



SUSTAINABLE DESIGN DRIVEN BY LEED AP

RKD honoured at Greenbuild Europe 2018

Greenbuild Europe 2018 took place on 17–18 April 2018 in Berlin, gathering passionate green building and sustainability leaders from all over the world to advance the mission that buildings and communities will foster and sustain the vitality of all life within a generation. The conference featured a number of opportunities for green building professionals to engage and enhance their knowledge through workshops, education sessions and networking events.

As part of the closing plenary session, RKD Architects was honoured as part of a select group of leaders delivering on the promise of green buildings for all. During the event RKD joined Mahesh Ramanujam, President and CEO of the United States Green Building Council (USGBC) and Green Business Certification Inc. (GBCI), on

stage so that he could personally thank us for our dedication to sustainability in the built environment and green building certification.

This is huge recognition for the project teams in RKD certifying LEED/BREEAM/Well projects, supported by our in-house sustainability team along with Joe Ennis and Aislinn Tate of JAE Engineering, as we shared the stage with industry peers such as, amongst others, Skanska, Arup, Altensis, and Henning Larsen.

LEED, or Leadership in Energy and Environmental Design, is the most widely used green building rating system in the world. Available for virtually all building, community and home project types, LEED provides a framework to create healthy, highly efficient and cost-saving green buildings. LEED certification is a globally recognized symbol of sustainability achievement.



From left to right

*Sean Hogan - lead of sustainability in RKD,
Mahesh Ramanujam - President and Chief Executive Officer at U.S. Green Building Council,
Johan Wilken is a director in RKD, and he is head of the Cork practice.*

LEED volume certification is a pathway created to streamline the LEED certification process by focusing on the similarities in building design, operations and delivery. In short, it's a way to help participants certify more buildings more efficiently.

Since the pilot launch of this program in 2011, USGBC has seen immense growth and is now host to 45 active participants.

At the beginning of 2017, RKD was commissioned by Microsoft to deliver a volume prototype to commence the LEED V4 certification for Data Centres in the procurement of data centres as part of its global sustainability programme.

The result is a collaboration between USGBC, Microsoft and RKD to create a standardized set of design and expected performance criteria under LEED V4 that will serve as a "blueprint" for Microsoft to build and certify greener, more efficient data centres. By building their new data centre, Microsoft expects to save energy, water, resources, generate less waste and support human health.

This represents a big step forward in standardizing some of these innovative approaches and driving greener, more efficient data centres from design to operation to maintenance.

Microsoft, as participants in LEED Volume Programme, have completed precertification of a prototype, which is a conceptual process that can then be applied to data centres that have major shared elements, and can therefore pursue a common set of credits in a single LEED rating system.

This process ensures Microsoft can certify data centres to achieve minimum LEED GOLD certification, by the Green Business Certification Institute (GBCI) under the watch of the United States Green Building Council (USGBC) and Jim Hanna, Microsoft's Director of Data Centre Sustainability.

In October 2017 the GBCI pre-certified the prototype LEED GOLD. This means a bespoke library of credits are available to guide project teams to certification, once they follow the base information provided for them. It reduces the effort in design and execution for 'optioneering' and value engineering

and streamlines the evidence gathering thus reducing cost, time, mindshare and complexity and saving consultancy fees and review fees by GBCI.

The Volume programme allows Microsoft to certify multiple data centre types, as they plan to –

- ▶ Build/own data centre buildings that are similar in size, scale and operation, developed to Microsoft scope of services requirements and design standards
- ▶ Establish green building practices for building design and construction and operations and maintenance processes.
- ▶ Submit multiple data centres for LEED certification.
- ▶ Manage efficiency to a shared vision of corporate and social responsibility

The Microsoft vision for data centres is a leadership directive as follows –

- ▶ LEED certification for all data centres – globally – minimum LEED GOLD (60+credits)
- ▶ For all data centres procured after the LEED prototype is certified with USGBC
- ▶ Based on the 6MW scalable form factor approach with 1.5MW granularity to maximum building size 18MW
- ▶ Through a developed integrated approach - Project team members should look for synergies among systems and components, the mutual advantages that can help achieve high levels of building performance, human comfort, and environmental benefits. Team members must collaborate to enhance the efficiency and effectiveness of every system.

RKD prepared all the documents, drawings and tools for certification of the prototype through LEED Online by the USGBC. The prototype documentation guides each data centre project team through design and construction with sufficient education materials to certify data centres in the LEED Volume Programme. RKD is now retained as LEED Volume Programme Administrator (VPA), assisting Microsoft in managing the LEED certification of the first three data centres projects to seek certification under the Volume Programme in the US and EMEA.