

## **INCJ announces joint acquisition of German company Harmonic Drive AG together with Harmonic Drive Systems Inc.**

- Support the generation of leading mid-size Japanese companies with global competitiveness
- Contribute to the elimination of labor shortages by spreading the use of collaborative work robots (“Co-bot”) together with people

**Tokyo, December 16, 2016** – Innovation Network Corporation of Japan (“INCJ”) announced today a joint investment with Harmonic Drive Systems Inc. (“HDSI”), under which INCJ and HDSI will acquire a stake in German company Harmonic Drive AG (“HDAG”). HDSI already holds 36.8% of HDAG’s shares. INCJ and HDSI have established a special purpose vehicle for the purpose of acquiring the remaining shares, and INCJ will invest a maximum of 106 million euros.

HDSI was established in 1970 as a manufacturing company in the precision control field. Its main products are mechatronics products and precision speed reducers, and the business includes managing parts for industrial machinery including industrial robots and machine tools. The company's flagship product, Harmonic Drive<sup>®</sup> is a compact, lightweight special gear device that enables precise positioning by applying metal elasticity and deflection to gears. HDSI is a global market leader in this field.

HDAG also manufactures and sells mechatronics products combined with motors and sensors in addition to Harmonic Drive<sup>®</sup>. With its excellent sales and engineering capacity, it can provide products to a variety of sectors including aerospace and for medical equipment in addition to industrial robot and machine tools manufacturers in Europe.

In addition to the traditional type of industrial robots used in manufacturing processes such as welding, painting, and assembly, new demand is anticipated in the Co-bot market, a new robot which allows for collaborative work together with people, as automation of manufacturing processes progresses. In addition, the use of robots is expanding in the field of advanced medical equipment, and demand for precision reduction gear is expected to expand further in the future.

Such factors have led HDSI and INCJ to decide to jointly acquire HDAG. HDSI will strengthen its existing capital ties with HDAG through pursuing synergies in sales,

production, and development and will aim to further strengthen the business foundation as a leading company in the field of precision reduction gears. In addition, it will now be possible to capture the growth of the Co-bot market amidst the European trend of Industry 4.0, of which Germany is at the center.

INCJ hopes to contribute to the creation of competitive companies across the global market through continued support for HDSI's overseas development and enhancing the competitiveness for Japanese companies in the precision speed reducer market for industrial robots. Furthermore, by promoting the spread of Co-bots, which are expected to grow significantly in the future, INCJ aims to contribute to addressing issues affecting Japanese industry such as an ageing workforce and labor shortage.

#### **About Harmonic Drive Systems Inc.**

Established	October 1970
Business Outline	Production and sales of mechatronics products and precision speed reducers for industrial robots, semiconductor manufacturing equipment and other systems
Headquarters	Shinagawa-ku, Tokyo
Representative	Akira Nagai
URL:	<a href="https://www.hds.co.jp/english/">https://www.hds.co.jp/english/</a>

#### **About Harmonic Drive AG**

Established	1970
Business Outline	Production of mechatronics products and precision speed reducers and sales of same in Europe, Africa, South America, the Middle East and India
Headquarters	Limburg, Germany
Representative	CEO, Ekrem Sirman
URL:	<a href="http://harmonicdrive.de/en/home/">http://harmonicdrive.de/en/home/</a>

#### **About Innovation Network Corporation of Japan (INCJ)**

INCJ was established in July 2009 as a public-private investment company that provides financial, technological and management support for next-generation businesses. INCJ specifically supports those projects that combine technologies and varied expertise across industries and materialize open innovation. INCJ has the capacity to invest up to JPY2 trillion (approx. US\$20 billion).

INCJ's management team is drawn from the private sector with diverse experience in investment, technologies and management. Through its Innovation Network Committee, INCJ assesses investment opportunities that contribute to industrial innovation in Japan in line with criteria set by the government.

Press contacts:

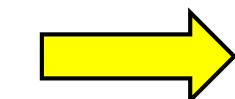
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**Target:** Harmonic Drive AG

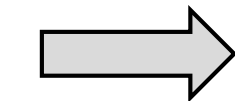
**Business Outline:** Development, production and sales for mechatronics products and reduction gears

**Authorized Investment:** 106 million Euros (maximum)

**Date of announcement:** December 16, 2016



Investment  
Management Support



Investment  
Management Support  
Provide expertise on  
technology and  
production



- Harmonic Drive AG is engaged in the development, production and sales of precision reduction gear and mechatronics products
  - Harmonic Drive ® is a compact, high performance, precision reduction gear. It is one of the key components used in robotic products such as collaborative work robots
  - With its excellent marketing and engineering capabilities, it holds major European industrial robot manufacturers as its main customers, who are crucial players in Industry 4.0
  - In addition, it is used in a wide range of applications including machine tools, aerospace and medical equipment



- Utilize Harmonic Drive AG's operating infrastructure and engineering technology to capture the growth of the robot market in Europe
- Contribute to solving social issues such as ageing workforce and labor shortage by promoting the spread of collaborative work robots through the support of precision reduction gear business