Joint new work on GIS and BIM

A new, joint working group, SC 13/JWG 14, has been established between our SC 13 “Organization and digitization of information about buildings and civil engineering works, including building information modelling (BIM)” and ISO/TC 211 “Geographic information/Geomatics”. The working group will develop a Technical Report on the interoperability between Geographic Information Systems (GIS) and Building Information Modelling (BIM). JWG 14 is led by Co-Convenors Morten Borrebæk (Norwegian Mapping Authority) and Sigve Pettersen (buildingSMART Norway).

The natural environment has traditionally been modelled using techniques from the GIS domain, while the built environment is modelled using BIM techniques. Each of these two domains spend huge investments in capturing information from the other domain, mostly resulting in double spending.

The removal of the barriers to share information will not only save large investments, but also result in information of higher quality.

By mapping the different GIS and BIM models, bridging the terminology used in the two domains, developing semantic mediation rules and doing a transformation of coordinates between GIS and BIM, JWG 14 aims to lower the barriers and increase interoperability between GIS standards developed by ISO/TC 211 and BIM standards developed by SC 13, in close cooperation with buildingSMART International and the Open Geospatial Consortium (OGC).

The next meeting of the working group will be in Beijing in October in conjunction with the ISO/TC 59 plenary meeting.

New project on security in the built environment

A New Work Item Proposal, ISO/NI 23234 Buildings and civil engineering works – Security – Planning of security measures in the built environment was approved by ISO/TC 059 in February this year and is now under development in a new working group, ISO/TC 59/WG 5 “Security in the built environment”.

WG 5 currently consists of experts from the Republic of Korea, China, France, Japan, Norway and Russia, but more experts are welcome to join at any time. Please contact your national member body to be registered as a WG 5 expert. The working group had its first meeting in Oslo in May, and the next meeting will be held in Beijing in October during the ISO/TC 59 plenary week.

In order to obtain a secure built asset, it is essential to involve the right type of security thinking and planning at the correct stage of the build project. This is also essential in order to achieve reasonable costs, reasonable delivery time, as well as optimal aesthetics and usability for the end result.

The intention of WG 5 is to produce a standard that provides requirements and recommendations for effective planning and design of security measures in the built environment. The purpose is to achieve optimal protection of assets against all kinds of hostile acts, while ensuring aesthetic, financial and practical aspects.

The standard will describe which methods and routines that should be implemented in the various stages of the build project, as well as define the competencies needed to achieve a good result. The document will be applicable to both new construction and refurbishments. WG 5 is convened by Knut Rakvåg (Norway) and the secretariat is held by Standards Norway.
**SC 16 meetings in Oslo**

Our subcommittee SC 16 "Accessibility and usability of the built environment" and its WG 1 with the same name met in Oslo in April. Their standard ISO 21542:2011 "Building construction – Accessibility and usability of the built environment" is currently under revision.

More than 20 participants from all over the world came together for the Oslo meetings, where good progress was made in the revision work. SC 16 is led by Nieves Peinado (Spain) and Gildo M. Santos (Brazil). UNE (Spain) holds the secretariat.

**When to undertake life-cycle costing, and to what level?**

Life-cycle costing (LCC) is a valuable technique that is used for predicting and assessing the cost performance of constructed assets. Published under SC 14 "Design life" last year, ISO 15686-5:2017 Buildings and constructed assets – Service life planning – Part 5: Life-cycle costing provides requirements and guidelines for performing life-cycle cost analyses of buildings and constructed assets and their parts, whether new or existing.

Some key objectives of the standard are to help improve decision making and evaluation processes at relevant stages of any project, and to provide a framework for consistent LCC predictions and performance assessment, which facilitates more robust levels of comparative analysis and cost benchmarking.

ISO 15686-5 gives guidance on when to undertake LCC, to what level and what cost headings are appropriate for consideration. It helps unlock the real value of effectively doing LCC in construction by using service life planning, and it clarifies the differences between life-cycle costing and whole-life costing (WLC). The standard also provides a generic menu of costs for LCC/WLC compatible with and customizable for specific national or international cost codes and data-structure conventions.

Life-cycle costing takes into account cost or cash flows, i.e. relevant costs (and income and externalities if included in the agreed scope) arising from acquisition through operation to disposal. Furthermore, LCC typically includes a comparison between alternatives or an estimate of future costs at portfolio, project or component level. LCC is performed over an agreed period of analysis, clearly identifying whether the analysis is for only part of or for the entire life cycle of the constructed asset.

ISO 15686-5 is highly relevant to any procurers of constructed assets with an interest in long-term ownership, designers, constructors and their specialist suppliers of materials and components, facility operators, cost consultants and other specialists. The standard was developed in SC 14’s WG 4 "Maintenance and life cycle costing" under the convenorship of Kathryn Bourke (UK).

[Text adapted from ISO 15686-5:2017]

**The 2018 ISO/TC 59 plenary week in Beijing**

This year, ISO/TC 59 and six subcommittees with working groups meet in Beijing from 21 to 27 October. We are very grateful to our hosts for welcoming us to China and we are excited to be able to visit one of the world's largest construction markets.

The week starts with the annual meeting of the ISO/TC 59 Advisory Group, which consists of the chairs and secretaries of each of our subcommittees, as well as the convenors and secretaries of working groups directly under the technical committee. Throughout the week, there will be working group meetings and subcommittee plenaries in areas such as resilience, built environment security, terminology, building information modelling, design life, performance description, sustainability, and procurement, gathering experts from all over the world. The week concludes with the ISO/TC 59 plenary meeting on 27 October. Several of the meetings will offer online participation.

If this sounds interesting, please contact your national member body to be registered as a working group expert or a national delegate to the meetings. All the ISO/TC 59 meetings can be found here in ISO's meeting portal, where participants are kindly asked to register by 23 September. Should you wish to receive the detailed meeting schedule, please feel free to contact the ISO/TC 59 Secretary at ksb@standard.no.

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