

# Spain Delivers the First Major In-Kind Contribution to ESS Site

NOV 11, 2016

**In-Kind Contributions.** Spain's ESS-Bilbao delivered 200 concrete shielding blocks to the ESS construction site today, marking the project's first major in-kind delivery. This transfer of ownership provides the first test of ESS logistics and in-kind receiving processes and procedures.

LUND and BILBAO—Eight flatbed trucks rolled onto the snow-covered European Spallation Source (ESS) construction site beginning early Friday morning bearing both sunshine and specially engineered concrete blocks from Spain. The 200 large interlocking blocks were designed by ESS-Bilbao as a radiation shielding solution for the Tuning Beam Dump, one of the organisation's six in-kind contributions to the Target sub-project.



ESS takes delivery of 200 concrete shielding blocks on November 11, 2016. An In-Kind Contribution from ESS-Bilbao, they represent the first major in-kind delivery to the construction site. PHOTO: ESS

The blocks, which look like large legos, come in two types, high-density and normal density concrete, and will be used in conjunction with carbon steel plates. They were manufactured by Gallizo Prefabricated Concrete near Zaragoza, Spain. The design, fabrication and delivery of the entire shielding solution was pushed up several months when ESS recognised an opportunity to simplify the installation process.

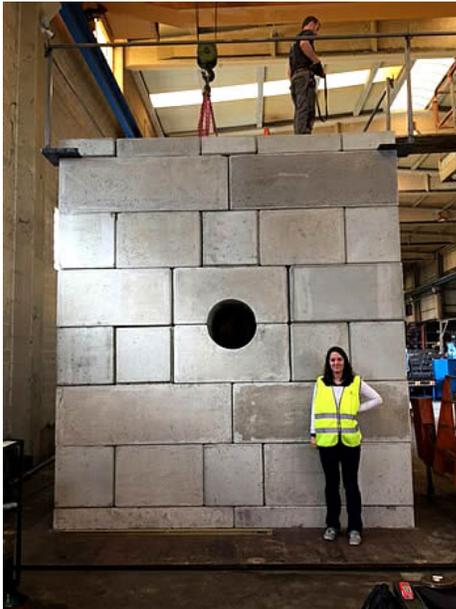


### **Opportunity for Efficiency Rearranges Priorities**

'The whole shielding component was planned to be delivered mid-2017,' said Fernando Sordo, head of the Target Division at ESS-Bilbao. 'However, after the request of the [ESS] conventional facilities group for an early delivery due to better access to the cave—before the roof is installed—ESS-Bilbao, as a flexible and committed organisation, accepted to advance the design and fabrication of these shielding elements.'

The earlier installation avoids having to transport the heavy blocks through either the Accelerator tunnel or the Target Building, both of which will see a great deal of installation works down the road that would greatly complicate transport to the Beam Dump cave.

'Prior to agreeing to this approach, we needed concurrence from ESS-Bilbao that they would be able to deliver well ahead of the previously agreed date,' said Eric Pitcher, head of the Target Division at ESS. 'Fernando Sordo and his team reprioritised activities in order to accommodate our request. This change saved us significant effort, and for that we are grateful to ESS-Bilbao.'



### **Coordination Across the Project Set in Motion**

The installation of the shielding blocks will be done by ESS to the specifications drawn up by ESS-Bilbao. It is scheduled to begin at the end of the month and complete before the winter break. The Beam Dump is situated below the Accelerator dogleg, the elevated part of the tunnel just prior to the Target Station. It will act as a holding area for the Accelerator's proton beam as it is subjected to diagnostics and calibration prior to being redirected to the target wheel to initiate spallation.

Construction partner Skanska coordinated their installation and commissioning of an overhead Gantry crane in the tunnel specifically for the Beam Dump installation.

ABOVE: Maite Mancisidor of the ESS-Bilbao target group stands in front of the Tuning Beam Dump shielding at the Gallizo manufacturing facility near Zaragoza, Spain. PHOTO: ESS-Bilbao

The Spanish trucks have been on the roads between Spain and Sweden for nearly a week, and in the meantime documentation, bills of lading, and the installation instructions themselves have been exchanged between ESS and ESS-Bilbao as ownership of the materials trades hands. This activity sets in motion several processes throughout the organisation, including the Target, CF, Legal, and Procurement divisions and the In-Kind Management group.



'The Logistics group within the Procurement division have provided great support to us, without which we would not be able to accomplish this delivery,'" noted Pitcher. 'As the first of many to come, the delivery exercises several elements for the first time and we are learning a lot. I'm sure we will uncover opportunities to improve our processes as a result.'

###

