Organizer Click the logo

Partner Click the logo

Venue Click the logo

KOREAN SOCIETY OF MICROSCOPY

IFSM

Imagine your Korea

부산광역시 BUSAN METROPOLITAN CITY

BUSAN TOURISM ORGANIZATION

bexco

Special Promotion @ MMC

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For enquiries Please email secretary@imc20.kr

Visit our website for more information on IMC20.

IMC20.kr

Welcome To Busan, Korea

IFSM PRESIDENT

On behalf of the International Federation of Societies for Microscopy (IFSM), it is my pleasure to introduce the 20th International Microscopy Congress (IMC20), to be held in September 2023, in the stunning Convention and Exhibition Centre in Busan.

IMC is the Olympics of microscopy; held every four years and attracting delegates from across the globe. The program will include world-renowned plenary speakers alongside an extensive trade exhibition where leading suppliers launch ground-breaking new instruments.

It is a particular pleasure to introduce the Korean Society of Microscopy (KSM) as the host for IMC20 which will be held in Korea for the first time.

A tradition of IMC events has been a vibrant social calendar and delegates will have ample opportunity to enjoy fabulous Korean food and to explore historical and cultural attractions in the Busan area. I look forward to warmly welcoming you and your family to Korea in 2023.

Professor Angus Kirkland, University of Oxford, UK

IFSM VICE

In the long history of IFSM, the IMCs have been held five times in the Asia-Pacific region and that Busan. Korea was selected at the IMC19 held in Australia in 2018. We all know that microscopy is an essential and powerful tool for both science and industries. Since microscopy is an accelerator of success for major industries in Korea, it is obviously appropriate to organize IMC20 in Busan. Furthermore, IFSM was admitted as a full union member of the International Science Council (ISC) in Taipei in 2017 which indicates the importance of microscopy in the Asia-Pacific region for international scientific societies, and the visibilities of IFSM and IMC are significantly increasing now.

During the IMC20, all participants will see the recent developments and progress in microscopy techniques, and the tremendous amount of results in materials and life sciences through discussion with top level researchers from all over the world. I strongly hope that all microscopists can come to Busan in 2023, enjoy the dynamic Korean culture and prosperity as well as the exchange of the scientific information. IFSM is also expecting a big contribution and impact from the IMC20 to international scientific activities for the centenary of the first electron microscope in 2031.

Dr. Kazuo Furuya, National Institute for Materials Science, Japan

Welcome To Busan, Korea

As the representatives of the Organizing Committee of the IMC20 and the KSM, we welcome you all to IMC20.
The congress will be hosted in Busan, one of Korea's most attractive cities. We hope that you will experience the traditional Korean culture and enjoy the open and friendly atmosphere. We expect that the IMC20 will make your stay in Korea a truly complete cultural and professional experience.

IMC20 will continue its tradition of providing a representative spectrum of up-to-date scientific information on today's research and applications in the field of microscopy associated with fields of materials/biological/medical sciences and technology development. Satellite meetings will be organized as pre-congress events on Sunday (Sept. 10, 2023) highlighting emerging scientific aspects of very recent developments and top-priority research and development requirements.

KSM enjoys the organizational burden and desires to complete the mission of the successful IMC20, in a state-of-art fashion. True effort pays off! Your warm wishes for the IMC20 success will be our energy and momentum! With your support and help, we would like to provide you all with a wonderful and most enjoyable programs for the IMC20.

We are looking forward to receiving your abstracts and warmly welcome old friends, dear colleagues and to making new acquaintances in Busan at the IMC20.

With our wholehearted welcome,

Keesam SHIN
PhD., Professor
IM20 Congress Chair
Changwon National University

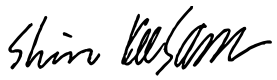
Im Joo Rhyu
PhD., MD., Professor
IM20 Congress Co-Chair
Korea University

Announcement of New Date for IMC20 (IMC20: Sept. 10 ~ 15, 2023, BEXCO Busan)

The date for IMC20 is reset to Sept. 10 ~ 15, 2023 based on the close observation and evaluation of the situation of COVID-19. The decision for the postponement was made in the IFSM EC (International Federation of Societies for Microscopy, Executive Committee) meeting held on April 29 by an absolute majority.

In this period of “Pandemic”, ordinary daily activities as well as international trips and scholastic activities are so limited that major conferences are adjusted or canceled. Accordingly, the potential exhibitors of IMC20 were reserving planning or decision making on future exhibitions. With the Pandemic still rampant in some regions and herd immunity reached in other regions of the globe, the decision on the postponement of IMC20 was inevitable for comfortable risk-free participation from all the regions. As a result, we may have to deal with such presumable uncertainties as dramatic cost increase due to inflation, prime interest rate hike and the economic bubble burst following tapering of quantitative easing upon recovery from COVID-19.

Whatever is in the way, the IMC20 LOC and IFSM will work hard and closely to make the IMC20 a great success and desire your warm-hearted encouragement and assistance along the way.



Keesam SHIN
IMC20 Congress Chair

Overview

Title	The 20th International Microscopy Congress(IMC20)
Date	September 10-15, 2023
Venue	bexco Busan, Korea
Organizer	Korean Society of Microscopy(KSM) International Federation of Societies for Microscopy(IFSM)

Congress venue

Busan Exhibition and Convention Center (BEXCO) Located at Centum City, a local industrial complex of Busan, which is surrounded by a large selection of hotels, museums and galleries, parks, restaurants, and night life.

Organizing Committee

ORGANIZER

- Korean Society of Microscopy(KSM)
- International Federation of Societies for Microscopy(IFSM)

LOCAL ORGANIZING COMMITTEE

Scientific Program	Satellite Program	International Cooperation	Promotion
Prof. In-Beom Kim Prof. Si-Young Choi Dr. Boklae Cho Dr. Dong-Ik Kim	Dr. Hye Jung Chang Dr. Ji Young Mun Prof. Yunseok Kim Prof. Jong Min Yuk Dr. Ji Young Kim Prof. Doo Ri Kim	Prof. Pyuck-Pa Choi Dr. Jae Bok Seol	Dr. Hee-Seok Kweon Prof. Nam-Suk Lee Prof. Ki Woo Kim Dr. Ohkyung Kwon
Publication	**Exhibition**	**Venue**	**Finance & Sponsor**
Prof. Zonghoon Lee	Dr. Joo-Hee Kang	Dr. Mijung Jeen Dr. Junyeon Hwang	Dr. Young Mok Rhyim Dr. Chi Won Ahn
Accounting	**KSM Quantum Leap**	**Pioneers in Microscopy**	**Program development & management**
Dr. Jucheol Park Dr. Kyungeun Lee	Dr. Jae-Pyoung Ahn Prof. Cheol-Woong Yang Dr. Hee-Seok Kweon	Prof. Miyoung Kim	Jihoon Lee

Program at a glance

<table>
<tr><th>Sep 09 (Sat)</th><th>Sep 10 (Sun)</th><th>Sep 11 (Mon)</th><th>Sep 12 (Tue)</th><th>Sep 13 (Wed)</th><th>Sep 14 (Thu)</th><th>Sep 15 (Fri)</th></tr>
<tr><td rowspan="10">Public Lectures by Nobel Laureates & IFSM Young Scientists Assembly</td><td rowspan="8">Registration & Pre-congress courses</td><td></td><td colspan="3" rowspan="2">Registration</td><td></td></tr>
<tr><td>Opening</td><td></td></tr>
<tr><td colspan="4">Plenary Lectures by Nobel Laureates and CEOs of big industries</td><td>Sessions</td></tr>
<tr><td colspan="5">Sessions</td></tr>
<tr><td colspan="4">Lunch Time Sponsor Session</td><td>Sessions</td></tr>
<tr><td colspan="4">Sessions</td><td>Closing</td></tr>
<tr><td colspan="4">Break</td><td></td></tr>
<tr><td>Session + Non Members Invitation Session</td><td>Session + IFSM Medal Session</td><td colspan="2" rowspan="2">Sessions</td><td></td></tr>
<tr><td rowspan="2">Welcome Reception</td><td colspan="3">Poster</td><td></td></tr>
<tr><td colspan="2"></td><td>Banquet</td><td></td><td></td></tr>
</table>

Program Streams & Symposia Topics

1 Life Science

- **LS-1.** Structure and function of cells and organelles
- **LS-2.** Live imaging of cells, tissues and organs
- **LS-3.** Structure of macromolecules and macromolecular assemblies
- **LS-4.** Super-resolution microscopy in molecular and cell biology
- **LS-5.** Cryo-electron microscopy in molecular and cell biology
- **LS-6.** Cellular transport and dynamics
- **LS-7.** Immunohistochemistry and cytochemistry
- **LS-8.** Pathology and Biomarkers
- **LS-9.** Correlative and Multiplex Microscopy in Biology
- **LS-10.** Host-Pathogen Interactions, Microbiology and Virology
- **LS-11.** Invertebrate Biology and Taxonomy
- **LS-12.** Embryology and Developmental Biology
- **LS-13.** Plant Science and Mycology
- **LS-14.** Neuroscience
- **LS-15 .** Development and Advance of New Microscopy for Biological System

2 Physical Science

- **PS-1.** Nanomaterials
- **PS-2.** Carbon-based Materials/2D materials
- **PS-3.** Surface and Thin Films
- **PS-4.** Metals and Alloys
- **PS-5.** Functional Ceramics
- **PS-6.** Polymer-based Materials
- **PS-7.** Semiconductor
- **PS-8.** Phase Transformation and Corrosion
- **PS-9.** Magnetic and Ferroelectric Materials
- **PS-10.** Geology and Mineralogy
- **PS-11.** Organic Chemistry
- **PS-12.** Energy Materials

3 Instrumentation

IT-1. Electron optics and optical elements

IT-2. Computational Methods for Data Acquisition, Analysis and Visualization

IT-3. Methods and Workflows for Correlative Microscopy

IT-4. Cryo-TEM Techniques

IT-5. In-situ, Environmental Microscopy

IT-6. Diffraction and Holography Techniques

IT-7. Multi-scale 3D Imaging

IT-8. STEM and TEM Imaging

IT-9. SEM and FIB

IT-10. Scanning Probe and Surface Microscopy

IT-11. Optical Nanoscopy and Spectral Imaging Techniques

IT-12. Electron Energy Loss Spectroscopy (EELS)

IT-13. X-ray and Cathodoluminescence Spectroscopies

IT-14. Advances in Atom Probe Tomography

IT-15. Time-Resolved Microscopies

4 Emerging Science & Technology

EST-1. Battery Symposium

EST-2. Semiconductor Symposium

EST-3. Photonics Symposium

EST-4. Convergence of materials science in biomedical science

EST-5. Multiscale 3D tomography

EST-6. Data mining, machine learning, applications of artificial intelligence 4) Microscopy in 3D printing

EST-7. Microscopy of single molecule dynamics

EST-8. High-throughput imaging and reconstruction

EST-9. Biomedical applications of nanoparticles and bio-safety issues

EST-10. Microscopy in forensic science

EST-11. Microscopy in arts and restoration

EST-12. Microscopy in archaeology and anthropology

Program Streams & Symposia Topics

PL 1 Life Science

Nobel Laureate

Prof. Richard Henderson
MRC Lab, Cambridge

PL 2 Physical Science

Prof. Frances. M. Ross
MIT

PL 3 Instrument+ Emerging Science and Technology

Prof. Martin Stratmann
Max Planck Society

PL 1 Life Science

Nobel Laureate

Prof. Richard Henderson
MRC Lab, Cambridge

Education and Employment

B.Sc. Hons(Physics, 1st Class), Edinburgh University(1962)
Ph.D. Cambridge University(at MRC Lab of Mol. Biol.)(1966)
Postdoctoral Fellow, Yale University(1970)
MRC Laboratory of Molecular Biology, Cambridge(1973)
- Head of Division of Structural Studies(1986)
- Deputy Director(1995)
- Director(1996)
- Member of Scientific Staff(2006)
- Group Leader/Emeritus Scientist(2010-)

Work

Fundamental processes of life are governed by a number of complicated molecules. The electron microscope, which uses electron beams instead of light, expands the possibilities to image these molecules. However, electron beams destroy biological structures. Richard Henderson succeeded in finding a way to avoid by combining weaker rays and mathematical analysis. In 1990, he generated a detailed three-dimensional image of a molecule. Electron microscope images provide knowledge that is important for the development of pharmaceuticals, among other things.

PL 2 Physical Science

Prof. Frances. M. Ross
MIT

Education and Employment

B.A. Hons, Cambridge University, UK(Mathematics Part IA, Natural Sciences Part IB, Physics Part)(1982)
Ph.D. Department of Materials Science & Metallurgy, Cambridge University, UK(1985)
Junior Research Fellow, Fitzwilliam College, Cambridge University(1989)
Postdoctoral Member of Technical Staff, AT&T Bell Laboratories, Murray Hill, NJ, USA(1990)
Staff Scientist, National Center for Electron Microscopy, Lawrence Berkeley national Laboratory,
Berkeley,CA(1992)
Research Staff Member, IBM Research Division, Yorktown Heights, NY(1997)
Manager, Nanoscale Materials Analysis Department, IBM Research Division,
Yorktown Heights, NY(2000, 2012)
Professor, MIT Department of Materials Science and Engineering, Cambridge, MA(2018-present)

Work

Building functional nanostructures with atomic level precision requires a detailed understanding of materials growth and the physics of self-assembly at the nanoscale. Frances Ross uses transmission electron microscopy to watch crystals as they grow and react, and scanning tunneling microscopy to measure the properties of nanomaterials. These microscopy techniques help her group to explore the growth mechanisms of nanocrystals on graphene, electrochemically deposited nanostructures and catalytically grown nanowires. Frances is excited by the ongoing advances in microscopy instrumentation which give intriguing opportunities for future experiments.

PL 3 Instrument+ Emerging Science and Technology

Prof. Martin Stratmann
Max Planck Society

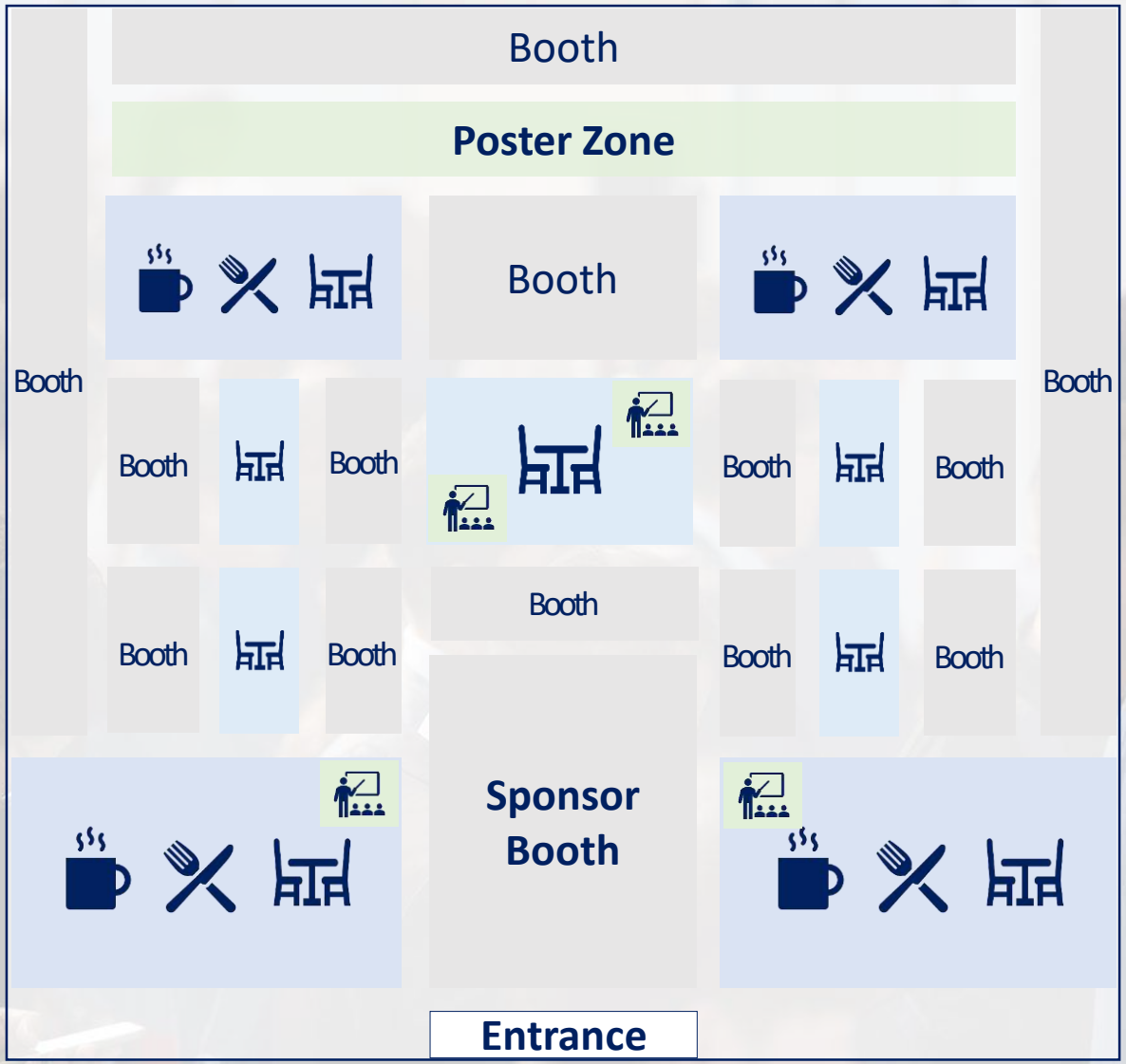
Education and Employment

Born in Essen(1954)
Study of chemistry in Bochum
PhD at the Max-Planck-Institut für Eisenforschung GmbH (1982)
Postdoc at Case Western Reserve University, Cleveland, USA (1984)
Head of the corrosion group at the Max-Planck-Institut für Eisenforschung GmbH (1992)
Professor (C4 level) at University of Erlangen (1994)
Director and Scientific Member at the Max-Planck-Institut für Eisenforschung GmbH (since 2000)
President of the Max Planck Society (since 2014)

Work

The research interests of Martin Stratmann concentrate on electrochemistry and corrosion science. He connects electrochemical, spectroscopic and interface analytical methods and was the first one who used the scanning Kelvin probe technique in corrosion science. With this method he was able to show that electrochemical reaction analysis is possible even under ultrathin electrolytic films and non-conducting coatings. With the help of the Kelvin probe, Stratmann was able to explain the atmospheric corrosion of iron and iron based alloys, and the de-adhesion of polymer coatings of reactive metallic surfaces. With the insight that the formation of electrochemical elements and especially the reduction of molecular oxygen is the key factor to understand the stability of metal-polymer bonds, Stratmann and his team developed new interface-chemical concepts to increase the stability of these bonds which finally lead to self-healing processes of defect interfaces. These concepts were also transferred into industrial applications.

Exhibition Plan



Booth Price

Package Booth(3x3 m^2)

Raw Booth(3x3 m^2)

★ Star | Diamond | Platinum | Gold | Silver | Bronze

Benefits	Sponsorship Level & Amount					
	Star	Diamond	Platinum	Gold	Silver	Bronze
Number of Partner Company	1	1	2	5	5	10
Free Booth and Free Registration	15	10	5	3	2	1
A plaque (A, B, C type) awarded	○	○	○	○	○	○
Name Badge Lanyard, Coffee Break, Pen/Notepad, Advertisement	○					
Company's Advertising Film at the Banquet	○					
Full-page advertisement in program book	1st Priority 2P	2nd Priority 2P	3rd Priority 2P	4th Priority 1P	5th Priority 1P	6th Priority 1P
Logo on Souvenir if any	○	○	○			
Logo displayed session rooms during intermissions	○	○	○	○		
E-banner on website main page	○	○	○	○		
Company description with logo on website	○	○	○	○		
Displayed on printed banners	○	○	○	○		
Insertion of company leaflet in conference kit	○	○	○	○		
Logo displayed on e-newsletter	○	○	○	○	○	○

BEXCO

Exhibition Center 1

Total 26,508㎡
15 Meeting Rooms

Exhibition Center 2

Total 20,000㎡
13 Meeting Rooms

Convention Hall

Max. 5,340 Seats
21 Meeting Rooms
Grand Ballroom

Auditorium

Max. 4002 Seats

Nurimaru APEC House

Total 1,800㎡

Venue

BEXCO

2013	- The 10th Assembly of the WCC (7,000) - 27th International Union for Scientific Study of Population Conference (3,000)
2014	- 2014 9th International Aerosol Conference (1,500) - 2014 ITU Plenipotentiary Conference (2,500) - 2014 Conference of Electric Power Supply Industry (3,000) - 2014 ASEAN-Republic of KOREA Commemorative Summit (3,500)
2015	- 2015 International Stereoscopic Union (1,000) - 2015 CLEO the Conference on Lasers and Electro-Optics (1,000) - 2015 IEEC (International Environmental Engineering Conference) (1,400) - 2015 IDB-ICC Annual Meeting of the Boards of Governors (3,000)
2016	- 20th International Vacuum Congress (2,700) - OMAE 2016 (1,000) - 7th World Fisheries Congress (2,000) - FISITA 2016 World Automotive Congress (1,800)
2017	- KINGCA Week 2017 (Korea International Gastric Cancer Week 2017) (700) - 2017 The Korean Association of Ocean Science and Technology Societies C - 2017 2017 International Meeting of the Microbiological Society of Korea (- KSBMB International Conference 2017 (3000) - ISAAR&ICIC 2017 (2,000) - AAMLS Asia Association of Medical Laboratory Scientists (6,000) - 2017 ITU Telecom World(10,000) - KSCE 2017 Convention (3,000)
2018	- 2018 The Korean Ophthalmological Society Conference (1,700) - 2018 AfDB (African Development Bank) Annual Meeting (4,000) - 2018 International Meeting on Information Display (IMID) (2,000)
2019	- APVS Congress (Asian Pig Veterinary Society Congress)(1,500) - APAA(Asian Patent Attorneys Association) (1,300) - IDF 2019 Congress (International Diabetes Federation) (15,000)
2020	**- World Table Tennis Championship 2020 (2,000)** **- 2020 The 8th International Congress on Ceramics (1,100)** **- 2020 World Foundry Congress (1,200)**
2021	**- 2021 IAMAS-IAPSO-IACS Joint Assembly (1,500)** **- 2021 International Astronomical Union General Assembly (1,000)** **- 2021 Federation of Immunological Societies of Asia-Oceania(1,500)**
2022	**- The 20th International Microscopy Congress(3,000)**
2024	- 2024 International Geological Congress (2,000)

Over 900
congresses
per year

IMC20
The 20th International Microscopy Congress
Sep 10-15, 2023 | Busan, Korea

3D virtual plan for exhibition at IMC20

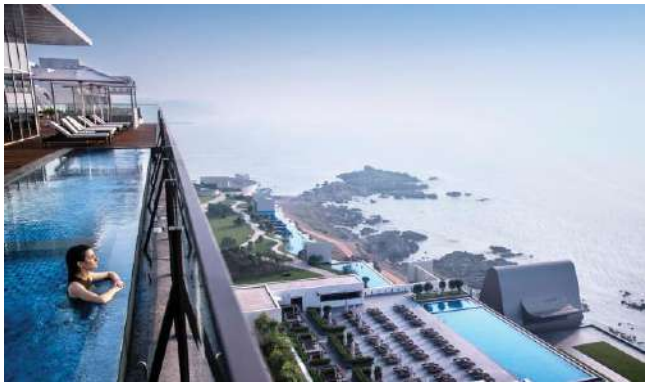
Accommodations

IMC20
The 20th International Microscopy Congress
Sep 10-15, 2023 | Busan, Korea

Our hotels vary from business hotels to 5-6 stars ranked hotels. The **price** also ranges according to its rank and location.
We have over **59,000** rooms available in Busan and approximately **7,000** near BEXCO.

No	Star rating	Name of Hotel	Distance from BEXCO
1	★★★★★	Park Hayatt	10minutes by car
2		Westin Chosun Beach	10minutes by car
3	★★★★	Golden Tulip Hotel & Suites	15minutes by car
4		Haeundae Centum Hotel	5minutes on foot
5		Citadines Haeundae	10minutes by car
6		Centum Premier Hotel	7minutes on foot
7		Fairfield by Marriott	10minutes by car

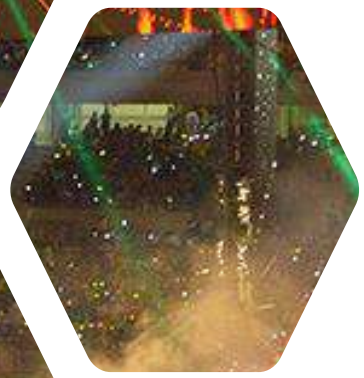




Busan International Film Festival (BIFF)

The Busan International Film Festival (BIFF), held annually in Haeundae-gu, Busan, is one of the most significant film festivals in Asia.

A notable feature is the appeal of the festival to young people, both in terms of the large youthful audience it attracts and through its efforts to develop and promote young talent.



Busan One Asia Festival (BOF)

Global K-Pop festival across the border Asia's best & biggest K-Pop festival.

The Busan One Asia Festival links various cultural and K-Pop contents in Busan. It acts as Asia's representative cultural event with young people from Busan and the world.

'International tourism city,' selected Jan 2020

Busan is named the country's international tourism city

Wednesday
January 29, 2020

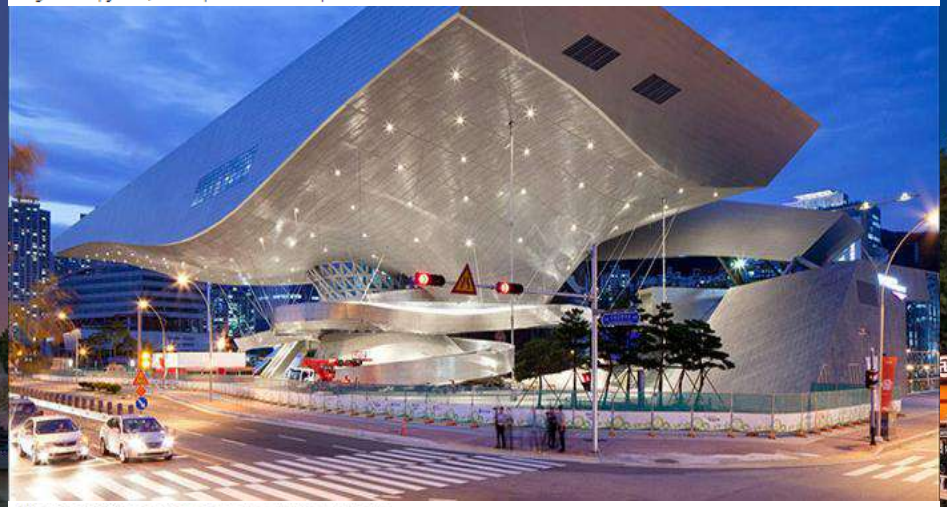
An aerial view of the coastline running from Gwangalli, left, to Haeundae, right, where many tall buildings are being built. The Gwangan Bridge in the center has also caught the eye of many for being built across the South Sea. [BUSAN CITY GOVERNMENT]

The Korean government designated Busan as the country's international tourism city to make the harbor city more appealing to international visitors. The move to provide an up to 50 billion won ($42 million) budget over the next five years comes from the idea that the country needs to make cities other than its capital Seoul popular. Most of the 17.5 million international visitors in 2019 focused on visiting spots in Seoul, according to the Ministry of Culture, Sports and Tourism.

"52 places to go in 2017" by New York Times

New York Times 52 Places to Go in 2017

by Patti | Jan 4, 2017 | Travel News | 8 comments



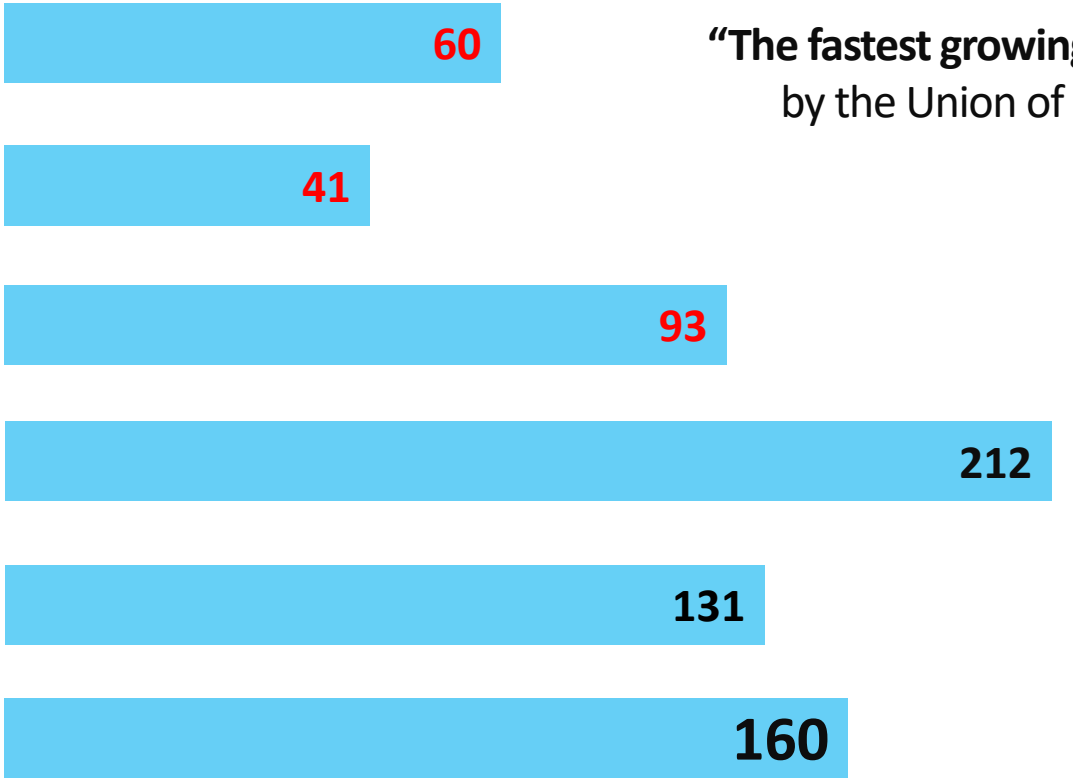
The Busan Cinema Center. Nathan Willock/VIEW

48. Busan, South Korea

An underrated second city becomes a design hot spot.

Busan is known as a film town, but the city's independent design scene is taking off, too. The Jeonpo Cafe District, a once-gritty industrial area, has recently been transformed into a creative hub packed with boutiques like Object, selling handcrafted items by locals. Nearby, a 1920s former hospital reopened in 2016 as Brown Hands Cafe, an atmospheric art space. There are new ventures to showcase local design, too: the annual Busan Design Festival and Busan Design Spot, a guide to local attractions. — JUSTIN BERGMAN

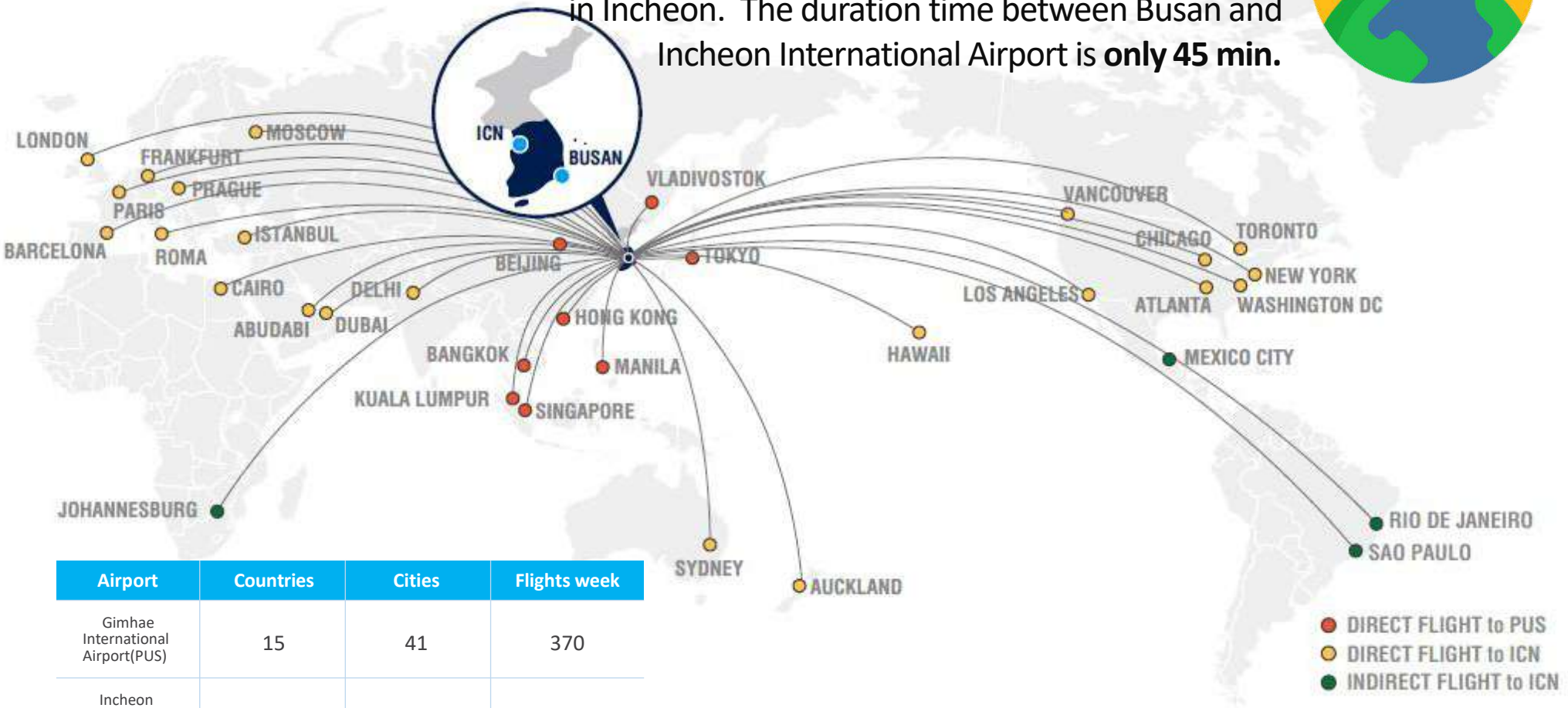
The Number of international conferences held in Busan (2014-2019)



Busan was mentioned as
"The fastest growing convention city in the world"
by the Union of International Association (UIA).

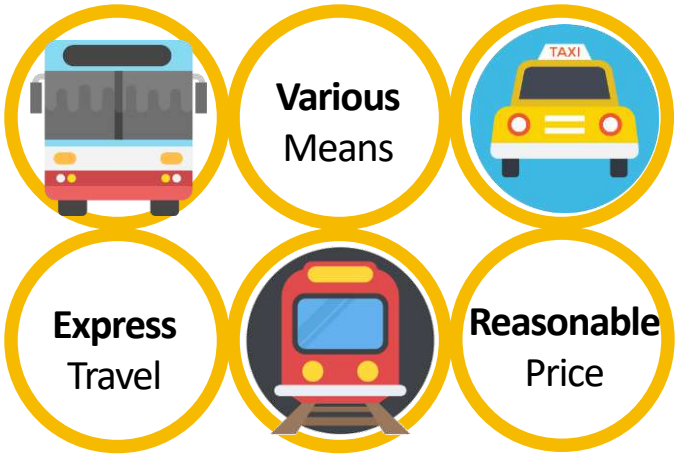
Readily Reachable

There are two ways to get to Busan. One way is using the Gimhae International Airport (PUS) in Busan, another is Incheon International Airport in Incheon. The duration time between Busan and Incheon International Airport is **only 45 min.**



Airport	Countries	Cities	Flights week
Gimhae International Airport(PUS)	15	41	370
Incheon International Airport(ICN)	45	148	14,000

Thorough Transportation



Busan is a city **optimized for travelers** with its **diversity** of public transportation provided at **rational** fares. The city is designed to **minimize** the travelling time.

With a Day Pass of only **4,500 KRW** per day, you can enjoy **unlimited use** of Busan Metro.

Favorable Facilities

2 major department stores and
4 complex shopping malls are located
at approximate distance from the venue.

Vibrant Views

The lively, vivid marine scenery Busan offers will bring enthusiasm.

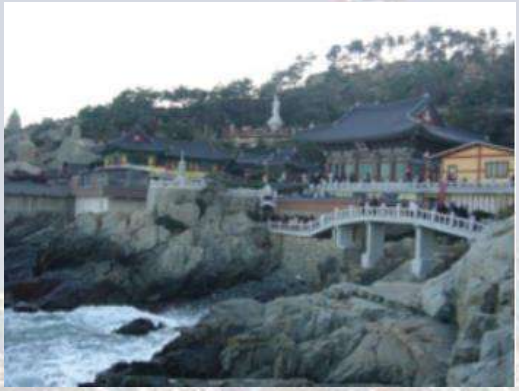
Cuisine Options

Over 200 international food restaurants are located near the venue, which will provide you with an unforgettable memory of Busan.






Traditional Theme



Buddhist Temple Visit

Ocean Leisure Tour

IMC20 Local Organizing Committee

IMC20 Secretariat (The PlanB Co., Ltd.)

Office

+82-51-742-8407

Email

secretariat@imc20.kr

Address

#354, BEXCO Exhibition Hall 1, 55,

APEC-ro, Haeundae-gu, Busan, Korea

Korean Society of Microscopy Secretariat

Office

+82-2-919-8775

Email

office@microscopy.or.kr

Address

#303, 24 Wolgok-ro 14-gil, Seongbuk-gu,

Seoul, Korea

IMC20.kr

IMC20
The 20th International Microscopy Congress
Sep 10-15, 2023 | Busan, Korea

See You in 2023 at BUSAN

Organizer Click the logo

KOREAN SOCIETY OF MICROSCOPY

IFSM

Partner Click the logo

Imagine your Korea

부산광역시 BUSAN METROPOLITAN CITY

bto BUSAN TOURISM ORGANIZATION

Venue Click the logo

bexco