

Transitioning to a Future of Smart & Green Cities

Busan & Barcelona, Shaping the Future Together





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01 Background

1. Busan Metropolitan City Government has been making efforts to build a network with European cities to expand exchanges.
2. Barcelona also has been expanding its network with Asian cities over recent years, and Busan is a priority city to develop this exchanges.
3. Barcelona and Busan signed a twinning agreement in year 1983, and both cities wish to consolidate relations given the opportunity to cooperate through the World Cities programme.



02 Exchanges on the 1st meeting



Discussion Topic by Sector

Sector	Busan Metropolitan City(4 Topics)	Barcelona(5 Topics)
ICT	Establishment of Smart City Heterogeneous Platform	Big data or open data
Public Transportation	Introduction of Automated Charge Return System for Intra-city Buses	Sustainable Mobility
Clean Energy	Development of New Energy Projects and Electricity Self-Reliance	Clean Energy
Urban Regeneration	Cultural Regeneration of Public Vacant Urban Spaces	Urban Planning & Management
Environment		Air Quality Improvement

02 Side visits (1st meeting)

- Making use of public areas: B-CON GROUND
- Promote SPV power & Hydrogen fuel cell power
- Adopting Automatic Fare box system at Buses
- Establish Open Smart City Platform

03 Exchanges on the 2nd Meeting(Barcelona)

● Benchmarking Renewable Energy Policies and Technologies on Solar Panel Thin Film

- IREC(Catalonia Institute for Energy Research)



- Houses and public institutions equipped with Solar Panels in Barcelona and PV Power Generation Plants

03 Exchanges on the 2nd Meeting(Barcelona)

● 22@Barcelona in regeneration sector

- ▶ Establishment of creative public urban spaces and housing environment that utilizes the city's existing heritage
 - Transformation of Poblenou neighborhood into a high-tech industrial complex mandatory installation of renewable energy facilities
- ▶ Participation of experts and local residents through active discussions
 - 22 ARROBA BCN, S.A.U. : Barcelona City Council, Ramon Llull University, experts and residents



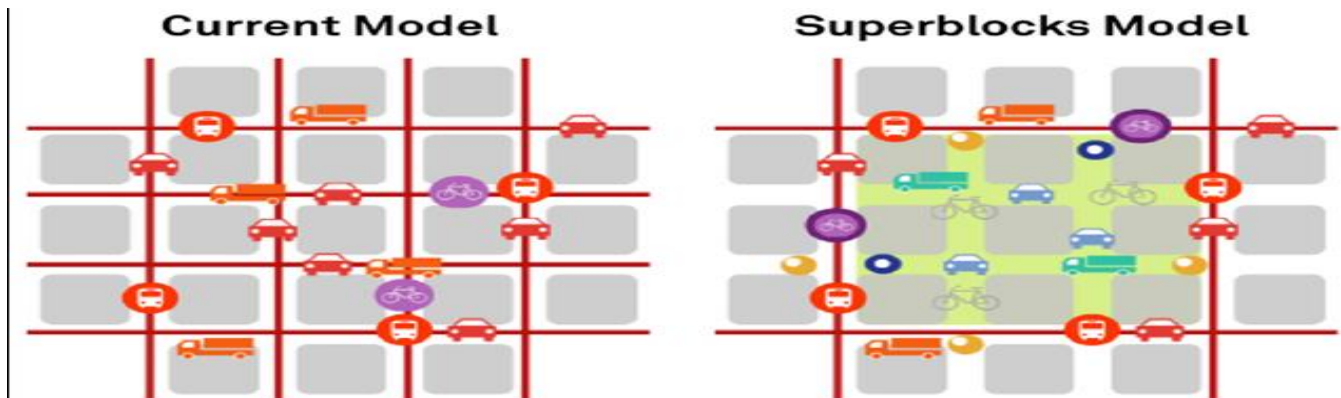
03 Exchanges on the 2nd Meeting(Barcelona)

Public Transportation

► Institutional Exchanges

- **TMB** : Comprehensive transportation agency responsible for operating Barcelona's metro, tram and bus
- **CENIT** : Research institute and think tank oriented at helping find sustainable and innovative solutions for urban transportation. We specialize in research, development and technology transfer projects using big data and econometrics analysis

► Superblock



03 Exchanges on the 2nd Meeting(Barcelona)

Busan Smart City Expo

- **Host / Organizer : Busan City / Busan City & BEXCO**
- **Working-level meeting on fund and cooperation areas of Busan, Barcelona, BEXCO and Fira Barcelona**

Busan Smart City Roundtable

- **Host : Busan City, Ministry of Land, Infrastructure and Transport (Korea central government)**
- **Organizer : Busan City, Korea Land & Housing Corporation and World Smart Sustainable Cities Organization**
- **Busan will invite the senior officials (Mayor or Vice Mayor) from Barcelona.**

Busan-Barcelona City-to-City Cooperation

- To link Busan smart city platform with Barcelona smart city platform for sharing gathered data
- Relevant company will install small oneM2M platform in Barcelona and tests services & sensors.
- **What Barcelona hopes to do with the link with Busan smart city platform.**

04 Outcomes

MOU BETWEEN BUSAN AND BARCELONA CITY COUNCILS

Both cities are currently drafting an MOU encompassing 5 areas of cooperation:

1. **Smart City**
2. **Urban regeneration**
3. **Renewable energy**
4. **Universities, Research and Innovation**
5. **Culture and Tourism**

OBJECTIVE: MOU is to further strengthen relations between our cities, and offer a framework to support cooperation in the areas of mutual interest identified during the World Cities 2017-2018 project.

NEXT STEPS: Signing the MOU on the occasion of Mayor Suh, Byong-Soo's visit to Barcelona to participate in SCEWC 2018, this November.

The focus of the celebrations of our **35th sister-city anniversary celebrations in 2018.**

SMART CITY

SMART CITY

- Exchanging experiences on implementing new smart technology projects for citizens
- Exploring links between CATlabs in Barcelona and Busan IoT Living Lab
- Hosting the Smart City Expo World Congress in Busan

URBAN TRANSPORT

- Proposals for innovation in urban transport including electric public transportation and coinless payment system
- MOU between CENIT/CIMNE and Busan Transport Division on public transport cooperation

04 Outcomes

URBAN REDEVELOPMENT AND REGENERATION OF CITY SPACES

- Proposal for both cities to exchange information about best practices in the regeneration of urban spaces into cultural or innovation areas (e.g. exploring Barcelona's model of creating creative factories applied to B-CON ground).
- Ramon Llull University (La Salle) – Busan City Council are cooperating to transform the district of Sasang into a 4.0 industrial cluster

04 Outcomes

RENEWABLE ENERGY

- Future visit to Barcelona by Busan's Clean Energies Promotion Division to study solar energy development

04 Outcomes

UNIVERSITIES, RESEARCH AND INNOVATION

- Agreement by the Autonomous University of Barcelona to receive 20 students from Pukyong National University
- Participation by the National Research Council of Science and Technology in the CERCA Annual Conference in Barcelona (May 2018)
- Proposals for cooperation between Barcelona and Busan in the framework of the European Union's Horizon 2020 projects
- Establishing collaborative links between universities and research centres between the two cities through bilateral agreements.
- The BFIC Global Talent Project will send around 20 graduate university students to Barcelona universities in 2019
- Mobility of researchers between academic institutions in Barcelona and Busan

CULTURE AND TOURISM

Culture

- Proposals to cooperate in cultural events including music festivals and exchanges with private sector organisations. Communications are ongoing to host the Sonar electronic music festival in Busan.

Tourism

- Cooperation in tourism management and sustainable tourism