

프로그램북

서울 기후-에너지 회의 2023

Climate Energy Summit Seoul 2023

플라스틱의 순환경제를 위한 협력

International Cooperation for the Plastics Circular Economy

일시 2023년 6월 30일(금), 14:00 - 18:00

장소 대한상공회의소 국제회의장(B2)

주최 | '이투데이



후원





















서울기후-에너지 회의 2023 Climate Energy Summit Seoul 2023

플라스틱의 순환경제를 위한 협력: 국제 플라스틱 오염 협약과 한국의 대응

International Cooperation for the Plastics Circular Economy:
The backbone of UN Treaty on Plastic Pollution and Driving South Korea to Future Partnership

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행사개요

취지

2022년 3월, 케냐 나이로비에서 열린 제 5차 UN 환경총회에서는 우리나라를 포함한 175개 UN 회원국이 플라스틱 오염 종식을 위한 국제협약("플라스틱 오염 종식, 법적 구속력 있는 국제 협약을 향하여") 마련을 최초로 공식 논의했습니다. 이에 따라, 2022년 하반기부터 정부간 협상위원회(INC Intergovernmental Negotiating Committee) 회의를 5차례 개최해 2024년 말까지 국별 행동계획, 규제, 과학·기술 협력 등을 촉진하는 협약 성안을 마무리할 예정입니다.

올해 7번째로 개최되는 '서울 기후-에너지 회의(CESS) 2023'는 이에 앞서 국내 이해관계자들이 선제적으로 대응하고 협력을 독려하는 초석이 될 것입니다. 또한 INC 2차 회의('23.5월, 프랑스) 직후에 개최되어 국제사회에서 논의되는 플라스틱의 순환경제 최신 동향을 짚어보고 협약 중점 내용인 플라스틱의 전주기적(Full Lifecycle) 관리에 대한 우리 사회에 맞는 추진 방안을 발굴하고 국제사회에 전달 및 반영될 수 있도록 하는 소통창구 역할에 큰 의의가 있습니다.

2020년 1월 국내 첫 코로나19 확진자 발생 이후 3년여만에 우리는 마스크 착용에서 자유로워졌지만 국내에서 버려진 마스크양은 한 해 73억개로 추산됩니다. 한국의 1인당 플라스틱 배출량은 3위이며 국민들은 환경문제 1위로 '쓰레기/ 폐기물 처리'를 꼽았습니다. 수도권 매립지는 2025년부로 종료되며 정부는 올해부터 페트 연 1만t 이상 생산 업체는 재생원료 3% 이상, 2030년까지 30%까지 사용을 확대하는 규제를 적용하지만 여전히 폐플라스틱 전처리(수거와 분류 등) 및 안정적 고품질 원료 확보가 어려운 현실입니다.

이를 국제사회로 확대하면 폐플라스틱 절반은 OECD 국가에서 발생했으며 이중 3분의 2는 수명이 5년 미만으로 40%는 포장재, 12%는 소비재입니다. 여기서 재활용은 9% 수준이며 22%는 개발도상국, 해양 등 불법 누출돼 인류의 건강과 생물다양성 가치사슬에 위협하고 있습니다. IoT 기술, 배달플랫폼 등 첨단 서비스를 누리는 선진국 이면엔 태평양 쓰레기 섬, 인도네시아 쓰레기산 등 사회적 불평등과 기후변화 취약성 등 구조적 문제가 야기되고 있습니다.

다행히 우리 정부는 작년 12월 31일, '자원순환기본법'을 전부 개정한 '순환경제사회 전환 촉진법'을 공포했고 올해부터 생산, 소비, 재활용 전 과정 본격 추진을 발표했습니다. 신기술 및 서비스의 신속한 적용과 도입을 위해 '규제 샌드박스' 마련과 국제 협상 회의에 우리 입장이 담길 수 있도록 적극 참여할 계획이라고 밝혔습니다. CESS 2023에서는 다 함께 순환경제사회로 나아갈 수 있도록 정부, 기업, 청년, 문화예술, 미디어 등 목소리를 한데 모아 미래전략을 모색하고, 플라스틱 자원순환 산업 성장과 일자리 창출의 발판을 마련하겠습니다.

주제

플라스틱의 순환경제를 위한 협력: 국제 플라스틱 오염 협약과 한국의 대응

주최 및 후원

_{주최 |} **'이투데이**



후원 |



기획재정부 Minister of 5



과학기술정보통신부



외교부



산업통상자원부









기상청



Overview

Introduction

About Climate Energy Summit Seoul (CESS)

The annual Climate Energy Summit Seoul(CESS) is an exclusive platform for government leaders and industry experts to tackle climate change, share integrated solutions, and forge new partnerships through international cooperation for Korea's role in the rapidly changing society after the Paris Agreement. Since its inauguration in 2017, CESS has been attended to and supported by over 230 global leaders from government, business, international organizations, academia, and the youth. Jointly organized by South Korea's nonprofit organization Climate Change Center(CCC) and the Korean Economic media the e-Today.

About CESS 2023

The United Nations Environment Assembly (UNEA), in March 2019, passed a resolution to "address marine plastic litter and microplastics" and called for the development of an international agreement on plastic pollution. This resolution recognized the urgency of the plastic pollution problem and the need for a comprehensive, coordinated global response. With an ongoing UN Treaty on Plastic Pollution, the theme of CESS 2023, International Cooperation for Creating a Circular Plastics Economy: The Backbone of UN Treaty on Plastic Pollution and Driving South Korea to Future Partnership, conveys the need for an international legally binding agreement by 2024, in these times of prolonged crisis of plastic production and pollution with the triple impacts: extreme climate change, nature loss, and pollution. Nevertheless, CESS will engage policymakers, businesses, experts, and the youth to discuss how international cooperation for creating a circular plastics economy can achieve the global goal of limiting warming by 1.5 degrees, boost economic opportunity by reducing waste, stimulating innovation, and creating employment, and present sustainable planet.

Event Format

The seven editions of CESS will be a hybrid event that will be circulated on publicly-accessible platforms. However, we welcome you to physically join us. The one-day event will consecutively comprise the opening ceremony, two plenaries, and one summit talks. Through the plenaries and track, delegates will engage with the theme on the backbone of UN Treaty on Plastic Pollution and Korea's resolution to address the full lifecycle of plastics, including its production, design, and disposal. Simultaneous interpretation will be provided for English and Korean.

Partner Organization

Ministry of Strategy and Finance, Ministry of Science and ICT, Ministry of Trade, Industry and Energy, Ministry of Environment, Ministry of Land, Infrastructure and Transport, Ministry of SMEs and Startups, Seoul Metropolitan Government, Korea Meteorological Administration, Korea Commission for Corporate Partnership, Korea Chamber of Commerce, and Industry

'heme

International Cooperation for the Plastics Circular Economy: The backbone of UN Treaty on Plastic Pollution and Driving South Korea to Future Partnership

Organizers, Sponsors

Organizers I





Sponsors 1



기획재정부



















프로그램

시간	프로그램					
13:30~14:00	접수	VIP 네트워킹 리셉션				
		개 회				
	인사말	김덕헌 이투데이 대표이사				
	환영사	유영숙 (재)기후변화센터 이사장				
14:00~14:25		한화진 환경부장관				
	축사	오세훈 서울특별시장				
		Tamara Mawhinney 주한 캐나다 대사				
14:25~14:30		기념사진 촬영				
		플라스틱의 현재와 글로벌 협력				
14:30~14:50	기조	Ms. Jyoti Mathur-Filipp UNEP 국제 플라스틱 오염 정부간협상위원회(INC) 사무국장				
14 50 45 00	<u>. –</u>	기후행동-순환경제 넥서스				
14:50~15:00		김효은 외교부 기후변화대사				
15:00~15:10	토론 및 Q&A 1	(좌장) 박호정 고려대학교 식품자원경제학과 교수				
		국가별 행동계획과 과학기술 협력: '국제 플라스틱 오염 협약'				
15:10~15:55	세션1 (정부)	 (EU) Dr. Jorg WEBERNDORFER 주한EU대표부 공사참사관 (일본) Michihiro Oi 일본 환경성 환경관리국 물환경과장 (한국) 한민영 대한민국 외교부 기후환경외교국 심의관 				
		플라스틱 순환경제: 생산부터 폐기까지 전주기 참여				
15:55~16:40 세션2 (산업)		· (국내기업) 이종혁 SK지오센트릭 그린사업개발담당 부사장 · (해외기업) 허윤준 한국바스프㈜ Automotive, Materials & Industrial Solutions 사장 · (연구기관) 조용원 산업연구원 성장동력산업연구본부 연구위원				
16:40~17:00	토론 및 Q&A 2	(좌장) 박호정 고려대학교 식품자원경제학과 교수				
		플라스틱 순환경제를 위한 우리 사회의 목소리				
토크 콘서트		진행: 김소희 (재)기후변화센터 사무총장 [영상] Melati Wijsen Youthtopia 대표 · (스타트업1) 이채진 코끼리공장 대표 · (스타트업2) 원종화 포어시스 대표 · (시민단체) 최은원 바다살리기네트워크 대표 · (미디어) 송준호 임팩트온 취재팀장 · (청년) 손보민 기후변화센터 청년기후활동가 U-Savers 정책모니터링팀 리더				
18:00	폐회					

Program

Time	Program					
13:30~14:00	Registration	VIP Networking				
		Opening ceremony				
14:00~14:25	Opening remark	Mr. Deok-Heon Kim CEO, eToday				
	Welcome remark	Ms. Young-Sook Yoo Chairperson, Climate Change Center				
14.00 14.25	Congratulatory	Ms. Wha-Jin Han Minister, ministry of Environment in Republic of Korea				
	remarks	Mr. Se-Hoon Oh Mayor, Seoul Metropolitan Government				
	H.E. Tamara Mawhinney Ambassador of Canada to the Republic of I					
14:25~14:30		Group photo				
14:30~14:50		A Global Deal to beat Plastic Pollution by 2024				
14.50**14.50	Keynote	Ms. Jyoti Mathur-Filipp Executive Secretary, Secretariat of the INC for Plastics Pollution, UN Environment Programme				
14.50 15.00	speech	Nexus between Climate Action and Circular Economy				
14:50~15:00		Ms. Hyo-Eun Kim Ambassador and Deputy Minister for Climate Change, Ministry of Foreign Affairs of the Republic of Korea				
15:00~15:10	Discussion & Q&A 1	[Moderator] Ho-Jeong Park Professor, Korea University				
		The Backbone of UN Treaty and International Cooperation				
15:10~15:55	Session I	An Intergovernmental Negotiating Committee (INC) was established in 2022 with the ambition of completing a draft global legally binding agreement by the end of 2024. Efforts towards developing a UN Treaty on Plastic Pollution are ongoing with the first session of the INC in May. This session aims to introduce the most recent status of the first negotiations which would reflect diverse knowledge and best practices in different parts of the world, in particular EU, Japan, and South Korea.				
	Government	• [EU] Dr. Jorg WEBERNDORFER, Minister Counsellor, Trade and Economic Section, Delegation of the European Union to the Republic of Korea				
		 [Japan] Mr. Michihiro Oi, Director, Water Environment Management Div. Ministry of Environment, Japan [South Korea] Ms. Min-Young Han, Deputy Director-General, Climate Change, Energy, Environment and Scientific, Ministry of Foreign Affairs of the Republic of Korea 				
	Public and Private Cooperation to Address the Plastic Lifecycle					
15:55~16:40	Session II	The circular economy is a system solution framework that keeps resources in the economic system at the highest value possible. The session will listen to the business sectors across the global value chains in South Korea on their contributions to facilitate access to technology, capacity building and technical cooperation along with a more sustainable and responsible approach to plastic production, use, and disposal, and to prevent plastic pollution from continuing to harm our planet and its ecosystems.				
	Industry	 [Domestic] Mr. Jong-Hyuk Lee Vice President, Green Business Development Vice President, SK GEO CENTRIC [Global] Mr. Jeff Huh Vice President, BASF Korea, Automotive, Materials and Industrial Solutions [Research Institute] Mr. Yong-Won Cho Research Fellow, Center for Growth Engine Industries, Korea Institute for Industrial Economics & Trade 				
16:40~17:00	Discussion & Q&A 2	[Moderator] Mr. Park, Ho-Jeong Professor, Korea University Speakers of Session 1&2				
10.70 17.00	DISCUSSION & QUAZ	Non-state actors on LIVE!				
17:00~18:00	Concert	As we face an ever-increasing plastic waste crisis, it is essential that we all work together to find innovative solutions and alternative approaches to plastic production, use, and disposal. While government action is essential in addressing this crisis, listening to our society's voice is significant. Non-state actors - such as startups, civil society, artists, media, the youth, and more individuals - on LIVE will inspire you that the collaborative and inclusive dedication can drive innovation, push for change, and make a just impact in reducing plastic waste. Before the closing the CESS, this message will encourage others to take action and drive circular plastic economy for all. • [Moderator] Ms. So-Hee Kim, Secretary-General, Climate Change Center				
		 [Video] Ms. Melati Wijsen Founder, Youthtopia [Startups1] Mr. Chae-Jin Lee, CEO, Kokkirigongjang [Startups2] Mr. Jong-Hwa Won CEO, Foresys [Civil Society] Ms. Eun-Won Choi Executive Director, Korea Marine Conservation Network [Media] Mr. Jun-Ho Song Editor, Impacton [Youth] Ms. Bo-Min Son Leader, The Policy Monitoring Team, U-savers of Climate Change Center's the Youth Ambassador 				
18:00		Closing				



서울기후-에너지 회의 2023 Climate Energy Summit Seoul 2023

기조연설 I Keynote

플라스틱의 현재와 글로벌 협력

A Global Deal to beat Plastic Pollution by 2024

기후행동-순환경제 넥서스

Nexus between Climate Action and Circular Economy



서울기후-에너지 회의 2023 Climate Energy Summit Seoul 2023

기조연설 I Keynote

발표자 I Speaker

Jyoti Mathur-Filipp

UNEP 국제 플라스틱 오염 정부간협상위원회(INC) 사무국장

Executive Secretary, Secretariat of the INC for Plastics Pollution, UN Environment Programme

김효은 I Hyo-Eun Kim

외교부 기후변화대사

Ambassador and Deputy Minister for Climate Change, Ministry of Foreign Affairs, Korea

기조연설



Jyoti Mathur-Filipp

UNEP 국제 플라스틱 오염 정부간협상위원회(INC) 사무국장

조티 마투르-필립은 2022년 8월 15일부터 사무국장으로 임무를 수행중이며, 유엔 시스템, 환경 협약 및 세계 환경 기금에서 28년간 경험을 쌓았습니다.

생물 다양성 협약(CBD) 사무국에서 이행 책임자로서 2020년 이후의 세계생물 다양성 프레임워크를 위한 개발 및 협상 작업을 이끌었습니다. 또한 유엔 환경 프로그램 (UNEP), 유엔 개발 프로그램 (UNDP), 기후 변화에 관한 유엔 기본 협약 (UNFCCC), 지구 환경 시설 (GEF), 적응 기금 및 녹색 기후 기금(GCF)에서 업무를 수행하면서 수년간 환경 거버넌스 및 협상에서 정책, 프로그래밍, 파트너십 개발 및 자원 동원에 이르기까지 광범위한 주제를 다루었습니다.

민간 부문 파트너들과 협력한 경험으로 유엔과 대기업 간의 민간-공공 파트너십인 NetAid(Biosafety Clearing-House, BCH), 자카르타와 제네바의 REDD+ 및 CBD 사무국 수행 경험이 있습니다. New School for Social Research에서 도시계획학 석사(MSC)를, Baruch College에서 MBA를 취득했습니다.

Keynote



Jyoti Mathur-Filipp

Executive Secretary, Secretariat of the INC for Plastics Pollution, UN Environment Programme

Jyoti Mathur-Filipp currently serves as the Executive Secretary of the Secretariat of the Intergovernmental Negotiating Committee for Plastics Pollution. With a career spanning over 25 years in international environmental diplomacy, Ms. Mathur-Filipp possesses extensive knowledge of organizations, policies, and networks in the fields of environment, climate, and sustainable development. Prior to her current role, she served as Director at the Secretariat of the Convention on Biological Diversity (CBD), a Rio Convention, where she led the Implementation Division and played significant roles in inter-governmental processes. Notably, she served as Secretary of the Subsidiary Body for Implementation and Secretary to the Open-Ended Working Group, guiding the two co-chairs in the work that led to the adoption of the Kunming-Montreal Global Biodiversity Framework. Ms. Mathur-Filipp's expertise also includes her contributions as a consultant to the United Nations Framework Convention on Climate Change (UNFCCC) and her role as a Senior Advisor at UNDP, leading the work on ecosystem payments under the REDD+ initiative. She holds a MSc in Urban Policy, Management, and Planning from the New School in New York and an MBA from the City University of New York. She completed her undergraduate studies at Jesus and Mary College in New Delhi and is an alumnus of Welham Girl's School in Dehradun, India.

기조연설



김효은

대한민국 외교부 기후변화대사

김효은 대사는 2021년 7월부터 대한민국 외교부 기후변화 담당 대사 겸 차관을 맡고 있습니다. 그녀는 또한 UNFCCC 파리 협정의 수석 협상가입니다. 이전에는, 개발도상국과 신흥국이 녹색성장의 새로운 경로를 통해 경제성장과 환경 지속가능성을 함께 달성할 수 있도록 지원하는 조약 기반의 정부간 기구인 세계 녹색 성장 연구소(GGGI)의 부국장으로 일했습니다. 그녀는 파리 기후 협정과 UNSDGs에 따라 저탄소 경제 성장을 지원하면서 35개국 이상에서 GGGI의 국내 운영을 관리하는 책임자였습니다.

2016년부터 2018년까지 그녀는 세네갈과 주변 5개국에 대한 대한민국 대사였습니다. 한국과 서아프리카 사이의 개발 협력에 대한 전략적인 관계를 구축하는 데 기여했습니다. 2013년부터 2016년까지 GGGI의 전략, 정책 및 커뮤니케이션 책임자로서 GGGI 2015-2020 전략 계획, 거버넌스 구조 개혁 및 아웃리치 개발을 주도했습니다.

또한, 기후 변화 및 환경 사무 국장과 세계 무역 기구 (WTO) 국장을 역임하였으며, OECD 통상환경공동위원회 부위원장과 APEC 예산관리위원회 위원장을 역임했습니다. 연세대학교에서 정치학과 외교학 학사 학위를 받았고 시애틀에 있는 워싱턴 대학교의 잭슨 국제학 대학원에서 석사 학위를 받았습니다.

Keynote



Hyo-Eun Kim

Ambassador and Deputy Minister for Climate Change Ministry of Foreign Affairs, Korea

Amb. Hyoeun Jenny Kim is Ambassador and Deputy Minister for Climate Change in the Ministry of Foreign Affairs of the Republic of Korea since July 2021. She is also chief negotiator of UNFCCC Paris agreement, representing her country. Before taking the role, she was Deputy Director–General of the Global Green Growth Institute (GGGI). GGGI is a treaty–based inter–governmental organization supporting developing countries and emerging economies to achieve economic growth and environmental sustainability together through following new pathway of green growth. She was responsible for managing GGGI's in–country operations in more than 35 countries, supporting low carbon economic growth in line with Paris Climate Agreement and UNSDGs.

From 2016 to 2018, she was the Ambassador of the Republic of Korea to Senegal and five neighboring countries. She contributed to build strategic relationship on development cooperation between Korean and West Africa. During 2013 to 2016, as the Director for Strategy, Policy, and Communication at the GGGI, she led the development of GGGI Strategic Plan 2015–2020, governance structural reform, and outreach.

As a career diplomat in Korean Ministry of Foreign Affairs, she served as Director for Climate Change and Environment Affairs and Director for World Trade Organization (WTO). She served as the Vice-Chair of Trade and Environment Joint Committee of the OECD and the Chair of Budget and Management Committee of the APEC.

She earned her Bachelor's in political science and diplomacy from Yonsei University in Seoul and the Master's degree from the Jackson School of International Studies at the University of Washington in Seattle. She is married with one son. She wrote A Diplomat Must Be a Multiplayer in 2008, describing life of diplomats. Her second book, titled Audacious Challenge to International Organizations, was published in 2013. She also supervised publishing However Long the Night in Korean translation in 2019.



서울기후-에너지 회의 2023 Climate Energy Summit Seoul 2023

토론 및 질의응답 I Discussion & Q&A

조장 I Moderator

박호정 I Ho-Jeong Park

고려대학교 식품자원경제학과 교수

Professor, Dept. of Food and Resource Economics, Korea University

토론 및 질의응답



박호정

고려대학교 식품자원경제학과 교수

박호정 교수는 서울대학교와 University of Maryland에서 자원경제학을 전공하고, 고려대학교 식품자원경제학과 교수로 재직하고 있습니다. 한국자원경제학회장을 역임하였으며, 전력 및 에너지 시장과 배출권거래제도 설계 관련 다양한 연구와 정부자문을 수행하고 있습니다.

Discussion & Q&A



Ho-Jeong Park

Professor, Dept. of Food and Resource Economics, Korea University

Ho-Jeong Park is Professor at Korea University and served as president of Korea Resource Economics Association. He graduated from Seoul National University and University of Maryland, particularly focusing on resource and climate change economics. He is a member of various government committees for electricity market and emission trading programs.



서울기후-에너지 회의 2023 Climate Energy Summit Seoul 2023

세션 1 | Session 1

국가별 행동계획과 과학기술 협력

: '국제 플라스틱 오염 협약'

The Backbone of UN Treaty and International Cooperation



서울기후-에너지 회의 2023 Climate Energy Summit Seoul 2023

세션] I Session 1

조장 I Moderator

박호정 I Ho-Jeong Park

고려대학교 식품자원경제학과 교수

Professor, Dept. of Food and Resource Economics, of Korea University

발표자 | Speaker

Jorg WEBERNDORFER

주한 EU대표부 공사참사관

Minister Counsellor, Trade and Economic Section, Delegation of the European Union to the Republic of Korea

Michihiro Oi

일본 환경성 환경관리국 물환경과장

Director, Water Environmental Management Division, Ministry of Environment, Japan

한민영 I Min-Young Han

대한민국 외교부 기후환경외교국 심의관

Deputy Director-General, Climate Change, Energy, Environment and Scientific, Ministry of Foreign Affairs of the Republic of Korea

세션 1



Jorg WEBERNDORFER

주한 EU대표부 공사참사관

외르그 베베른 뒤르푀르(Jorg Weberndorfer) 공사참사관은 주한 EU 대표부 교역경제참사관이며 특히 기후환경을 포함한 지속 가능성 문제를 담당하고 있습니다. 독일 법원과 캐나다의 독일 상공회의소에서 전문 교육을 받은 후 독일 국제 로펌에서 변호사, 스페인 EU 지적 재산권 기관 관리자, 벨기에 유럽위원회에서 극동 담당 감사 및 정책 담당자, 아르헨티나 EU 대표부 무역참사관을 지냈습니다.

Jorg는 독일 사무변호사 및 시험 합격, 런던 LSE에서 LL.M(법학석사) 취득, 스페인 IE에서 Executive MBA를 마쳤습니다. 또한 IIA 벨기에의 공인된 내부 감사자이기도 합니다.

Session 1



Jorg WEBERNDORFER

Minister Counsellor, Trade and Economic Section, Delegation of the European Union to the Republic of Korea

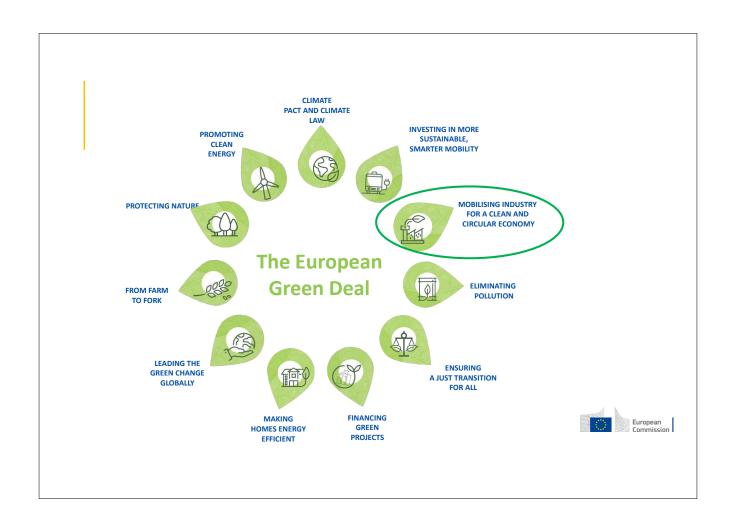
Jorg Weberndorfer is Minister Counsellor at the trade section of the EU Delegation to the Republic of Korea and is, inter alia, responsible for sustainability issues, including climate and environment. After his professional traineeship at courts in Germany and at the German Chamber of Commerce in Canada, he worked as lawyer at an international law firm in Germany, as manager at the EU agency for Intellectual Property rights in Spain, as auditor and policy officer responsible for the Far East at the European Commission in Belgium, and as Minister Counsellor at the trade section of the EU Delegation in Argentina. Jorg passed the German solicitor and bar exams, holds a PhD in law, a LL.M. (LSE, London), and an Executive MBA (IE, Spain). He is also accredited Internal Auditor (IIA Belgium).



The EU Plastic Strategy and International Cooperation on Plastic Pollution



Jorg Weberndorfer Minister Counsellor EU Delegation to the Republic of Korea





A climate-neutral, resource-efficient and competitive economy



Maintaining the value of products, materials and resources in the economy for as long as possible, & minimising the generation of waste

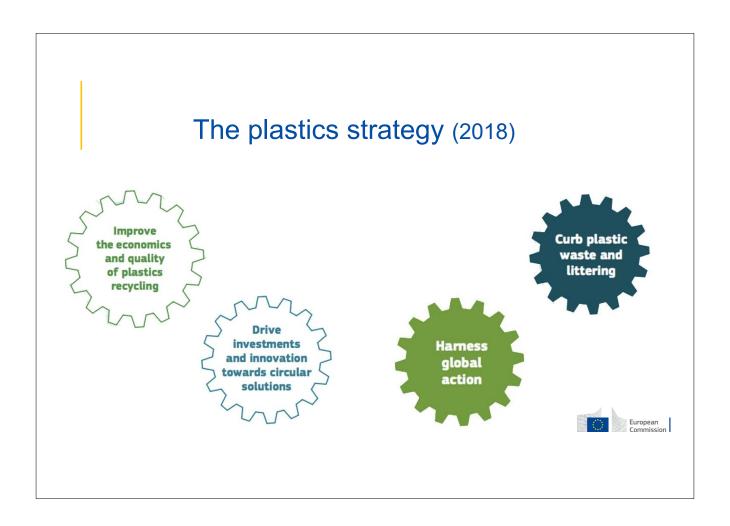


Improving the economics and quality of recycling & curbing plastic waste & littering





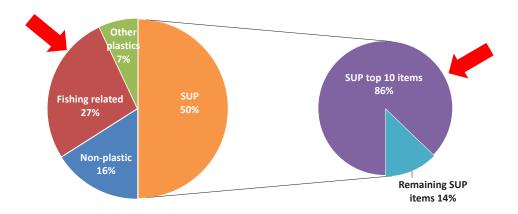




Directive on single use plastics (2019): Reducing marine litter



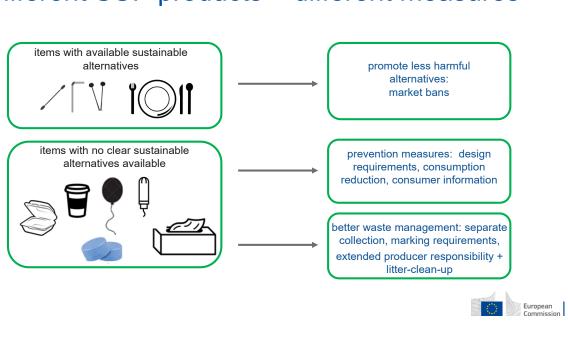
Most found litter items on European beaches



• 70% covered of all marine litter: top 10 SUP (43%) + fishing gear (27%)



Different SUP products – different measures



Key product value chains: *Plastics*







Keeping the
value of (plastic)
material in the
circular economy







Implementation of the EU Strategy for Plastics in a Circular Economy

- Mandatory requirements for recycled content and Circular Plastics Alliance
- Single use plastics directive: Implementing act recycled content measuring (2022)
- Address the presence of microplastics in the environment
- Policy framework on biobased and biodegradable plastics

Microplastics

Proposal by end 2022

Cosmetics, detergents, paints

· Towards a ban through REACH restriction dossier

Pellets

- · Chain certification & Permitting
- · Operation Clean Sweep

Tyres, textiles, paints, geotextiles, detergent capsules

- · Standards on measuring microplastics releases
- · Measures along the value chain



Framework for biobased plastics and biodegradable & compostable plastics

Sourcing, labelling and use of **biobased plastics**

- Biobased content
- · Sustainable sourcing



Use of compostable plastics

- · Limit cross-contamination of waste streams
- Update of harmonized standard to consider real-life conditions
- Limited list of packaging types to be compostable (PPWD)



Use of biodegradable plastics

- · "No license to litter"
- Effective biodegradation system perspective

Recycled content

Aim of the Plastics Strategy:

10 million tons of recycled plastics in new products on the EU market by 2025





Measuring recycled content: Single use plastics directive Implementing act (2022)

Mandatory requirements for key products such as packaging, construction materials and vehicles









Cross-cutting issues

Getting the economics right

⇒ a new own resource for EU budget based on the amount of non-recycled plastic packaging waste



Innovation – Europe to support:

- substitution & elimination of hazardous substances => "safe by design"
- exploring potential of chemical recycling

Leading efforts at global level

⇒ a global agreement on plastics by 2024





Working for a Global Circular Economy

Leading efforts at global level to:



Keep resource use within planetary boundaries

Decouple global economic growth from resource use

Promote jobs creation within and outside the EU

An agenda to promote CE at bilateral, regional and multilateral level, including through development & international cooperation programmes

Kick-start negotiations for a Global agreement on plastics

At UNEA 5.2, March 2022, resolution adopted to fight pollution by forging an internationally binding agreement by 2024 Global Circular Economy and Resource Efficiency Alliance

Launched 02/2021 UNEA 5.1

CE in free trade agreements

Outreach activities

- i.a. Circular
Economy Missions

Ongoing

'Leading the way to a global circular economy: state of play and outlook'

Initiate discussions for a global agreement on natural resource management + 'Safe operating

'Safe operating space' for natural resource use



European Commission

Towards a legally binding global instrument



- Historic decision by the fifth meeting of the United Nations Environment Assembly
- · Negotiating committee successfully established
- Legally binding instrument with both legally binding and non-legally binding elements
- Agreement should address plastic pollution, including in marine environments, through a life-cycle approach
- Promote sustainable consumption and production, including through circular economy approaches
- Mandate to finalise work within 2024



Setting the global scene



- Fragmented efforts at international, national and local levels, including voluntary commitments, to combat plastic pollution
- International cooperation through partnerships, bilateral projects, regional instruments
- UNEA5 more than 140 countries called for global agreement on plastics
- High Ambition Coalition (51 countries and growing)
- Business Coalition

Photo:UNE



Negotiation process ahead

- UNEA 5 mandate to conclude negotiations by end of 2024
- Five meetings of the Intergovernmental Negotiating Committee (INC), followed by a diplomatic conference in 2025
- INC-2 concluded in June in Paris and INC-3 planned in the autumn in Nairobi
- Voluntary initiatives/projects/measures to continue in parallel



EU and its Member States' approach

- Objective: Protection of human health and environment from plastic pollution; ensuring a circular approach to plastics
- Focus on core obligations and control measures: upstream AND downstream
- National action plans as a central implementation tool
- Monitoring/reporting, compliance, subsidiary bodies, means of implementation



The Global Alliance for Circular Economy and Resource Efficiency (GACERE)

Countries and the EU:

International organisations:





Morocco









New Zealand



Colombia

India

Japan

Kenya



Nigeria



European Union



Norway





Peru



Rwanda



South Africa



Strategic partners:







EU Korea Green Partnership (May 2023)

- strengthening efforts on combating climate change
- increasing cooperation on environmental issues with a focus on halting and reversing biodiversity loss, forest degradation and deforestation, promoting circular economy and addressing the full life cycle of plasticsas well as the implementation of the KunmingMontreal Global Biodiversity Framework;
- supporting a clean and fair energy transition
- · working with third countries to facilitate their green transition,
- joining forces in other areas such as business cooperation, sustainable finance, research & innovation, sustainable food systems, sustainability and resilience of our supply chains; etc. European



Learn more about the plastics and the circular economy:

Circular economy action plan (europa.eu) & Plastics (europa.eu)



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세션 1



Michihiro Oi

일본 환경성 환경관리국 물환경과장

미치히로 오오이 과장은 일본에서 물 환경 관리를 담당하고 있으며, 2022년 7월부터 플라스틱 오염을 종식시키기 위한 국제 조약 협상에도 참여했습니다. 그 이전에는 파리 협정 협상, 기후 적응 및 완화 정책, 환경 영향 평가를 포함하여 구내외다양한 분야에서 일했습니다.

1994년 교토 대학에서 환경과학 석사 학위를, 2004년 영국 이스트앵글리아 대학에서 환경개발 석사 학위를 받았습니다.

Session 1



Michihiro Oi

Director, Water Environmental Management Division, Ministry of Environment, Japan

Oi has been in charge of water environment management in Japan, and also involved in the negotiation of the international treaty to end plastic pollution since July 2022. Before that he had worked for various fields in the Ministry both international and domestic context, including negotiation on the Paris Agreement, climate adaptation and mitigation policies and environmental impact assessment. He was seconded to the Environment Directorate, OECD, Paris from 2008 to 2011.

He received MSc in Environmental Science from the Kyoto University in 1994, and MSc in Environment and Development from the University of East Anglia, UK in 2004.



Japan's position for the INC

(1) Basic Position

- High priority on tackling plastic pollution, as reflected in the 2019 G20 Osaka Blue Ocean
 Vision and 2023 G7 Hiroshima Summit.
- Aiming for an instrument that is <u>effective and progressive</u>, <u>involving many countries</u> including large consumers and emitters of plastics.
- Engaging Asia Pacific Group members -the world's largest emitting region, as the bureau (vice-chair) of the APG.
- Joined the High Ambition Coalition (HAC) on Plastic Pollution on the occasion of INC2.

(2) Main Messages at INC2

- Calling for a Common Global Goal to end plastic pollution, with the ambition to reduce additional pollution to zero by 2040.
- Cross-cutting obligations should include:
 - 1) Promoting domestic plastic recycling and a society-wide system that reduces leakage;
 - 2) Full lifecycle approach, with emphasis on mid-stream distribution, sales, consumption including awareness raising and collection, reuse and recycling

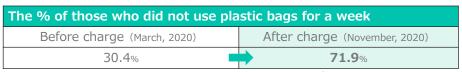
Policies/measures on Plastics: Major events

Year	Domestic	International
May 2019	Resource Circulation Strategy for Plastics	
June 2019		G20 Osaka Blue Ocean Vision
June 2021	Plastic Resource Circulation Act	
Mar. 2022		UNEA5 resolution
Apr. 2022	Entry into force of the Act	
Nov. 2022		INC1
Apr. 2023		G7 Sapporo Ministers
May 2023		G7 Hiroshima Summit INC2

Resource Circulation Strategy for Plastics (May 2019)

Key	Strategies Basic Principle: "3Rs + Renewable"		Targets	
Reduce	➤Reduce single-use plastics ("pricing" e.g on plastic bags) ➤Promote substitutes for Petroleum based plastics		<reduce> (1) 25% Reduction of single-use plastics by 2030 <reuse recycle=""></reuse></reduce>	
Recycle	>effective segregation at source and recycling of plastic >Thorough collection of fishing equipment onshore		(2) Reusable/recyclable design by 2025 (3) Reuse/recycle 60% of containers/packaging by 2030	
Recycled materials Bio-plastics	 Improve usage potential by technical innovation and infrastructure development Stimulate demand by green public procurement, and usage incentives ▶Bio-plastic introduction roadmap 	7	(4) 100% effective use of used plastics by 2035 <recycling and="" bio-plastics=""> (5) Double the use of recycled amount by 2030 (6) Introduce 2 million tons of bio-plastics by 203</recycling>	
Marine Plastic Litter	➤ Proper disposal and eliminate littering and illegal dumping ➤ Collection and proper treatment of coastal drift litter ➤ Data collection of marine waste by advanced monitoring meth	ods	➤ Microplastic reduction (eliminate microbeads in scrub products by 2020 etc)	
► Support emerging countries by soft and hard infrastructure and technology > Develop global monitoring/research network; marine plastic distributionstandardization of monitoring methods etc				

Result of charging for plastic bags (since July, 2020)



Reference) Ministry of Environment, Japan

The % of those who declined to receive plastic bags					
			Before charge		After charge
Convenience stor	e e	about 23%			about 75 %
Supermarket		about 57%			about 80 %
The number of plastic bags used					
	Refore	charge	After cha	rae	Result

Reference) Interview with the industry

about 84% of decrease

The amount of plastic bags in domestic market					
Before charge (2019)	After charge (2021)				
about 200 thou. tons	about 100 thou. tons				

about 0.5 bil.

about 3.3 bil.

Reference) Japan Center for Economic Research, "Packing material share dictionary 2021" (January 2022)

Plastic Resource Circulation Act (Apr. 2022 -)

1. Design/Manufacturing

Design for the Environment

Pharmacy

• The government certifies products designed in accordance with the statutory guidelines for design for the environment and procures the certified products.



Reduce: replaceable bottle



Recycle: design for disassembly



Renewable: 100% recycled plastic

2. Sales/Provision

Reduction of Single-use Plastics

- Retailers and service providers are required to reduce single-use plastics through, for instance,
 - rewarding programs for consumers who refuse single-use plastics
 - charging for single-use plastics
 - switching to alternative materials



- 35 -

Plastic Resource Circulation Act (Apr. 2022 -

3. Discharge/Collection/Recycling

Collection and Recycling of All Plastic Waste

		Before the enforcement	After the enforcement
House holds	containers and packaging	Recycle	Recycle
Holus	products	incineration/landfill	Recycle
Industrial Waste		proper management	3Rs(Reduce, Reuse, Recycle)

<Separation, Collection, and Recycling by Municipalities>

Different sorting rule for same plastics...







products (incineration/ landfill)

Collecting both plastics



both plastics (recycle)

Aiming to grow **Circular Economy business to 80 trillion JPY** (700billionUSD) by 2030.

After the enforcement

Promotion of Alternative Materials Use

Supporting the development of innovative substitute material technologies

Aid for converting to substitute materials: 5 billion JPY (approx. 35M USD) for FY2023

1) Marine Biodegradable Plastics

Demonstration of the production of plant-derived marine biodegradable plastics using Japan's unique technology





3Cellulose

Cellulosic microbeads using cellophane manufacturing technology which Japan holds 70% of global share



2 Bioplastics

New resin utilizing our Japan's plant-derived plastic manufacturing technology





4 Paper

Functional paper containers





Japan Partnership for Circular Economy (J4CE)

Japanese Government and Keidanren launched the "Partnership for Circular Economy" as a **public-private partnership**. The goal is to further foster <u>understanding</u> of the circular economy, <u>promote</u> initiatives, and <u>increase</u> Japan's presence in the international community.



Founder: Ministry of the Environment

Ministry of Economy, Trade and Industry Keidanren (Japan Business Federation)

Members: 138 companies/organizations Secretariat: Institute for Global Environmental

Strategies

Established in 2nd March 2021

Sharing

Japan's advanced initiatives and solutions domestically and internationally

- 131 cases available from https://j4ce.env.go.jp/en
- Booklet on 28 noteworthy cases



Accelerating the activities for

circular economy by sharing the latest trends and formulating network of stakeholders within and beyond sectors.

Setting up dialogues

among the stakeholders to promote the circular economy

Coastal Clean-up Subsidies

Results of the Government of Japan's subsidized project for cleaning up coasts in Japan

2022 **56 million US**\$ in response to volcanic eruption

2021 **25 million US\$** 2020 **25 million US\$**

2019 **23 million US\$**

2018 **22 million US\$**

collected marine litter: **27000** \sim **45000** tons/year (2020)

□ Subsidy can be used for

Cleaning up
coastlines

From 2015, removal of floating and sea bedlitter was added to the subsidy menu.



Subsidy rate varies from 94 to 98% (Minimal burden on local government)

Higher subsidy rates for Peninsulas or Depopulated areas (96%) and Remote Islands (98%).

Turning litter clean-ups into a sport



"Spo-GOMI": Sports × Litter (Gomi) pick-ups

- ➤ Unique and eco-friendly sports which involves multiple teams (up to 5 persons) competing for the garbage collected within 1 hour.
- More than 800 tournaments has been held so far, involving over 88,000 participants in Japan and abroad, such as South Korea, Myanmar, Panama, USA (Hawaii).





Japan's "MARINE Initiative" toward Realization of the OBOV



Japan has launched the "MARINE Initiative" to advance effective actions to combat marine plastic litter at a global scale focusing on;

(1) Management of wastes (2) Recovery of marine litter (3) Innovation (4) Empowerment

Under this initiative,

Japan supports empowerment in developing countries, through the following concrete policy measures.

- 1. International Cooperation including bilateral ODA and assistance through international organizations
- 2. International Operations by Japanese Companies, NGOs, and Local Governments
- 3. Dissemination and Sharing of Best Practices of Measures to combat marine plastic litter







Capacity Building



Waste-to-energy plant



Marine biodegradable

https://www.mofa.go.jp/ic/ge/page25e_000317.html

Training Program on Marine Plastic Litter Monitoring Methods



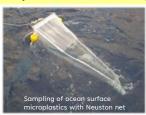
Outline of the training

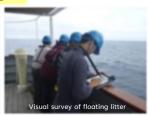
- Since FY2016, as an effort for human resource development, MOEJ has conducted a training program every year on monitoring methodologies of marine litter (floating litter, ocean surface microplastics, seabed litter, and beach litter) for governmental officials and researchers.
 The training period has been about 2 weeks. From FY2016 to 2019, participants received training on research vessels and in labs in Japan. As for FY2020 and
- 2021, the programs were implemented online due to COVID-19.

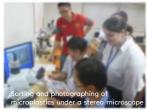
Number of participants

FY2017		FY2018		FY2019		FY2020		FY2021	
Indonesia	1	Indonesia	1	Indonesia	4	Indonesia	5	Indonesia	10
Thailand	2	Thailand	1	Vietnam	3	Vietnam	4	Vietnam	6
P.R. China	2			Cambodia	1	Thailand	4	Thailand	6
				Thailand	1	Myanmar	4	Myanmar	5
Total	5 persons	Total	2 persons	Total	9 persons	Total	17 persons	Total	27 persons
Consumalanta	. f. al							Online	

Snapshots of the training









JAPAN is contributing to the international harmonization of marine plastic litter monitoring methods.

http://www.env.go.jp/en/water/marine_litter/guidelines/guidelines.pdf

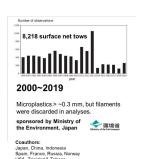
Marine Plastic Litter Monitoring Data Sharing Project - microplastcs



- Bring together monitoring data of ocean surface microplastics
- Classify the data for better comparability in line with the Guidelines
- <u>Visualize</u> the distribution and abundance on 2D maps
- Open the information to the public

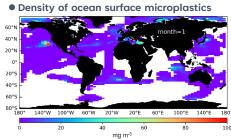
Assumed users: researchers, policy-makers, general public





→ Data taken from oceans around the world (over 8000, 2000-2019).

Survey sites



mg m⁻³
Isobe *et al.* (2021) Micropla. & Nanopla.

JAPAN is developing a database for ocean surface microplastics which will be launched in JFY2023.

Summary



- Future Instrument must be effective, progressive and inclusive, with shared global goal, and covering full life-cycle of plastics
- > Japan has taken whole life cycle approach to address plastic pollution based on the Strategy and the Act.
- ➤ Engagement of Stakeholders (Businesses, Local Governments and Citizens) is the key.
- ➤ International cooperation/support is also crucial. Special focus on capacity building and science-based data collection and dissemination.

Thank you for your attention!

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세션 1



한민영

대한민국 외교부 기후환경외교국 심의관

한민영 외교부 기후환경과학외교국 심의관은 1998년부터 외교부에 입직해 20년 이상 기후환경 분야에 전문성을 가지고 있습니다. 이외에도 주보스턴총영사관 영사, 주불가리아대사관 참사관, 주UN대표부 참사관 등에서 근무했습니다.

서울대학교 영어교육과 학사, 동대학원 외교학과 석사, Yale대학교 정치학과 박사를 취득하였습니다.

Session 1



Min-Young Han

Deputy Director-General, Climate Change, Energy, Environment and Scientific, Ministry of Foreign Affairs of the Republic of Korea

Min-Young Han, Deputy Director-General of Climate Change, Energy, Environment and Scientific Affairs of the Foreign Ministry, joined the Ministry in1998 and has expertise in the field of climate and environment for more than 20 years. In addition, Ms. Han has also served at the Consulate General of the Republic of Korea in Boston, the Embassy in Bulgaria, and the Permanent Mission to the United Nations.

She has a bachelor's degree in English education and a master's degree in International Relations, both from Seoul National University, and a Ph.D in political science from Yale University.



서울기후-에너지 회의 2023 Climate Energy Summit Seoul 2023

세션 2 I Session 2

플라스틱 순환경제

: 생산부터 폐기까지 전주기 참여

Public and Private Cooperation to Address the Plastic Lifecycle



서울기후-에너지 회의 2023 Climate Energy Summit Seoul 2023

세션 2 I Session 2

조장 I Moderator

박호정 I Ho-Jeong Park 고려대학교 식품자원경제학과 교수

Professor, Dept. of Food and Resource Economics, Korea University

발표자 I Speaker

이종혁 I Jong-Hyuk Lee SK지오센트릭 그린사업개발담당 부사장

Vice President, Green Business Development, SK GEO CENTRIC

허윤준 I Jeff Huh

한국바스프㈜ Automotive, Materials & Industrial Solutions 사장

Vice President, Automotive, Materials & Industrial Solutions, BASF Company Ltd.

조용원 I Yong-Won Cho 산업연구원 성장동력산업연구본부 연구위원

Research Fellow, Center for Growth Engine Industries, Korea Institute for Industrial Economics & Trade

세션 2



이종혁

SK지오센트릭 그린사업개발담당 부사장

이종혁 부사장은 SK지오센트릭에서 플라스틱 리사이클링 사업개발을 담당하고 있고 현재 열분해 프로젝트를 리드하고 있습니다. SK 플라스틱 재활용 사업의 시작을 주도하였고, 현재는 SK가 석유화학 업계를 대표하여 재활용을 통한 탄소중립 대응과 순환경제 구축에 앞장서는 데 기여하였습니다. 또한 올해 5년차를 맞는 대한민국 친환경 패키징 포럼을 주관하여 민관학이 협력하는 소통의 장을 만들었고, 작년에는 동반성장위원회에 참여하여 대중소기업간 페플라스틱 재활용 상생협약을 이끌었습니다.

2022년 한국판 뉴딜 추진 유공자 정부 포상에서 산업포장을 수상하였고, 현재 SK가 투자한 캐다나 페트 해중합 기술 업체인 Loop Industries에 사외 이사를 역임하고 있습니다.

한양대학교에서 공업화학을 전공하였습니다.

Session 2



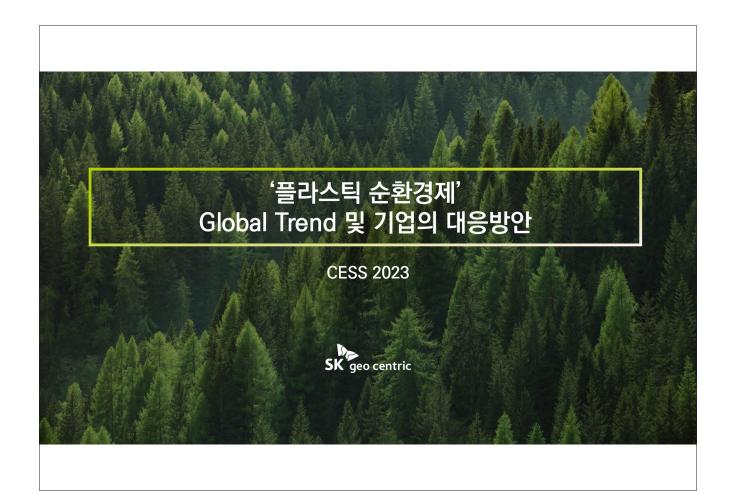
Jong-Hyuk Lee

Vice President, Green Business Development, SK GEO CENTRIC

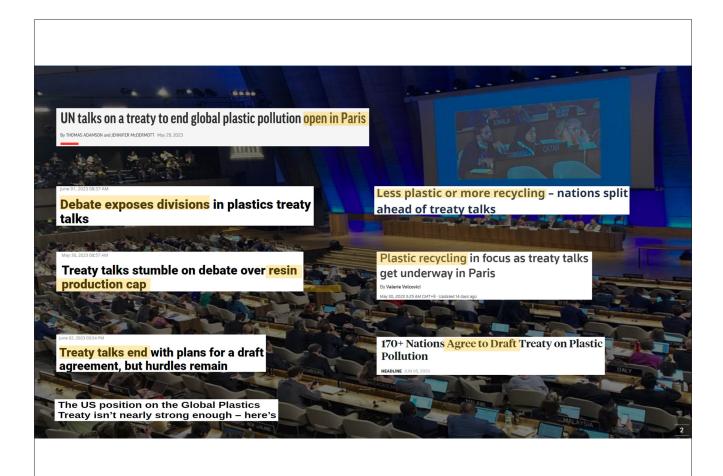
Jong-Hyuk Lee is in charge of plastic recycling business development at SK Geocentric and is currently leading the pyrolysis project. He initiated SK's plastic recycling business, and contributed to SK representing the petrochemical industry takes the lead in tackling with climate change issues and building circular economy through recycling. In addition, he hosted the Korea Sustainable Packaging Forum, which celebrates its fifth year this year, to create a place for public-private cooperation and communication, and last year, he participated in the 'Korean Commission for Corporate Growth Committee' and led a win-win agreement for recycling waste plastics between large and small-medium enterprises.

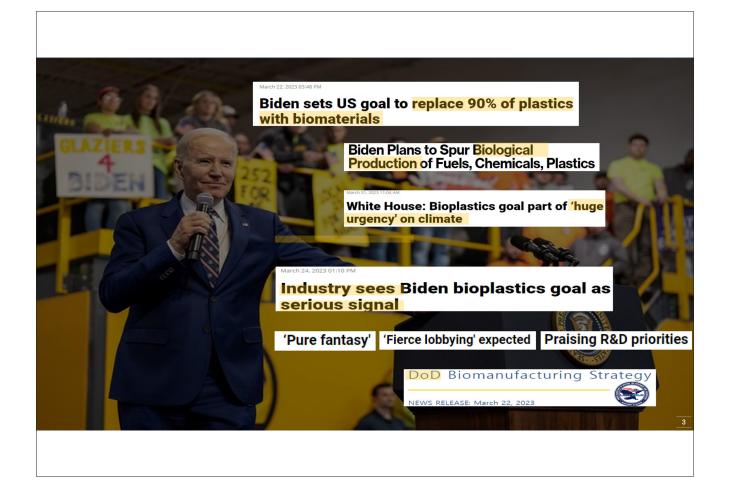
In 2022, he was awarded the medal at the Korean New Deal Government Award and is currently serving as an outside director of Loop Industries, a Canadian PET depolymerization technology company invested by SK.

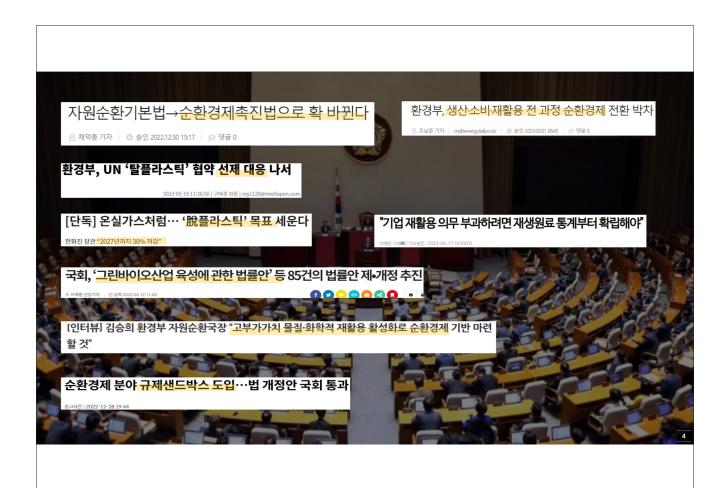
He majored in Industrial Chemistry at Hanyang University.

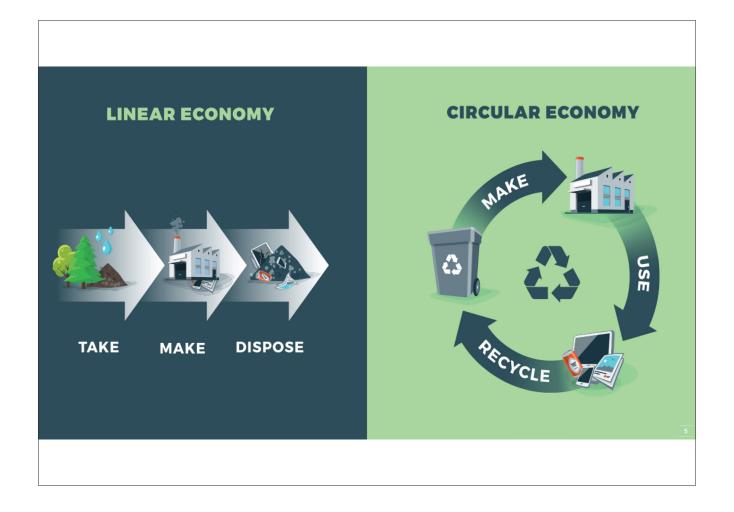


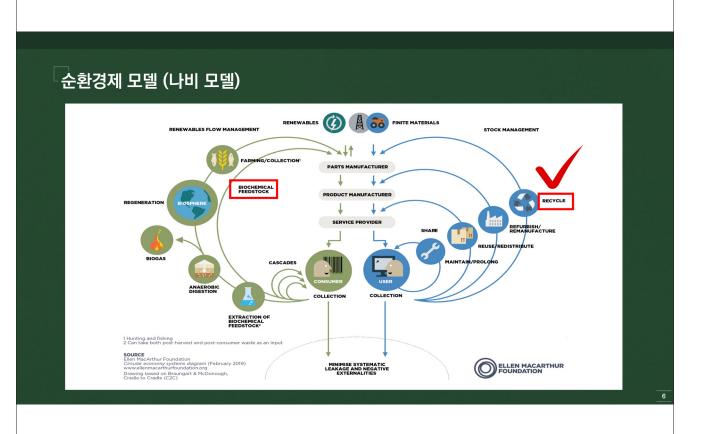


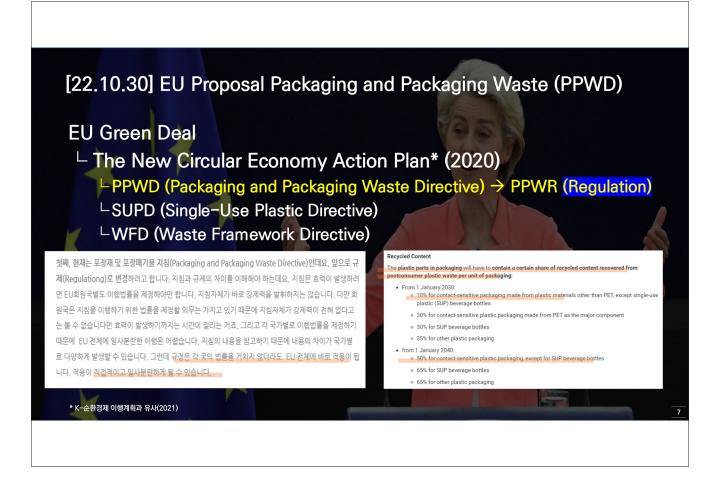












소비재 기업의 재활용 플라스틱 사용 확대 목표

소비재 기업의 친환경 선언들이 시장을 빠르게 변화시키고 있으나, 늘어나는 수요 대비 공급 대책 미비 특히, 신재와 동등 수준의 고품질의 재활용 제품은 절대 부족 예상

Coca:Cola

 $9.7\% \rightarrow 25\%$ (2025), 50% (2030)

ĽORÉAL

50% (2025), 100% (2030)



 $4\% \rightarrow 25\%$ (2025),



70~100% (2025)



2% → 30% (2025) r-PET Bottle 50%



50% (2025)



10.6% → 50% (2025)



15% (2025)



5% → 25% (2025)



r-PET 100% (2024)

주요 석유화학 기업 재활용 추진 현황

국내 대기업 폐플라스틱 재활용 사업 추진 현황

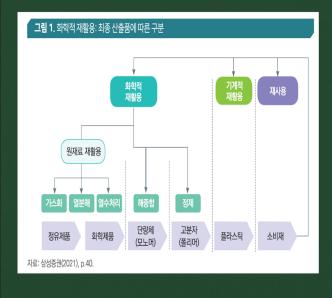
▶삼표시엔트·현대로템·한국선시나 P산활화·한국시엔트합화와 매플라스틱 자원선순환생태계구축MOU체결 ▶2024년까지초암계열분해유공장건설 SK에코플랜트 (구SK건설) ▶'DY폴리머'·'DY인더스'인수 ▶폐플라스틱 선별업체3곳과 상생협약 LG화학 ▶美플라스틱업사이클링스타트업'노보룸' 공등투자참여 ▶메플라스틱열분해유나프타(납사) 생산기술(PTC) R&D 한화솔루션 ▶플라스틱순환경제체제'프로젝트루프' ▶롯대물산·유한킴벌리와 자완산순환업무함약 ▶울산2공장에 화학적 재활용 페트생산라인 SK지오센트릭 (구SK종합화학) 롯데케미칼 기술및 단독장권획득 ▶佛수에즈·加·루프인더스트리와 패상에 사설립합약 ▶佛베올리와페플라스틱재활용협력 MOU ▶생분해 플라스틱 소재 PLA관련기술 특허 7종 보유 기업 'KBF' 인수 **BGF** ▶스카이펫(SKYPET) CR양산체계구축 ▶中'슈에'지분10% 취득및한국시장독점권 확보 SK케미칼 삼양패키징 ▶시화공장에폐플라스틱재활용신설비도입 출처·간사 등/사진·ur

Global 석유화학 기업 재활용 추진 현황

Player	기계적 재활용	열분해	PET 해중합	Bio	
Dow	0	0	-	0	
Lyondell Basell	0	0		0	
SABIC	0	0	-	0	
Borealis	0	0 -		0	
Exxon Mobil	-	0	-	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
BASF	0	0		0	
Repsol	0	0	-		
Eastman		0	0	-	

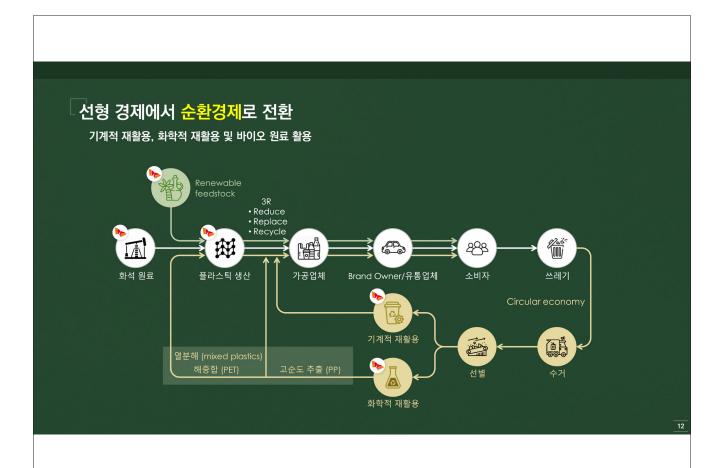
- 51 -

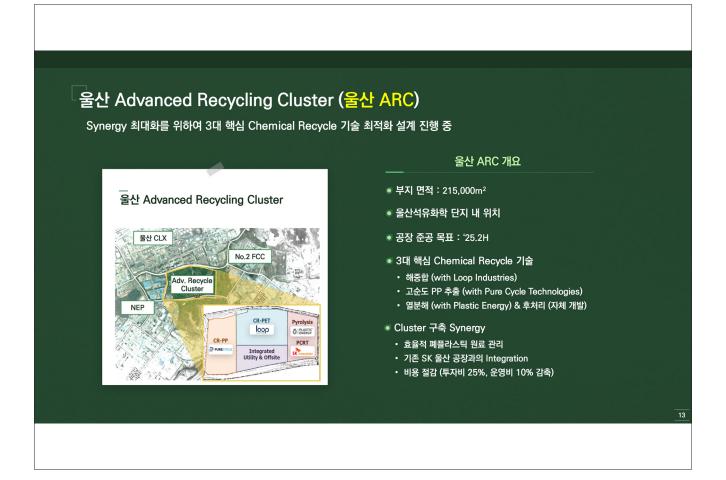
기계적 재활용 vs. 화학적 재활용



구분	기계적 재활용	화학적 재활용	
PET 1톤 당 온실가스 저감 능력	2.4톤 저감	1.5톤 저감	
재활용 원료	단일 성분의 깨끗한 폐플라스틱만 가능	복합재질 및 오염된 폐플라스틱도 가능	
재활용된 플라스틱 품질	원유 기반 플라스틱 대비 품질저하	원유 기반 플라스틱 유사 품질	
재활용 횟수	제한적	영구적	
재활용 공정 설비 투자비용	낮거나 보통	높음	







"플라스틱 재활용" Net Zero 앞당긴 SK 울산 CLX '인생 2막'에 5조원 투자, 세계 최초 3대 기술 한데 모아





14 (EOD)

세션 2



허윤준

한국바스프㈜ Automotive, Materials & Industrial Solutions 사장

허윤준 한국바스프 사장은 2011년부터 바스프 중국, 홍콩, 일본, 한국에서 근무하며 마케팅, 프로덕트 매니지먼트 등 사업부문에 오랜 경험을 쌓았습니다. 이전에는 바스프가 인수한 '코그니스'에서 2003년부터 근무했고, 그밖에도 ERM 코리아 환경 안전분야 시니어 컨설턴트, 삼성엔지니어링 프로세스 엔지니어로서 근무했습니다.

서울대학교 화학공학과에서 학사 및 석사 학위를 받았습니다.

Session 2



Jeff Huh

Vice President, Automotive, Materials & Industrial Solutions, BASF Company Ltd.

Jeff Huh, Vice President of BASF Korea, has worked for BASF in China, Hong Kong, Japan and Korea since 2011, and has accumulated long-term experience in business areas such as marketing and product management. Previously, he worked at 'Cognis', which was acquired by BASF, from 2003. In addition, he worked as a senior consultant in the Environments and safety in ERM Korea and as an Process Engineer at Samsung Engineering Seoul.

He received bachelor's and master's degrees from the Department of Chemical Engineering, Seoul National University.

세션 2



조용원

산업연구원 성장동력산업연구본부 연구위원

조용원 연구위원은 2013년부터 산업연구원 성장동력산업연구본부에서 화학산업을 연구하고 있습니다. 한국 정부가 국내 석유화학산업의 탄소중립 전략을 수립하는 과정에서 조 연구위원은 2020년부터 '2030 국가 온실가스 감축목표(NDC)'와 '장기저탄소발전전략(LEDS)'에 참여하고 있습니다. 그는 폐플라스틱 재활용과 같은 국내 석유화학산업계의 수용성과 기술적 실현가능성이 높은 탄소중립 전략의 발굴에 관심이 많습니다.

조 연구위원은 서울대학교에서 경제학 석사, 미국 워싱턴주립대학교에서 농경제학 박사학위를 받았습니다.

Session 2



Yong-Won Cho

Research Fellow, Center for Growth Engine Industries, Korea Institute for Industrial Economics & Trade

Yong-Won Cho has been researching the Korean chemical industry since 2013 at the Korea Institute for Industrial Economics & Trade. In the process of the Korean government establishing a carbon neutral strategy for the Korean petrochemical industry, he participates in the 2030 Nationally Determined Contributions (NDCs) and the Long-term low Emissions Development Strategies (LEDS) from 2020. Moreover, he is interested in developing carbon-neutral strategies which are highly acceptable and technically feasible in the Korean petrochemical industry, such as plastic recycling.

He received a Master's degree in Economics from Seoul National University and a Ph.D. in Agricultural Economics from Washington State University, U.S.A.



서울기후-에너지 회의 2023 Climate Energy Summit Seoul 2023

토크콘서트 I Talk Concert

플라스틱 순환경제를 위한 우리 사회의 목소리

Non-state actors on LIVE!



서울기후-에너지 회의 2023 Climate Energy Summit Seoul 2023

토크콘서트 I Talk Concert

진행 I Moderator

김소희 I So-Hee Kim

(재)기후변화센터 사무총장

Secretary General, Climate Change Center

영상 I Video

Melati Wijsen

Bye Bye Plastic Bags & YOUTHTOPIA 설립자

Founder, Bye Bye Plastic Bags & YOUTHTOPIA

IH널 | Panel

이채진 I Chae-Jin Lee

코끼리공장 대표

CEO, Kokkirigongjang

원종화 I Jong-Hwa Won

포어시스 대표이사

CEO, Foresys Co., Ltd.

최은원 I Eun-Won Choi

바다살리기네트워크 사무국장

Executive Director, Korea Marine Conservation Network 송준호 I Jun-Ho Song

임팩트온 취재팀장

Editor, Impacton

손보민 I Bo-Min Son

(재)기후변화센터 청년기후활동가 U-savers 정책모니터링팀 리더

Leader, The Policy Monitoring Team, U-savers of Climate Change Center's the Youth Climate Ambassador

진행 I Moderator



김소희

(재)기후변화센터 사무총장

김소희 (재)기후변화센터 및 아시아녹화기구(병설기구) 사무총장은 2008년 국내 최초로 개설해 민·관·산·학계에서 1,000명 이상의 수료생을 배출한 '기후변화 리더십 최고위과정'을 15년 이상 총괄해왔으며, 온실가스 다배출 기업대상 기후·에너지 비즈니스 이니셔티브를 운영해온 기후변화 여성리더 중 한 명입니다.

ESG경영, 순환경제, 청정에너지전환, 탄소시장 등 기후변화 관련 교육과 정책연구 및 공론화, 개발도상국 CDM(청정개발체제) 협력 사업 등을 총괄하고 있습니다. 이외에도, 국회기후변화 포럼 운영위원, 한국신재생에너지학회 부회장, 2050 탄소중립녹색성장위원회 위원, K-순환경제포럼 국제협력분과 위원으로 활동중입니다.

진행 I Moderator



So-Hee Kim

Secretary General, Climate Change Center

The Climate Change Center focuses its efforts in strengthening capacity to cope with climate change and realize a low-carbon society. It functions as a focal point of a global climate change response network and links international organizations. So-Hee Kim, Secretary-General of the Climate Change Center, has taken in charge of the `Climate Change Leadership Academy over 15 years which was first established in South Korea in 2008 and it has been grown with more than 1,000 alumni from the Korean government, businesses, academia and civil societies.

She is a member of Energy Commission the National Assembly Forum on Climate Change, Director of the Korean Society for New and Renewable Energy, Vice Chairperson of the Green Growth and International Cooperation Sub–Commission, of Presidential Commission on Carbon Neutrality and Green Growth, and a member of International Cooperation Sub–commission of K–Circular Economy Forum.

영상 I Video



Melati Wijsen

Bye Bye Plastic Bags & YOUTHTOPIA 설립자

멜라티는 22살의 시민활동가입니다. 12살에 Bye Bye Plastic Bags를 설립했고, 그 이후로 TED와 UN과 같은 세계 무대에서 연설했으며, 최근 세계 경제 포럼 GPAP 위원회의 공동 의장을 맡았습니다. 초대 지구 촬영상 전문가 자문 위원회에 임명되었고, 2021년 제74회 칸 영화제에서 그녀의 영화 Bigger than Us를 초연했습니다.

그녀는 현재 짧고 의미 있는 P2P 프로그램을 통한 청년 역량 강화에 초점을 맞추고 변화를 만드는 데 필요한 도구를 제공하는 새로운 회사 YOUTHTOPIA를 시작했습니다. 그녀의 비전은 YOUTHTOPIA를 젊은 시민활동가들을 위한 플랫폼으로 만드는 것입니다.



Melati Wijsen

Founder, Bye Bye Plastic Bags & YOUTHTOPIA

Melati is 22 years old full time changemaker and movement builder. She founded Bye Bye Plastic Bags at the age of 12, since then, Melati has spoken on world stages such as TED and the UN, she recently co-chaired the World Economic Forum GPAP committee, sat on the inaugural Expert Advisory Panel for the Earthshot Prize, and has had her film, Bigger Than Us, premiere at the 74th Cannes Film Festival 2021.

Today, Melati launched her new company, YOUTHTOPIA, focusing on youth empowerment through short, meaningful peer to peer programs and providing them the tools they need to be changemakers. Her vision is to make YOUTHTOPIA the go to platform for young changemakers.

IH Panel



이채진

코끼리공장 대표

코끼리공장 이채진 대표는 폐 장난감을 순환하는 시스템을 만들고 있는 회사 대표입니다. 전국 40,000개의 아동복지기관들과 협력하여 폐기될 장난감을 재사용 가능하도록 만들고, 재활용이 불가능한 장난감을 재생소재로 만들어내는 기술개발과 프로세스 구축을 위해 노력하고 있습니다. 연간 300톤 이상의 폐기될 장난감을 순환하여 환경오염을 저감하는 부분에 기여를 했습니다.

장난감의 재사용, 재활용을 통해 취약아동지원, 환경오염 저감에 관심을 가지고 있습니다. 코끼리공장 대표, 그린무브공작소 이사장을 하고 있으며, 울산대학교에서 아동학 석사학위를 받았습니다.



Chae-Jin Lee

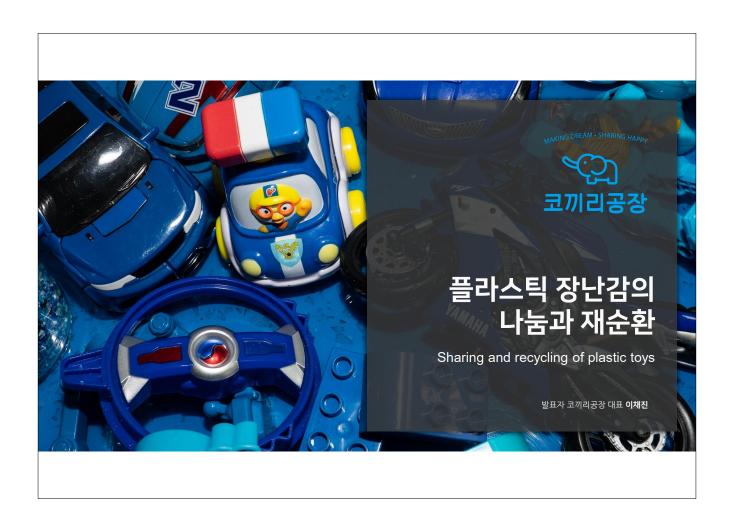
CEO, Kokkirigongjang

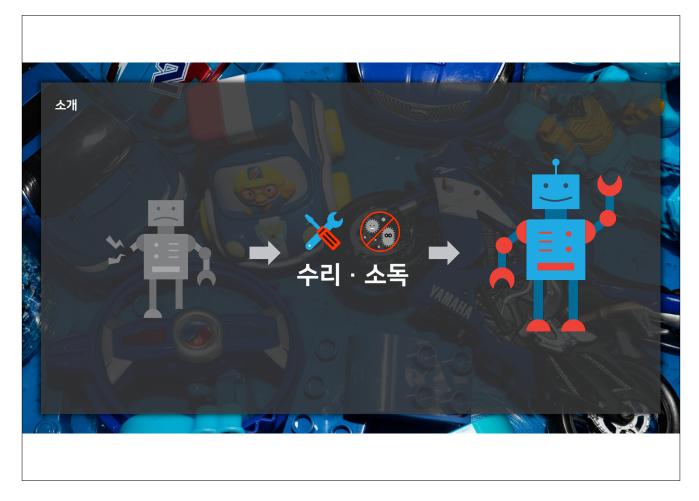
Chae-Jin Lee, CEO of Elephant Factory, is the CEO of a company that is creating a system that circulates waste toys.

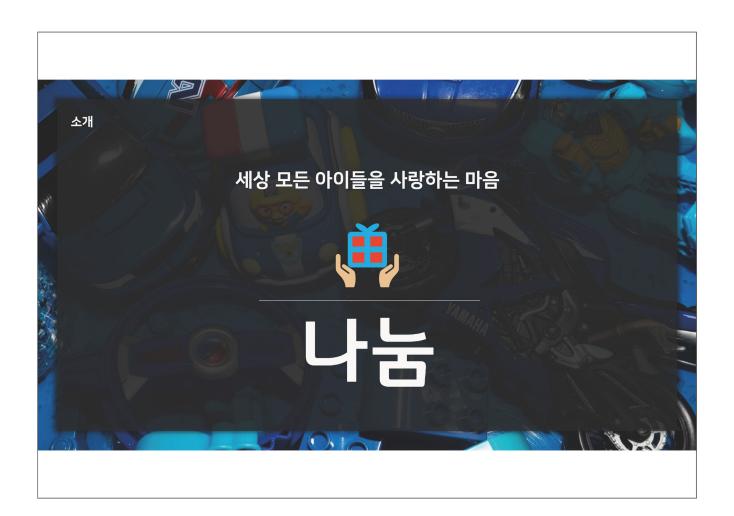
We are working with 40,000 child welfare institutions across the country to make toys that will be discarded reusable and to develop technologies and establish processes to make non-recyclable toys into recycled materials. It contributed to reducing environmental pollution by circulating more than 300 tons of toys that will be discarded annually.

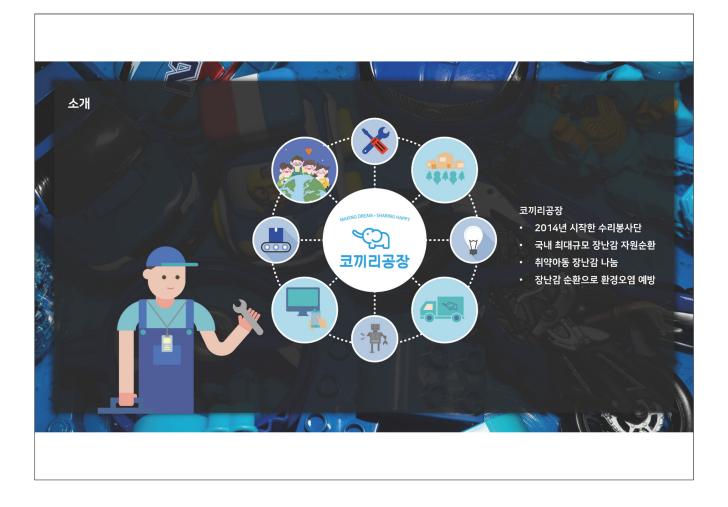
We are interested in supporting vulnerable children and reducing environmental pollution through the reuse and recycling of toys.

CEO of Elephant Factory, Chairman of Green Move Workshop, and received a master's degree in children's studies from Ulsan University.





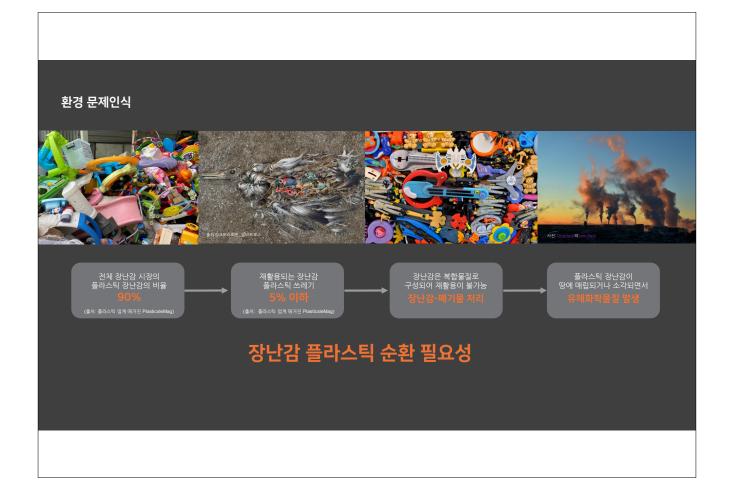


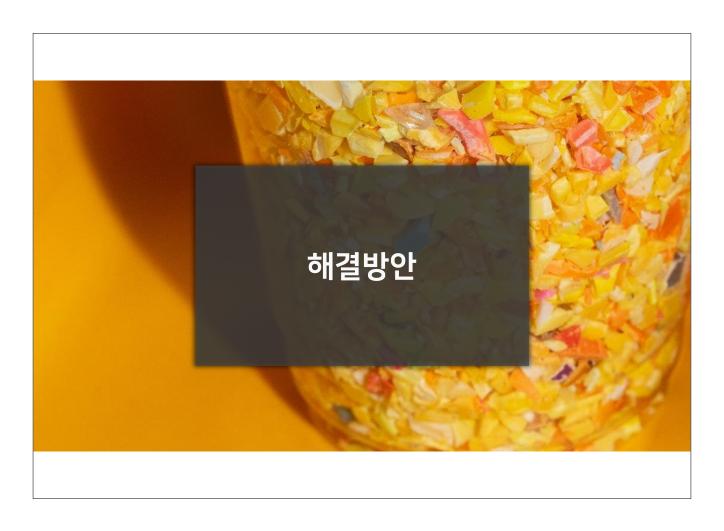


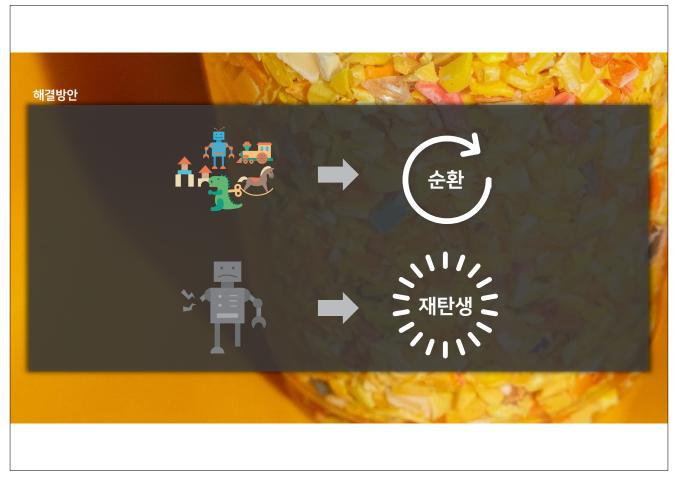


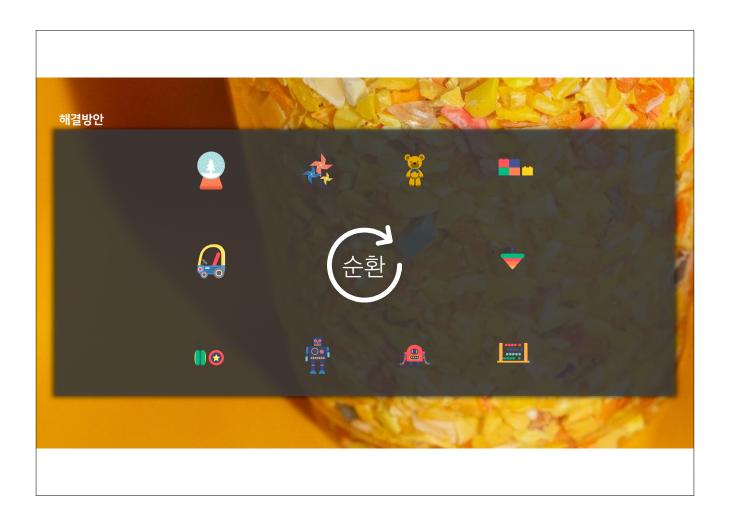


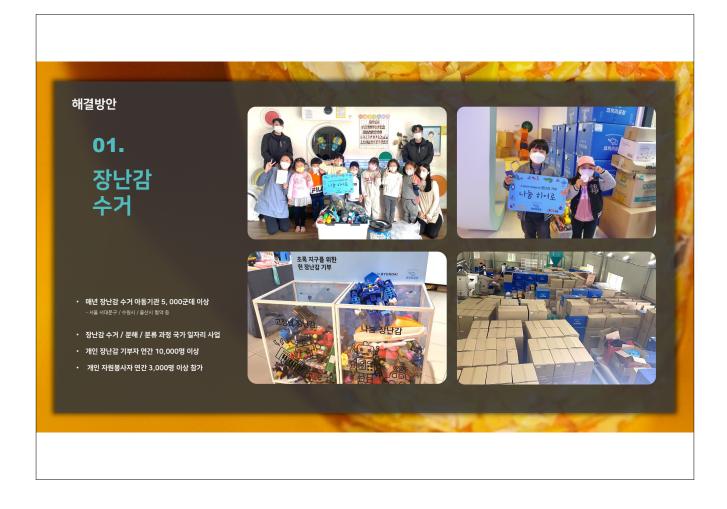




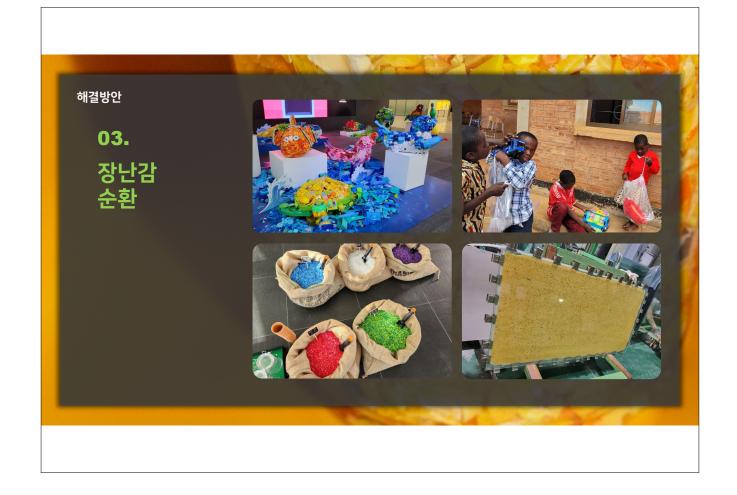


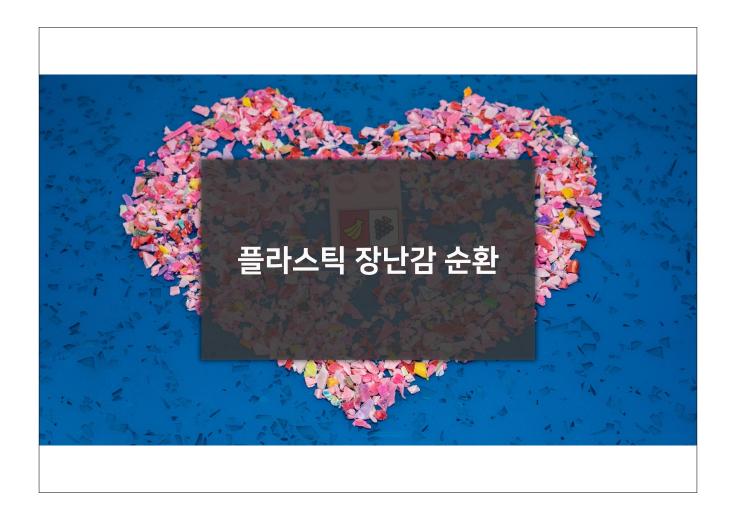


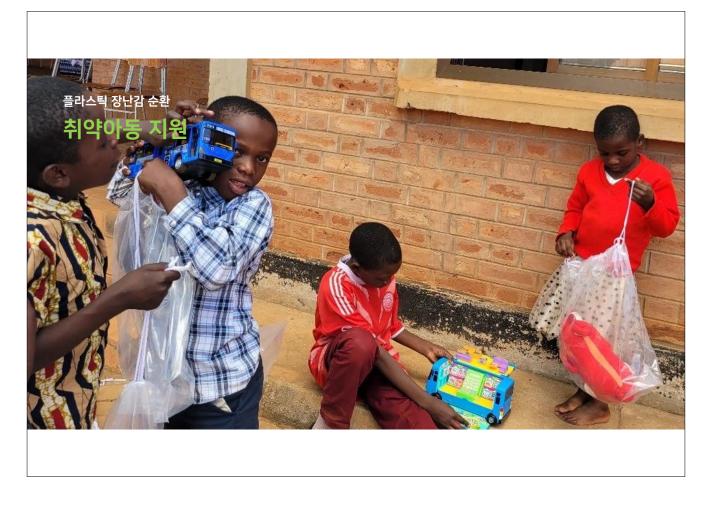












플라스틱 장난감 순환취약아동 지원





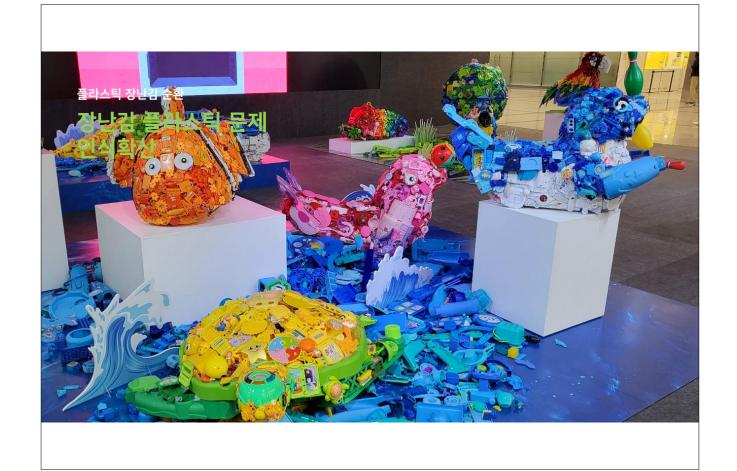
플라스틱 장난감 순환 장난감 교환 나눔











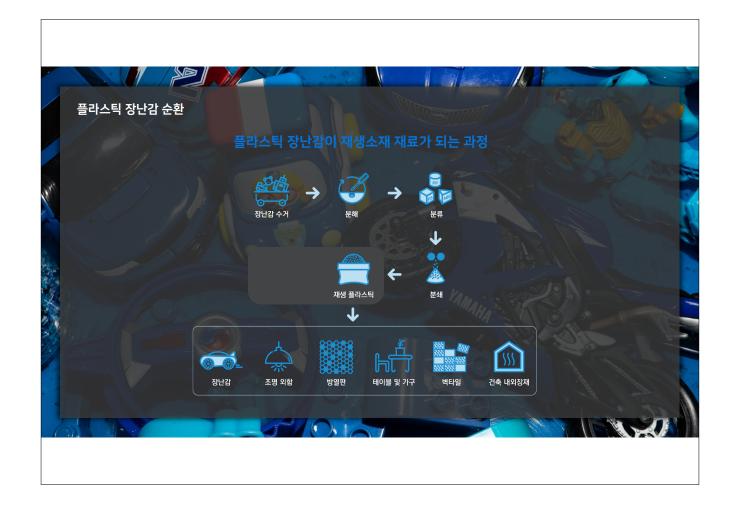
플라스틱 장난감 순환

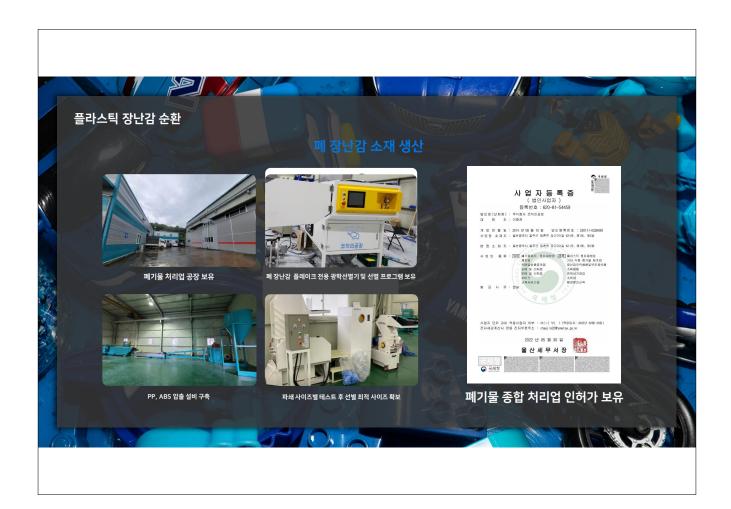
장난감 플라스틱 문제 인식확산

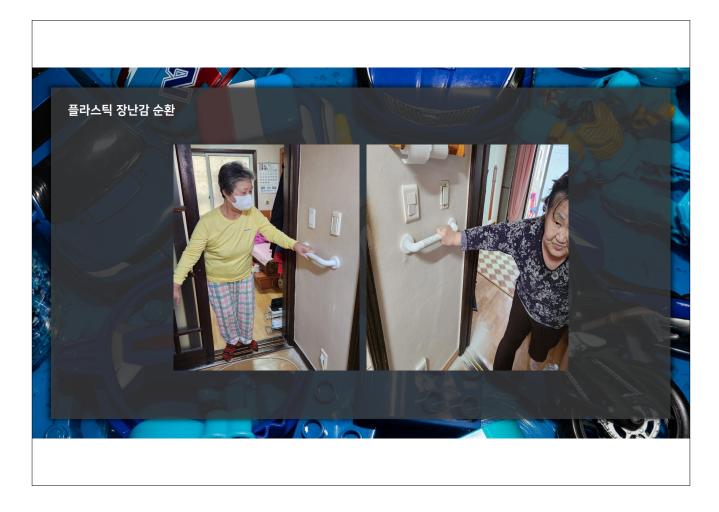


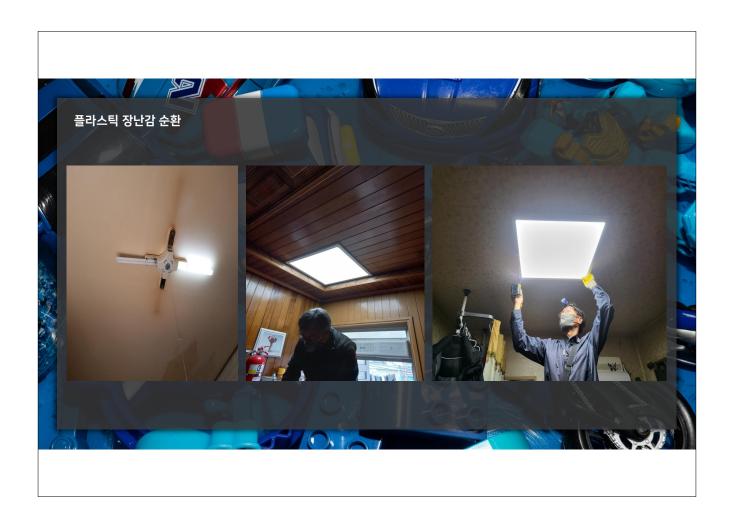


플라스틱 장난감 전환 재생소재 활용

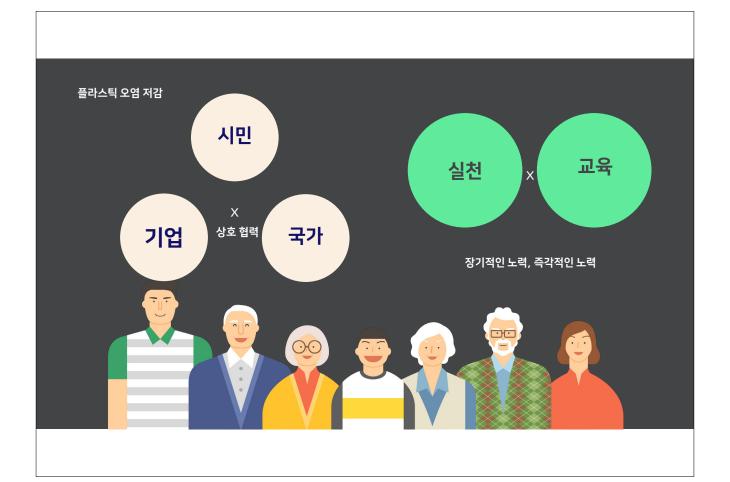


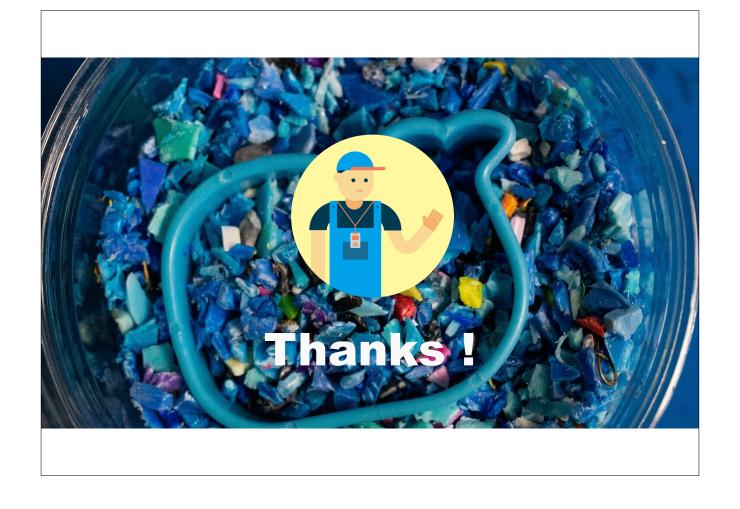












IH Panel



원종화 포어시스 대표이사

원종화 대표는 2017년에 ㈜포어시스(Foresys Co., Ltd.)를 설립하고, 대표이사로 재직하고 있습니다.

신재생을 포함하는 에너지분야, 해양환경 분야의 연구, 정책, 엔지니어링에서 전문성을 인정받아 국내외 전문가로 활동하고 있습니다. 특히, 해양쓰레기의 초기 육상 유출 방지를 위한 하천관리, 해양폐기물의 산업소재화 부분에 사업적인 성과를 거두고 있다. 지난 제7차 해양쓰레기컨퍼런스(7th International Marine Debris Conference, UNEP)의 학술분과위원, ISO/TC 8/SC 7 선박기인쓰레기 관리(Management and handling of shipboard waste on inland navigation vessels) 전문위원 등으로 활동하고 있습니다. 해양 쓰레기의 방지, 수거에서 자원순환, 가치소비에 이르는 선순환 밸류체인 구축을 꿈꾸고 있습니다.

연세대학교에서 토목환경공학(civil and environmental engineering) 전공으로 응용역학(applied mechanics) 박사를 취득했습니다.



Jong-Hwa Won

CEO, Foresys Co., Ltd.

Jong-Hwa Won is the CEO of Foresys Co., Ltd. established in 2017.

He earned a bachelor's degree in Civil and Environmental Engineering and a Ph.D. in Applied Mechanics from Yonsei University, Seoul, Korea. He is working as an expert in Korea and abroad in recognition of his expertise in research, policy, and engineering in the energy and marine environment field, including renewables. In particular, he has made business achievements in river debris management and industrial materialization of marine waste. He is a member of the Organization Committee of the 7th International Marine Debris Conference held in Busan last year and an expert on the Management and handling of shipboard waste on inland navigation vessels.

He is dreaming to establish a virtuous cycle value chain from preventing and collecting marine debris to resource circulation and value-conscious consumption.

IH Panel



최은원

바다살리기네트워크 사무국장

바다살리기네트워크 사무국장인 최은원은 환경 보호와 바다 생태계의 회복을 위한 열정과 지식을 가진 환경운동가입니다. 지난 21년 발촉한 전국 20곳 해양보호단체 협의체 바다살리기 네트워크를 이끄는 중추적인 역할을 수행하고 있으며, 해양 오염 감소, 해양 생태계의 복원, 해양폐기물 처리 방안 연구 등 다양한 활동을 추진하고 있습니다. 대표적으로 시민과 정부기관, 기업의 협업을 연결하여 바다정화 활동을 지원하고, 해양 플라스틱(Other소재)의 새활용 연구 활동을 이어가고 있습니다.

시민들과 함께 사회문제를 발굴하고 확산하는 소셜벤처 프로젝트퀘스천의 대표로도 활동하고 있으며, 한국과학기술원에서 사회적기업 MBA 석사, 성균관대학교에서 영문학 및 경영학 학사학위를 받았습니다.



Eun-Won Choi

Executive Director,
Korea Marine Conservation Network

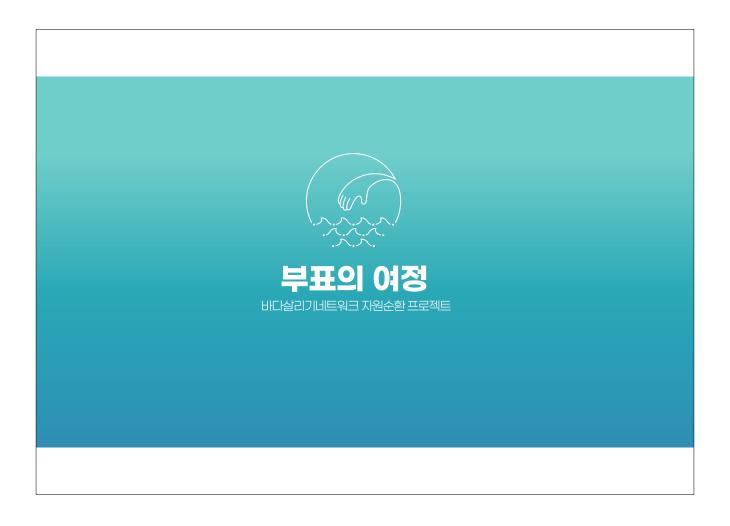
Eun-Won Choi, executive director of the Korea Marine Conservation Network, is an environmental activist with passion and knowledge for environmental protection and restoration of the marine ecosystem.

She is playing a pivotal role in leading the Korea Marine Conservation Network, a consultative body of 20 marine conservation organizations nationwide launched in 21st year, and promoting various activities such as reducing marine pollution, restoring the marine ecosystem, and researching marine waste treatment methods.

As a representative example, she connects collaboration between citizens, government agencies, and companies to support sea cleanup activities, and continues research activities on the upcycling of marine plastics (Other materials).

She is also a representative of 'Project Question', a social enterprise that discovers and spreads social problems with citizens.

She received a master's degree in social enterprise MBA from the Korea Advanced Institute of Science and Technology and a bachelor's degree in English Literature and Business Administration from Sungkyunkwan University.



바다살리기네트워크는 어떤 단체 인가요?



바다살리기네트워크 = 해양폐기물 문제의 '다양성'

서해 수도권 / 동해 / 제주 등 3개 권역 연안 / 부유 / 침적 쓰레기 다양한 관심 주제











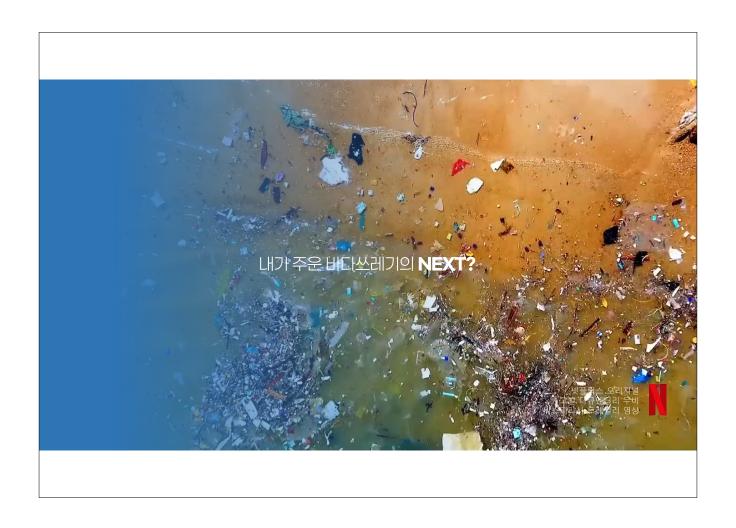
특정 폐기물

공인 참여

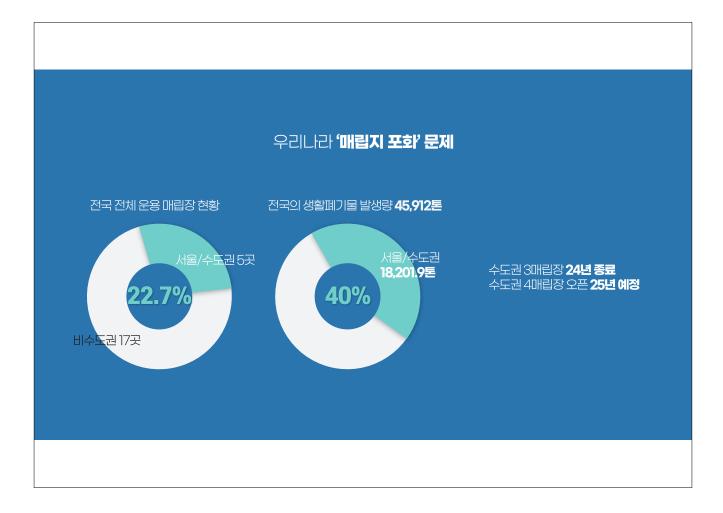
그린다이빙

캠페인

데이터



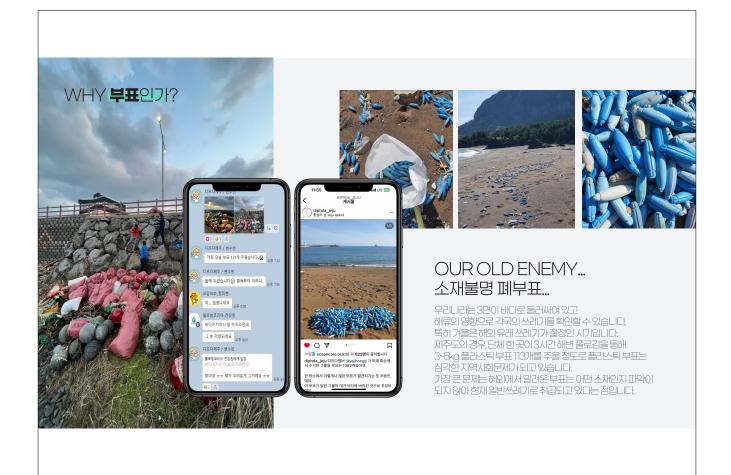


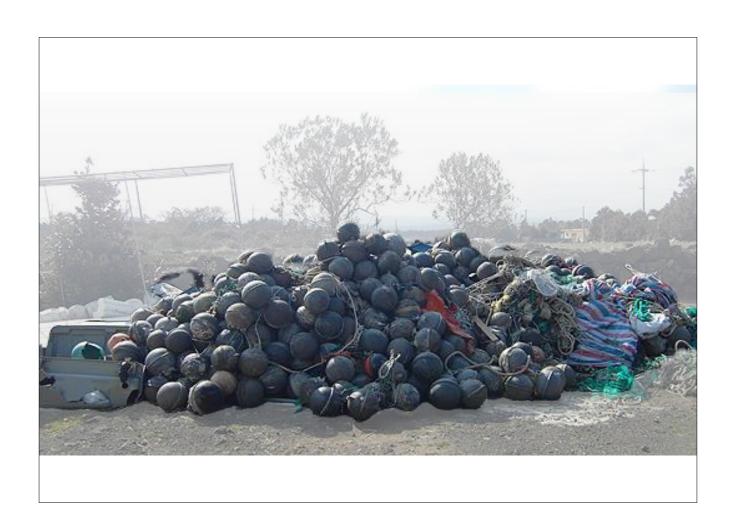


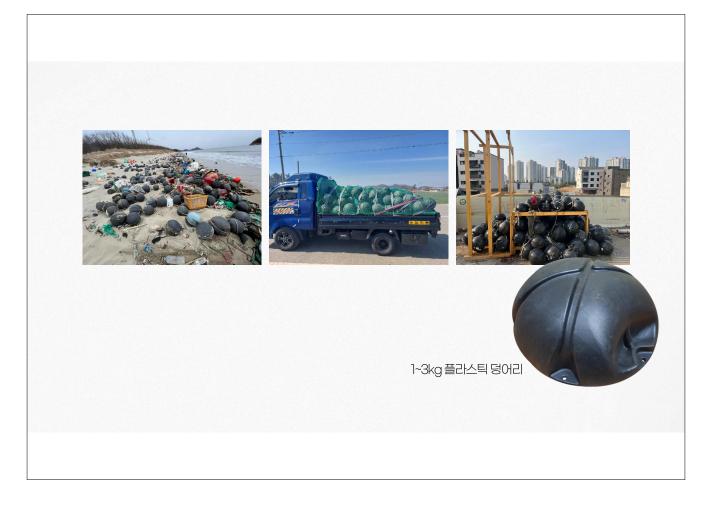


2023년 바다살리기네트워크 공통의제 '새활용'









폐부표 판재의 다양한 활용



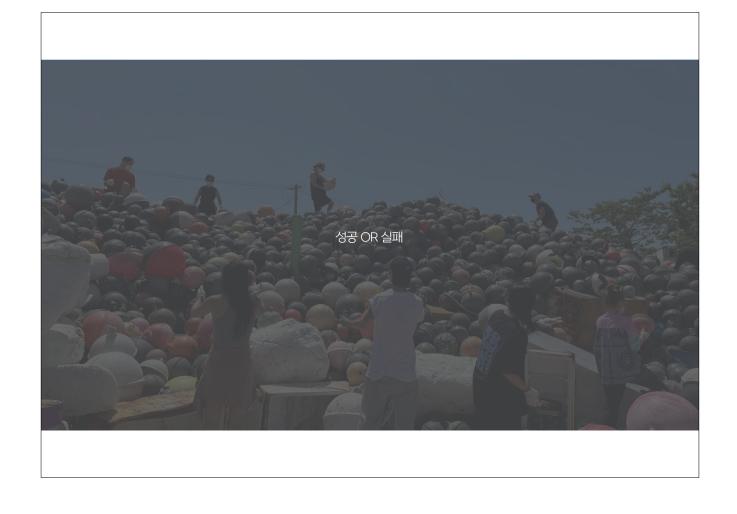






- 01 활동가 수거 - 02 1차 처리/배송 - 03 새활용 판재 - 2차탈염 1. 서해/수단권 - 일정기간집해장수거 - 원료화작업 2. 통해 - 광장으로 배송 - 판별 제작 - 아트윅 제작







IH Panel



송준호

임팩트온 취재팀장

송준호는 ESG 전문 미디어 임팩트온 기자로서 취재팀을 이끌고 있습니다. 팀은 국내외 ESG 최신 및 주요 이슈와 트렌드 기사, 전문가 인터뷰를 통해 ESG 생태계에 정보를 제공하고 있습니다. 임팩트온은 기업 ESG 교육 제공, 컨퍼런스 주관, ESG 관련 도서 출간, 대학생기후변화 기자단 운영 등 다양한 방식으로 지속가능성 생태계에 기여했습니다.

송준호 팀장은 지속가능성 부문 전반에 관심을 갖고 ESG 기사 작성, 전문 강사, 기자단 멘토, 사회적가치연구원의 <ESG Handbook Basic>, <S in ESG> 공저자로 다양한 활동을 이어오고 있습니다. 한국외대에서 스칸디나비아어학과 정치외교학을 전공했고, 경희대 평화복지대학원에서 국제평화학을 전공했습니다. 비영리 인권미디어 '미디어눈'의 대표직을 역임했으며, 현재 이사로 활동하고 있습니다.

IH Panel



Jun-Ho Song

Editor, Impacton

Jun-Ho Song is a senior reporter at a media company, IMPACT ON that focus on ESG issues. IMPACT ON provides information about ESG ecosystem through articles on the latest ESG issues, trends, and the analysis of experts. IMPACT ON has contributed to the sustainability ecosystem in various ways, including corporate ESG training, conferences, and research document and green journalism education.

Jun-ho Song, a team Leader, is dedicated to increasing the awareness on sustainable future as a writer, professional lecturer, mentor, and co-author of "ESG Handbook" and "S in ESG" by SK Center for Social Value Enhancement Studies (CSES). He majored in Scandinavian languages and Political Science and Dipolomacy at Hankuk University of Foreign Studies and International Peace Studies at Kyung Hee University Graduate Institute of Peace Studies. Before arriving at IMPACT ON, he served as the CEO of the non-profit human rights media 'MediaNoon', where he is a board member.

CESS 2023

국제 플라스틱 오염 협약과 국제사회의 목소리

송준호 임팩트온 기자

플라스틱 오염 종식을 위한 국제 협약

- 국제 플라스틱 협약 제2차 정부 간 협상 위원회, 지난 5월 29일 개최
- 파리기후협약의 플라스틱 Ver.
- 2024말까지 협상 완료 계획(회의 총 5회)
- 플라스틱 재사용과 재활용 등 통해 2040년까지 플라스틱 오염의 80% 감축

플라스틱 협상을 둘러싼 목소리





기준 강화

- UN환경계획(UNEP) 플라스틱 폐기물에만 초점
- 재활용 시설에 도달하는 플라스틱양 9%
- 플라스틱 생산 제한 및 단계적 중단

국가별 기준 도입

- 플라스틱의 재활용 강조
- 글로벌 기준<국가 주도의 플라스틱 감

플라스틱 제거연합(AEPW)





AEPW 그린워싱 논란

플래닛 트래커(Planet Tracker) 22.09

- AEPW 회원사 절반, 미국화학협회(ACC) 소속
- ACC, 플라스틱세 반대 캠페인
- 리뉴 오션스(Renew Oceans) 프로젝트 1년만에 중단
- 낮은 목표와 저조한 이행상황 비판





플라스틱 정보 공개 요구

탄소 정보 공개 프로젝트(CDP, Carbon disclosure project)

- 기업 1만 8600여곳 환경정보 공개
- 740개 투자사 기업의 플라스틱 관련 영향 공개 요구
- 플라스틱 사용이 기업 경영 리스크와 주가 하락으로 이어질 위험 지적



주주 행동주의

Yum! Brands, 주주제안

- ESG 행동주의 투자자 애즈유소우
- 플라스틱 사용 저감 노력에 관한 보고서 작성 요구
- 주주의 36.9% 주주제안에 찬성, 통과

지속가능한 소비

Harvard Business Review

- ▲기후위기를 믿지 않는 기후변화 거부자(4%)
- ▲자신의 취향대로 소비하는 습관형 소비자(30%)
- ▲주로 친환경 프리미엄 제품을 구매하는 호기심 많은 소비자(11%)
- ▲환경보호를 실천하지만 ESG 제품은 사지 않는 의식 있는 비소비자(32%)
- ▲환경보호를 실천하고 ESG 인증까지 고려하는 의식 있는 소비자(24%)

측정가능하고 직관적으로 제품의 친환경적 가치를 강조하라

일반적인 소비 기준을 충족해라

브랜드 경쟁력을 높여라



IH널 I Panel



손보민

(재)기후변화센터 청년기후활동가 U-savers 정책모니터링팀 리더

유세이버스는 'You Save the Earth, You save Us' 라는 슬로건 아래, 자발적인 기후변화 대응 실천을 펼치는 기후변화센터 청년 기후 활동가입니다. 기후변화의 피해자이자 당사자로서 미래세대에게 보다 효과적으로 기후변화 대응 메시지를 전하기 위해 온오프라인으로 활동하고 있으며 2012년부터 439명의 활동가가 모였습니다. 정책모니터링팀은 올해 신설된 팀으로서 미래세대의 책임과 권리를 반영하고자 기후위기 대응 정책과 제도를 연구하며 이를 공유하고 공론장을 마련하고 있습니다.

팀의 리더인 손보민은 이화여자대학교에서 환경공학을 전공하며 지구와 인류의 지속가능한 미래를 위해 다양한 노력을 전개하고 있습니다. 환경문제를 해결하고 세계 평화에 기여하고 싶은 꿈을 가지고, 유엔본부 한국대학생 대표단 12기와 국제리더십협회(AIESEC in EWHA) 환경프로젝트 리더로도 활동중입니다.



Bo-Min Son

Leader, The Policy Monitoring Team, U-savers of Climate Change Center's the Youth Climate Ambassador

U-Savers are the Climate Change Center' youth ambassador voluntarily engaging in climate change response under the slogan of 'You Save the Earth, You save Us'. As the future generation which is both victims and actors of climate impacts, the number of 439 U-Savers have raised citizens' awareness on climate change by implementing in various on and off campaigns since 2012. As turned 16th years in 2023, the Policy Monitoring Team involves in improving policy information, and providing feedback to reframe and revise policies at the citizens' level.

Bo-Min Son studies in environmental engineering in Ewha Womans University. As well as a leader of the team, she also leads the 12th Korean University Student Delegation at the United Nations Headquarters and the International Leadership Association(AIESEC in EWHA). In order to contribute for world peace, she has stepped forward to solve environmental problems.



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완벽한 ZERO보다 IO명의 LESS

U-SAVERS 167





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완벽한 ZERO보다 10명의 LESS

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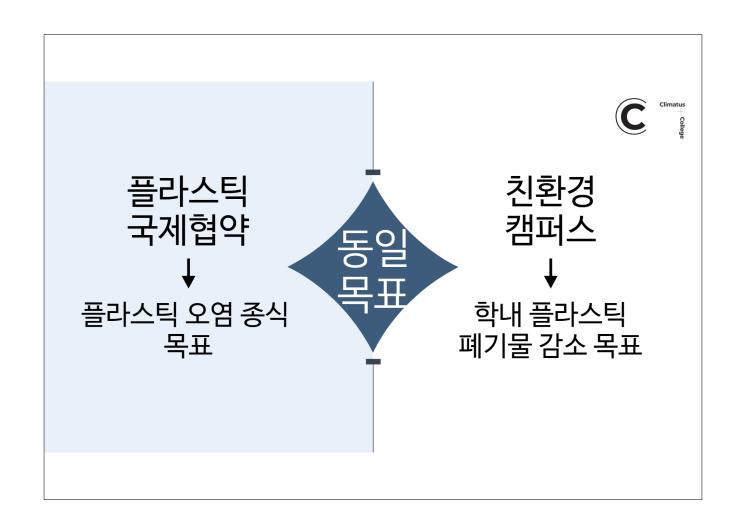
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학교를 넘어서









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제로&그린 캠퍼스



대학의 에너지 사용과 온실가스 배출 저감을 위한 그린캠퍼스 사업 추진 대학 협의체



대학의 온실가스 감축 및 지속가능 성장을 위해 환경부장관이 지정하는 대학



'제로웨이스트 서울 프로젝트' 사업을 캠퍼스에 적용, 학내 폐기물을 줄이기 위한 친환경 캠퍼스 서울시는 대학과 학생들이 함께 참여하는 교내 일회용 컵, 용기, 포장 'Zero'를 추진할 계획이에요.







출처: 한국그린캠퍼스협의회 / 환경부 / 서울시 제로캠퍼스

재학생이 촬영한 학교별 시험기간 폐기물 현황 (2023년 6월 기준)











캠퍼스의 주체, 학생이 제대로 알지도, 행동하지도 못 하는 상황





Climatus + CO E

02

'플라스틱 덜어내는' 캠퍼스

[개선방향]

1. 일상 속에 스며들게



일회성 이벤트가 아닌 꾸준하고 실질적인 활동 전개

<u>2</u> 작은 불편함, 큰 뿌듯함



우리가 선택한 LESS만큼의 불편함은 MORE만큼의 뿌듯함과 영향으로

<u>3</u> 행동의 습관화



자연스럽게 일상에 변화를 준다면? 기후행동의 습관화, 실천의 일상화

2. 학생이 주체가 되어





플라스틱 폐기물을 이용한 건축 자재 활용













교내외 재활용 어플 제공 (2021~)

출처: https://uwaterloo.ca/sustainability/blog/post/what-are-eco-bricks



Clima

3. 거버넌스 협력 확대

BOTTOM UP!



아래에서 위로 쌍방향 소통 학교와 사회, 정부에 의견 개진

<u>-</u> 재미있는 그린 캠퍼스



전국 대학이 참여할 수 있는 놀이형 캠페인, 프로젝트 진행

<u>3</u> 긍정적 인식 부여





플라스틱을 사용하지 않았을 때의 긍정적인 효과, 이미지 부여

출처: https://www.fm.uci.edu/news/Recycle_mania.php/ 보건복지부



College





'플라스틱 덜어내는' 캠퍼스







┃ **일상 속에 스며들게** 각자가 선택한 작은 불편함들이 모여 순환경제에 큰 기여를 하는 캠퍼스

| 학생이 주체가 되어

지속적이고 자발적으로 변화를 만들어가며 학생이 스스로 행동하는 캠퍼스





시거버년스 협력 확대 학생뿐만 아니라 학교, 사회, 정부가 함께 협력하여 문제를 해결하는 캠퍼스



캠퍼스에서 '플라스틱 덜어내는 <mark>전세계</mark>까지



완벽한 ZERO보다 IO**명의** LESS





서울 기후-에너지 회의 2023 **Climate Energy Summit Seoul 2023**

협찬사



















