

ASEAN IVO 2016

Research and development on short distance communication and imaging for applications in ASEAN region



Project Information

Project Title: Research and development on short distance communication and imaging for applications in ASEAN region

Project Members: 10

- ❑ Posts and Telecommunications Institute of Technology (PTIT, Vietnam),
- ❑ HCM city Department of Information and Communications (DIC, Vietnam),
- ❑ Radio Frequency Department (RFD, Vietnam),
- ❑ Chiang Mai University (CMU, Thailand),
- ❑ Chulalongkorn University (CU, Thailand),
- ❑ Universiti Teknologi Malaysia (UTM, Malaysia),
- ❑ Suranaree University of Technology (SUT, Thailand),
- ❑ Telekom Malaysia R&D (TMRD, Malaysia),
- ❑ Indonesian Institute of Science (LIPI, Indonesia),
- ❑ Telkom Indonesia (TI, Indonesia).

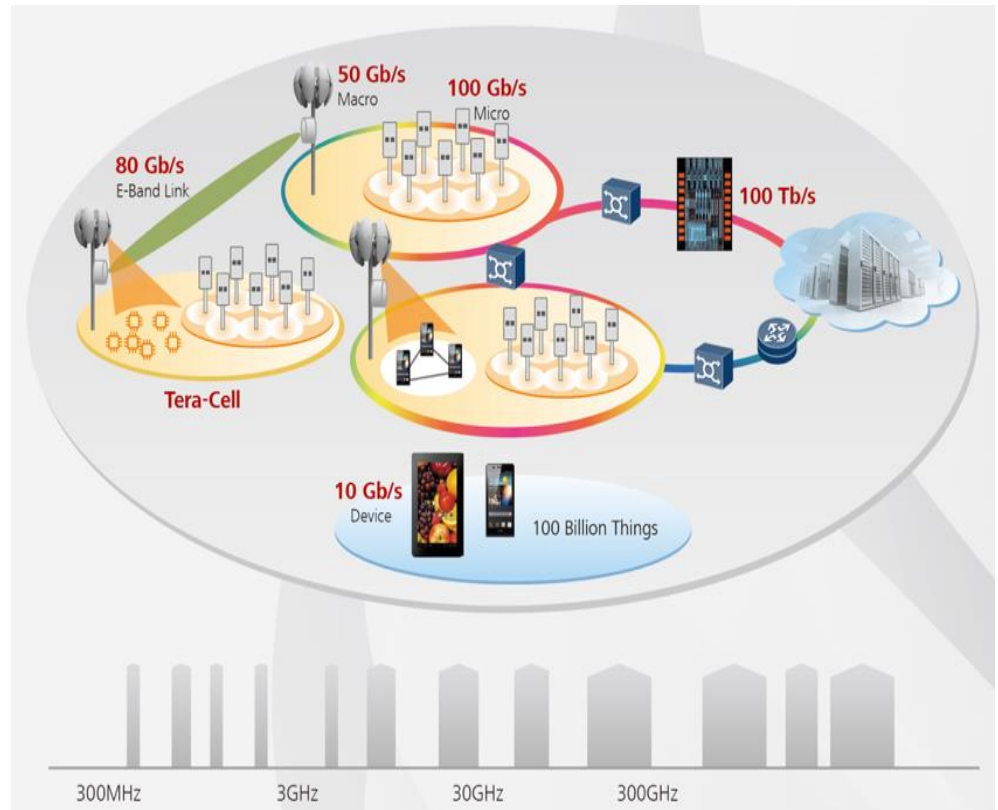
The project period: 36 months starting from 4/2016 with project funding USD 90K.

Overview

Future access communication will be relied on short-distance communication technology (<5 km) :

- millimeter-wave radio
- free space optics
- optical fiber links

high connectivity and high throughput of 10 Gb/s to end users



R&D target

- ❑ Evaluation of the short-distance communication and imaging technologies independently first.
- ❑ Design, evaluation, testing and demonstration of developed devices and subsystems are performed by each institute with their expertise.
- ❑ Integration of these technologies will be also discussed in the project through the meetings, the seminars or the workshops.
- ❑ Sharing the knowledge by publishing the paper and presenting the advanced research results in conferences,
- ❑ Providing contributions to international standardization bodies for societies in the ASEAN region.

Kick-off meeting

- Ha Long bay, Vietnam
- Jul. 28, 2016
- All members

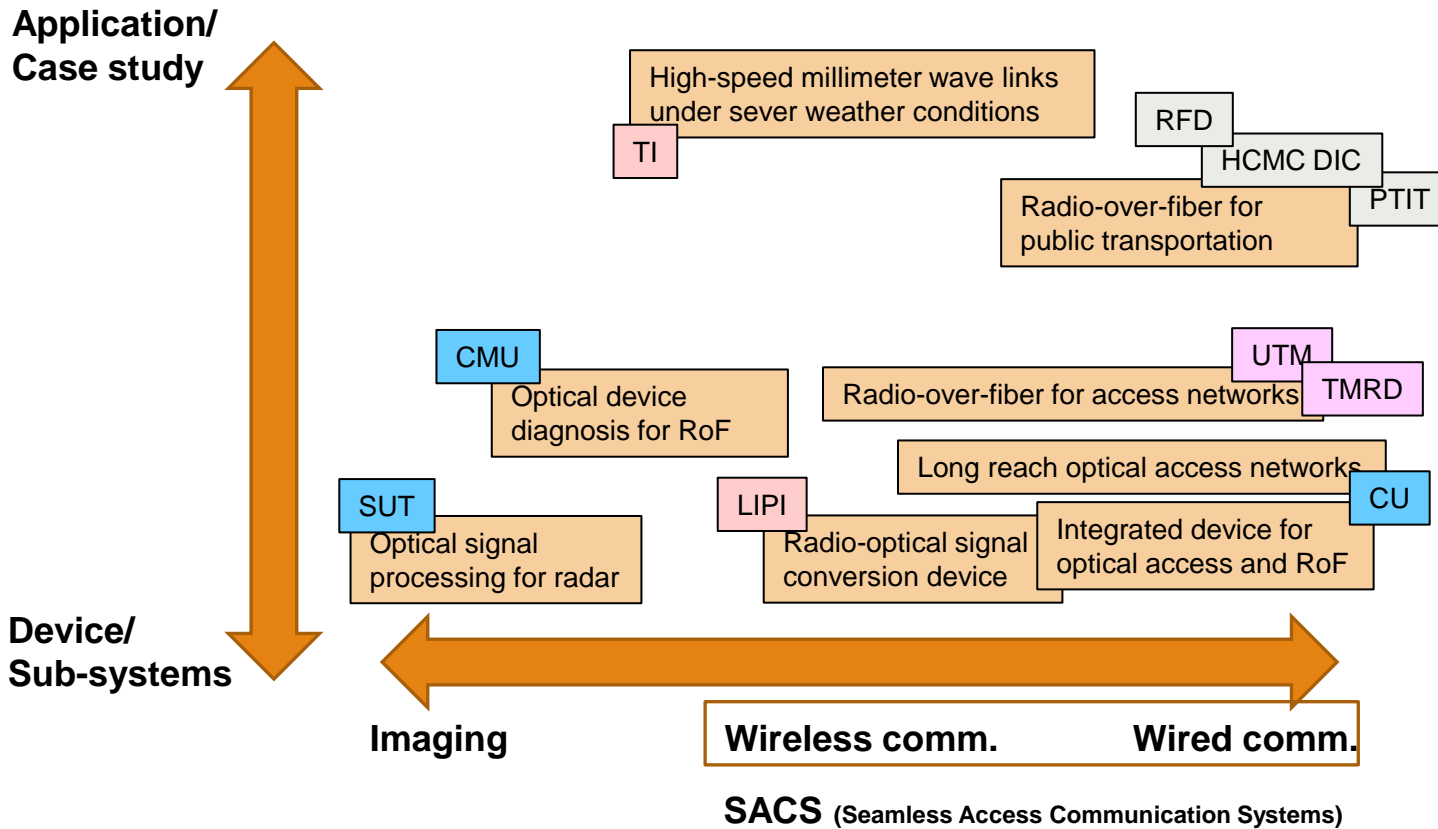


Sub-projects

The R&D items that the institutes will do in the project are as follows:

- ❑ **PTIT, HCMC DIC:** field trial on railway communication system
- ❑ **NICT:** field trial test collaborated with ASEAN institutes
- ❑ **UTM, TMRD:** radio over fiber system implemented to PON network (frequency subject to change)
- ❑ **CMU:** IQ modulation by integrated LD without any external modulator
- ❑ **Chula-U:** evaluation of device/subsystem with integrated optical circuits
- ❑ **LIPI:** optimization of E/O converter for MWP link
- ❑ **TI:** Survey and input to standardization bodies related on FWS under severe weather conditions

Overview of consortium structure

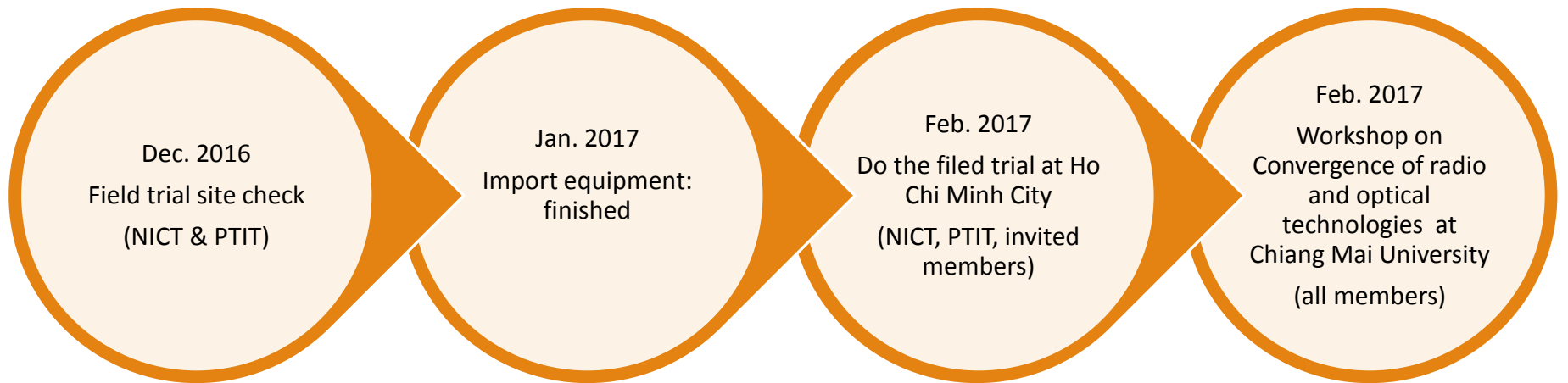


Activities

- ❑ Activity on field trial for railway communication system
 - ❑ Obtain the approval from Ho Chi Minh City Government to have filed trail on the metro line #1 (under construction by 2018)
 - ❑ Obtain the frequency license for the filed test from RFD
 - ❑ Prepare the document for tried trial equipment import from Japan to Vietnam

- ❑ Activity on standardization
 - ❑ Propose preliminary work Item on Millimeter-Wave Radio over Fiber Backbone for Train Communication Network

Future activities





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THANK YOU