



Transición hacia una Ciencia, Tecnología y Sociedad Sostenibles

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Esquema Presentación

- Cambio Cultural
- Ejemplos
- Propuestas en ingeniería
- Ámbitos



Cambio Cultural

- Personas y Planeta primero
- Pasar del mercado al Ágora (recuperar)
- Promover “la Transición” hacia
 - Decrecimiento, vivir de forma más sencilla, compartir, revalorizar lo no-material,...
 - Participación social, conectar con las personas, construir comunidad, cuestionar situaciones injustas, ...
 - Creatividad
 - Mantener contacto y cuidar la naturaleza,...
 - ...



Ejemplos

- Oficina principal del Instituto de las Montañas Rocosas
- Sistema Servicio-Producto
- SIMPUTER (Simple-Computer)
- Fairphone
- ...



Sistema Servicio-Producto

Characteristics of selling a product vs. a function

Traditional product sales (selling tangible goods)	Innovative alternatives: product service systems (selling functionality)	
Consumer buys a vacuum cleaner to clean house/office.	Consumer rents a vacuum cleaner to clean house/office.	Consumer buys a service from a company to clean house/office. (Company determines best equipment and methods based on consumer's needs.)
The consumer owns, uses and stores vacuum cleaner. Consumer is responsible for maintenance and the 'quality' of the cleaning.	Company retains ownership of vacuum cleaner and is responsible for maintenance. Consumer is responsible for use and 'quality' of cleaning.	Company owns, maintains and stores the cleaning equipment including vacuum cleaner. Company is responsible for 'quality' of the cleaning.
Initial investment for consumer could be considerable.	Consumer costs are spread out over time.	Consumer costs are spread out over time.
Consumer ultimately disposes of vacuum cleaner and buys replacement.	Company responsible for disposal and has incentives to prolong use and product recyclability.	Company responsible for disposal and has incentives to prolong use and recyclability of cleaning equipment.



Ejemplos

● SIMPUTER

The Simputer is a **low cost portable** alternative to PCs, by which the **benefits of IT can reach the common man**.



It has a special role in the third world because **it ensures that illiteracy is no longer a barrier to handling a computer**.

The key to bridging the digital divide is to have **shared devices** that permit truly simple and natural user interfaces based on sight, touch and audio.



Ejemplos

● Fairphone



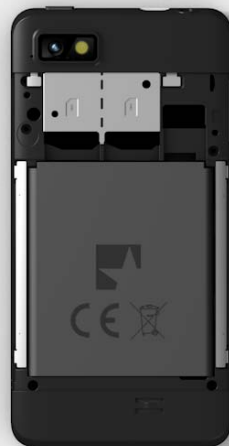
Fair & conflict-free resources
Tin and tantalum that support great performance, not inequality.



Fair wages
Building relationships for better practices, towards net positive impact in welfare and livelihood.



E-waste solutions
We're improving the whole supply chain by helping take out the trash.



Technical specs
Take a look at the features that put the smart in smartphone



Open, future-ready design
Open, update, modify and make it yours – now and in the future.



Transparent pricing
Our smartphone costs €325.
Discover exactly what you're paying for.



Cambios en Ingeniería

- ✦ Pensamiento sistémico (incertidumbre, no linealidad). Considerar el ciclo de vida completo: social, medio ambiental y económico.
- ✦ Incorporar un análisis del impacto social y medio ambiental de los proyectos con la perspectiva del ACV.
- ✦ Incluir la participación pública. (Pluralidad de perspectivas)
- ✦ Equilibrar la relación amplitud del análisis y profundidad del mismo



Ámbitos

- ✦ La educación en ingeniería
 - Inclusión de contenidos (¿asignaturas?) referidos a los ámbitos sociales y medioambientales
 - Aprendizajes que incluyan aspectos sociales y medioambientales en el análisis y diseño
- ✦ La empresa
 - ¿Responsabilidad Social Corporativa?
- ✦ El público
 - Comunidad. Participación. "Productos Éticos"
 - Administración. Políticas de Ciencia y Tecnología. Contratación Pública. Regulación



***Muchas gracias por su
atención***

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