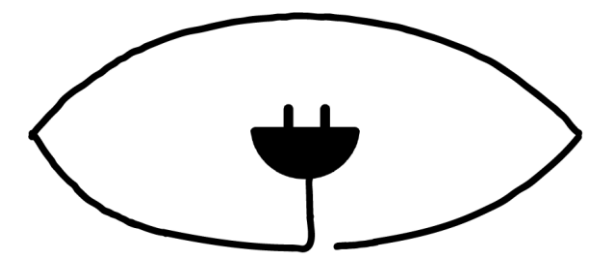# TIESA – A Smart, Simple and Scalable Energy-Saving Assistant

Empowering Every Home to Save Energy, One Leaf at a Time
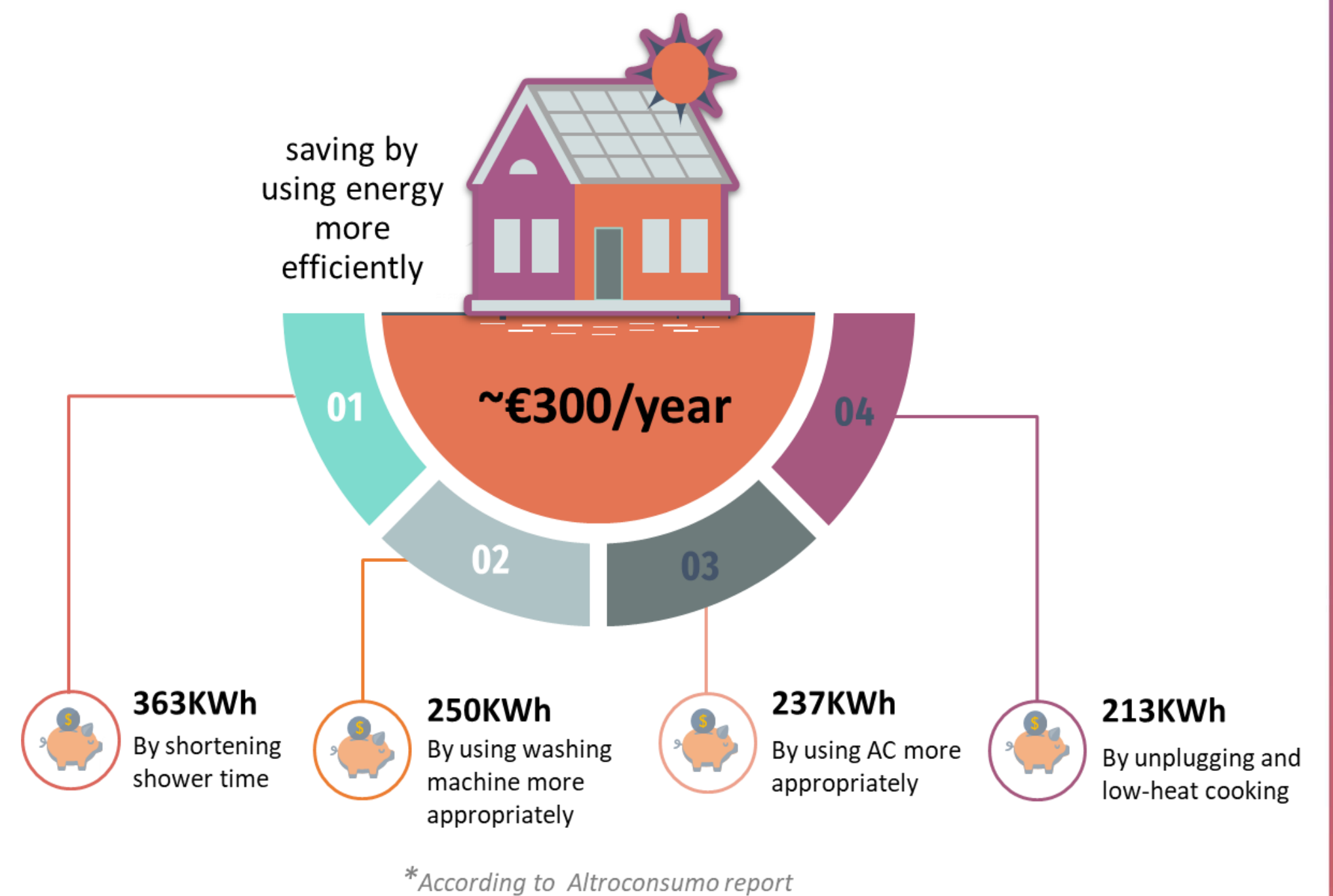
Habeel – Michèle – Noor – Paolo - Yan

6th September 2024

The Rising Challenge of Energy Consumption – A Growing Concern for Households

Emma (University student, 21)
"Even though I live in a small rented apartment, my energy bills keep rising. What could I use that can help me reduce my daily energy consumption and save money?"

Omar (Father of two, 42)
"I want to reduce our carbon footprint for the sake of my children. How can I optimize the use of solar panels and wind power generator to be more energy efficient?"

Sarah (Tech enthusiast, 35)
"I'm on the lookout for the latest technologies. Is there one that can make use of my smart home sensors and artificial intelligence that I can easily integrate into my daily life?"

John (Retired engineer, 62)
"I read that poor indoor air quality can affect the health of older adults. What's a cheap way to monitor and maintain good air quality and room conditions at home?"

saving by using energy more efficiently

~€300/year

01 02 03 04

363KWh By shortening shower time

250KWh By using washing machine more appropriately

237KWh By using AC more appropriately

213KWh By unplugging and low-heat cooking

According to Altroconsumo report

The TIESA Solution: The Leaf that Listens, Learns and Leads

Interactive Design

- Ask TIESA about your energy use, and it responds with insights that turn everyday actions into energy savings
- TIESA's real-time data visualization shows you exactly how much energy you're saving – minute by minute, day by day
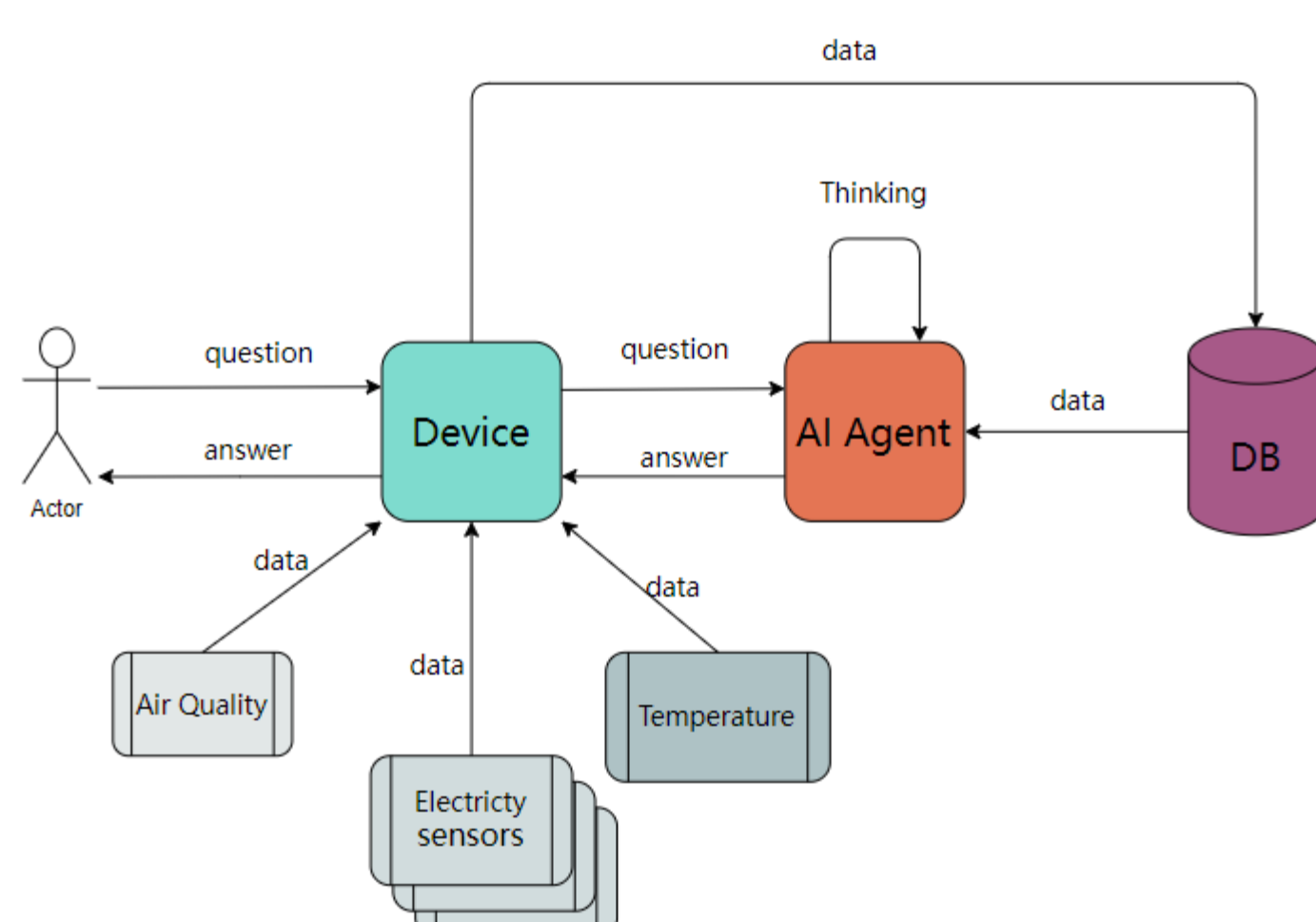
Personalized Intelligence

- TIESA learns your routines, understands your needs, and tailors its advice to fit your lifestyle
- No complex jargon, no difficult setup—TIESA is plug-and-play, designed for everyone from tech newbies to seasoned pros

Modern Hardware and Software

- TIESA is based on Raspberry Pi and smart home sensors that monitor your energy usage in real-time
- Through intuitive interfaces and voice-control, TIESA offers custom tips and reminders to optimize energy consumption

AI Workflow

data

Thinking

Actor — question → Device — question → AI Agent — data → DB

answer ← Device ← answer ← AI Agent

Air Quality · Electricity sensors · Temperature → data → Device

Future Visions

Data Integration and Optimization

Mobile App Development

Smart Home integration

ML for Predictive Analysis

Incentivization and partnerships

International Expansion

Regulatory Compliance

Community Building

Smart. Simple. Sustainable. Shaped Like a Leaf, Ready to Change the World.