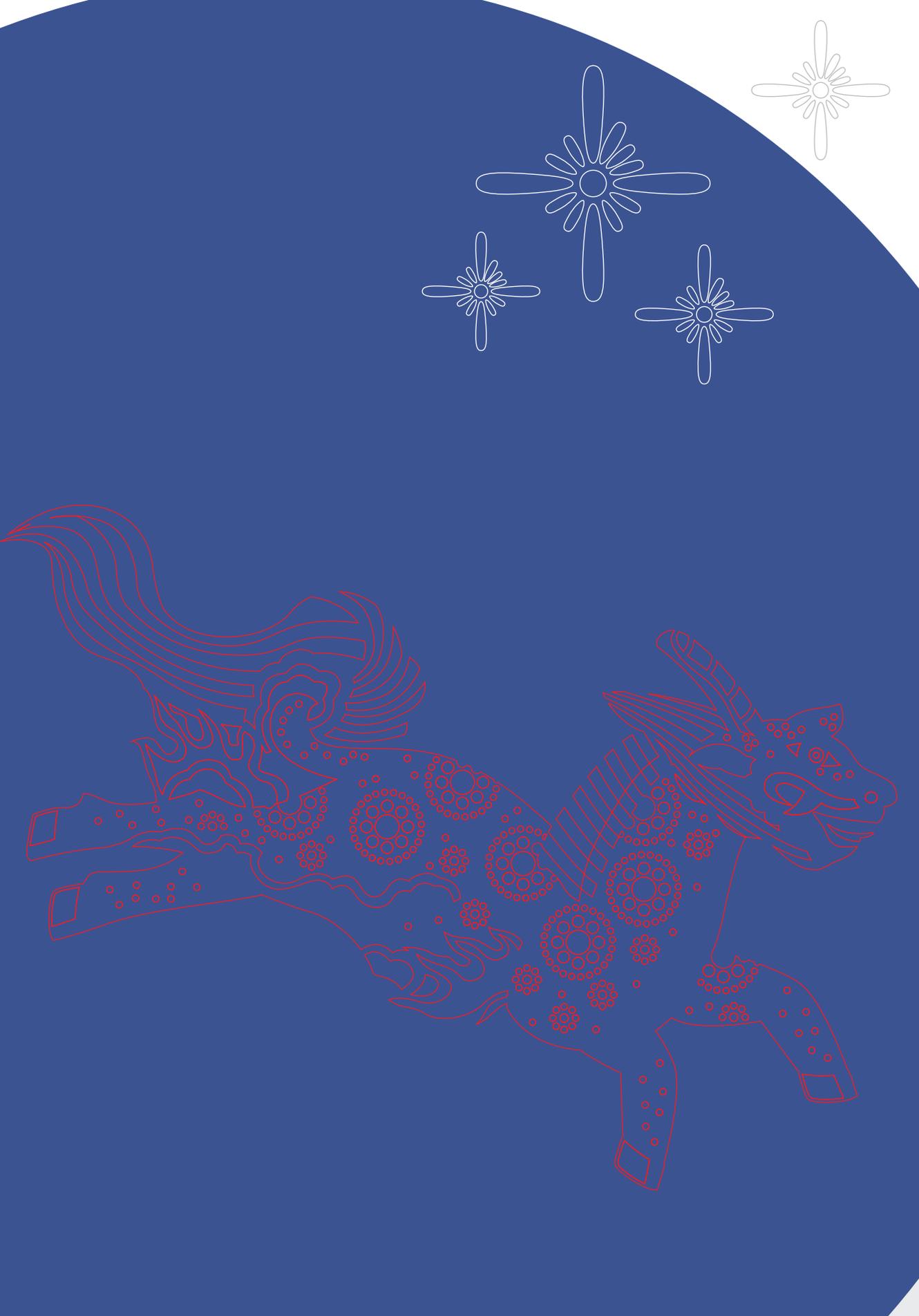




A Bridgehead to
**enhance Korea-EU
R&D Cooperation**



MyonJung KIM
Director General
of KEREC

Greeting

Once, Korea was a 'far and disparate' land to Europe according to the Journal of Hendrik Hamel, a Dutch sailor who spent thirteen years in Jeju Island (Korea) after a shipwreck in 1653.

Since then, however, we have witnessed considerable changes in status of both sides in the international society, which brought Korea and the EU (then, EEC) together to establish diplomatic tie in 1963. And In 2010, both sides agreed to see their relationship evolve to a 'strategic partnership.'

The official partnership as regards the R&I areas was formed in 2007 by implementing the Korea-EU Scientific & Technological Cooperation Agreement.

In this context, Korea-EU Research Centre (KEREC) was launched in 2013 to promote the R&I cooperation between Korea and the EU, under the influence of Korean Ministry of Science, Technology and ICT and the National Research Foundation of Korea (NRF).

For the mission of fostering the R&I collaboration between Korea and Europe, we undertake various activities, from improving mutual understandings to creating opportunities for diversified match-makings and collaborations.

It is cordially welcomed for researchers and institutes of both sides to utilize KEREC as a hub for international cooperation. We invite you over to "A Bridgehead to enhance Korea-EU R&D Cooperation."

Thank you.

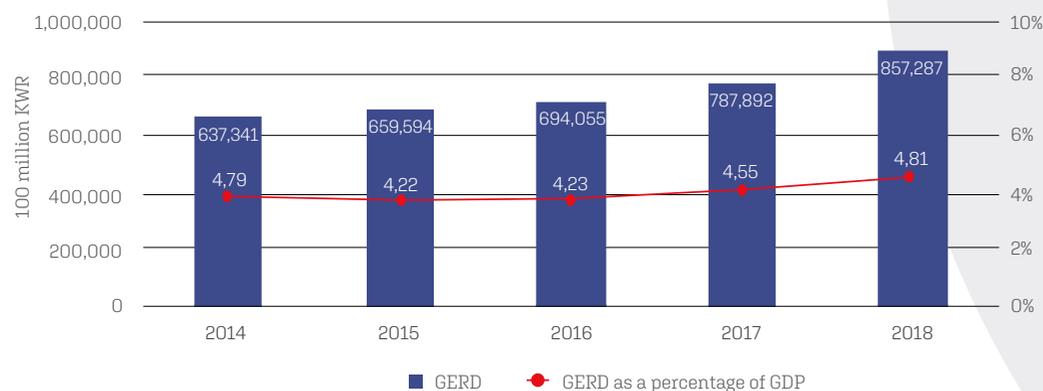
Why Korea?

R&I Resources

Korea has achieved rapid economic growth to become one of major economies in the world. It has the 4th largest economy in Asia, and the 11th in the world. It currently has a population of 51 million, and its GDP reached to 1,332 billion euro, and GDP per Capita to 26,118 euro.

Korea R&D spending as a share of GDP has exceeded 4.55% in 2017, which is the highest level among all countries. Regarding the pool of researchers, the total number of researchers per 1000 population is greater than 7, which is very high compared to the major countries. It came from the strong education and the investments in natural science and engineering.

GERD [Gross Domestic Expenditure on R&D] of Korea

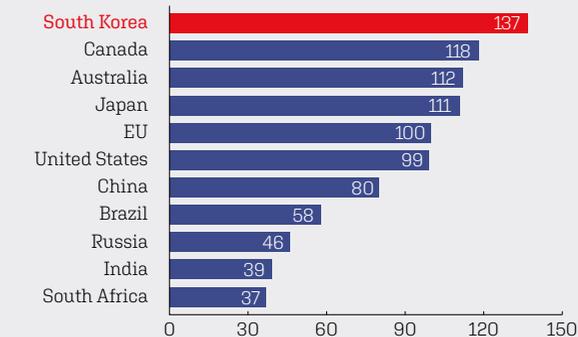


R&I Performances

Korea had a great success especially on the performance in the publications and patents. It has the 12th largest number of publications (SCI) among all countries, and the 5th in patent applications to the Patent Cooperation Treaty (PCT).

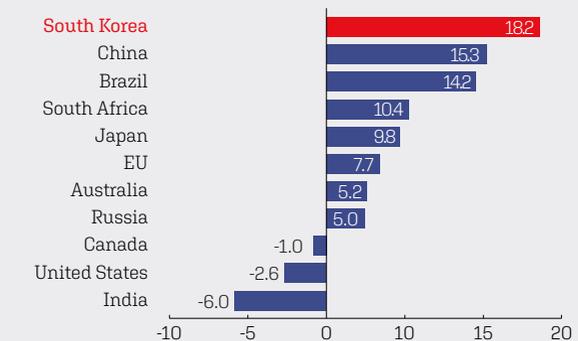
In European Innovation Scoreboard 2019, Korea was valued as “the most innovative country” and “the innovation Leader” whose performance level was almost 37% above the level of EU. And it also showed that the relative-to-EU performance has increased most in Korea during the period of 2011-2018.

Global performance



Countries' performance in 2018 relative to that of the EU in 2018

Change in Global performance



Change in performance is measured as the difference between the performance in 2018 relative to the EU in 2011 and the performance in 2011 relative to the EU in 2011.

ICT Korea



Information and communication technology has been a key engine for economic growth in Korea. Korea is the first country who commercialized 5G wireless communication networks, and shares 23.6% of global semi-conductor market (2018). ICT is the core technology for the scientific innovations since it facilitates convergences of different technologies. Given that there will be enormous playgrounds for the software technology in the coming era, many efforts of Korean researchers have been and will be done, to improve their competitiveness in areas of AI, Data, Network with the support of the government.

Main outcomes in 2019

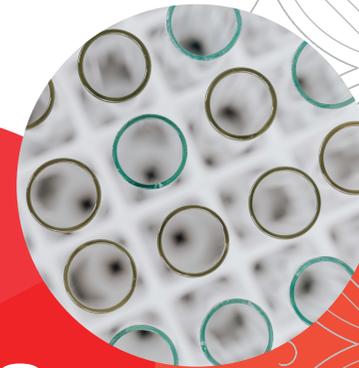
World's first 5G telecommunication
Korea succeeded in commercializing the world's first 5G network



The 'Rollable' TV
LG unveiled world's first rollable OLED TV



BT Korea



BT in Korea is important as an alternative for a sustainable society in response to global population growth and aging, resource depletion and climate change, also it is a new industry with high growth potential and employment. In addition to increasing venture investment, companies in various fields such as IT and services are expanding. Competitiveness in infrastructure aspects such as biological evaluation from bench to bed is excellent in Korea. Reinforcing global competitiveness and increasing market share of Korean companies by improving regulations on biomedical and medical devices are expanding by government support.

A breakdown research of Alzheimer's disease
Researchers in Seoul National University discovered a mechanism of brain that regulate the substance causing Alzheimer's disease



A new path to treatments of degenerative brain diseases
Institute of Basic Science identified brain drainage pathway inducing dementia

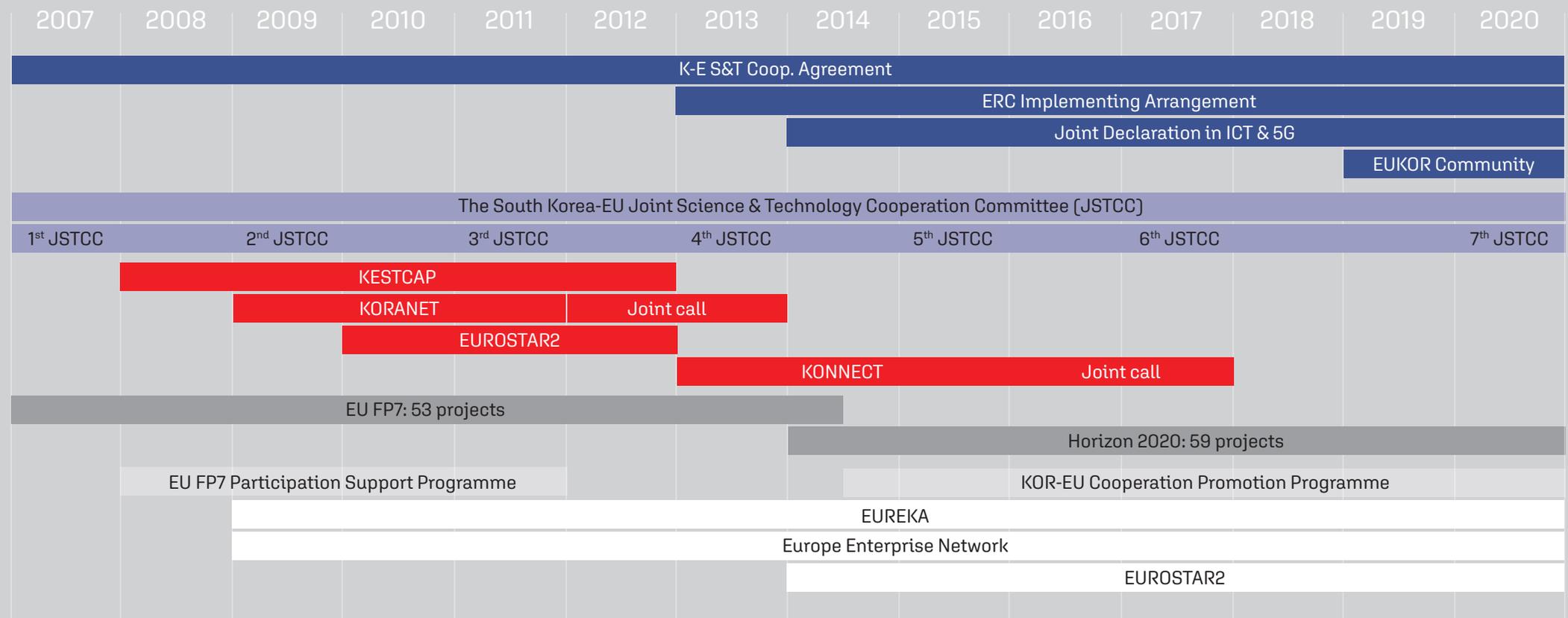


KOREA-EU R&I Cooperation

The cooperation between EU and Korea has performed more than 100 joint research projects since 2007. Until now, Korea has involved in Horizon 2020 as 59 projects, which are divided into ICT (17), BT (12), NT (10), ET (7), ST (5) in order. The EC's Joint Research Centre also cooperates with Korean Institutions mainly in the fields of health, measurement science, energy and transport, construction standards, nuclear safety and security. As Korea-EU summit suggested in 2018, the main interests are ICT, nanotechnology, health, climate, energy and mobility to jointly tackle global challenges.



KOR-EU Cooperation



Main Activities of KERC

KERC 2020-2021

"Leadership beyond membership"



Information Sharing

01

- Collect and analyze information on R&D programs, current issues and trends
- Publish 'KERC Newsletter' and 'Issue Report'
- Information sharing via website: k-erc.eu

Path-finding

02

- Promote researchers of both sides to in/outbound exchange programs
- Hold info-days to provide opportunities for collaboration

Networking

03

- Linkage with research institutes and funding agencies between Korea and Europe
- Organize networking meetings
- Organize and Manage EUKOR Community
- National Coordinator of NCP

Facilitating

04

- Play a role as Korea/EU Desk for each side
- Support partnering and provide tailored information

Expertise-driven activities

Enhance expertise on main R&I cooperation areas (ICT, BT, Policy)

EUKOR Community

Activate the Korea-EU Networking platform for collaborative actions between research and funding agencies in Korea and in Europe

KERC Newsletter

Publish newsletters on the research and the R&I policy trends in Europe and in Korea : "What's new in Europe" & "What's new in Korea"

KERC Issue Report

In-depth analysis on societal issues (e.g. Open Access, Gender equality, Research ethics)

EU Research Career

Enhance opportunities for young researchers to develop their research careers in Korea and in Europe

e-KERC www.k-erc.eu

To increase its accessibility and availability, through the web platform, share the relevant knowledge & information and digitalize the activities promoting Korea-EU R&I cooperation

EUKOR Community

The Europe-Korea Research and Innovation Community was launched in 2019 as a structured platform for collaborations. The Community aims to promote Korea-EU R&I cooperation through the knowledge exchange on the R&I policy, the match-making events for researchers, and joint calls to support research collaborations and mobility programmes.



The Community is jointly founded by following agencies



Czech Academy of Science
Czech Republic



Centre National de Recherche et Science
France



Centre for the Development of Industrial Technology
Spain



German Aerospace Center
Germany



Fond National de Recherche Scientifique
Belgium



National Centre for Research and Development
Poland



National Research Foundation of Korea
Korea



Research Council of Norway
Norway



Romanian Office for Science and Technology
Romania



Swiss National Science Foundation
Switzerland



Korea-EU Research Centre (Secretariat)
Korea

Member Organisations of KOREA



National Research Foundation of Korea (NRF)

National funding agency of Korea covering all academic fields and supporting research capacity.



Korea Institute of S&T Evaluation and Planning (KISTEP)

Government-funded policy institute in science and technology area.



Electronics and Telecommunications Research Institute (ETRI)

Research institute pursuing innovations of the information and communication technologies.



Institute for Information and Communications Technology Promotion (IITP)

Government-funded institute supporting research projects of the information and communication technologies and supporting research capacity.



Korea Institute of Oriental Medicine (KIOM)

Research institute leading development of innovative oriental medicines.



Korea Agency for Infrastructure Technology Advancement (KAIA)

Government-funded institute promoting innovations of land, infrastructure and transportation.



Rue de la science 14A
1040 Brussels
Belgium
Tel. +32 (0)2 880 39 05
www.k-erc.eu

