

## **Singapore's Innovation Factory - Turning Ideas into Well-designed, Usable Products**

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The SIMTech Innovation Factory is an initiative to support businesses, especially local SMEs (Small and Medium Enterprise), in designing and creating new commercial products that cater to consumers. The initiative is operated by A\*STAR, Singapore's main research and development agency in the public sector, and supported by Enterprise Singapore, a government agency that works with enterprises to help them develop and reach international markets. In just its first 2 years of operation since late-2020, the Innovation Factory had helped over 40 local companies in developing their products, and the success of the initiative has prompted its shift to a larger facility in the Jurong Innovation District, where it is currently located.

The team at the Innovation Factory is composed of designers, scientists and engineers with the necessary knowledge and experience in bringing a product into fruition. Upon stepping foot into the Innovation Factory, you will be greeted by innumerable showcases of innovative products which they have collaborated on, ranging from electric vehicle charging technology to automated smoothie machines to environmentally friendly edible utensils.

On-site, there are 7 different specialized labs at the Innovation Factory, each focusing on specific areas including but not limited to industrial design, manufacturing processes, material science, robotics, automation, and sustainability. With a diverse interdisciplinary team that is further supported by more than 500 researchers from A\*STAR, the Innovation Factory serves as a one-stop solution for companies navigating their product development journey from ideation to production, regardless of which step of the way they are at. With just an idea for a possible product, companies can approach the Innovation Factory for a consultation to not only evaluate the idea for commercial feasibility, but also assist with the brainstorming of possible improvements to the idea. On the other hand, for companies which already have a concrete idea and design, the Innovation Factory is able to provide access to the relevant researchers and technology to improve on the product, as well as link them up with other companies for possible partnerships and smoothen the transition to the production phase.

**Smooder's Journey: Creating an automated smoothie machine from scratch**

One of the many companies that have found success with Innovation Factory's support is Smooder, a local company offering health-oriented smoothies in a convenient manner. The founders of Smooder came to the Innovation Factory with only a drawing of their idea of an automated smoothie machine. Through the Innovation Factory team's multidisciplinary knowledge and experience in product creation, they managed to create a working prototype in under a year. The smoothie machine can make a smoothie in just 45 seconds by blending fruits and vegetables that are flash frozen to ensure freshness and even comes with self-cleaning technology, removing the need for any cleaning after making smoothies. Smooder hopes to encourage healthy living by making it convenient to drink healthy smoothies instead of the widely available beverage options with high artificial sugar content such as energy drinks and sodas through their machine. Using the automated smoothie machine, Smooder has even started a store selling their smoothies and the machines are also being deployed in several companies for their pantry areas and such to provide healthy drinks to employees. It can be said that the Innovation Factory played a large part in facilitating their success of this extent in such a short period of time.

In Japan, there are also initiatives fulfilling a similar role to that of the Innovation Factory, such as the National Institute of Advanced Industrial Science and Technology (AIST) and public testing and research laboratories, but the quick pace at which an idea can be brought into prototype production and into the market may be something that is only possible in Singapore's context.