



Innovative
energy harvesting
www.arveni.com



600 000 000 batteries for remote control
Sold batteries for TV remote, worldwide, in '09

5 000 000 000 batteries → Pollution
Abandoned in the nature, only in EU, in '09 (Ebra)

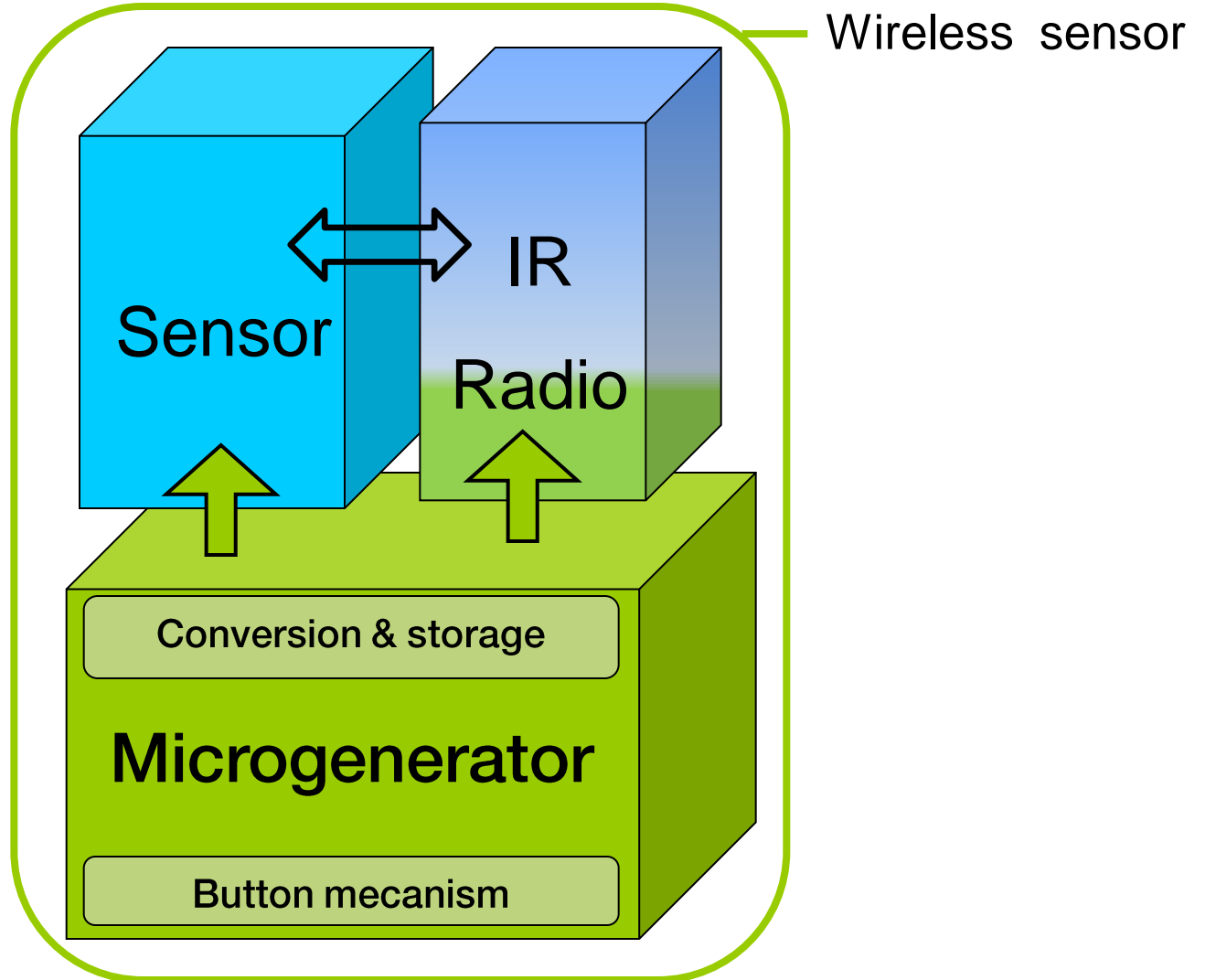
Why pollute ?

Arveni's products convert mechanical energy to electricity for simple wireless applications

- ✓ **New renewable energy**
- ✓ **Batteryless = lower cost of ownership (TCO)**



ARVENI PRODUCT





ARVENI INDUSTRIAL START UP

- Incorporated in 2007
- Profitability in 2011
- Arveni develops his **own technology** of piezo energy harvesting
- Business model: selling of parts, ie microgenerator or design contracting for complete batteryless & wireless applications. Arveni is fables.
- **International business growth strategy**
 - Pro-active financing for business devpt
 - Continuous technical leadership



TECHNICAL LEADERSHIP



World first single button infrared remote control for SFR (IT provider) in 2009

World first multikey harvesting for radio TV remote control with PHILIPS in 2010

Arveni awarded 3 times in 2010 for its innovative products:

- ✓ **Best of Sensor Expo (Chicago)**
- ✓ **Special price of the Jury for embedded electronic (Paris)**
- ✓ **'60 most promising startups' EE Times (California)**



Strong IP & Patent policy

- ✓ 5 patent in licence from Insa School of Engineering
- ✓ 7 patents filed, extended in Japan, US, Eu, China, Korea



CUSTOMER VALUE CREATION

- **No wiring cost !**
 - Oil & gas: 40 to 100 \$/ft
 - Home automation: 50 \$
- **No battery costs !**
 - ROI at first avoided battery replacement 6 month to 2 years
 - Lower total cost of ownership
- **No life time limitation**
- **No worry**
- **High energy production**
 - 10 times more energy than competitors under same conditions (pulse)
 - Ability to power most of radio protocols & low cost radio
→ Avoided costs 10 \$/unit
- **Reliable**
 - Very long life time > 700 000 pulses without loss
 - Tested from -17°C to +80°C
 - Solid state technology (piezo) **no wear** of core microgenerator





Arveni is an **industrial start up.**

We sell:

- ✓ **Reliable, Competitive, Green products**
- ✓ **Experienced R&D support for integration in your applications**

→ Let's imagine your dream seller !



THEY TRUST US FOR THEIR PRODUCTS

PHILIPS
sense and simplicity

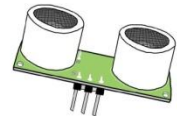


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THANK YOU → QUESTIONS & ANSWERS



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