



GRIPS Symposium

Accelerating Global Impact: Disruptive Inclusive Innovation to Advance Sustainable Development Goals

DATE: Friday February 15, 2019 13:00-18:00 VENUE: Soukairou Hall, GRIPS

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The purpose of this conference is to explore policies and business models that can accelerate the global impact of disruptive inclusive innovations to speed attainment of Sustainable Development Goals. We will address such questions as how can governments sharpen policies, how can large corporations improve their impact, and how can entrepreneurs and venture companies be supported to gain full advantage of their creativity and risk taking culture.



**Dr. R A
Mashelkar**

National
Research
Professor, India
**2018 TWAS-
Lenovo Prize**



**Dr. Joanna
Chataway**

Professor,
University
College London

Date

Feb 15, 2019 13:00-18:00

Venue

GRIPS Sokairo Hall

(<http://www.grips.ac.jp/en/about/access/>)

Organizer : GRIPS / SciREX Center
Sponsor: World Bank / Nikkei Asian Review
Supporter: GHIPP
Language : English and Japanese
(Simultaneous interpretation will be provided)
Registration fee : Free

Registration

<https://krs.bz/scirex/m?f=224>



Time	Program
13:00-13:10	Opening Remarks: Dr. Akihiko Tanaka, President of GRIPS
13:10-13:15	Introduction: Dr. Michiko Iizuka, Professor of GRIPS
13:15-13:45	[Keynote Speech I] “What is Inclusive Innovation and why now” Dr. Joanna Chataway, Professor, University College London
13:45-14:15	[Keynote Speech II] “More from Less for More; More products and services, from Less resources, for More people ” Dr. Raghunath Anant Mashelkar, National Research Professor; former Director General of the Council for Industrial and Scientific Research, India
14:15-15:45	[Panel Discussion I] “To Create New Value and Big Impact through the Inclusive Innovation” [Moderator] - Dr. Michiko Iizuka, Professor of GRIPS - Dr. Gerald Hane, Research Fellow and Lecturer of GRIPS / Hitachi, Ltd. [Panelists] - Dr. Joanna Chataway - Dr. Raghunath Anant Mashelkar - Dr. Alfred Watkins, Chairman at Global Solutions Summit, USA - Mr. Victor Mulas, ICT Policy Specialist, World Bank - Dr. Ca Tran Ngoc, Senior Fellow of the National Institute for S&T Policy, Vietnam Institute for Science, Technology and Innovation
15:45-16:00	Coffee Break
16:00-16:20	[Keynote Speech III] “Strategic Plan toward Society 5.0” Mr. Koichi Akaishi Director General for Science Technology and Innovation, Atomic Energy Policy, Cabinet Office, Japan
16:20-17:50	[Panel Discussion II] “New Innovation Ecosystem drawn by Social Challenges” [Moderator] - Dr. Atsushi Sunami, Vice President of GRIPS - Dr. Michiko Iizuka, Professor of GRIPS [Panelists] - Mr. Koichi Akaishi - Mr. Masaaki Nishijo, Director, University – Industry Cooperation and Reginal Division, S &T Policy Bureau, MEXT - Mr. Keisuke Sasaki, Director, Industry Creation Policy Division, Economic and Industrial Policy Bureau, METI - Mr. Itsu Adachi, Director of Planning and Coordination Division and Office for Peacebuilding and Reconstruction Infrastructure and Peacebuilding Department, JICA - Mr. Takashi Yoshimura, Director of Industrial Technology Bureau, Keidanren - Mr. Makoto Nakamura, Founder of Startup Café KOZA
17:50-18:00	Closing Dr. Atsushi Sunami
18:10-	Networking Toast Md. Kiyoshi Kurokawa, Professor Emeritus, GRIPS/Chairman, HGPI

Concepts used in our discussion

What is disruptive inclusive innovation? For this symposium we have gathered people working in diverse sectors from different approaches. To facilitate discussion, we offer some working definitions.

In this symposium, we define disruptive inclusive innovation as innovation that is accessible to all economic level of society and generates a large, cross-border impact on societies through effective application of emerging technologies and business models to solve societal problems. Broad diffusion of inclusive innovation as described above would transform existing social systems.

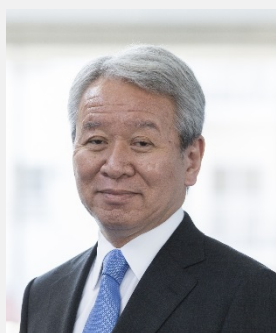
Innovation: “a new or improved product or process (or combination thereof) that differs significantly from the unit’s previous products or processes and that has been made available to potential users (product) or brought into use by the unit (process)” (Oslo Manual 2018).

- **Inclusive innovation:** innovation that is accessible to all levels of society.
- **Disruptive innovation:** refers to innovations that have potential for transforming the way things are done via application of emerging technologies (i.e digital, 3D printers, robotics) and business models.
- **Frugal innovation:** innovation that enables people to have an access to new products or services with a particular emphasis on low cost in development, production and outcome.
- **Social innovation:** innovation that addresses societal problems but is not necessarily targeting excluded populations nor developing countries.
- **BOP (Bottom/Base of the Pyramid):** the market of the approximately 2.7 billion people earning less than US\$ 2.5 per day.
- **Inclusive business:** business that provides products and services accessible to all levels of society. It does not refer to innovation; however, often it involves certain kind of innovation as well as use of emerging technologies.

The purpose of this symposium as well as workshop is to collect the different perspectives from a diverse set of actors in the innovation ecosystem on successful and promising models of disruptive inclusive innovation as well as the challenges in policy and business to be overcome. More fully realizing the potential of globally distributed sources of cross-border, high impact, innovation accessible to all levels of society will facilitate the societal transformation towards a sustainable society.

登壇者紹介 -SPEAKERS' PROFILES-

田中 明彦 / Dr. Akihiko Tanaka



政策研究大学院大学学長。

1981年マサチューセッツ工科大学Ph.D.（政治学）。1984年東京大学教養学部助教授、1990年東京大学東洋文化研究所助教授、1998年東京大学東洋文化研究所教授、2000年東京大学大学院情報学環教授、2002年東京大学東洋文化研究所所長、2009年東京大学理事・副学長、2011年同副学長、2012年-2015年国際協力機構（JICA）理事長、2015年東京大学東洋文化研究所教授、2017年4月より現職。専門分野は国際政治理論、開発協力、アジアの国際政治、日本外交。2012年に紫綬褒章受章。

President of the National Graduate Institute for Policy Studies (GRIPS). Before assuming the current position, he had been Professor of International Politics at the Institute for Advanced Studies on Asia, The University of Tokyo, for many years. He served as President of Japan International Cooperation Agency (JICA) from April, 2012 to September, 2015. Mr. Tanaka was also Executive Vice President of The University of Tokyo (2009-2011). He obtained his bachelor's degree in International Relations at the University of Tokyo in 1977 and Ph.D. in Political Science at the Massachusetts Institute of Technology in 1981. He received the Medal with Purple Ribbon in 2012 for his academic achievements.

角南 篤 / Dr. Atsushi Sunami



公益財団法人笹川平和財団常務理事。海洋政策研究所所長。文部科学省 科学技術・学術審議会委員、内閣府総合科学技術・イノベーション会議基本計画専門調査会委員等。政策研究大学院大学副学長・客員教授。コロンビア大学国際関係・行政大学院Reader、国際関係学修士。2001年コロンビア大学政治学博士号（Ph.D.）。2001年独立行政法人経済産業研究所フェロー、2014年政策研究大学院大学教授、学長補佐、2015年内閣府参与（科学技術・イノベーション政策担当）を経て現職。

Dr. Sunami holds BSFS from Georgetown University, MIA and PhD in Political Science from Columbia University. He is serving as President, the Ocean Policy Research Institute of the Sasakawa Peace Foundation and Professor/Vice President at GRIPS.

He was a Fellow at Research Institute of Economy, Trade and Industry, the Ministry of Economy, Trade and Industry, Japan (2001-2003). He was a visiting researcher at Science Policy Research Unit, University of Sussex, and Tsinghua University, China. He was Special Advisor, Cabinet Office responsible for Science and Technology and Innovation (2015-2018). He is also a members of the Advisory Board for the Promotion of Science and Technology Diplomacy in Ministry of Foreign Affairs of Japan.

ジェラルド・羽根 / Dr. Greald Hane



日立製作所グローバルオペレーションカウンセラー。政策研究大学院大学院 非常勤講師。ハーバード大学で政治経済学および政治学専攻。スタンフォード大学機械工学修士。1992年米国下院の科学、宇宙および技術に関する委員会の専門職員、1995年米国政府のホワイトハウス科学技術政策局にて国際戦略及び総務責任者かつ国家安全保障理事会理事を務める。2008年までBattelle Memorial Instituteと三菱商事の合弁会社であるBattelle-Japanの社長兼CEOを務め、現職。

Global Operations Counselor at Hitachi Ltd. Lecturer of GRIPS. Prior to Hitachi, Dr. Hane was the President and CEO of Battelle-Japan, a joint venture of the Battelle Memorial Institute and Mitsubishi Corporation. The mission of this joint venture was to create innovation and commercialization partnerships across the Asian markets. Between 2001 and 2009, Dr. Hane was a consultant on innovation management and policy as well as cross-border venture investment and partnership between the US, Japan and China. Between 1995 and 2001, Dr. Hane was with the White House Office of Science and Technology Policy of the U.S. Government, serving as head of International Strategy and Affairs, and with a concurrent position as Director within the National Security Council. Dr. Hane received his Ph.D. in Political Economy and Government from Harvard University where he studied innovation policy, and his M.S. and B.S. from Stanford University in Mechanical Engineering.

飯塚 倫子 / Dr. Michiko Iizuka



政策研究大学院大学教授。英国サセックス大学の科学政策研究ユニット（SPRU）アソシエイトフェロー及びオランダ国連大学マーストリヒト技術革新・経済社会研究所（UNU-MERIT）のアフィリエイトフェローを兼任。専門分野は、発展途上国や新興国における持続可能な発展促進、自然資源、農業分野における開発及びイノベーション政策。英国サセックス大学科学政策研究所（SPRU）DPhil（科学技術政策）、同大学開発学研究所（IDS）MPhil（科学技術）、ロンドン大学インペリアルカレッジ博士号（環境管理）。1997年国連ラテンアメリカ・カリブ経済環境委員会にて環境担当官、2008年国連大学マーストリヒト技術革新・経済社会研究所にて研究員などを歴任。

Professor at GRIPS. Affiliated fellow at United Nations University Maastricht Economic and social Research and training center for Innovation and Technology (UNU-MERIT) and associated fellow at the Science Policy Research Unit (SPRU) at University of Sussex.

She holds a DPhil in Science and Technology Policy from Science Policy Research Unit (SPRU) and an MPhil in Development Studies from the Institute of Development Studies (IDS) at University of Sussex, and a Post Graduate Diploma on Environment Management from the Imperial College, University of London. Currently she is working on a project, disruptive and inclusive innovation for achieving SDGs focusing on role of Science, Technology and Innovation (STI) with World Bank.

Dr. Joanna Chataway



ロンドン大学 科学技術工学公共政策学部長・教授。

科学技術工学公共政策学部(STEaPP)では、学術研究と公共政策の新しい知識基盤を構築することを目指し、多様なバックグラウンドを持つ研究者や専門家のチームを率いる。英国サセックス大学SPRU副理事長及び科学技術政策教授、RAND Europeのイノベーション・健康・科学チームの研究グループ長等を歴任し、現職に至る。

Professor, Head of Department for the Department of Science, Technology, Engineering and Public Policy (STEaPP), University College London.

She is in charge of creating new intelligent base of academic research and public policy interface. She works with an exciting and diverse group of academic and policy researchers and a very talented professional services support team. Previously, she was a Deputy Director and Professor of Science and Technology Policy at SPRU, University of Sussex and a Research Group Director of the Innovation, Health and Science team at RAND Europe.

Dr. R.A.Mashelkar



インド国家研究教授。科学産業研究評議会（CSIR）局長。Reliance Innovation Council、KPIT Technologies Innovation Council、Marico基金の運営委員会の議長等を務める。その他、Microsoftの外部調査諮問委員会、VTT（フィンランド）の諮問委員会、ミシュランの企業革新委員会等の委員。TatasからRelianceなど、インドの大手企業の取締役を務める。

ロンドン、プレトリア、デリーなど世界中の39の大学名誉博士号を持つ。1998年には世界最先端の科学者を表彰する英国王立協会最優秀フェローを受賞。インド国立科学アカデミー会長（2004-2006）、英国化学技術者協会の会長（2007）等を歴任。インドのイノベーション運動と深く関わっており、インド・イノベーション基会長（2000～2018年）を始め、自動車燃料政策、医薬品規制制度の見直し、偽薬の脅威への対処、農業研究制度の改革など12の委員会の議長を務めた。これまでにSS Bhatnagar賞、Pandit Jawaharlal Nehru技術賞、GDビルラ科学研究賞を含む50以上の賞およびメダルを獲得している。

National Research Professor, served as the Director General of Council of Scientific and Industrial Research (CSIR). He has been a member of External Research Advisory Board of Microsoft, Advisory Board of VTT, Corporate Innovation Board of Michelin, among others.

39 universities from around the world have honored him with honorary doctorates, which include Universities of London, Pretoria and Delhi.

Deeply connected with the innovation movement in India, Dr. Mashelkar served as the Chairman of India's National Innovation Foundation (2000-2018).

Dr. Mashelkar has won over 50 awards and medals, which include S.S. Bhatnagar Prize, Pandit Jawaharlal Nehru Technology Award, G.D. Birla Scientific Research Award.

Dr. Alfred Watkins



米グローバルソリューションズサミット議長。飲料水、再生可能エネルギー、wifiアクセスなどの商業的・経済的に持続可能な開発ソリューションの大規模展開を支援する委員会を指揮。

New School for Social Research Ph.D. (経済学)。2005年より世界銀行の科学技術プログラム・コーディネーター兼科学技術イノベーショングローバルエキスパートチームのリーダーを務め、キャパシティビルディングプログラムの開発及び実施を支援した。2016年国連後発開発途上国技術銀行 (LDC) 理事会委員、2017年アフリカ開発銀行のシニアコンサルタント等を歴任。

Chairman, Global Solutions Summit Designed, organized, and produced three Global Solution Summits dedicated to financing the large-scale deployment in emerging markets of commercially viable, financially-sustainable development solutions for potable water, renewable energy, wifi access, health care, housing, sustainable agriculture and food processing. Member of the Governing Council of the United Nations Technology Bank for the Least Developed Countries (LDCs).

PhD (Economics) New School for Social Research. 2005: World Bank Science and Technology Program Coordinator and Leader of the World Bank's Science, Technology and Innovation Global Expert Team. 2017 Senior Consultant, African Development Bank.

Dr. Victor Mulas



世界銀行で「開発のための破壊的技術プログラム」を率いる。イノベーション、破壊的テクノロジー、アントレプレナーシップを専門とする。イノベーションと起業家の力を活用し、経済的な混乱を乗り越え、直面する社会課題を解決する方法について政府と企業に助言を行っている。世界銀行でイノベーション促進プログラムを立ち上げ、技術の混乱と新興するエコシステムに関する最先端の研究を執筆した。ジョージタウン大学経営学修士号、Universidad de Comillas電気通信法LLM、Universidad Autonoma de Madrid法律学位を取得。大手コンサルティング会社や法律事務所にて勤務、政府や多国籍企業の技術規制戦略を担当し、現職に至る。

Victor Mulas leads the Disruptive Technology for Development Program at the World Bank. He works at the intersection of innovation, disruptive technologies and entrepreneurship, advising on how to leverage technology innovation and startup. He sets up and mainstreamed the Innovation Acceleration Program at the Bank and has authored leading research on technology disruption and startup ecosystems. Prior to the World Bank, Victor worked in global consulting and legal firms, advising governments and multinational companies on technology regulatory strategy. He holds an MBA from the McDonough School of Business at Georgetown University, an LLM in telecommunications Law from Universidad de Comillas.

Dr. Ca Tran Ngoc



ベトナム国立科学技術政策研究所シニアフェロー。ベトナム国立大学准教授。アメリカ情報科学技術協会及びハノイICT協会に所属。ICTの開発に関する政府運営委員会諮問委員を務める。ユネスコ南南協力のための国際科学技術イノベーションセンター評議会 (ISTIC)、Sage出版の『科学技術と社会』等の編集諮問委員も務める。英国エジンバラ大学の日欧技術研究准研究員、NISTPASSの副局長、ベトナム首相の科学技術政策評議会事務局長、科学技術大臣補佐官、在米ベトナム大使館の科学技術室長等を経て、現職に至る。

Head of Science and Technology Office, Vietnam Embassy, Washington DC, USA (2013-2017) Director of Secretariat, Member of the National Council for Science and Technology Policy (NCSTP) under the PM of Vietnam (2005-2013). Department General Director, Personal Assistant to S&T Minister (2009-2013). Deputy Director of the NISTPASS (2002-2013). Associate Research Fellow, Japanese-European Technology Studies (JETS) Institute, Edinburgh University, UK (1997-1998) Associate Professor in Economics, National Economics University, and Vietnam National University (2011-2019). Member of the Advisory Board for governmental Steering Committee on ICT development. Member of the Council of the International Science, Technology and Innovation Centre for South-South Cooperation under UNESCO (ISTIC), Malaysia. Member of the Editorial Advisory Boards for Journals: Science, Technology and Society, Sage Publication; Innovation and Development, Routledge.

赤石 浩一 / Mr. Koichi Akaishi



内閣府 政策統括官（科学技術・イノベーション・原子力担当）
東京大学法学部卒業。

1985年 通商産業省入省
2004年 経済産業省資源エネルギー庁エネルギー政策企画室長
2005年 経済産業省通商政策局米州課長
2006年 日本機械輸出組合ブラッセル事務所長
2009年 経済産業省商務情報政策局情報政策課長
2014年 経済産業省大臣官房審議官(環境問題担当)
2017年 内閣府大臣官房審議官（科学技術・イノベーション担当）

General Director, Science, Technology and Innovation Atomic Energy Policy, Cabinet Office
Graduated from the University of Tokyo law department.

1985 Ministry of International Trade and Industry
2004 Ministry of Economy, Trade and Industry(METI), Energy Policy Planning Office, Agency for Natural Resources and Energy
2005 Americas Section Manager, Trade Policy Bureau, Ministry of Economy, Trade and Industry
2006 Director of Japan Machinery Export Association Brussels Office
2009 Manager, Information Policy Division, Commerce Information Policy Bureau, METI
2014 METI Ministry Minister's Secretariat (in charge of Commerce Policy Bureau)
2017 Cabinet Office Minister's Secretariat (responsible for science, technology and innovation)

西條 正明 / Mr. Masaaki Nishijo



文部科学省 科学技術・学術政策局 産業連携・地域支援課長。

1967年長野県生まれ。北海道大学工学部衛生工学科卒業、同大学院工学研究科衛生工学専攻修士課程修了。1993年科学技術庁入庁。研究開発局航空宇宙開発課、在アメリカ大使館、内閣府政策統括官付（SIP担当）、研究開発局原子力課長などを経て2018年より現職。

Director, University-Industry Collaboration and Regional R&D Division, Science and Technology Policy Bureau, Ministry of Education, Culture, Sports, Science and Technology (MEXT) (2018-present)

- Director, Atomic Energy Division, Research and Development Bureau
 - Director for Cross-ministerial Strategic Innovation Promotion Program (SIP)
 - First Secretary,(Science Section), Embassy of Japan in Washington DC
- Master and Bachelor of Engineering, Hokkaido University

佐々木 啓介 / Mr. Keisuke Sasaki



経済産業省 経済産業政策局 産業創造課長。大臣官房 第四次産業革命政策室長、大臣官房 政策審議官室。東京大学法学部卒業。

1993年 通産省入省
1996年 科学技術庁長官官房総務課
1998年 資源エネルギー庁石油部計画課
2000年 ハーバード大学客員研究員
2005年 商務情報政策局情報経済課
2010年 製造産業局クールジャパン室企画官
2015年 経済産業省商務情報政策局サービス政策課長

Director, Industry Creation Policy Division, Economic and Industrial Policy Bureau, METI(;Ministry of Economy, Trade and Industry).Minister's Secretariat, Chief of the Fourth Industrial Revolution Policy Division, Minister's Secretariat Policy and Counselor Office. He graduated from the University of Tokyo.

1993 Joined METI
1996 Science and Technology Agency's Secretariat General Affairs Division
1998 Petroleum Department Planning Division, Agency for Natural Resources and Energy
2000 Harvard University visiting researcher
2005 Commerce and Information Policy Bureau, the Information Economy Division
2010 Manufacturing Industries Bureau, "Cool Japan" planning officer
2015 Commerce and Information Policy Bureau Service Policy Division, METI

吉村 隆 / Mr. Takashi Yoshimura



一般社団法人 日本経済団体連合会 産業技術本部長。1997年一橋大学大学院修了後、経団連事務局入局。経済本部にて金融制度改革、国際協力本部にて開発援助政策や経済連携協定の推進に関与した後、08年より産業技術本部に配属。17年より同本部の本部長として、Society 5.0の推進をはじめとする科学技術イノベーション政策のほか、知的財産・ベンチャー・情報通信・宇宙・海洋・防衛産業に関する政策を担当。経済産業省や文部科学省など政府の審議会・研究会の委員を多数経験するとともに、政策研究大学院大学・東京大学にて客員研究員も務める。

General Manager of KEIDANREN (Japan Business Federation) .

1997 After graduate from Hitotsubashi University, he entered KEIDANREN Secretariat.

After financial department and international cooperation department, he belongs to industrial technology headquarter. He has been a head of the industrial technology headquarter for 17 years, being responsible for science and technology innovation policies including promotion of "Society 5.0" as well as policies on intellectual property, startups, information communication, space, marine and defense industries. He has experienced numerous members of government councils and research groups such as the Ministry of Economy, Trade and Industry and the Ministry of Education, Culture, Sports, Science and Technology. He is also a researcher at the University of Tokyo and GRIPS.

安達 一 / Mr. Itsu Adachi



JICA社会基盤・平和構築部部長。上智大学文学部哲学科卒。

1985年 JICA入団 研修事業部研修第1課

1996年 JICAタイ事務所

1998年 JICA総務部総務課 課長代理

2001年 カンボジア開発評議会復興開発委員会 援助調整アドバイザー専門家

2003年 JICA社会開発調査部社会開発調査2課課長

2004年 JICA地球環境部水資源・防災グループ長

2009年 JICA地球環境部 計画調整担当次長

2011年 JICA東南アジア・大洋州部審議役 兼 計画調整・ASEAN連携担当次長

2015年 JICAカンボジア事務所所長

Director General, Infrastructure and Peacebuilding Department.

Graduated from Sophia University, Japan (Bachelor of Philosophy, Dept. of Literature)

1985 Join to Japan International Cooperation Agency(JICA)

1996 Assistant Resident Representative, JICA Thailand Office

1998 Deputy Director, General Affairs Division, General Affairs Department, JICA

2001 Expert on Aid Coordination and Management, Council for the Development of Cambodia (CDC) / Cambodian Rehabilitation and Development Board(CRDB)

2003 Director, Second Development Study Division, Social Development Study Department, JICA

2004 Director, Water Resource Management Group, Global Environment Department, JICA

2009 Deputy Director General for Planning and Coordination, Global Environment Department, JICA

2011 Deputy Director General for Southeast Asia and Pacific Department, JICA

2015 Chief Representative, JICA Cambodia Office

中村まこと / Mr. Makoto Nakamura



福岡県 北九州市出身。スタートアップカフェコザ代表として起業による地方創生の成功例として多くのメディアに掲載され、行政機関より多くの視察を受ける。総務省 ICT地域活性大賞奨励賞受賞。スマートグリッド、IoTなどに関して講演を多数行い、大学などで講義も行う。りゅうぎんスタートアッププログラムの設計・運営アドバイスに当たる。西日本最大のシェアオフィスfabbit設計に参画。その他、福岡市スタートアップカフェアドバイザー、琉球大学非常勤講師。

Born in Kitakyushu city, Fukuoka Prefecture. As a founder of Startup Café KOZA, successful example of regional reconstruction by entrepreneurship, picked up by many media and government agencies. Winner of Ministry of Internal Affairs and Communications ICT Regional Activities Award Encouragement Prize. He gives a number of lectures about smart grit, IoT and other topics at various universities and public agencies. Designed and advised for the *Ryugin* startup program. Participates in the shared office *fabbit*'s design. Fukuoka City Startup Cafe Advisor, Lecturer at the University of the Ryukyus.