collective body of work that advances knowledge in an area that has not been well understood and that bears far greater exploration than has been undertaken to date. Their diligence, expertise, and intellectual and personal generosity – not to mention patience – has resulted in the substantive chapters contained here, which are the primary rewards for their editors (and hopefully also for their readers). Many thanks are due to all who supported this project, but mostly to these expert contributors.



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2030 Agenda United Nations 2030 Agenda for Sustainable Development

AAAA Addis Ababa Action Agenda

AAP American Association of Publishers
ABC [WIPO] Accessible Books Consortium

Agenda 21 a nonbinding, voluntarily implemented action plan for sustainable

development, adopted by more than 178 governments at the United Nations Conference on Environment and Development

held in Rio de Janeiro in 1992

AIPPI International Association for the Protection of Intellectual Property

ALAI Association Littéraire et Artistique Internationale

AMR antimicrobial resistance

ANDI African Network for Drugs and Diagnostic Innovation

AO appellation of origin

APCs advance purchase commitments
API Angola Partnership Initiative

ARDI Access to Research for Development and Innovation

BIO Biotechnology Innovation Organization
BVGH BIO Ventures for Global Health

CARB-X Combating Antibiotic Resistant Bacteria Biopharmaceutical

Accelerator

CASP Core Agriculture Support Program CDA confidential disclosure agreement

CERC US-China Clean Energy Research Center

CEWG [WHO] Consultative Expert Working Group on Research and

Development: Financing and Coordination

CGIAR Consultative Group of International Agricultural Research Centers

CIC Committee on Institutional Cooperation

CIPIH [WHO] Commission on Intellectual Property Rights, Innovation

and Public Health

COP [UNFCCC] Conference of the Parties

CPC Centre Pasteur du Cameroun CRADA cooperative R&D agreement

CRMS Copyright Review Management System

CSR corporate social responsibility

CTCN [UNFCCC] Climate Technology Centre and Network

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CTR clinical trials regulation

DfID Department for International Development
DNDi Drugs for Neglected Diseases Initiative

DTA data transfer agreement

EML [WHO] Essential Medicines List EST environmentally sound technology

EU European Union

FAO Food and Agriculture Organization

FDI foreign direct investment

FIND Foundation for Innovative New Diagnostics

FIT funds-in-trust FTA fair trade agreement

GAVI Alliance (previously Global Alliance for Vaccines

and Immunisations)

GCF Green Climate Fund GEF Global Environment Facility

GFATM Global Fund to Fight AIDS, Tuberculosis and Malaria

GHIT Global Health Innovative Technology Fund

GIs geographical indications
GPS global positioning satellite

GSK GlaxoSmithKline

GSPD Global Sustainability Partnerships Database

GSPOA [WHO] Global Strategy and Plan of Action on Public Health,

Innovation and Intellectual Property

HCV hepatitis C virus

HDL HathiTrust Digital Library

HHS [US] Department of Health and Human Services
HINARI Health InterNetwork Access to Research Information

HIV human immunodeficiency virus
IAVI International AIDS Vaccines Initiative

ICCPR International Covenant on Civil and Political Rights

ICESCR International Covenant on Economic, Social and Cultural Rights

ICI International Cooperative Initiative
ILO International Labour Organization
IMI Innovative Medicines Initiative

INAO Institut National de l'Origine et de la Qualité (previously Institut

National des Appellations d'Origine)

INBio Instituto Nacional de Biodiversidad INGO intergovernmental organization

IP intellectual property

IPCC Intergovernmental Panel on Climate Change IPOS Intellectual Property Office of Singapore

IPR intellectual property right
JTI joint technology initiative
KPI key performance indicator

L&E limitations and exception to copyright LAMP loop-mediated isothermal amplification



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LDCs least developed countries

LMIC low- and middle-income country

Marrakesh Treaty Marrakesh Treaty to Facilitate Access to Published Works for

Persons Who Are Blind, Visually Impaired or Otherwise Print

Disabled (also known as the VIP Treaty)

MDG Millennium Development Goal
MEA multilateral environmental agreement

MI mission innovation

MMV Medicines for Malaria Venture MOU memorandum of understanding

MPP Medicines Patent Pool

MSF Médecins Sans Frontières (also known as Doctors without Borders)

MTA material transfer agreement NCD noncommunicable disease NCE new chemical entity

NGO nongovernmental organization
NIH National Institutes of Health
NII National Institute of Immunology

NINA noninstrumented nucleic acid amplification
NMIMR Noguchi Memorial Institute for Medical Research

NPO nonprofit organization

NREL National Renewable Energy Laboratory

NTDs neglected tropical diseases

Open AIR Open African Innovation Research

OSF Open Society Foundations P3s4HR PPPs for Human Rights

PACE United States–India Partnership to Advance Clean Energy

PDO protected denomination of origin PDP product development partnership PGI protected geographical indication

POC proof of concept

POINT Pool for Open Innovation against Neglected Tropical Diseases

PPP public-private partnership
PRND poverty-related neglected disease
R&D research and development
RMI rights management information

ROI return on investment

SALB South African Library for the Blind SARS severe acute respiratory syndrome

SCCR [WIPO] Standing Committee on Copyright and Related Rights

SDG Sustainable Development Goal SME small- and medium-sized enterprise

STEM science, technology, engineering, and mathematics

STM scientific, technical, and medical

TB tuberculosis

TB Alliance Global Alliance for TB Drug Development TEC [UNFCCC] Technology Executive Committee



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TFM technology facilitation mechanism

TIGAR Trusted Intermediary Global Accessible Resources

TM Technology Mechanism
TMP technology management plan
TNC transnational corporation

TPM technological protection measure

TPP Trans-Pacific Partnership

TRIPS Agreement on Trade-Related Aspects of Intellectual Property

(Annex 1C of the Marrakesh Agreement Establishing the World

Trade Organization)

UCSD University of California, San Diego UDHR Universal Declaration of Human Rights

UML University of Michigan Library

UN United Nations

UNCED United Nations Conference on Environment and Development

(also known as the Earth Summit or the Rio Summit)

UNCSD United Nations Commission on Sustainable Development

UNDP United Nations Development Programme
UNEP United Nations Environment Programme

UNFCCC United Nations Framework Convention on Climate Change

UNOP United Nations Office for Partnerships

USAID United States Agency for International Development

USPTO United States Patent and Trademark Office

VIPs people who are blind, visually impaired, or otherwise print-disabled

WBU World Blind Union
WCT WIPO Copyright Treaty

WEMA Water Efficient Maize for Africa

WHA World Health Assembly
WHO World Health Organization

WIPO World Intellectual Property Organization WSSD World Summit on Sustainable Development

WTO World Trade Organization