

Sony creates environmentally-conscious FeliCa card using vegetable-based plastic

Tokyo, Japan - In a world-first development, Sony has succeeded in creating a contactless IC card made from vegetable-based plastic (vegetable-based plastics are derived from biomass¹). Such cards are based on Sony's contactless IC card technology "FeliCa"² and can run applications like the Edy pre-paid e-money service, or function as ID access cards for companies and organizations. The convenience and security provided by such cards will fuel a rapid expansion of their use and this can now be allied to the environmentally conscious nature of vegetable-based plastic.

As a first step, Sony will issue 2000 such cards with the Edy application for distribution within the Sony Group. The cards will also be displayed in the Sony booth at the Eco Products 2006 exhibition taking place at the Tokyo Big Sight from December 14-16 (<http://www.vcc.ne.jp/eco2006/english/index.html>).

In addition, the Sony Health Insurance Union will issue 150,000 health insurance cards based on vegetable-based plastic (please note these are not IC cards).



Photo caption: Edy card using vegetable-based plastics.

As part its environmental activities Sony has been energetically promoting the use of vegetable plastic and its introduction into products and packaging. Sony already leads the industry with the casings of 7 products in 5 categories based on this kind of plastic as well as two types of packaging.³ Building on these successes, Sony moved on to the application of vegetable-based plastic to contactless IC cards. In September 2004, we succeeded in developing the technology. This was followed by verification trials and after confirming the quality levels, we were able to realize the product.

Sony developed this environmental technology through the selection of polylactic acid⁴ as the main ingredient for the vegetable-based plastic and the careful selection of subsidiary ingredients.

The compound ratio and methods were then investigated and the production process for the cards adjusted accordingly. Sony ensured that the present attributes of contactless IC cards in terms of communications, reliability and robustness were maintained. We succeeded in producing a contactless card which is more than 51% composed of vegetable-based materials in terms of depth and volume. Sony believes this product can make a significant contribution in terms of reducing use of non-renewable resources, reducing greenhouse gases, promoting recycling and strengthening the safety of chemical substances.

Sony will continue to pursue the development of unique products that can contribute to environmental conservation.

Notes:

1. Biomass = biological materials. Refers to agricultural, forest and fishery products (and their derivatives) as well as unused resources. In contrast to energy sources like oil and coal, the focus is on renewable sources like solar energy, and sources derived from wind, earth and sea.
2. FeliCa is a contactless IC card technology developed by Sony. Highly secure and capable of speedy data transfer, it can rewrite data allowing the card to be used multiple times. FeliCa technology is currently used in transport pass

It can receive data, allowing the card to be used multiple times. FeliCa technology is currently used in transport pass systems such as JR East's "Mobile Suica", e-money services like Edy and in secure ID cards for companies and organizations. "FeliCa" is a registered trademark of Sony Corporation. "Mobile Suica" is a registered trademark of East Japan Railway Company.

3. Vegetable-based plastic is used in the following products:
Walkman® (WM-FX202), DVD Player (DVP-NS999ES and DVP-NS955V/NS975V), Charger stand for AIBO (ERF-210AW06J), Underpaw / stopper / pole for AIBO (ERS-7), mobile phone premini®-IIS, VAIO (type S, SZ series).

"premini" is a registered trademark of NTT DoCoMo, Inc.

Vegetable-based plastic is used in the following product packagings: Handy Portable Radio (ICR-P10), MD (Neige) series.

4. Polylactic acid is created by using lactic acid bacteria (*lactobacilli*) to ferment starches and sugars derived from such organic sources as corn. The material then undergoes a chemical binding process (polymerization) to convert it to a polymer molecule form.