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NP Plastibell presents innovative connected syringe based on NFC technology from STMicroelectronics

- Pre-filled syringe stores important product and manufacturing data
- Innovative device to be unveiled at Pharmapack, May 18-19, in Paris

Izernore, France; Geneva, Switzerland, April 28, 2022 – NP Plastibell has announced a prefilled connected syringe containing a near-field communication (NFC) tag from STMicroelectronics (NYSE: STM), a global semiconductor leader serving customers across the spectrum of electronics applications. Integrated inside the body of the syringe, the tag enables manufacturing, medical personnel, and patients to access important medicine-related information.

The ultra-miniaturized NFC tag is directly over-molded into the syringe by NP Plastibell. While the syringe is filled with medicine, the NFC tag can store related information to allow the patient and their doctors and nurses to validate its legitimacy, view the manufacturing history, see usage recommendations, and find any other important information or warnings.

NP Plastibell faced a broad range of challenges in developing the connected syringe. In addition to creating a manufacturing process that embeds the NFC tag in the syringe and protects it from the medical contents, ST helped NP Plastibell overcome the various constraints linked to the NFC tag and the life cycle of pre-filled syringes. These included sterilization of the syringe at temperatures above 130°C by autoclave without damaging the electronics.

As a world leader in semiconductor manufacturing with experience embedding its NFC tags in unique products, ST is developing and providing a broad portfolio of robust NFC tag ICs addressing multiple markets including the medical and pharmaceutical ones.

"NFC tags can store product-specific information in web links or even in a dedicated app. In this connected syringe, the tag helps medical staff get accurate information quickly on their mobile phone or using an NFC reader to find out the correct dosage, special instructions, expiration dates, storage conditions, or any other important data. Patients can also easily setup reminders by scanning the tag with their mobile," explains Yvon Gourdou, EMEA Application and Marketing Director, Microcontrollers and Digital ICs Group, STMicroelectronics.

NP Plastibell is planning to further develop connected medical devices based on ST's ST25TV NFC tag IC: "Once this technology is on the market, we can extend it to other medical products and so bring similar connected value to equipment such as surgical devices, implant packaging, pharmaceutical packaging, and diagnostic devices," explains Matthieu Besse, R&D Manager at NP Plastibell.

Meet us at Pharmapack in Paris on May 18-19 for more information (at NP Plastibell booth n°E74):

- Mickael ROUACH Healthcare Market Manager at NP Plastibell mrouach@np-plastibell.com
- Philippe HORCHOLLE Technical/sales representative for NFC technology at ST philippe.horcholle@st.com

About NP Plastibell

NP Plastibell, part of the Clayens Group, offers a coherent and complete support to healthcare actors for the development, industrialization and manufacturing of their medical devices and plastic components, in accordance with international regulatory requirements (ISO 13485, ISO 15378 and QSR - 21 CFR part 820). The Clayens Group supports its Healthcare customers (Medical device, Pharmaceutical and Diagnostic players) from the idea to the product: design, prototyping, industrialization, qualification and validation, regulatory support, and production with 7 manufacturing sites in France, Mexico and Poland including 7 ISO7 clean rooms. Further information can be found at <u>www.clayens-np.com/en/healthcare.com</u>.

About STMicroelectronics

At ST, we are 48,000 creators and makers of semiconductor technologies mastering the semiconductor supply chain with state-of-the-art manufacturing facilities. An independent device manufacturer, we work with more than 200,000 customers and thousands of partners to design and build products, solutions, and ecosystems that address their challenges and opportunities, and the need to support a more sustainable world. Our technologies enable smarter mobility, more efficient power and energy management, and the wide-scale deployment of the Internet of Things and 5G technology. ST is committed to becoming carbon neutral by 2027. Further information can be found at <u>www.st.com</u>.

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