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TomTom and STMicroelectronics to Offer Innovative Geolocation-Based Tools and Services

- Hardware and software package includes development boards and positioning technology from ST along with dedicated software to connect to TomTom online services
- Hardware and software will be available on ST.com by October 2018

TechCrunch Disrupt SF, San Francisco, September 5, 2018 -- STMicroelectronics (NYSE: STM), a global semiconductor leader serving customers across the spectrum of electronics applications, and TomTom (<u>TOM2</u>), the leading independent location technology specialist, today announced a package of development tools in the <u>STM32*</u> <u>Open Development Environment</u> that connect directly to TomTom Maps APIs (Application Programming Interfaces) for location, tracking, and mapping data services, accelerating product development and reducing time-to-market and development costs for developers.

This first-of-its-kind-development package consists of an <u>STM32 Discovery host board</u> for 2G/3G cellular-to-cloud connectivity, a <u>GNSS expansion board</u> based on ST's industry-proven <u>Teseo</u> satellite navigation technology, and a <u>software Function Pack</u> that connects your Internet-of-Things (IoT) node via a cellular network to a range of TomTom Maps APIs. With this hardware and software package and a TomTom developer account, developers can quickly add location-based services to their IoT and Smart City applications. Among these services are the translation of GPS coordinates into a street address inside a map (Reverse Geocoding), retrieval of nearby point of interests, and the production of accurate navigation directions.

Anders Truelsen, Managing Director of TomTom's Enterprise Business Unit, said: "We have combined TomTom's industry-leading location-based and mapmaking technologies with ST's unrivaled combination of silicon and system expertise to create a unique offering that provides easy access to TomTom's Maps APIs to empower developers to create groundbreaking, location-aware applications faster and more efficiently."

"Supporting our efforts to facilitate location-based product development, our collaboration with TomTom has built on each company's strengths to assemble a tailored package of hardware and software tools that is already fully integrated with TomTom cloud services, around the popular STM32 development ecosystem," said Alessandro Cremonesi, Group Vice President, STMicroelectronics. "These tools enable native STM32-based location services to accelerate application development of Geo-loT solutions for fleet management, item tracking, and many other services that depend on fast, accurate location detection."

In addition to the <u>STM32 family</u> of Arm® Cortex®-M core microcontrollers, the development tools leverage ST's market-proven multi-constellation Teseo positioning-receiver technology to perform all positioning operations including tracking, acquisition, navigation, and data output.

For mapping data and services, technology companies, geographical information systems (GIS) providers, government bodies, and traffic-management institutions across the globe rely on TomTom to deliver industry-leading mapping products that create location-enabled applications.

*STM32 is a registered and/or unregistered trademark of STMicroelectronics International NV or its affiliates in the EU and/or elsewhere. In particular, STM32 is registered in the US Patent and Trademark Office.

Arm and Cortex are registered trademarks of Arm Limited (or its subsidiaries) in the US and/or elsewhere.

About TomTom

TomTom created the easy-to-use navigation device, one of the most influential inventions of all time. Since then, we have grown from a start-up, into a global technology company.

We design and develop innovative navigation products, software and services, that power hundreds of millions of applications across the globe. This includes industryleading location-based and mapmaking technologies, embedded automotive navigation solutions; portable navigation devices and apps, and the most advanced telematics fleet management and connected car services.

Combining our own R&D expertise with business and technology partnerships, we continue to shape the future, leading the way with autonomous driving, smart mobility and smarter cities.

Headquartered in Amsterdam with offices in 37 countries, we offer advanced digital maps that cover 142 countries, and our hyper-detailed and real-time TomTom Traffic

information service reaches more than five billion people in 69 countries. <u>www.tomtom.com</u>

About STMicroelectronics

ST is a global semiconductor leader delivering intelligent and energy-efficient products and solutions that power the electronics at the heart of everyday life. ST's products are found everywhere today, and together with our customers, we are enabling smarter driving and smarter factories, cities and homes, along with the next generation of mobile and Internet of Things devices.

By getting more from technology to get more from life, ST stands for life.augmented.

In 2017, the Company's net revenues were \$8.35 billion, serving more than 100,000 customers worldwide.

Further information can be found at www.st.com.

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