‘Topping off’ Event Marks Successful Milestone for the ESS Accelerator Tunnel

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Building ESS. The Accelerator and Conventional Facilities teams, along with construction partners from Skanska met at the ESS site to celebrate the construction of the Accelerator tunnel. It marks an important milestone as installations in the tunnel can soon begin.

LUND — On 8 April, The ESS Construction and Accelerator teams, together with the Skanska Construction team, marked the structural completion of the Accelerator tunnel with a gathering and event. Over 400 construction workers, engineers and guests gathered at the Construction site, including ESS Executive Management, members of the Technical Advisory Committee (TAC), the Accelerator and Conventional Facilities Divisions, and Skanska staff and construction partners.

“There's a positive psychological impact with completing this milestone in the project,” said Mats Lindroos, Head of the ESS Accelerator Division. “It’s an important and motivating factor for the Accelerator Division and our in-kind partners, and a reminder to deliver on time.”

A so-called ‘Topping-off’ event is typically held in Sweden with the completion of buildings in
construction projects. The event included remarks by ESS Director General Jim Yeck, along with cake and a tour of the 537-meter-long tunnel. Skanska's CEO Pierre Olofsson attended as well as ESS Conventional Facilities (CF) Head, Kent Hedin, Technical Director Roland Garoby, Accelerator Head Mats Lindroos, and Skanska Project Director Dan-Magnus Sköld. Local and national press media had a morning tour. The entire ESS Technical Advisory Committee also joined the event.

Solid teamwork across the board has allowed construction to move smoothly, even with necessary changes in the design requirements. Good examples of this were enlargement of the HEBT Loading Bay to optimise the movement of equipment, and the Front End Building to make a temporary drop hatch into a permanent feature.

“It’s important to celebrate achievements, and we want to maintain good connections with the Accelerator Division,” said Magnus Eneroth, ESS Construction Manager for the CF Division. “Soon we’ll both be working onsite closely together, each with our own objectives of course. It’s really important we can collaborate effectively.”

Forward Motion
Excavation of the tunnel began in September 2014. The main infrastructure was completed during this first week of April. Approximately 16,500 m$^3$ of concrete and 2,075 tons of reinforcement were used for the tunnel and connected areas. The CF Division holds responsibility for the tunnel design and construction, and will begin installing mechanical, electrical, and pumping systems. The first Accelerator systems are planned for installation this fall.

During the ESS Annual Review in April, the Accelerator Division will present plans for installing of all equipment in the tunnel. Former ESS Senior Project Planning Manager Luisella Lari and ESS Senior Engineer Edgar Sargsyan of the Accelerator Division developed the plan. It takes into account the sequencing of equipment placement, as well as the complicated logistics of moving heavy equipment into limited space and coordinating activities involving hundreds of people.

“It’s a tremendous job they’ve done,” said Lindroos. “There’s an enormous amount of work behind the draft installation plan. They must contact every person responsible for every piece of equipment in the tunnel, get time estimates for personnel and activities for all working groups as well as consider work space parameters and learning curves.”

The planning for installation in the Accelerator tunnel is a challenging coordination effort, including many people from ESS in-kind partners and industrial suppliers. They will not only deliver components to Lund, but many will be directly involved in the installation and commissioning at the site.