The 11ᵗʰ NAPROCK* International Programming Contest

* NAPROCK（Nourishment Association for Programming Contest KOSEN, non-profit organization）

Overview of the Competition

NAPROCK (Nourishment Association for Programming Contest KOSEN)

Established on July, 2008 under the industry-academia-government collaboration, we aim to respond in a socially open and global way to the increasing needs to enhance the development of high-level engineers that can correspond to the globalizing information industry. For 10 years, we have been hosting the "NAPROCK International Programming Contest" in Japan.

KOSEN Programming Contest (KOSEN ProCon)

Competition for technical college students to examine the efforts of their daily studies and to compete their ideas and the abilities to realize them through information communication technology (ICT). 2019 saw the 30th anniversary of the contest. The students compete their skills and ideas in 3 different divisions: Themed, Open and Competition.

NAPROCK International Programming Contests

Hosted by NAPROCK, the international contests have been held jointly with KOSEN ProCon since 2009. Participants from Asian countries and from Japan have competed against each other. As per the request from many countries, we will be hosting the 11th Contest in Hanoi, Vietnam, the first contest to be held outside of Japan.

Significance of NAPROCK International ProCon

Cultivate human resource with high-level knowledge and technology in ICT field with global and wide-ranged perspectives by giving students experience of competing against others from different countries.
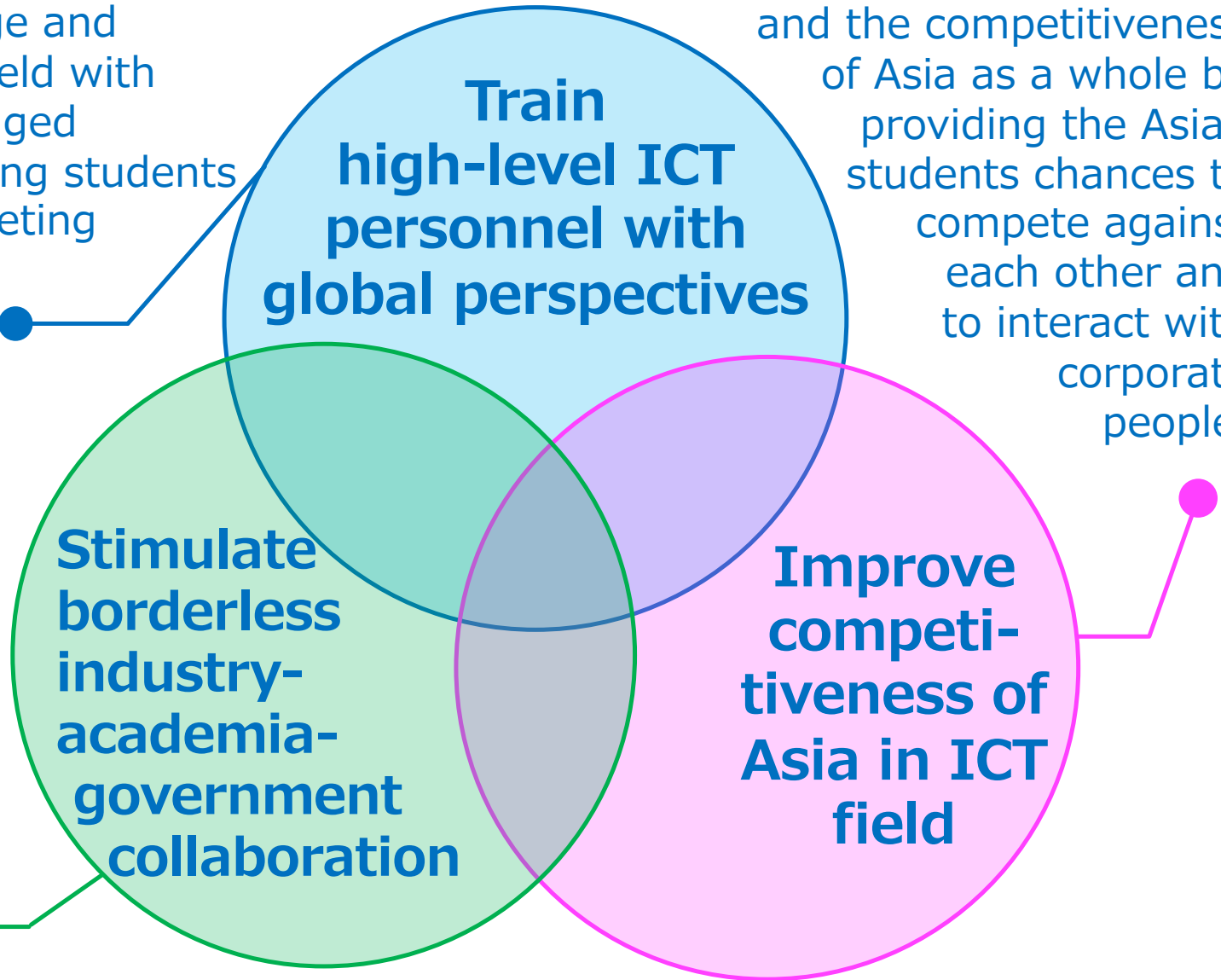
Increases the level of technology and the competitiveness of Asia as a whole by providing the Asian students chances to compete against each other and to interact with corporate people.

Promote the collaboration among industries, academia's and governments in Asia by allowing students, teachers, corporates, and organizations from different countries to get together.

Train high-level ICT personnel with global perspectives

Stimulate borderless industry-academia-government collaboration

Improve competitiveness of Asia in ICT field

Contest Outline

Host

Nourishment Association for Programming Contest KOSEN (NAPROCK)

Co-host

Federation of National Colleges of Technology,
Computer Software Association of Japan ,
Vietnam National University, Hanoi - University of Engineering
and Technology (VNU-UET)

Sponsors

Federation of National Colleges of Technology, Ministries of Japan (MIC,
MEXT, MoFA), Embassy of Japan in Vietnam, Vietnam Association for
Information Processing, Vietnam Ministry of Education and Training ,
Vietnam Software and IT Services (VINASA) （includes provisional）

Date

March 19 to 20, 2020 (Thu. - Fri.)

Venue

VVietnam National University, Hanoi - University of Engineering and
Technology (VNU-UET) & Hanoi University of Education (HNUE)

Contest Outline

Divisions

Competition division:
Teams compete under set rules
Themed division:
Projects under the theme of
"Regional revitalization utilizing ICT"

Target

College/University teams
that won preliminary
contests in each country
(from Japan, top winning
schools from each division
of the 30th ProCon held in
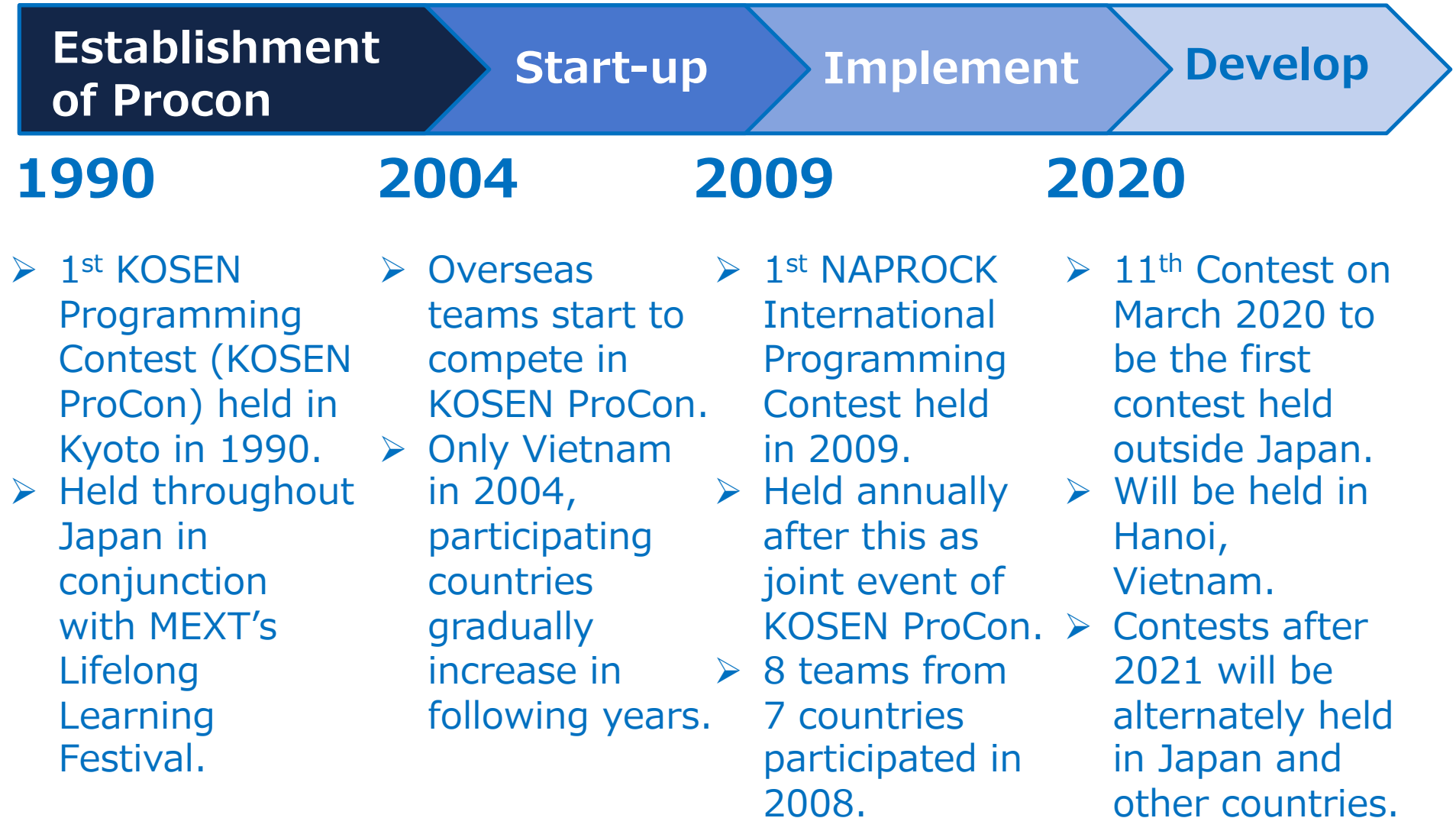October 2019)

Contest Outline

Competition division: "Dance, Dance, Dance Around"
   This is a territory game in which the teams compete to occupy as much territory as possible on a field divided up into grids. The students will become players and decide on the movements of agents on the game field. The points for each team are calculated from the squares occupied after a set number of turns are played and the team with greater total points wins the match. All teams compete in a single elimination tournament.

Themed division: "Regional revitalization utilizing ICT"
   Recently, social problems are expected to be solved by implementing innovations of the 4th industrial revolution (IoT, big data, AI, robot, sharing economy, etc.) into industries and social life. This can also be said about the regional issues. By solving these problems through ICT, we can enhance a more modernized society, safe living and communication among different regions. In the themed division, we seek entries of software developed from this kind of point of view.

Contest History and Our Perspectives

Establishment of Procon	Start-up	Implement	Develop
1990	**2004**	**2009**	**2020**

1990
- 1st KOSEN Programming Contest (KOSEN ProCon) held in Kyoto in 1990.
- Held throughout Japan in conjunction with MEXT's Lifelong Learning Festival.

2004
- Overseas teams start to compete in KOSEN ProCon.
- Only Vietnam in 2004, participating countries gradually increase in following years.

2009
- 1st NAPROCK International Programming Contest held in 2009.
- Held annually after this as joint event of KOSEN ProCon.
- 8 teams from 7 countries participated in 2008.

2020
- 11th Contest on March 2020 to be the first contest held outside Japan.
- Will be held in Hanoi, Vietnam.
- Contests after 2021 will be alternately held in Japan and other countries.

History of NAPROCK International Contest

*Vietnam/ China/ Mongolia participated in 2004-2008 as open competitiors

No.	Year	Place	Division: Countries Participated
1st	2009	Kisarazu	Themed: Vietnam/ China/ Mongolia/ Taiwan Competition: Vietnam/ China
2nd	2010	Kochi	Themed: Vietnam/ China/ Mongolia Competition: Vietnam/ China
3rd	2011	Maizuru	Open/ Themed: Taiwan Competition: Mongolia/ Vietnam/ China/ Thailand
4th	2012	Ariake	Competition: Mongolia/ Vietnam/ China
5th	2013	Asahi-kawa	Competition: Mongolia/ Vietnam/ China
6th	2014	Ichino-seki	Open/ Themed: Malaysia Competition: Malaysia/ Mongolia/ Vietnam/ China/ Thailand
7th	2015	Nagano	Open: Malaysia Themed: Malaysia/ Taiwan Competition: Malaysia/ Mongolia/ Vietnam/ Hong Kong
8th	2016	Toba	Open: Thailand Themed: Singapore/ Mongolia Competition: Hong Kong / Malaysia
9th	2017	Oshima	Open: Thailand/ Singapore Themed: Vietnam/ Mongolia/ Malaysia Competition: Hong Kong
10th	2018	Anan	Open: Thailand/ Singapore/ Taiwan/ Malaysia Competition: Hong Kong/ Vietnam/ Mongolia/ Malaysia