

i-Construction—A Productivity Revolution on a Construction Site

Social Capital Management Research Center

We conduct research aiming at drastic improvements in productivity in a workplace and on a construction site by the distribution and utilization of 3D models in all construction/production processes.

Social Background and Challenges

- As the number of workers in the construction industry is decreasing and keeping pace with the progress of an aging society with fewer children, it is necessary to improve productivity on a construction site.
- The Ministry of Land, Infrastructure, Transport and Tourism promotes the i-Construction initiative where ICT is fully utilized in all construction/production processes from investigation/survey to design, execution, inspection, maintenance, management, and renewal and aims at improving productivity on a construction site by 20% by fiscal 2025.

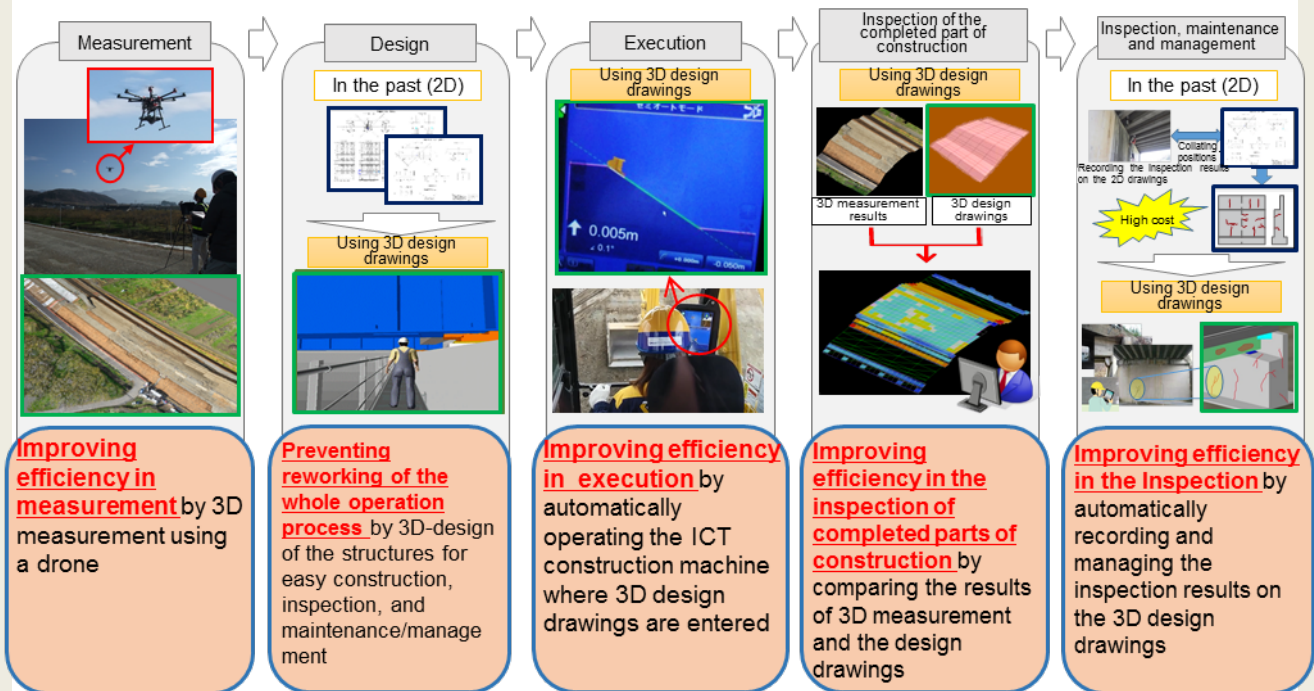
Research Details

Distribution and utilization of 3D models

Research on the data format and operation method required to distribute and utilize the 3D models prepared in the design stage in all construction/production processes smoothly

Checking the completed part of construction using ICT

Research on the method to check the completed part of construction by fully utilizing ICT, including the comparison between a 3D model and the result of 3D measurement using drones and laser scanners



Example of distribution and utilization of a 3D model in the construction/production process

Improving productivity in construction and realizing an attractive construction site

☞ Related articles:

- Promotion of i-Construction
- Efforts to Develop an Integrated Maintenance/Management Information Control System Using 3D Models
- Examination of the Possibility of Checking a Completed Part of Construction by Fully Utilizing ICT for i-Construction