

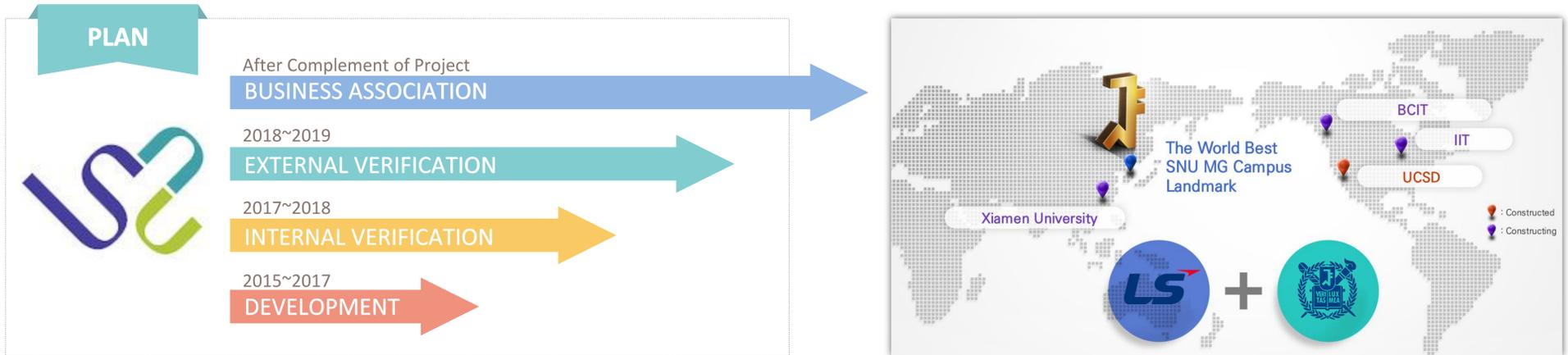
Campus Microgrid Demonstration Project Overview



- **Site:** SEOUL NATIONAL UNIVERSITY(SNU), KOREA
- **Project Budget:** 15.7 million USD (Government 10.3M, Private 5.4M)
- **Project Period:** 2015. 06 ~ 2019. 05 (for 4 years)
- **Project Goal**
Development of a customized SNU Campus MG model to provide
 - 1) **4 hours islanding operation** to critical loads
 - 2) **20% peak load reduction and energy cost saving** based on campus operating model
 - 3) **Consumer participative energy-saving services** by employing Big Data platform

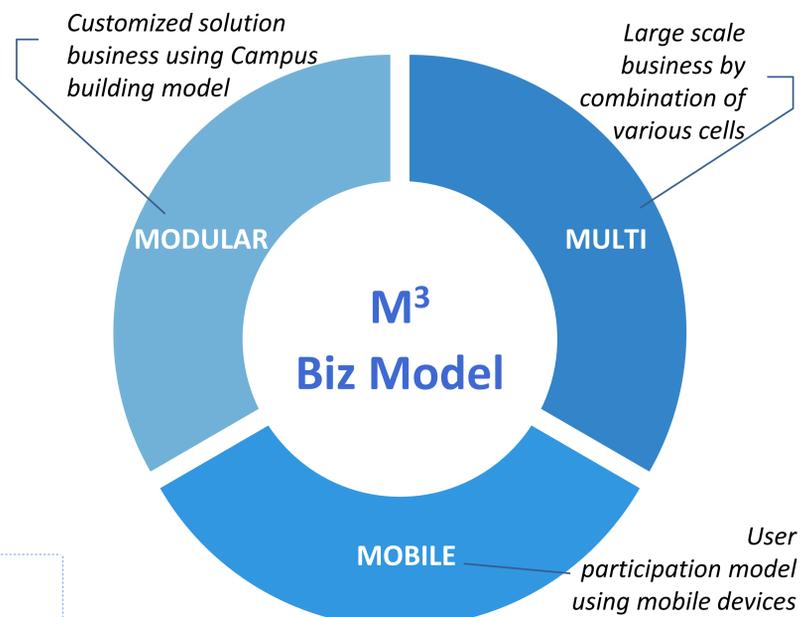
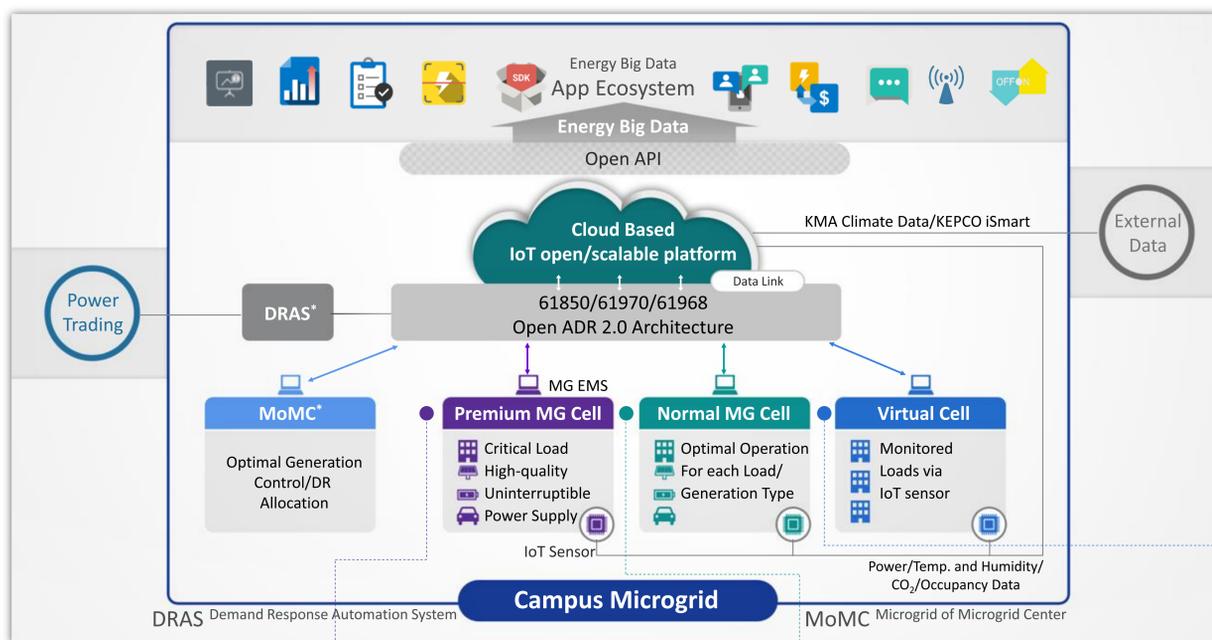
Demonstration Plan

- Derive best demonstration strategy through in-depth analysis of Campus system
- Analyzing the effect of the demonstration results and confirmation of results by external verification organization



SNU Campus MG Conceptual Model

- **Cell region:** Efficient energy operation
 - **Cloud region:** Providing variety of IoT based services
- **Lego style Campus MG Customized Model** enabling flexible configuration change according to customer demand



Premium MG Cell

- Cell targeting critical loads (research buildings, hospitals, etc.) requiring uninterruptible power supply and quality
- 4 hours uninterruptible operation and 20% energy savings

Normal MG Cell

- Cells with DGs and targeting general loads (lecture halls, dormitories etc.) that require energy efficiency
- 20% savings in energy costs and peak load

Virtual Cell

- Cell consisting of general loads without DGs that provides energy-saving services based on the analysis of information from IoT sensors
- 10% energy savings through IoT based user participatory energy service platform