

# **Toyota Research Institute-Advanced Development (TRI-AD) Established in Tokyo to Provide Fully- Integrated, Production-Quality Software for Automated Driving**

March 02, 2018



**TOKYO (March 2, 2018)** Toyota will establish a new company in Tokyo in the latter part of this month named “Toyota Research Institute-Advanced Development” (TRI-AD) that will accelerate its efforts in advanced development for automated driving.

To enable the new efforts at TRI-AD, Toyota Motor Corporation (TMC), Aisin Seiki Co., Ltd. (Aisin), and Denso Corporation (Denso) have concluded a memorandum of understanding on joint development of fully-integrated, production-quality software for automated driving. Going forward, the three companies will hold further discussions, aiming to conclude a concrete joint development contract.

Together, TMC, Aisin and Denso plan to invest more than 300 billion yen in TRI-AD. The new company is targeting a staff of approximately 1,000 employees, including external recruitment and staff from TMC, TRI, and Toyota Group Companies Aisin and Denso. Toyota is in the process of selecting a location in Tokyo that is competitive in terms of accessibility and recruitment.

**Dr. James Kuffner**, currently TRI Chief Technology Officer, will lead TRI-AD as its CEO.

“Building production-quality software is a critical success factor for Toyota’s automated driving program,” said Dr. Kuffner. “This company’s mission is to accelerate software development in a more effective and disruptive way, by augmenting the Toyota Group’s capability through the hiring of world-class software engineers. We will recruit globally, and I am thrilled to lead this effort.”

The automotive industry is now in an era of profound transformation. High-quality software development and big data from connected vehicles will be crucial to success. To respond to such changes, Toyota established Toyota Research Institute, Inc. (TRI) in North America in 2016 to conduct research in the areas of artificial intelligence, automated driving, and robotics.

Aiming to strengthen its competitiveness even further, Toyota, together with Aisin and Denso, decided to establish the new company announced today. TRI, TRI-AD and TMC will have a streamlined relationship, resulting in a fast-track, truly integrated development model. The key objectives of the new company include the following:

1. Create a smooth software pipeline from research-to-commercialization, leveraging data-handling capabilities.
2. Strengthen coordination with TRI and efficiently link research results to product development.
3. Strengthen the collaboration within the Toyota Group in the domains of research and advanced development.
4. Recruit and employ top-level engineers globally, while cultivating and coordinating the strong talent within the Toyota Group.

“Toyota is known for the quality and efficiency of the Toyota Production System (TPS). I have no doubt that we can translate the fundamental ideas of TPS from the production of hardware to the production of software, and dramatically enhance Toyota’s software capabilities,” said Dr. **Gill Pratt**, TMC Fellow, TRI CEO and Chairman of the new TRI-AD Board of Directors. “That’s what TRI has been working for, and that’s what the new company will push even further.”

### Outline of the new company

Company Name	Toyota Research Institute Advanced Development (TRI-AD)
Location	1-4-18 Koraku, Bunkyo-ku, Tokyo (inside Toyota Motor Corporation’s Tokyo Head Office) *Selection of a new location is underway.
Capitalization	50 million yen (Investment ratio: Toyota, 90%; Aisin, 5%; Denso, 5%)
Executive structure	CEO and representative director?James Kuffner Chairman of the Board of Directors: Gill A. Pratt Representative director: Hiroaki Okuchi Director: Ken Koibuchi Auditor: Tatsuro Ueda
Number of employees	At time of establishment, approximately 300 people to grow to approximately 1,000 people (including external recruitment)