



News Release

PIONEER CORPORATION

28-8, Honkomagome 2-chome, Bunkyo-ku Tokyo 113-0021, Japan

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HERE Technologies NavInfo Increment P/Pioneer SK Telecom

Leading location data providers rally around HD Live Map as global standard for self-driving cars

- HERE Technologies and its partners in China, Japan and Korea have joined forces to enable a unified global digital representation of the road environment from 2020
- Through their OneMap Alliance, the companies will make it easier for any OEM to deploy world-class mapping to help autonomous vehicles drive safely and efficiently
- The OneMap Alliance is open to new, strategic partners across the globe

Amsterdam, Beijing, Tokyo and Seoul – A unified worldwide mapping system will guide self-driving cars safely and efficiently. That is the goal of HERE Technologies and its regional mapping partners NavInfo of China, Increment P (IPC)/Pioneer of Japan and SK Telecom of Korea.

The four companies today announced that they have formed the OneMap Alliance to offer a global, standardized and dynamic high definition (HD) map from 2020. The global HD map offering is aligned to the specification developed for HERE HD Live Map.

Together, the companies plan to offer a consistent HD map across regions at a time when several automakers will be bringing to market vehicles with high levels of automation. The OneMap Alliance is open to new, strategic partners who are shaping the future of automated driving, mobility and smart cities.

"Automakers building automated cars are thinking globally and want a HD map that can scale with them," said Ralf Herrtwich, SVP Services at HERE Technologies. "By sourcing from the OneMap Alliance partners, automakers get to leverage a map that is fully harmonized across regions, offering the same high quality for their vehicles in the U.S. as it does in Europe and Asia. This simplified way of sourcing the map will also help reduce automakers' development time and unnecessary costs."

"NavInfo is dedicated to build the intelligent, reliable and standardized HD Live Map to jointly realize a safer and better autonomous driving solution with partners all around the globe," said Patrick Cheng, CEO of NavInfo. "With OneMap Alliance, market leaders are able to join forces to empower automakers with high quality, scalable, and now unified HD Live Map to accelerate the next steps of autonomous driving."

"In Japan, Dynamic Map Platform Co. Ltd. (DMP), in which IPC invested, together with other map companies and automakers in Japan, has developed HD three-dimensional map data." said Takumi Jinguji, President and CEO of IPC. "With IPC's map technology, HD map data developed by DMP will be provided to European and American automakers through HERE HD Live Map."

"In the era of autonomous driving, cars will share and receive real-time data about what's happening on the road, and this is where HD maps and advanced connectivity will play a crucial role," said Ian Huh, SVP IoT/data Division Head at SK Telecom. "With HD Live Map leveraging our 5G technology, SK Telecom will be at the heart of a powerful unified service for automakers."

HERE is a leading provider of high definition mapping whose HD Live Map service will already cover more than 1 million km of roads in North America, Europe, South Korea, Singapore and the United Arab Emirates by the end of 2018. NavInfo is a leading provider of high definition mapping in China. Increment P Corporation, a subsidiary of Pioneer Corporation, the global car electronics company, is a leading provider high definition mapping in Japan. SK Telecom is Korea's largest telecommunications company and it and HERE plan to utilize large volumes of probe and sensor data to fuel HD Live Map updates and other dynamic data services.

HD Live Map is a dynamic digital representation of the road environment that utilizes camera and other sensory observations of millions of cars to self-heal. This means that, as the world changes, the map corrects and calibrates itself to ensure it stays useful and trusted. It is designed to give vehicles an uninterrupted picture of the road environment – even when there's a truck or building blocking their view – with awareness of upcoming lane configurations and their meaning. HD Live Map can also be complemented by additional HERE data services that bring to the vehicle useful information about jams, potential road hazards and the best routes to take.

About HERE Technologies

HERE, the Open Location Platform company, enables people, enterprises and cities to harness the power of location. By making sense of the world through the lens of location we empower our customers to achieve better outcomes – from helping a city manage its infrastructure or an enterprise optimize its assets to guiding drivers to their destination safely. To learn more about HERE, including our new generation of cloud-based location platform services, visit http://360.here.com and www.here.com

About NavInfo

NavInfo is a China-based technology company leading the way to becoming the "digital brain of intelligent driving" with core businesses in HAD mapping, high accuracy positioning and automotive-grade semiconductors for ADAS and autonomous driving. Founded in 2002, NavInfo is the market leader in navigation map, dynamic traffic information, navigation software development, location big data platform and state-of-the-art customized telematics solutions to both passenger and commercial vehicles. Now, NavInfo is ushering in the age of autonomous driving with a comprehensive technology development strategy and laying the foundation to become one of the most trustworthy autonomous driving solution providers in the China market and beyond.

About Pioneer

Pioneer Corporation is a leading global manufacturer of electronic products for the consumer and professional markets. To embody our philosophy, "Move the Heart and Touch the Soul", based on its core Car Electronics business, Pioneer brings the world ever-new products and services. In addition to development of advanced technologies as 3D-LiDAR system, a driving space sensor, Pioneer is working to create safe, reliable, comfortable and fun in-car environments for the automated driving society of the near-future, by providing new mobility services. For more information on Pioneer, visit the company's website at http://pioneer.jp/en/

About SK Telecom

Established in 1984, SK Telecom is the largest mobile operator in Korea by both revenue and number of subscribers. As of December 2017, the company holds around 50 percent of the market, with 30.2 million mobile subscribers including 22.87 million LTE subscribers. It has reached KRW 17.520 trillion in revenue in 2017. SK Telecom has led the advancement of mobile technologies ranging from 2G to 4G, and is currently setting important milestones in its journey to 5G. The company is not only leading innovation in the field of mobile network, but also providing IoT, media, home and platform services. SK Telecom is determined to play a significant role in the Fourth Industrial Revolution by achieving innovations and promoting shared growth with other players in the industry.

For more information, please contact skt_press@sk.com or www.globalskt.com.