



Annex G-2

List of Outreach Activities of ERIA Researchers

RESEARCHER	INTERNATIONAL WORKSHOPS/CONFERENCE/LECTURES
Fukunari KIMURA (Chief Economist)	Presenter, 'Value Chain Connectivity in Indonesia: the Evolution of Unbundlings' at the 12 th Sadli Lecture, organized by Universitas Indonesia and Australian National University Jakarta, Indonesia, 2 May 2018
	Presenter, 'Value Chain Connectivity in Indonesia: the Evolution of Unbundlings' at the Mubyarto Public Policy Forum Yogyakarta, Indonesia, 3 May 2018
	Presenter, 'Future Direction of Regional Connectivity in the Asia-Pacific/Indo-Pacific Region' at the Symposium on 'Fostering Regional Connectivity in the Indo-Pacific Region: Connecting the Connectivities' Bangkok, Thailand, 11 June 2018
	Presenter, 'Continuing Agenda and New Challenges: MPAC 2025 and Beyond' at a workshop on 'Latest Developments of Master Plan on ASEAN Connectivity (MPAC) 2025 and Connectivity in the Region' Bangkok, Thailand, 12 June 2018
	Presenter, 'How Can We Incorporate the Digital Economy into Development Strategies?' at Digital Economy Issues Seminar to EAS Ambassadors in Jakarta Jakarta, Indonesia, 20 June 2018
	Presenter, 'Supporting Rule-based Trade Regime' at Jeju Forum "Reengineering Peace for Asia"; Session "Asia's Harmonious Economic Cooperation for Common Prosperity" Jeju, Korea, 26 June 2018
	Presenter, 'Japanese Response to US-China Trade Tensions' at Foreign Press Center Japan, Press Briefing Tokyo, Japan, 27 June 2018
	Chaired 'ERIA-UNPAD Session on Sustainable Development' at the 14th IRSA International Conference Solo, Indonesia, 13 July 2018
	Presenter, 'Unbundlings' and Development Strategies in Asia' at the 6th OECD-AMRO-ADB/ADBI-ERIA Asian Regional Roundtable on Macroeconomic and Structural Policies Manila, Philippines, 26 July 2018
	Presenter, 'The Importance of the Unfinished Business of the Bogor Goals for Modern Trade Dynamics: Evolving International Division of Labor and International Commercial Policies' at 2018 Multi-Stakeholder Dialogue on APEC Toward 2020 and Beyond Port Moresby, Papua New Guinea, 15 August 2018
Presenter, 'Challenge 3: Strengthening Regional/Global Value Chains in Japan and Indonesia' at the Second Executive Committee Meeting for Project 2045 Jakarta, Indonesia, 27 August 2018	



RESEARCHER	INTERNATIONAL WORKSHOPS/CONFERENCE/LECTURES
Fukunari KIMURA (Chief Economist) (cont.)	Participated as a panelist together with Mireya Solis, Pek Koon Heng-Blackburn, Meredith Sumpter, and Shujiro Urata at Brookings Institution "Japan in Asia: Economic Diplomacy in the New Geopolitics" Washington DC, United States, 17 September 2018
	Presenter, 'Technology Transfer/spillover and International Rule Making in the 2nd and 3rd Unbundling' at the WTO Public Forum 2018 – Session 93: Working Session "Who Should Control Technology Transfer for Trade and Economic Growth? Global Economic Integration and Industrial Policy in Emerging Asia" organized by IDE-JETRO and ERIA Geneva, Switzerland, 4 October 2018
	Presenter, 'Turbulence in the World Trade Regime and the Japan-EU Economic Partnership' at TCAS Lunchtime Lecture on Economic Reform in Japan and the Japan-EU Economic Partnership Agreement, Trinity Centre for Asian Studies, Trinity College Dublin Dublin, Ireland, 19 November 2018
	Presenter, 'The EU-Japan EPA and Its Relevance for the Japanese and Austrian Economies' at Bundesministerium fur Digitalisierung und Wirtschaftsstandort Vienna, Austria, 21 November 2018
	Presenter, 'Turbulence in the World Trade Regime and the Japan-EU Economic Partnership' at Camara de Comercio e Industria Portuguesa, Seminario Acordo de Parceria Economica UE-Japan Lisbon, Portugal, 23 November 2018
	Presenter, 'Keynote: Viet Nam's Role in Promoting Realization of ASEAN Community Vision 2025' at Ministry of Foreign Affairs, Viet Nam, "ASEAN Post 50 and Viet Nam" Ha Noi, Viet Nam, 30 November 2018
	Lead Co-chair, Task Force 8: Trade, Investment, and Globalization at T20 Japan 2019 Inception Conference Tokyo, Japan, 4–5 December 2018
Masahito AMBASHI	Discussant, 'Identifying Sri Lanka's Sources of Growth: The Application of Primal and Dual Total Factor Productivity Growth Approaches' by Kumari, R. and S. Tang, and Session Chair for Micro-Data Analysis at the 16th International Convention of the East Asian Economic Association (EAEA) Taipei, Taiwan, 28-29 October 2018
	Presenter, 'Innovation for ASEAN 2040' at a Roundtable Discussion on Technological Revolution, ASEAN Transformation, People Empowerment, and ASEAN Identity Chulalongkorn University Bangkok, Thailand, 16 December 2018
	Presenter at 'Harnessing New Technologies for Social and Economic Progress Towards ASEAN 2040', a Roundtable Discussion on Technological Revolution, ASEAN Transformation, People Empowerment, and ASEAN Identity, Chulalongkorn University Bangkok, Thailand, 16 December 2018

RESEARCHER	INTERNATIONAL WORKSHOPS/CONFERENCE/LECTURES
Venkatachalam ANBUMOZHI	Session Chair at Focus Group Discussion on Enabling Renewable Energy Investment in ASEAN through Insurance and Guarantee Schemes Jakarta, Indonesia, 5 April 2018
	Keynote Speaker at an International Workshop on 'Unlocking the Door Towards Development: Improving Access to Electricity in South East Asia', Konrad Adenauer Stiftung Foundation Bangkok, Thailand 15–17 April, 2018
	Discussant at Risk ASEAN and Derivative Conference Jakarta, Indonesia, 7 May 2018
	Discussant at ASEAN High-level Dialogue on Ocean and Blue Economy: Enhancing Regional Cooperation on Sustainable Fisheries and Marine Pollution in South East Asia Jakarta, Indonesia, 8 May 2018
	Presenter, 'Green Climate Funding for Renewable Energy Projects' at the ASEAN Power Grid Summit 2018 Vientiane, Lao PDR, 21–23 May 2018
	Panelist at 'Towards A Comprehensive Approach on Climate Policy and Finance' at the Global Solutions Think Tank Summit Berlin, Germany, 27–29 May 2018
	Presenter, 'Scaling Up Private Investment for Low-Carbon Energy Transition: The Role of Regional Solution' at the 41st International Association of Energy Economics (IAEE) Conference Groningen, Netherlands, 10–13 June 2018
	Presenter, 'Overcoming barriers to geothermal energy development in Indonesia' at the Grand Renewable Energy Conference and Exhibition Yokohama, Japan, 17–20 June 2018
	Presenter, 'Barriers to Geo-thermal energy use in East and South East Asia' at the Grand Renewable Energy Conference Yokohama, Japan, 20–22 June 2018
	Panelist at ASEAN Working Group Meeting on Climate Change and Partnership Engagement, organized by Asian Development Bank Manila, Philippines, 25–26 June 2018
	Panelist at Forum on ASEAN Sustainable Urbanization Strategy Singapore, Singapore, 7–8 July 2018
	Plenary Speaker at 'Public Private Partnership for Scaling Up Investment in Low-carbon Energy Transition' at the 2nd International Conference on Energy Economics, University of the Philippines Manila, Philippines, 19–20 July 2018
Presenter, 'Mainstreaming Resilience into SDGs and Agriculture Trade Pact: Why and How?' at the 14th IRSA conference "Strengthening Regional and Local Economy" Solo, Indonesia, 23–24 July 2018	



RESEARCHER	INTERNATIONAL WORKSHOPS/CONFERENCE/LECTURES
Venkatachalam ANBUMOZHI (cont.)	Speaker at the International Workshop on Digital Economy and Agriculture, organized by Periyar University Salem, India, 16 August 2018
	Discussant at the Policy Roundtable on Asia's Economic Outlook: Risks and Policy Responses, organized by Australian National University Canberra, Australia, 21 August 2018
	Session Moderator at the Asian Think Tank Development Forum on Upgrading Human Capital and Skills Development for Future Asia, organized by Australian National University Canberra, Australia, 22–23 August 2018
	Panelist at 'Bridges to the Future of Works' at T20 Summit Buenos Aires, Argentina, 16–18 September 2018
	Panelist at 'Re-Powering Small Hydro' at the Second Global RE-INVEST India-ISA Partnership Conference Greater Noida, India, 3–5 October 2018
	Presenter, 'Imbalances and Determinants in Financing Low-carbon Transition: A stochastic Frontier Analysis of Emerging Economies in Asia' at the 86th International Atlantic Economic Society New York, United States, 11–14 October 2018
	Keynote Speaker on 'Challenges and Opportunities for a Green ASEAN Grid System' at International Conference on Green Energy and Sustainable Development Phuket, Thailand, 24–26 October 2018
	Presented a paper at the High-level dialogue on Policy Actions Towards Circular Economy at the Global Sustainable Technogym Innovation Conference Brussels, Belgium, 28–30 November 2018
Presented at a workshop on 'Harnessing Technologies for Sustainable and Resilient ASEAN 2040', Chulalongkorn University Bangkok, Thailand, 16 December 2018	
Lurong CHEN	Speech 'A Full Joint Feasibility on ASEAN-Canada FTA' at ASEAN SEOM 2/49 Bali, Indonesia, 23 March 2018
	Presenter, 'A Study on Micro, Small, and Medium Enterprise Participation in the Digital Economy In ASEAN' at ACCSMES Consultation Meeting Luang Prabang, Lao PDR, 24 April 2018
	Speech 'Modelling Results of a Potential ASEAN-Canada FTA' at ASEAN SEOM 3/49 Singapore, Singapore, 11 July 2018
	Keynote speaker at the OECD Special Consultation on the Economic Outlook for Southeast Asia, China and India Paris, France, 13 July 2018
	Chair at OECD-ERIA Joint Seminar on '2018 Regional Economic Outlook: Key Findings' Jakarta, Indonesia, 23 July 2018

RESEARCHER	INTERNATIONAL WORKSHOPS/CONFERENCE/LECTURES
	<p>Chair at the Asian Regional Roundtable on Macroeconomic and Structural Policy Challenges Manila, Philippines, 26 July 2018</p>
	<p>Presenter, 'Mega FTAs: Which Strategy for ASEAN' at the 14th Annual Conference of the Asia-Pacific Economic Association Los Angeles, United States, 3–4 August 2018</p>
	<p>Presenter, 'Feasibility on ASEAN-Canada FTA' at the AEM-Canada Consultation Meeting Singapore, Singapore, 1 September 2018</p>
	<p>Keynote speaker on 'Digitalization to Unlock the Potential of Development: Selected Issues' at the ICCAP 2018 Symposium, organized by the Ministry of Trade of Indonesia Jakarta, Indonesia, 5 September 2018</p>
	<p>Keynote speaker at 'ASEAN-Canada FTA: Future Opportunities and Challenges' Jakarta, Indonesia, 23 October 2018</p>
	<p>Panel at the 'East Asian Cooperation in a Changing World' Beijing, China, 24 October 2018</p>
	<p>Panel at the 'East Asian Cooperation: Retrospect and Prospect' Beijing, China, 25 October 2018</p>
	<p>Presenter, 'ASEAN Development in the Digital Economy: Getting Connected for E-commerce' at Korea Trade Research Association Winter Conference Seoul, Korea, 15 December 2018</p>
Doan Thi Thanh HA	<p>Presenter, 'How NTMs and Good Regulatory Practice interact' at the ASEAN-CER Integration Partnership Forum Da Nang, Viet Nam, 5 April 2018</p>
	<p>Keynote Speaker on 'The rise of NTMs and the role of FTAs/RTAs in addressing this phenomenon' at the Capacity building workshop on Addressing Non-tariff barriers in FTAs and RTAs Port Moresby, Papua New Guinea, 17 May 2018</p>
	<p>Presented paper on Good Regulatory Practice (GRP) and Non-tariff Measures (NTMs) at the 27th Coordinating Committee on Implementation of ATIGA Vientiane, Lao PDR, 31 May 2018</p>
	<p>Presenter, 'Technical Change, Trade Liberalization and Employment Growth in China: A Structural Decomposition Analysis' in Asian Economic Panel Tokyo, Japan, 10–11 September 2018</p>
	<p>Presenter, 'Agglomeration, Technology and Productivity Spillover: A Difference-in-Difference Approach' at the Twentieth Annual Conference of European Trade Study Group Conference 2018 Warsaw, Poland, 13-15 September 2018</p>
	<p>Presenter, 'Agglomeration, Productivity and Technology Spillover- The Case of Vietnamese Manufacturing' at Convention of the East Asian Economic Association Taipei, Taiwan, 27 October 2018</p>



RESEARCHER	INTERNATIONAL WORKSHOPS/CONFERENCE/LECTURES
Doan Thi Thanh HA (cont.)	Presenter, 'Introduction to NTMs' at Cambodia National Workshop on Addressing NTMs Siem Reap, Cambodia, 19 November 2018
	Presenter, 'Introduction to NTMs' at Indonesia National Workshop on Addressing NTMs Jakarta, Indonesia, 10 December 2018
HAN Phoumin	Presenter, 'Can we predict global oil price? The implication for energy security' at the 4th Oil and Gas Security Network Forum Tokyo, Japan, 8–9 March 2018
	Presenter, 'Financing biomass power generation' at the 2018 Asian Power Utility Forum Jakarta Jakarta, Indonesia, 20 March 2018
	Presenter, 'Perspectives towards mutual benefits of Mekong-Japan Cooperation' at the Mekong-Japan Cooperation: Progress and Challenges since 2015, organized by Cambodian Institute for Cooperation and Peace Phnom Penh, Cambodia, 23 March 2018
	Presenter, 'Environmental rules and regulation for the power plants and power grid development in ASEAN' at the ASEAN Power Grid Summit Vientiane, Lao PDR, 21 May 2018
Michikazu KOJIMA	Panellist, Session on 'The 3Rs and Clean Air' in the Eight Regional 3R form in Asia and the Pacific, organized by The United Nations Centre for Regional Development (UNCRD), Ministry of Housing and Urban Affairs of India and Ministry of Environment of Japan Indore, India, 10 April 2018
	Presenter, 'Activities of Asian Network on the Transboundary Movements of Hazardous Waste and the Observation about the Impact of Chinese Regulation on Recycling in the Asian countries' at IMPEL Waste and TFS Conference Vienna, Austria, 13 June 2018
	Presenter, 'Changing Global Recycling System and Japan' in Special Seminar co-organized by IDE-JETRO and ERIA Tokyo, Japan, 18 June 2018
	Presenter, at Symposium of Strategic Research on Global Mitigation and Local Adaptation to Climate Change organized by Institut Teknologi Bandung and Tokyo Institute of Technology Bandung, Indonesia, 18 September 2018
	Presenter, 'Extended Producer Responsibility on E-waste' at "Pendekatan EPR dalam Mengurangi Penyebaran PBDE Pada E -Waste", organized by Institut Teknologi Bandung Bandung, Indonesia, 18 September 2018
	Panellist, Session on 'Circularity in Global Value Chain' in the World Circular Economy Forum 2018, organized by Ministry of Environment, Japan, and Sitra Yokohama, Japan, 23 October 2018
	Presenter, 'Impact of China's New Regulation on Recyclable Wastes on the Trend of TBM and Recycling Business in Asia' in Workshop 2018 of the Asian Network for Prevention of Illegal Transboundary Movement of Hazardous Waste Odate, Japan, 6 November 2018

RESEARCHER	INTERNATIONAL WORKSHOPS/CONFERENCE/LECTURES
	<p>Presenter, 'Resources for Driving Innovation in Green Technology' in 14th Asia Pacific Roundtable for Sustainable Consumption and Production Jakarta, Indonesia, 13 November 2018</p>
	<p>Presenter, 'Inter-Municipal Cooperation on SWM in Japan and other Asian countries' in IGRD-CPAf, UPLB/ IDE-JETRO/ ERIA Seminar on "Inter-Municipal Cooperation on Waste Management in Japan and Other Asian Countries" Los Banos, Philippines, 23 November 2018</p>
	<p>Presenter, 'A Review on Cooperation of Local Governments on Solid Waste Management in Asian Countries', at Annual Conference of the Asian Group for Public Administration (AGPA) Quezon City, Philippines, 26 November 2018</p>
	<p>Presenter, 'Waste Management and Marine Litter' at "Learning Session on Marine Debris" organized by Ministry of Marine Affairs and Fisheries and Center for Southeast Asian Studies (CSEAS) Indonesia Jakarta, Indonesia, 6 February 2019</p>
	<p>Presenter, 'Transboundary Movement of Recyclable Wastes: Current Management System and Practices in Asia-Pacific' at the 9th Regional 3R Forum in Asia and Pacific, organized by the United Nations Centre for Regional Development (UNCRD), Ministry of Natural Resource and Environment, Thailand and Ministry of Environment, Japan Bangkok, Thailand, 4 March 2019</p>
	<p>Presenter, 'Transboundary Movement of Recyclable Wastes' at Asia 3R Citizens Forum Bangkok, Thailand, 5 March 2019</p>
<p>Osuke KOMAZAWA</p>	<p>Discussant at ABCD (Centre of Excellence for Ageing Business and Care Development) Symposium of Thammasat University Bangkok, Thailand, 17 August 2018</p>
	<p>Participant in Expert Meeting on the Future of Work in Asia: Skills Development Strategies to Promote Employment-Rich and Equitable Growth in the Care Economy by International Training Centre of the International Labour Organization Turin, Italy, 17–19 September 2018</p>
	<p>Moderator at a multi-stakeholder approach to healthy and active aging, 'Accelerating Responses to Challenges through Innovation', a side event of UNESCAP/UNFPA Midterm Review of Asian and Pacific Ministerial Declaration on Population and Development Bangkok, Thailand, 27 November 2018</p>
	<p>Speaker at 'ASEAN's policy on population ageing and ERIA's activities' at Thailand Ageing Strategy Forum by Thammasat University Bangkok, Thailand, 29 November 2018</p>
	<p>Lectured on 'Long-term care policy of Japan and Asia Health and Wellbeing Initiative' at the 10th lecture 'Population Aging of Japan and Asia' of lecture-series 'SDGs for everybody' by Nagasaki University School of Tropical Medicine and Global Health (in Japanese) Tokyo, Japan, 8 February 2019</p>
	<p>Keynote Speaker, 'Population Aging, SDGs and Asia Health and Wellbeing Initiative', at the 7th International Conference for Universal Design Bangkok, Thailand, 5 March 2019</p>



RESEARCHER	INTERNATIONAL WORKSHOPS/CONFERENCE/LECTURES
Yanfei LI	Panelist at the ASEAN S&T Fellowship Orientation Workshop, organized by ASEAN Secretariat Jakarta, Indonesia, 26 July 2018
	Presented at the 8th ACE Webinar 'Small Scale LNG Role in ASEAN Interconnection' at ASEAN Centre for Energy Jakarta, Indonesia, 3 September 2018
	Presented at the First Workshop of the Feasibility Study on ASEAN Multilateral Power Trade, organized by International Energy Agency and ASEAN Secretariat Jakarta, Indonesia, 5 September 2018
	Presented at the 36th USAEE/IAEE Conference on 'Electrification of Road Transport in ASEAN and Energy Security' Washington DC, United States, 25 September 2018
	Presented at the State of Indo-Pacific Clean Energy Transition at CSIS Washington DC, United States, 26 September 2018
	Presented at the ASEAN Energy Business Forum 2018 on 'What Does It Take to Realise the ASEAN Power Grid' Singapore, Singapore, 29 October 2018
	Presented at Global Climate Politics and China's Role: Between Katowice and New York Shanghai, China, 22 February 2019
Dionisius NARJOKO	Participated in the 5th Meeting of the ASEAN Coordinating Committee on Micro, Small and Medium Enterprises (ACCMSME) Luang Prabang, Lao PDR, 2–6 April 2018
	Participated in the 14th IRSA International Conference Solo, Indonesia, 21–24 July 2018
	Participated in the 50th ASEAN Economic Ministers' (AEM) Meeting Singapore, Singapore, 26 August–1 September 2018
	Participated in the 16th EAEA International Convention at Taiwan University 26–28 October 2018, Taipei, Taiwan
	Participated in the First International Conference on Business Dynamics - Sunway College Kuala Lumpur, Malaysia, 26–27 November 2018
	Participated in the 'ASEAN Post 50 and Viet Nam' Symposium, organized by Ministry of Foreign Affairs Ha Noi, Viet Nam, 30 November 2018
Alloysius Joko PURWANTO	Chair at the 'Moving Towards Green Logistics in Indonesia', a workshop organized by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), Jakarta, Indonesia, 7 February 2019

RESEARCHER	INTERNATIONAL WORKSHOPS/CONFERENCE/LECTURES
Rashesh SHRESHTA	Presenter, 'Challenges and opportunities in the future world of work' at the 16th Economix Seminar Jakarta, Indonesia, 5 November 2018
	Presenter, 'Early life shocks, cognitive ability, and labor market outcomes in Indonesia' at the East Asian Economic Association Meetings Taipei, Taiwan, 27–28 October 2018
	Presenter, 'Early Life Exposure to Air Pollution, Cognitive Development, and Labor Market Outcomes' at the Forum Kajian Pembangunan Seminar, organized by SMERU Research Institute Jakarta, Indonesia, 25 October 2018
	Presenter, 'Early life shocks, cognitive ability, and labor market outcomes in Indonesia' at Asian Economic Panel: an Economic Forum Dedicated to Formulating the Best Practical Solutions Tokyo, Japan, 10–11 September 2018
	Presenter, 'Complementarity of ASEAN Efforts to Implement Safe Migration with GCM and SDGs' at Regional Multi-Stakeholders Forum: Responsible Business Conduct for Safe Labour Migration in ASEAN (Commentator), Manila, Philippines, 19-20 September 2018
	Discussant, 'First ASCC Consultative Meeting with Think Tanks in ASEAN Member States' at ASEAN Secretariat Jakarta, Indonesia, 21 February 2019
	Discussant, Coordination Meeting on Study on Migration/Urbanisation at ASEAN Secretariat Jakarta, Indonesia, 14 March 2019
	Presenter, ASEAN Joint Business Councils Meeting Innovation Working Group, JETRO Tokyo, Japan, 28 March 2019
Junichi WADA	Presenter at the Third Coordination Meeting and the Second Workshop on Study on Formation of the AGTP (ASEAN Generation and Transmission System Planning Institution) and ATSO (ASEAN Transmission System Operators Institution) Bangkok, Thailand, 3–4 April 2018
	Presenter at workshop on International Best Practices in Multilateral Power Trade Jakarta, Indonesia, 5 September 2018
	Presenter at the 22nd meeting ASEAN Power Grid Consultative Committee Bohol, Philippines, 27 November 2018
	Presenter at the 27th meeting of the HAPUA Working Committee Bohol, Philippines, 28 November 2018
	Presenter at the 34th meeting of the HAPUA council Bohol, Philippines, 29 November 2018
	Presenter at Joint Launching Workshop for Biomass Supply Chain for Power Generation and Transmission highway in GMS Bangkok, Thailand, 31 January 2019



RESEARCHER	INTERNATIONAL WORKSHOPS/CONFERENCE/LECTURES
Fauziah ZEN	Speaker, Roundtable ASEAN-China Jakarta, Indonesia, 9 April 2018
	Speaker and Event Manager, ASEAN-India 2nd Symposium on Blue Economy New Delhi, India, 18–19 July 2018
	Presenter, 'Quality Infrastructure and Pro-Poor PPP Framework' at the 14th International IRSA Conference Solo, Indonesia, 23-24 July 2018
	Speaker, ASEAN Single Aviation Market, organized by Bisnis Indonesia Jakarta, Indonesia, 5 September 2018
	Speaker, ASEAN Connectivity, at Thammasat University and JETRO Bangkok, Thailand, 7 November 2018
	Speaker, Indonesia-Japan Vision 2045, at Atmajaya University Indonesia Jakarta, Indonesia, 30 November 2018
	Luncheon Speech, Vietnam Business Forum 2018 Ha Noi, Viet Nam, 4 December 2018
	Speaker, UNESCAP workshop on Infrastructure Financing Challenges in Asia Pacific Bangkok, Thailand, 6 December 2018 Presenter, Expert Group Meetings 'Costing for SDGs', organized by UNESCAP Bangkok, Thailand, 7 December 2018