

Access to energy for the Bottom of the Pyramid

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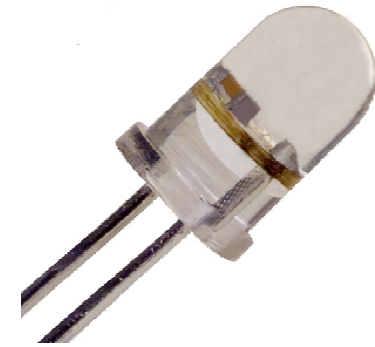
WFES
20.Jan, 16:00 – 16:30



Agenda

- The **stakes** of access to energy in the Bottom of the Pyramid (BoP)
- Schneider Electric answer: **BipBop**
- Let's get **concrete**
- Conclusion
- Q&A

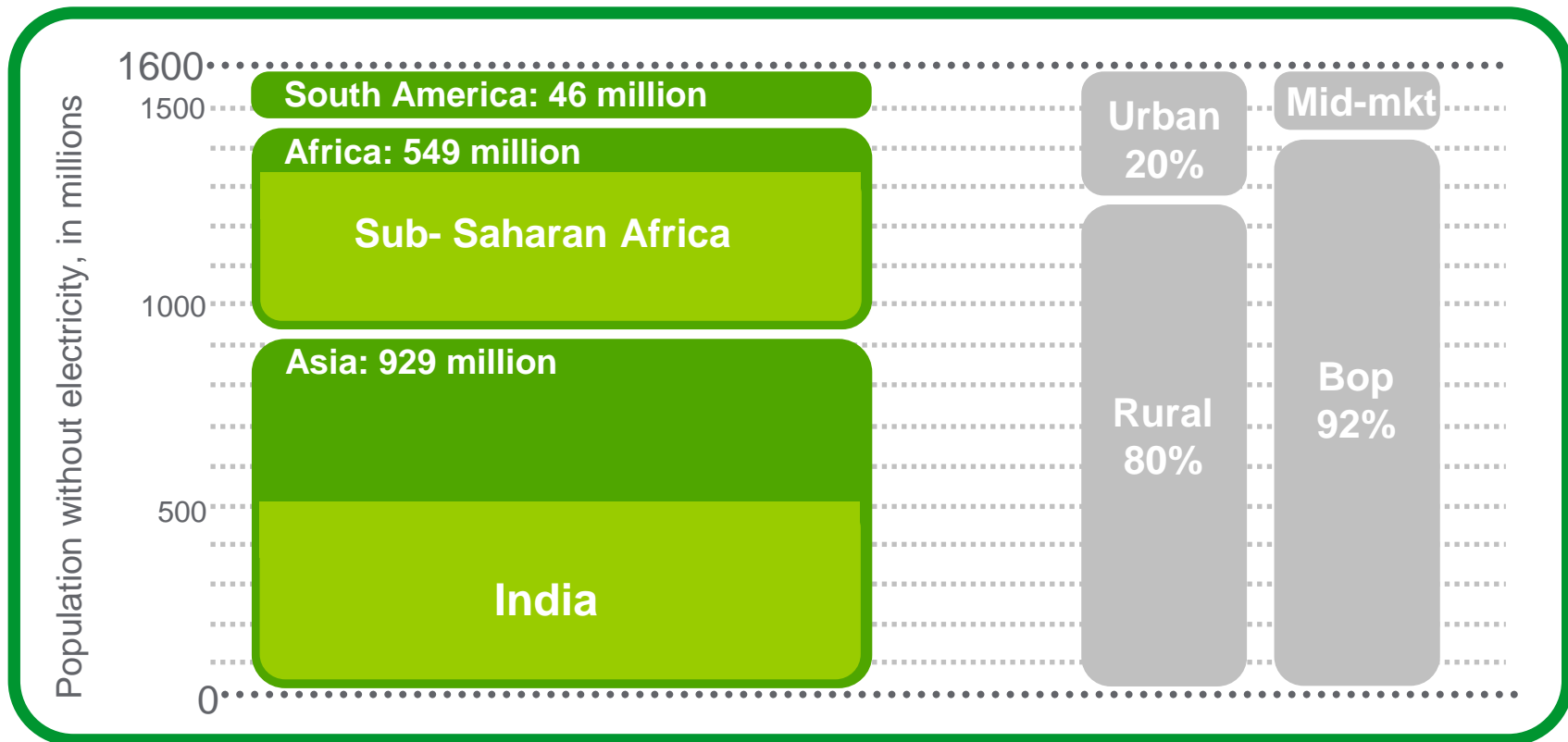
How much light can 99 LEDs produce?



	Standard Incandescent	Compact Fluorescent	99 LEDs
Life (hrs)	1,000	10,000	50,000
Lumens	2,850	2,437	2,673
Watts	150	40	4.5

Today :

1.6 billion people don't have access to electricity



Source: IEA 2006 and IFC 2008

And **2 billion people** forced to rely on traditional biomass sources due to the lack of clean and safe cooking fuels

1.6 billion people

are heavily impacted by lack of access to electricity

- The lack of electricity
 - endangers **peoples' health**
 - puts a strong **brake on development**
 - increases environmental **damages**
- Slum inhabitants (1bn people increasing by 500,000 per week) connect to the grid in **poor conditions** because of their situation
- Access to electricity is intrinsically hard, they **pay more** and they get a **poorer service**
- Remote villages must be focused to develop the people, the agriculture and to reduce slump growth.

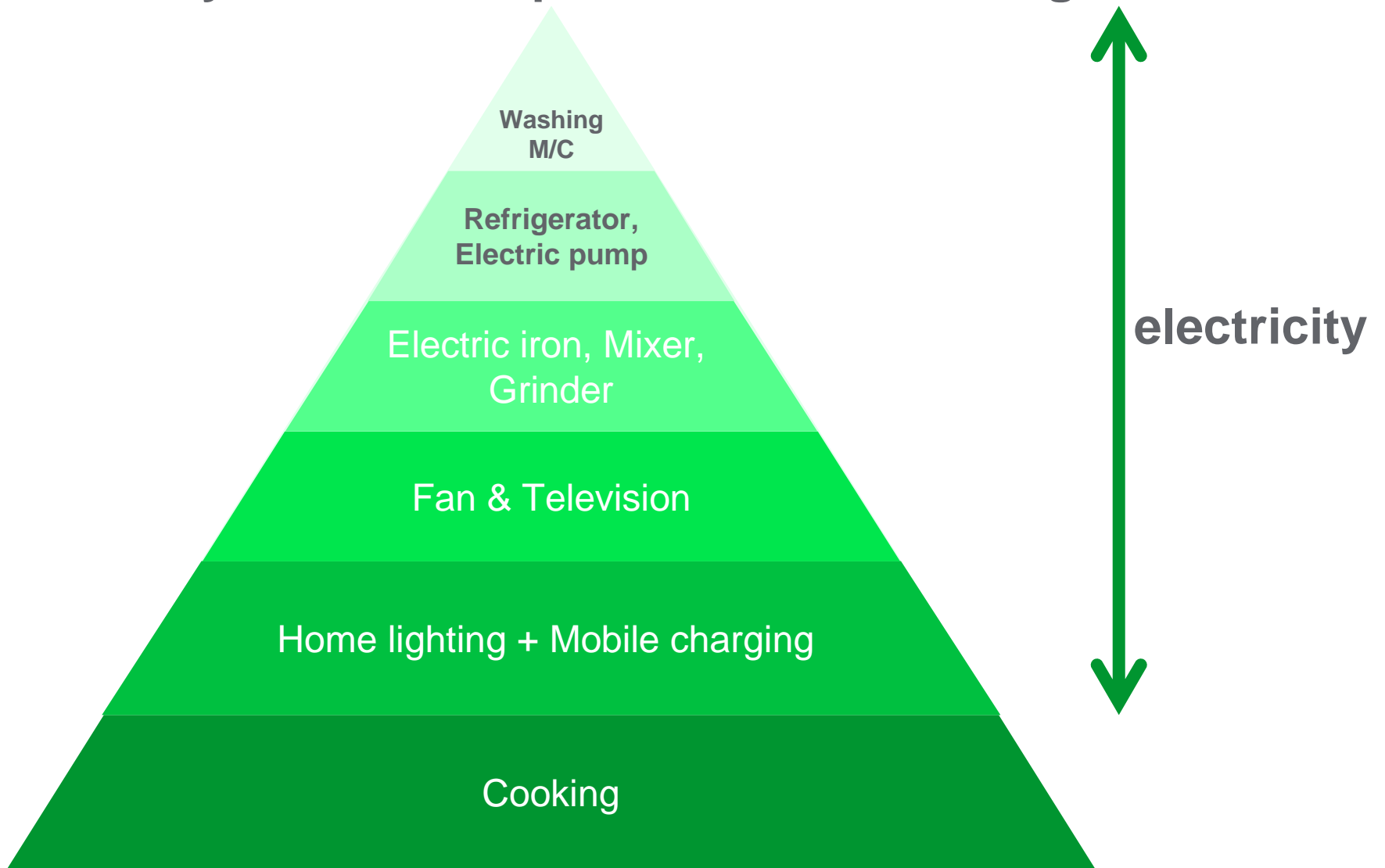
In 20 years' time:
1.5bn more people will access to electricity but there will
be still 1.4bn without access



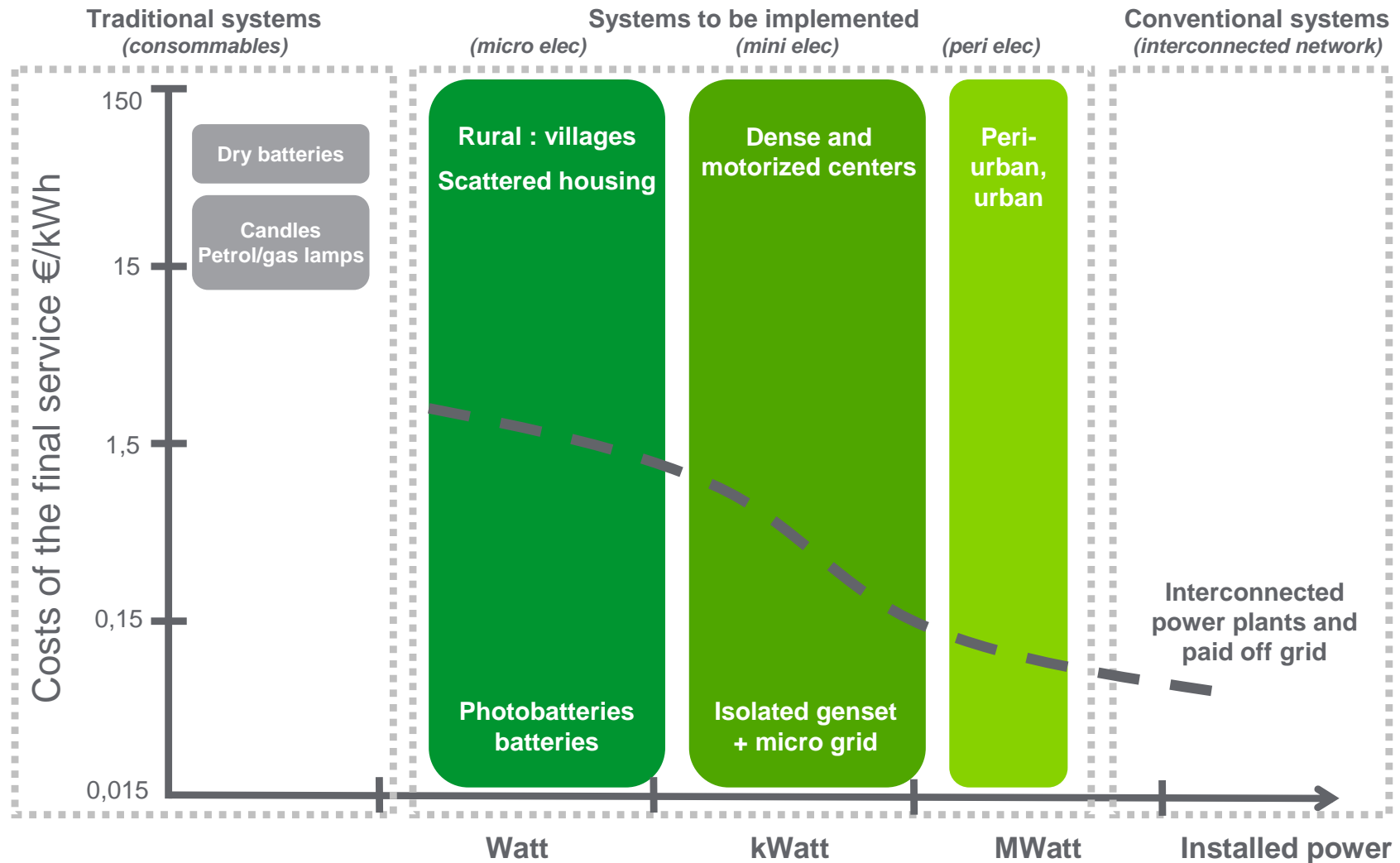
2008: **4 billion** people with electricity, **1.6 billion** people without
2030: **5.5 billion** people with electricity, **1.4 billion** people without

BoP hierarchy of needs

Electricity is the #1 response outside cooking fuel



Why pay 100x more for 100x less energy?



Schneider Electric at a glance

18.3

Billion global sales in 2008 (in€)

32% of sales in new economies
x2 compared to 2004

110 000+

people in 100+ countries

5%

Sales devoted to R&D

170

Years of history through
innovation and leading brands

Schneider Electric: WFES 2010 Abu Dhabi – 20 January 2010

The global specialist in
Energy management

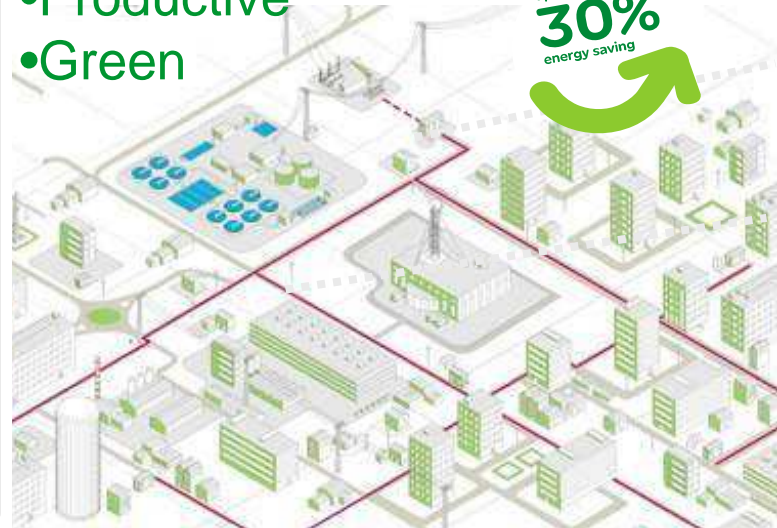
Making energy:

- Safe
- Reliable
- Efficient
- Productive
- Green

Covering
72%
World Energy
consumption

up to
30%
energy saving

Energy production
& transmission



Energy usage

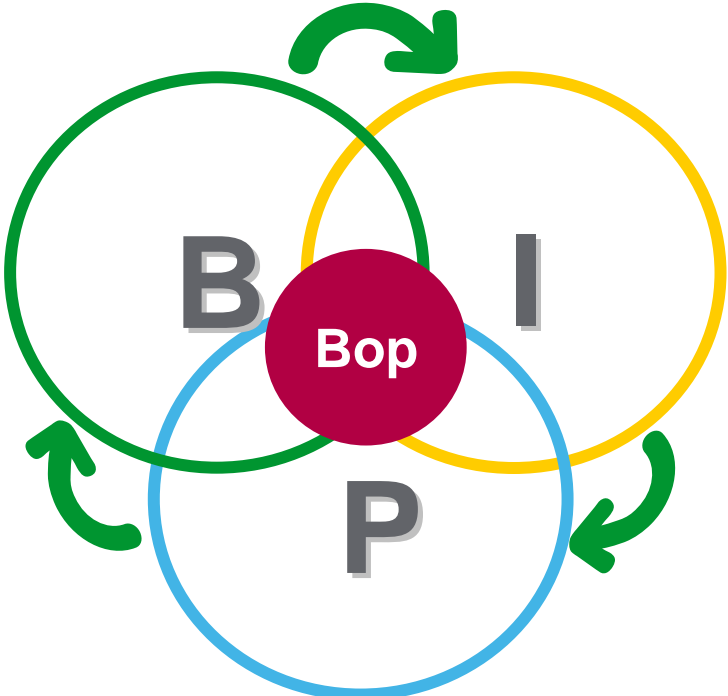
A Recognised
Sustainable commitment



BipBop programme: promoting development through combined initiatives

Business
Build adequate offers/solutions to be a champion in the electrical distribution field for the bottom of the pyramid

Business partners



Investment
Build an investment fund to support the creation of companies dedicated to electrical business for the bottom of the pyramid

Schneider Electric Energy Access Fund

People
Train young people from the bottom of the pyramid in electrical skills and sponsor them

SE Foundation with Luli + Other non profit partners

BipBop in action:

Business in India



Business:

Product portfolio for the BoP market

LED based lamp

Standard version with 45 LEDs
Superior version with 90 LEDs



AC input, battery backup



AC input



Externally charged battery input



Solar input, battery backup



AC & Solar input, battery backup

Energy efficient system for light & fan

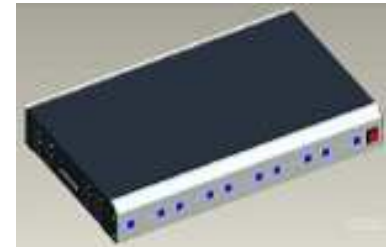


Solar home system



DC based UPS

Battery charger for charging station



Solar input



AC input



AC & Solar input

BipBop in action:

Investment in Madagascar



Madagascar

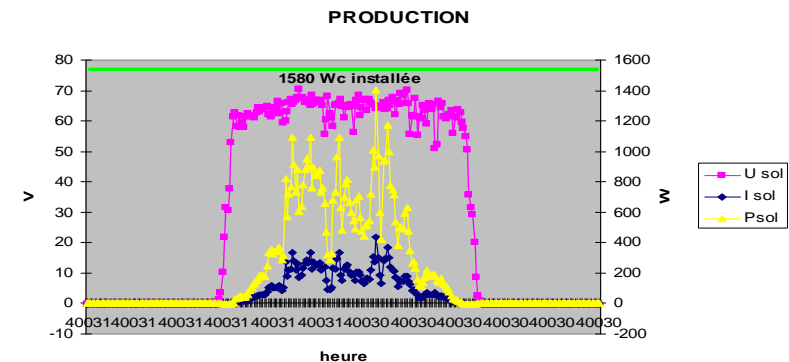
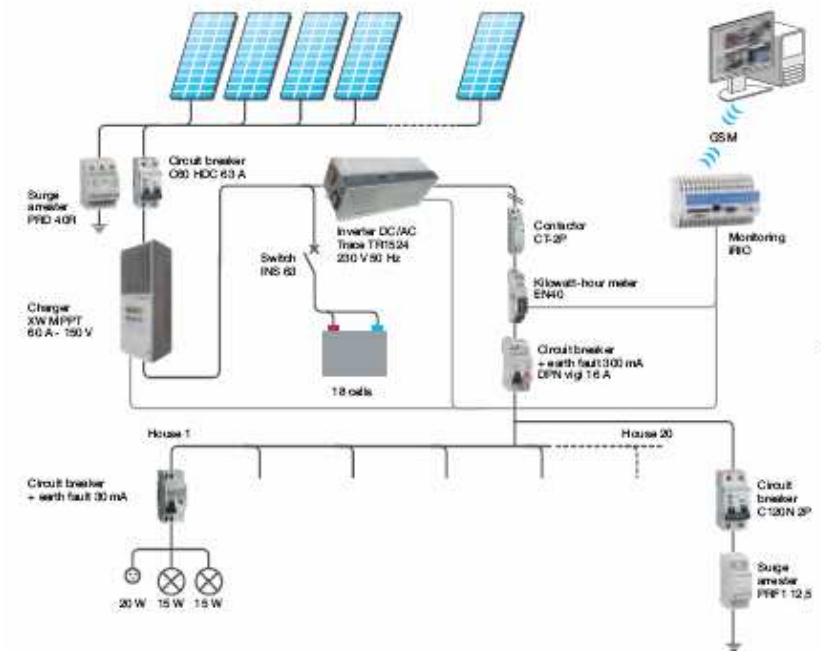
A major lack of electricity

- 20 million people but only **20%** have access to electricity
- 70% of the country **uses heavy diesel** for electricity production
- 7GW are still available through hydraulic potential : **Micro turbines are key**
- **Solar power is still cheaper** than diesel gensets


A complete solution operational in Madagascar since 1 May 2009

Technical solution included:

- 24 photovoltaic panels
- 1 Xantrex + Inverter & charger
- 18 batteries to stock 20 Kwh
- Circuit breakers and residual current modules for installation and houses
- Remote monitoring & supervision system via GSM
- Real time measurement of the consumption & supervision of the batteries, charger, photovoltaic panels and inverter



Benefits for the whole village



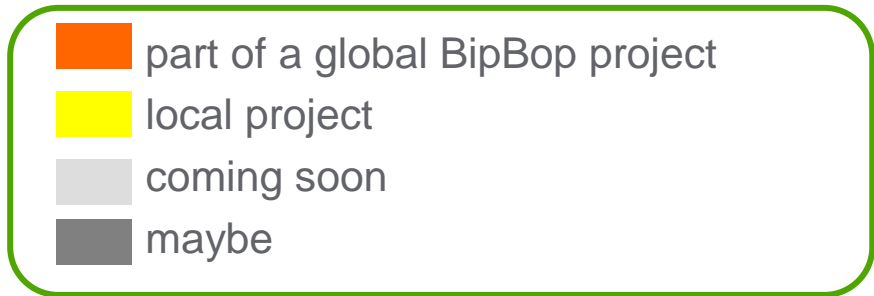
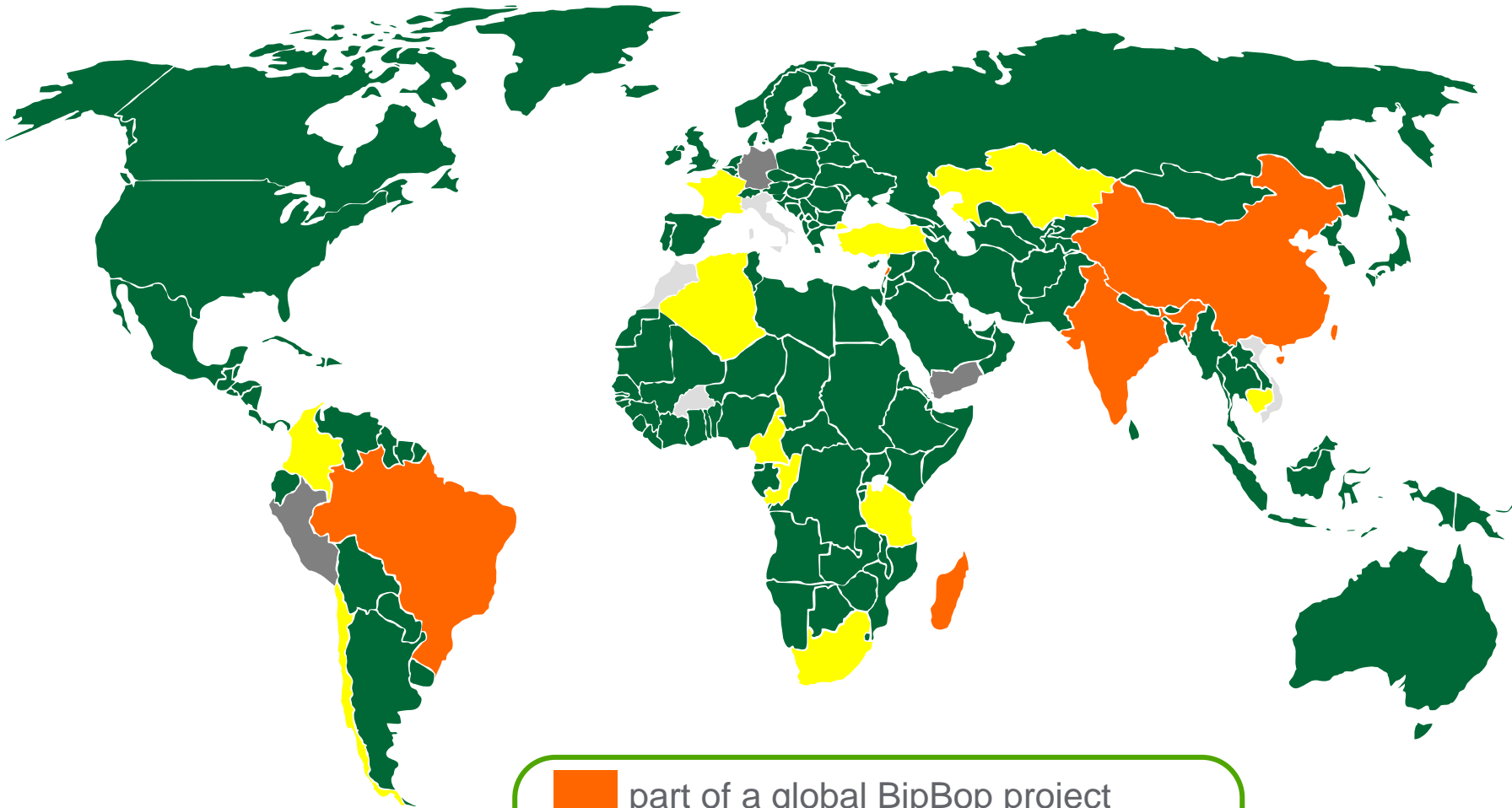
Residents education program to maintain the facility
1,400W peak power generation
490W current usage
12 new jobs created

BipBop in action:

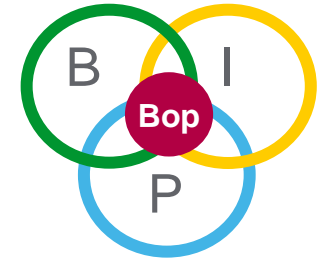
People training worldwide



People training: worldwide overview



A sustainability programme to spread access to safe and reliable energy



Business

1 M households from BoP equipped with adequate energy offers/solutions by 2011

Investment

A 3M€ socially responsible investment fund to foster entrepreneurship in energy business

People

10,000 young people from the bottom of the pyramid trained in energy skills



Visit us



Hall 4, booth 4405
(next to the BP Carbon Theater)

Tour the booth and be entered into our daily lottery

The lucky winner to receive a brand new
Amazon Kindle e-reading device right away!

Schneider
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Make the most of
your energy™

