

PHILIPS

sense **and** simplicity

Innovation for sustainable growth

AN INNOVATIVE TRUTH IV
CONGRES OVER DUURZAME ICT & ENERGIE

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CONTENT

Philips sustainability strategy

– Ecovision 5

Two innovative & sustainable examples with mainstream product launch

ECONOVA 1

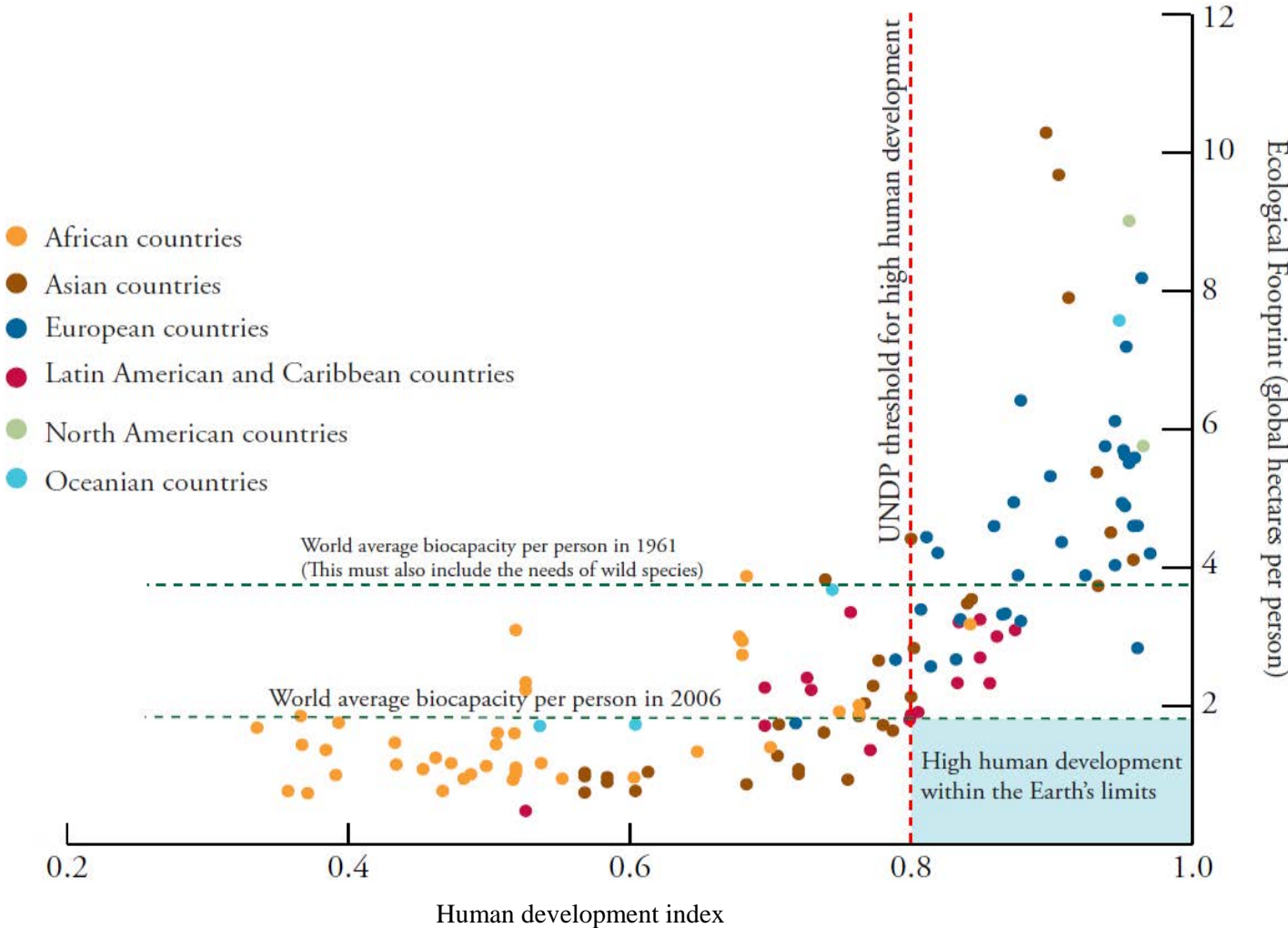
- Green features
- Recycled aluminium

ECONOVA 2

- Green features
- Recycled plastic

ECOVISION 5

– Philips sustainability program



Source: WWF Living Planet Report 2006

ECOVISION 5

– sustainability program

- 1. Philips will **bring care** to more than 500 million people by 2015
- 2. Philips will improve the **energy efficiency** of its overall portfolio by 50% by 2015
- 3. Philips will double the **global collection and recycling** amounts of our products, as well as double the amount of **recycled materials** in our products by 2015



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Two cases

Innovative, sustainable **and** mainstream market

ECONOVA 1 (42PFL6805)

Green features
Recycled aluminium



ECONOVA 2 (46PFL6806)

Green features
Recycled plastic



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ECONOVA 1

42PFL6805

The design of the ECONOVA started with the end in mind. It is a TV with the lowest energy consumption without compromising on picture quality. In a timeless full aluminum body. Designed to be used over and over again, with a solar powered remote control.

ECO

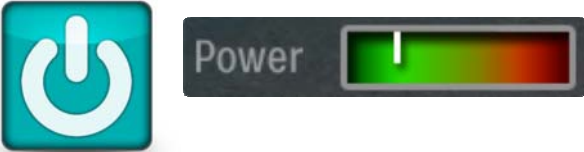
Where eco meets design.

DESIGN

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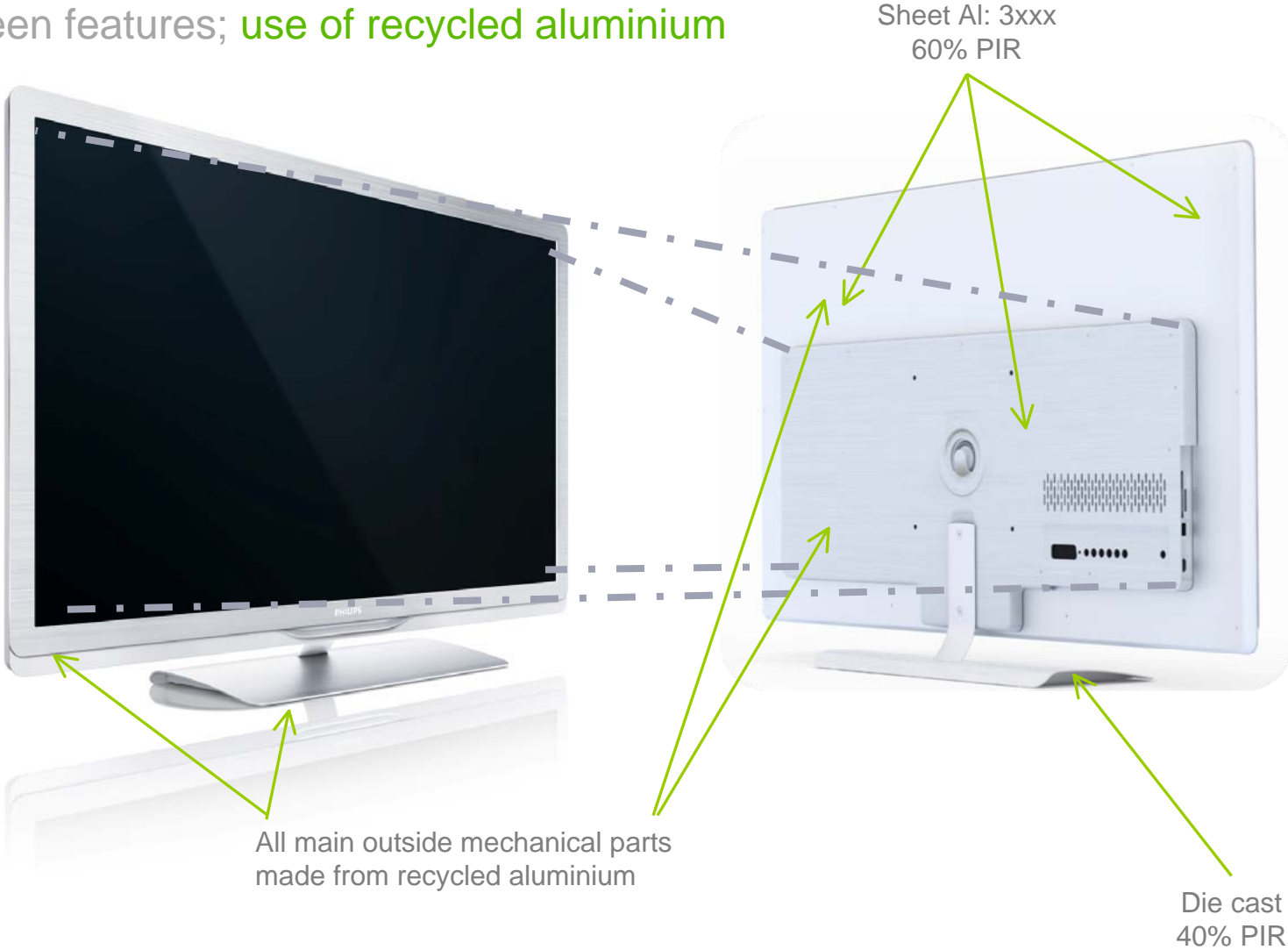
ECONOVA 1

Green features



ECONOVA 1

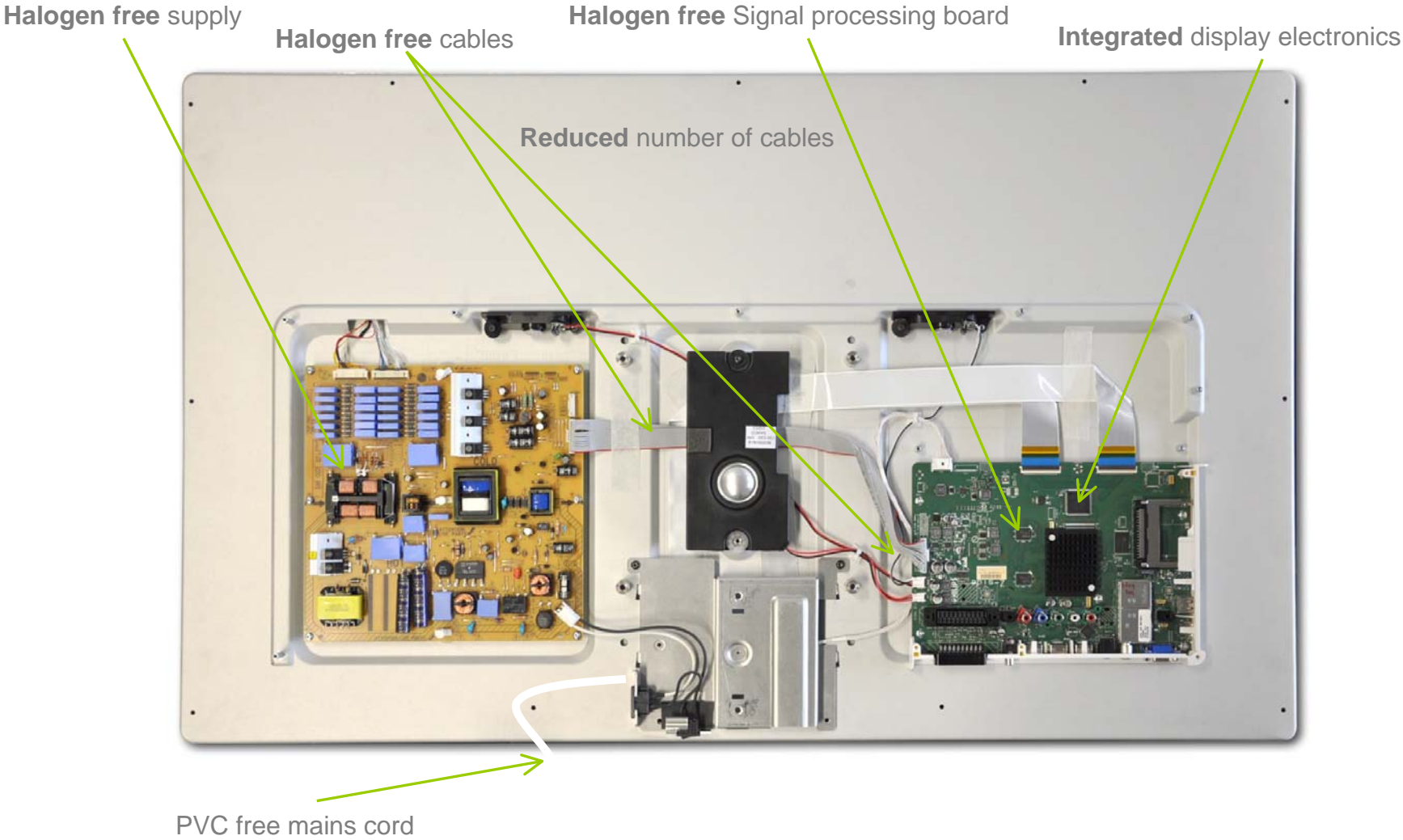
Green features; **use of recycled aluminium**



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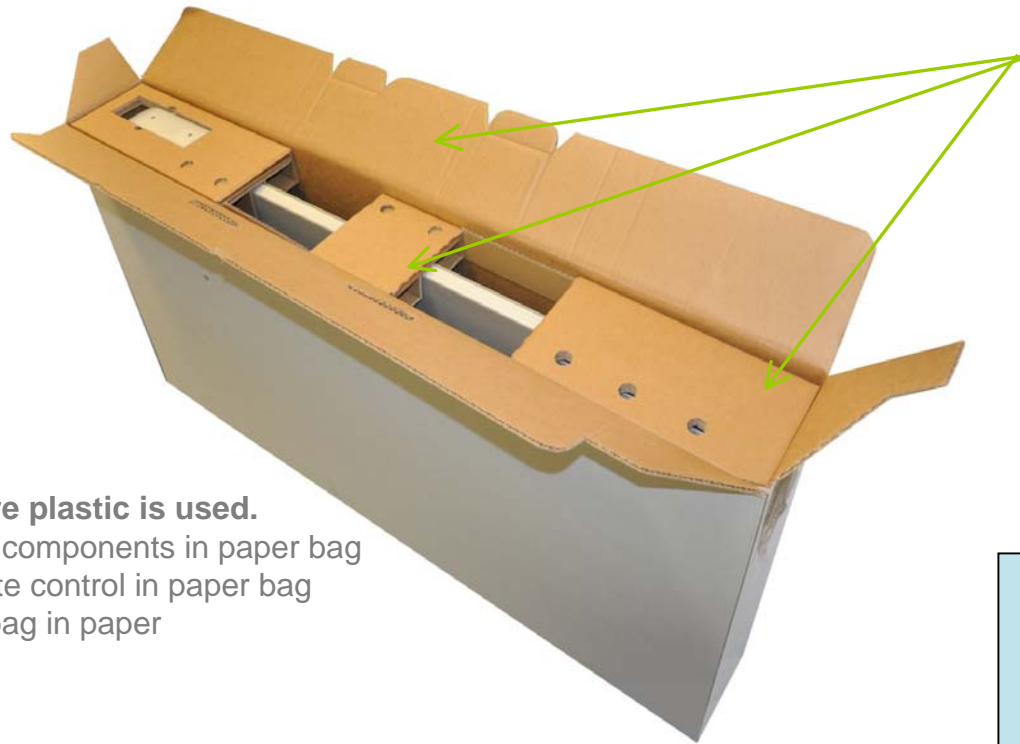
ECONOVA 1

Green features; 100% Halogen Free



ECONOVA 1

Green features; packaging **100% paper based**



Cushions in folded cardboard

= same material as box

= easy to recycle for end customer

No more plastic is used.

- Stand components in paper bag
- Remote control in paper bag
- Dust bag in paper

Single piece recycled cardboard box
 Container load: 480 sets/mega trailer.

With a thickness of 16 cm, this LCD TV packaging is the thinnest Philips has ever made. In total 5 TV's per pallet make a total of 480 TV's in one transport.

Studied alternatives before selecting the cardboard:

	EPS	PLA	Folded cardboard	Paper pulp
Testing	Green	Red	Yellow	Red
Cost	Green	Red	Red	Yellow
"Green"	Yellow	Green	Green	Yellow

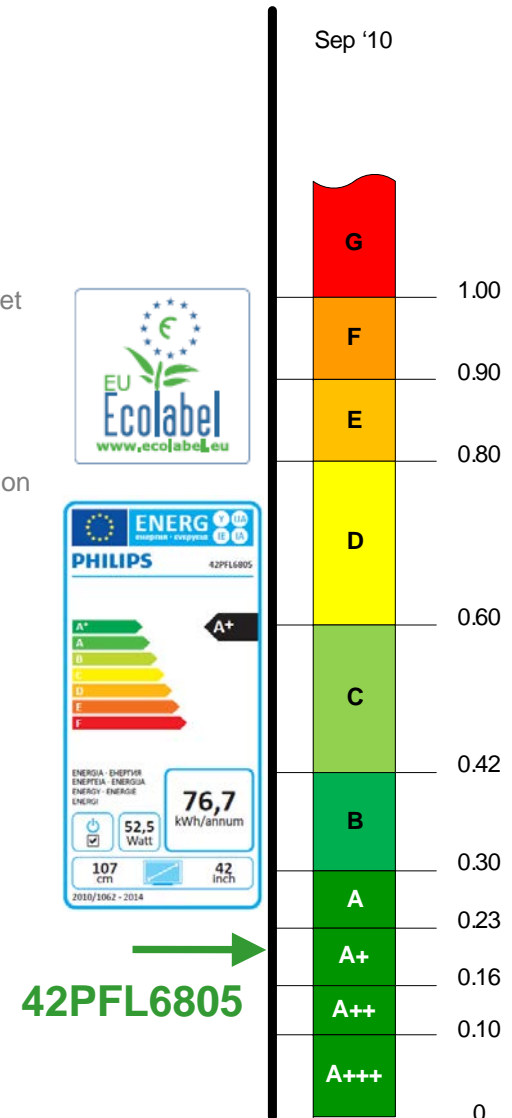
ECONOVA 1

Green features; Energy Efficiency

- Mains switch (0 W)**
 A switch is added to the set to remove the set from the mains input and reduce the power consumption in Off mode to 0W. This is the ideal situation for covering longer periods of absence such as a vacation period.
- Extreme Low Standby Power**
 In standby mode, supporting wake up from the Solar Remote as well as via the HDMI-CEC link, the set only consumes 0,075W. Almost 15 times less than the legal limit.
- Light sensor**
 The internal ambient light sensor tunes the light output of the set to allow enjoyment of the immersive viewing experience at its best while at the same time substantially reducing the power consumption in normal and dark viewing environments.
- EU Eco-label compliant**
 The EU eco-label certification recognizes televisions that have a range of sustainable features, including low energy consumption and low standby power.
- 40W in Eco mode**
 This lower power consumption is obtained through the use of a high efficiency side LED backlight display, high efficiency supplies and state of the art dynamic dimming video algorithms which calculate the needed drive of the backlight for the video content, thus enhancing the picture performance as well as optimizing the power consumption.
- Remote Control: Solar Cell & Green User Interface**



EEI-scale



ECONOVA 1

Green features; Energy Efficiency – Green User Interface

The Power meter gives the user an indication of the instantaneous power consumption of the set and makes the user aware of changes he is applying, such as contrast change or a different smart setting selection. It **creates an energy consciousness** in a very simple and interactive way.

The power meter is present in menus with major **power consumption impact**

- Eco Button list
- Smart picture menu
- Dynamic backlight menu
- Contrast
- Light sensor



42PFL6805H

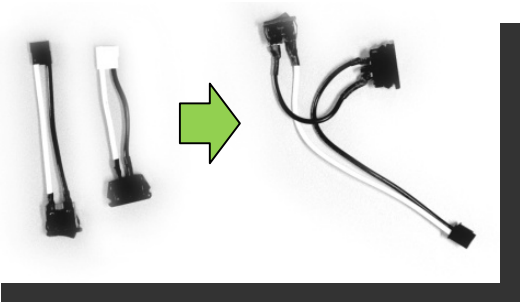
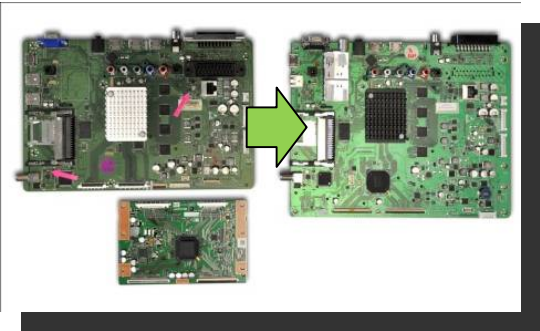
Light sensor	Yes
Mute screen	Yes
Power meter	Yes
Auto Switch Off	Yes



ECONOVA 1

Green features; **Material reduction**

Reduced number of electronics and cables; mains inlet and mains switch combined in same assembly to reduce cable length and number of connectors



2 in 1 stand

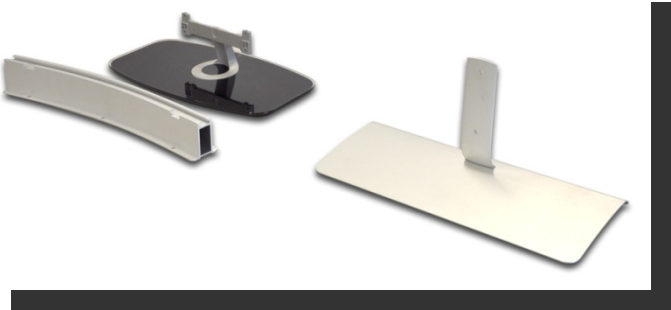


Table configuration



Wall configuration

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ECONOVA 2

46PFL6806

Build further on knowledge from Econova 1



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ECONOVA 2

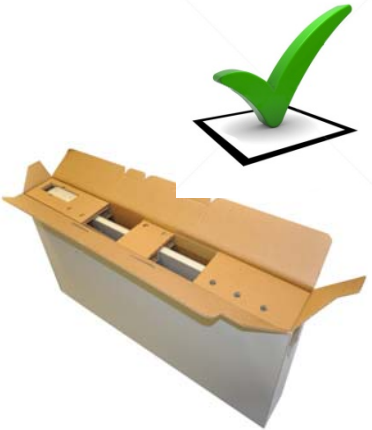
Green features



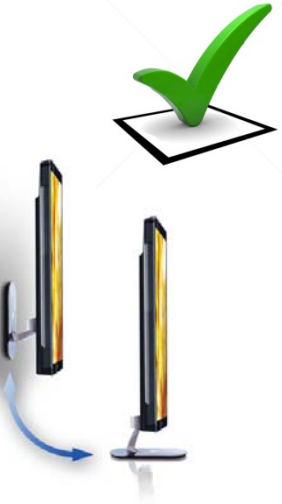
zero 
power switch



Energy Label



Post recycled plastic



PLASTIC RECYCLING

Challenges in

Availability

Post Industrial recycled Plastics (PIR) (from industrial waste)

- Offers choice, but availability is limited

Post Consumer recycled plastics (PCR) (from used products)

- In principle high availability, but difficult to get high quality

Quality

Philips chemical requirements (RSL) not tuned to recycled materials

Conflict in legislation:

- WEEE requires recycling and reuse
- REACH requires full transparency of materials



Price

High quality recycled plastics are scarce. Suppliers tend to ask price premium

ECONOVA 2

Green features; use of post consumer recycled plastic

Use of Noryl RN 0712 HIPS/PPO (High impact Poly styrene poly-phenylene oxide)

- 35% post consumer recycled plastic
 - Commercially available in the market
 - Made of recycled refrigerators etc.



ECONOVA 2

Green features; **Packaging material**

- Single piece recycled cardboard box
- Container load: 360 sets/mega trailer.

With a thickness of 20 cm, this LCD TV packaging is the thinnest 46 inch TV Philips has ever made. In total 4 TV's per pallet make a total of 360 TV's in one transport.

46PFL6806

Total weight packaging	4.4 kg
Recycled cardboard	100 %
EPS	0 %
# TV's per ISO pallet	4 (20 cm thick)
# TV's per mega trailer	360



Cushions made from recycled cardboard structures

= same material as box

= no tape used!

= easy to recycle for end customer and feed into existing paper recycling systems

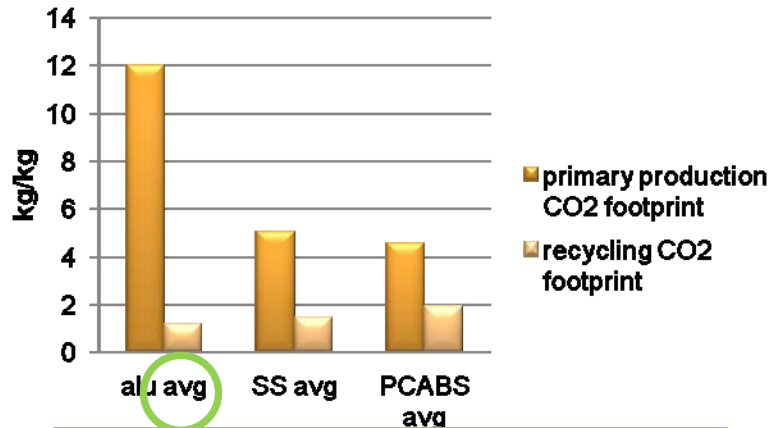
Packaging made from recycled cardboard fibre

Solar Remote control is packaged in a paper bag

Printed Quick Start Guide only,
Electronic Help function / User manual is built into TV

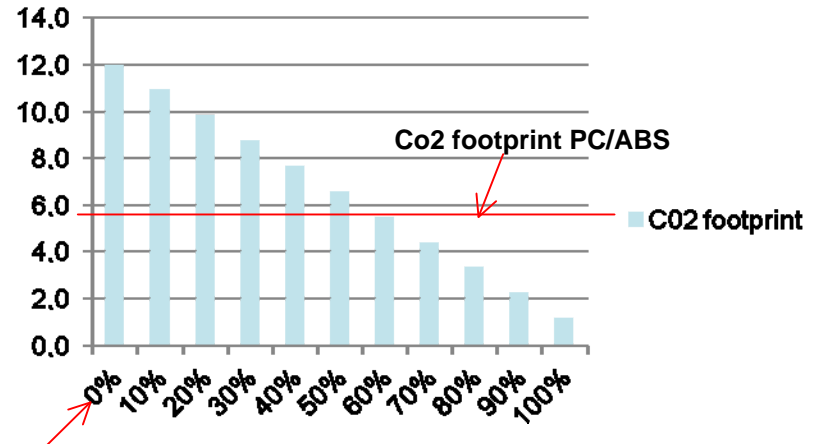
Environmental impact

CO2 footprint



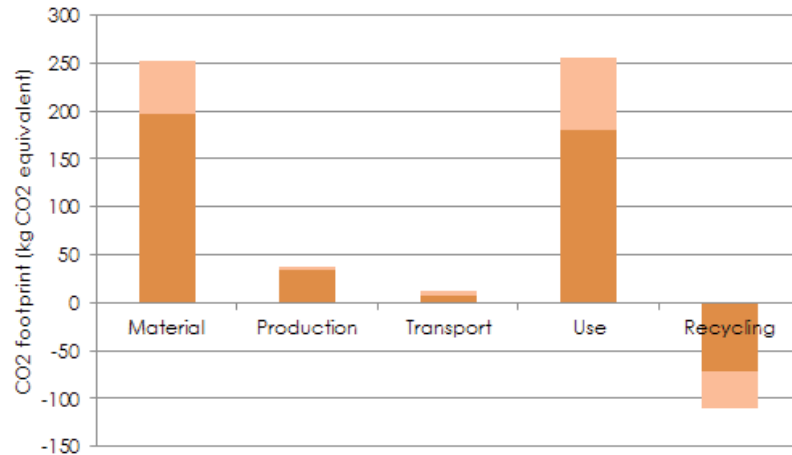
Only 10% of energy needed for recycling

CO2 footprint



virgin Al % recycled aluminium

Carbon footprint life cycle



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Q & A

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