



## **Anellotech Announces Commencement of Key R&D Program at TCat-8® Pilot Plant**

*With successful completion of TCat-8 pilot plant commissioning, an intensive process development & testing program has begun to confirm process economics and collect data for commercial plant design*

*Program will generate bio-based benzene, toluene and xylene samples for use in making prototype samples of PET polymer for Suntory packaging and bio-benzene-based polymers such as ABS, polycarbonate and polyurethane for other strategic investors*

**Pearl River, New York, January 4, 2018** – [Anellotech](#), a sustainable technology company pioneering the production of cost-competitive renewable aromatic chemicals and fuels from non-food biomass, today announced the completion of the commissioning of its 25 meter tall TCat-8® pilot plant, and the commencement of the critical development and testing program. An integrated team of Anellotech and IFPEN research engineers and technicians will optimize process variables and generate data for process development and scale-up. Commercial Bio-TCat™ plant design and process licensing will be carried-out by Axens.

Anellotech and its development partners IFPEN and Johnson Matthey will also develop next generation catalysts, evaluate loblolly pine and other sustainable bio-feedstocks, and confirm Bio-TCat's process economics at commercial scale.

The TCat-8 unit is designed to demonstrate the Bio-TCat (thermal catalytic biomass conversion) process in a fluid bed reactor with internal process recycle streams and continuous catalyst regeneration. The pilot plant was jointly designed by Anellotech and IFPEN and is located in Silsbee, Texas on the plant site of South Hampton Resources (SHR). The process will use a novel catalyst under joint development by Anellotech and Johnson Matthey.

“We have made significant progress achieving major milestones with the commissioning of our TCat-8 pilot plant, including completion of multi-day long continuous test runs, and are now beginning the development phase for generating data necessary to advance Bio-TCat process commercialization. We will also produce test samples of bio-based renewable aromatic chemicals for conversion by 3<sup>rd</sup> parties into bio-based polymer prototypes,” said Dr. Charles Sorensen, CTO of Anellotech

“The beginning of the TCat-8 pilot plant development and testing program marks an important milestone in the commercialization of Anellotech's innovative and cost-competitive path to bio-aromatics,” said Jean-Pierre Burzynski, Director of the Process Business Unit at IFPEN. “We are pleased with the progress made to date and look forward to our continued collaboration with Anellotech as we execute on our mutual goal of bringing this ground breaking technology to market.”

As an integral component in the bio-based value chain, Anellotech's Bio-TCat technology cost-competitively produces “drop-in” renewable aromatic chemicals (benzene, toluene and xylenes, “BTX”)

from non-food biomass. One such application is the use of bio-paraxylene for conversion to PET beverage bottles thereby enabling the production of 100 percent bio-based packaging. In addition to prototype paraxylene sample production for PET applications testing, the TCat-8 unit output will be used to make prototype test samples of benzene and toluene for conversion to polymer derivatives such as bio-based ABS, polycarbonate, polyurethane, and high performance engineered polymers for use by current and/or future strategic investor product development, corporate marketing, and sustainability programs.

### **About Anellotech**

Anellotech is developing the Bio-TCat™ process to produce cost-competitive renewable aromatic chemicals (benzene, toluene and xylenes, “BTX”) from non-food biomass for use in making plastics such as polyester, nylon, polycarbonate, polystyrene, or for renewable transportation fuels. Bio-TCat’s cost-competitive advantage results from the use of non-food biomass such as wood or agricultural residues, and an efficient and economical catalyst as the only significant inputs.

By using renewable and readily available non-food feedstock materials the Bio-TCat process is less expensive compared to bio-based processes relying on sugar as a feedstock, and avoids competition with the food chain. These renewable products are expected to be produced and sold profitably either against identical, petroleum-derived BTX counterparts, or as renewable fuel blend stocks. Anellotech complements its world-class R&D team with in-depth, highly-interactive, and long-term alliances with leaders in process development, catalysis, engineering design, and licensing to accelerate development and drive cost-competitiveness. IFPEN is our process development and scale-up partner, Johnson Matthey is our catalyst development partner, and Axens is our partner for industrialization, commercialization, global licensing and technical support. Industry-leading strategic partners in the BTX supply chain, including Suntory and Toyota Tsusho, as well as other confidential strategic investors, also have provided funding to Anellotech. To learn more, please visit: [www.anellotech.com](http://www.anellotech.com)

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