



F4E NEWS

Fusion for Energy Magazine

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ITER Worksite

Crown of concrete and doors of steel installed

Innovation

SPIDER Neutral Beam Source switched on

Broader Approach

Europe and Japan operate accelerator

Stakeholders

ITER Council
Delegates visit
Europe's Toroidal
Field coils factory

Events

ITER at the core of World Nuclear Exhibition

**ITER
Toroidal Field
coils poster
inside!**

ITER Council delegates visit Europe's Toroidal Field coils factory

International collaboration and exchange of know-how are essential to ITER's success. For this reason, Johannes Schwemmer, F4E Director, took the initiative to invite the ITER Council delegates to one of Europe's factories where the Toroidal Field (TF) coils are manufactured. It is the first time that such delegation visits a European industrial facility, bringing together 25 members in total from Japan, Korea, India and Europe.



F4E and ASG Superconductors unveil the manufacturing steps of the most complex superconducting magnets.

On the premises of what used to be a factory of washing machines, a magnets centre of excellence is now operating. Workforces have been carefully retrained and additional staff has been recruited to join ASG Superconductors. Their mission is to produce ten of the 18 TF coil winding packs (the core of the most sophisticated magnets), together with Iberdrola Ingeniería y Construcción, CNIM, SIMIC, Elytt and the ICAS consortium.

From any angle you may choose to see it, this is a success story of economic regeneration for La Spezia (Italy), where ASG Superconductors is based; technical expertise in the field of magnets, and the potential to use this know-how to penetrate markets outside Europe. The EU contribution to ITER has been conducive to helping companies become more competitive and experiment with new manufacturing processes. With almost 82% of Europe's

TF coils production completed, the third winding pack has left to SIMIC to go through cold tests and be inserted in its case made in Japan.

Responding positively to F4E's idea to welcome the ITER Council delegates at ASG Superconductors, the company opened the doors of the vast facility to the guests in order to view the different manufacturing steps performed on-site. Davide Malacalza,



Technicians carrying out ground insulation on a Winding Pack, ASG Superconductors, La Spezia (Italy) © Andrea Botto



Technician lifting a Double Pancake to position it on another station, ASG Superconductors, La Spezia (Italy) © Andrea Botto



(L-R first row) Ki Jung Jung, Director-General of ITER Korea, NFRI, Alessandro Bonito-Oliva, F4E Magnets Project Team Manager, Stefano Pittaluga, ASG Superconductors Project Manager, discussing the impregnation process of TF coils winding packs © Andrea Botto



ITER Council delegates discussing the various manufacturing steps in the room, ASG Superconductors, La Spezia (Italy) © Andrea Botto

President and Shareholder of ASG Superconductors, opened the event stressing the importance of ITER and the Broader Approach to the company together with the new business opportunities that stemmed from the two projects. Andrea Beneduti, Regional Counselor for Economic Development, highlighted the merits of business and innovation working hand in hand, their capacity to equip people with new skills, and the direct financial benefits for regions. Sergio Frattini, CEO of ASG Superconductors, outlined the various important projects carried out by the company in the field of high energy physics, fusion and medical research both in Europe and Asia. The different applications of Magnesium diboride, concluded his

presentation highlighting the use of this superconductor. Johannes Schwemmer, F4E Director, praised the good collaboration of the ITER Parties involved in the TF coils (Russia, Europe and Japan), congratulated the F4E industrial partners for the excellent cooperation, and the F4E staff working in this field for their commitment and rigorous project execution. Alessandro Bonito-Oliva, F4E Magnets Project Team Manager, presented the procurement strategy, the main manufacturing milestones, a series of key performance indicators, and concluded his presentation by expressing some thoughts on the technological and societal impact of ITER.

Then, the delegates of the ITER Council

received a guided tour in the factory to view closely the different machines and tooling used for production of the European TF coil winding packs. The ITER Council delegates thanked ASG Superconductors and F4E for the kind invitation and underlined the importance of such field trips. The event helped the various delegates to become more familiar with Europe's contribution to magnets, meet the people behind the task and network with representatives from industry. F4E and ASG Superconductors were congratulated for this initiative and the delegates recommended that more events like this should be planned in future because they strengthen the international partnership and help ITER Parties see the real progress of the biggest fusion device components.