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MOBILE DATABASE · PROJECT

NOKIA ECO SENSOR

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Ken Banks offers coaching, mentoring and strategy support.

Our footprint

Sustainable products

- Substance management
- EMF
- Energy efficiency
- Eco Sensor Concept

Sustainable practices

Sustainable behavior

Case studies

Ask us

At the cutting edge of innovation
We envision developing mobile technologies in new ways to help us all reduce our environmental footprint. To meet our future vision, the Nokia Research Center supported by Nokia designers conceived the Nokia Eco Sensor Concept. Our visionary design concept is a mobile phone and compatible sensing device that will help you stay connected to your friends and loved ones, as well as to your health and local environment. You can also share the environmental data your sensing device collects and view other users' shared data, thereby increasing your global environmental awareness.

The concept
The concept consists of two parts – a wearable sensor unit which can sense and analyze your environment, health, and local weather conditions, and a dedicated mobile phone.

The sensor unit will be worn on a wrist or neck strap made from solar cells that provide power to the sensors. NFC (near field communication) technology will relay information by touch from the sensors to the phone or to or to other devices that support NFC technology.

Both the phone and the sensor unit will be as compact as possible to minimize material use, and those materials used in the design will be renewable and/or reclaimed. Technologies used inside the phone and sensor unit will also help save energy.

Stay in touch with your health and local environment
To help make you more aware of your health and local environmental conditions, the Nokia Eco Sensor Concept will include a separate, wearable sensing device with detectors that collect environment, health, and/or weather data.

You will be able to choose which sensors you would like to have inside the sensing device, thereby customizing the device to your needs and desires. For example, you could use the device as a "personal trainee" if you were to choose a heart-rate monitor and motion detector (for measuring your walking pace).

Here are some other examples of customized sensing devices you could build:

- **Environmental monitoring**
- **Personal health**
- **Weather monitoring**

A mobile device that builds on the "three Rs"
Reduce, reuse and recycle – the Nokia Eco Sensor Concept is built upon all three of these underlying principles of waste reduction. Emphasis will be placed on materials use and reuse in the phone's construction:

Sense your world

The Nokia Eco Sensor Concept includes a range of built-in sensors to help you monitor your health, environment, and local weather.

Less to carry

Printed electronics can significantly decrease the size of a device by an estimated 50% from phones in 2007.

Powerwear

Made from solar cells, the carrying strap used in the Nokia Eco Sensor Concept will provide power to the sensor unit.

- **Printed electronics**
- **Bio-materials**
- **Reclaimed materials**

A phone for the energy-conscious consumer
To complete the Nokia Eco Sensor Concept, the phone and detector units will be optimized for lower energy consumption than phones in 2007 in both the manufacturing process and use. Alternative energy sources, such as solar power, will fuel the sensor unit's power usage. Thus, we aim to create a self-powered sensing device to reduce dependence on external, non-renewable energy sources.

- **Electronics**
- **Display screens**
- **Alternative energy sources**

Innovative Services
The possibilities to introduce creative and useful mobile applications and web services that build upon the environmental data collected from such a design concept are numerous. These services can range from personal health monitoring and improvement, to large-scale collective efforts to promote sustainable lifestyle choices. Even very simple environmental variables can bring about novel solutions when shared and integrated into a global network of mobile explorers.

Where next?
By creating the Nokia Eco Sensor Concept, we hope to stimulate an ongoing discussion and idea sharing – both within the mobile industry and with consumers. Through these discussions, we hope to gain a better understanding of what we can do with mobile technology in the near future and how we can lead the mobile industry towards a sustainable future.

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