"Advanced Maintenance"

A Statement by EA-RTM, East Asia Round Table Meeting of Academies of Engineering Fukuoka, Japan 31 August and 1 September 2016

At the 19th EA-RTM meeting and symposium held in parallel in Fukuoka, Japan on 31 August and 1 September 2016, issues of advanced maintenance were intensively discussed by the representatives and specialists of the Chinese Academy of Engineering (CAE), the Engineering Academy of Japan (EAJ) and the National Academy of Engineering of Korea (NAEK). The discussion focused on the two perspectives of "Civil Engineering for Infrastructures" and "Equipment Engineering for Industrial Plants." Prior to the meeting and symposium, three academies conducted a fact-finding survey targeting academy members on the same theme, which was also reviewed and discussed. After comprehensive discussion, three academies formulated a common understanding as follows:

- 1. The years of economic growth that focus on "how to build" are over. For a new era with concerns of excessive amount of aging social infrastructures, limited budget for maintenance, and aging population with a declining birthrate, a new strategy is essential.
- 2. Emerging technologies such as sensors, AI, robots, and ICT would be technological factors to boost "Advanced Maintenance." Embedded monitoring system from the start of construction is a promising effort.
- 3. Perspectives of economy and policy are also necessary. Strategic priority-setting on the choice between "maintain" and "abolish" is important.
- 4. Fostering human resources for "Advanced Maintenance" is an urgent issue.
- 5. Information sharing and cooperation among the three countries and further on a world scale is indispensable.
- 6. The three academies should encourage the government of each country and all the parties concerned to focus on the strategic development of science and technology and engineers in the area of "Advanced Maintenance."

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