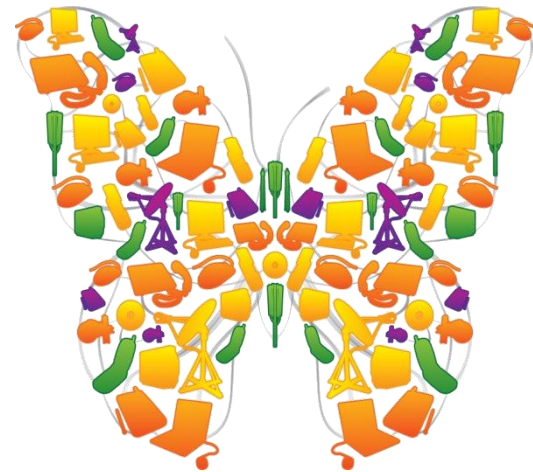


Environmentally sustainable business

Minimize, Combine, Maximize

Cristiano Radaelli
Milan, December 3rd, 2009



Environmental issues are taking center stage

Towards mainstream in capital markets



Customer expectations



Leaders capitalize the value



Corporations



Demands of new growth markets



Employer Brand



Increasingly tight laws and regulations

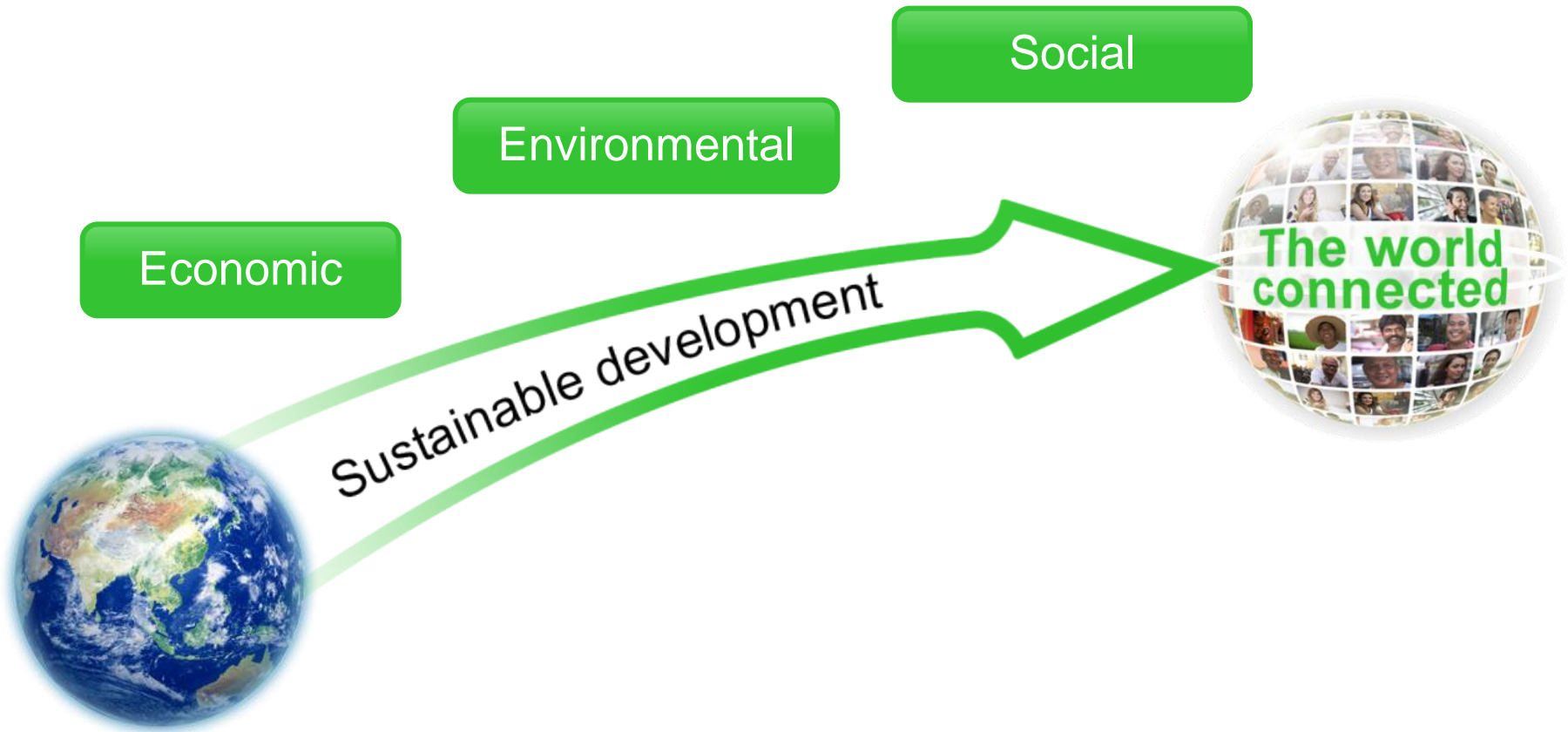


Increasing pressure from NGO's

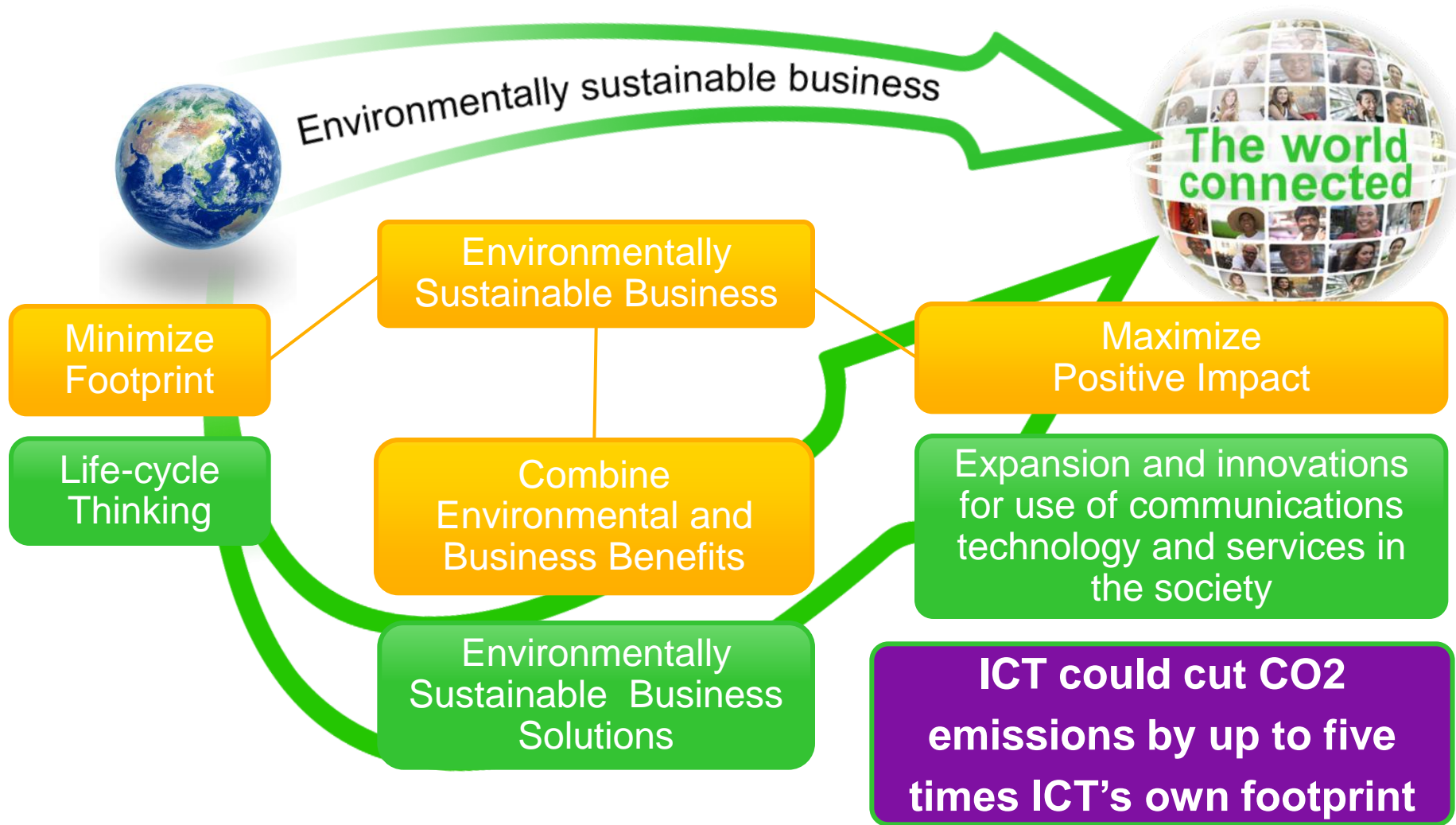


Reinventing. The world. Connected.

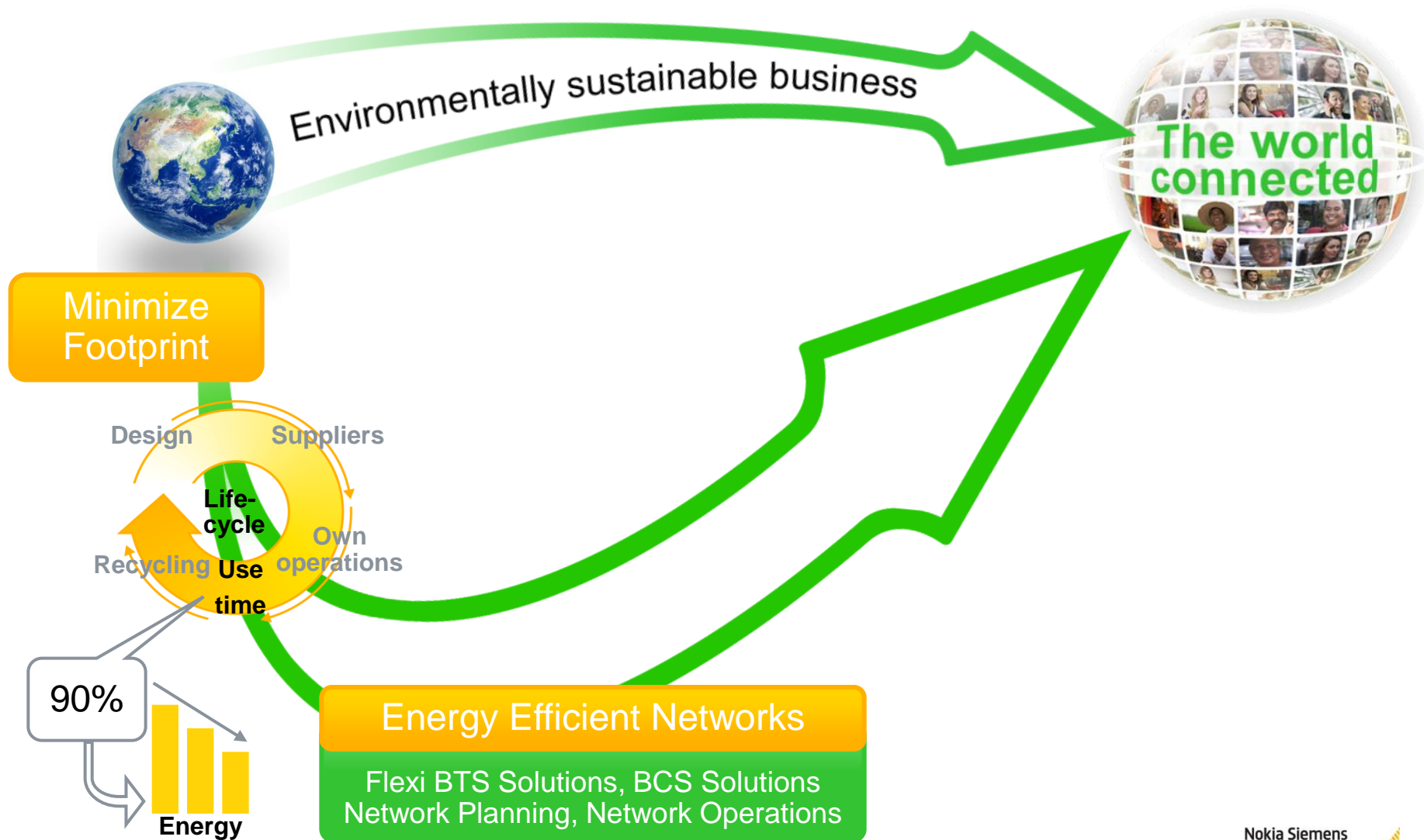
Sustainable development – the triple bottom line



Environmentally sustainable development



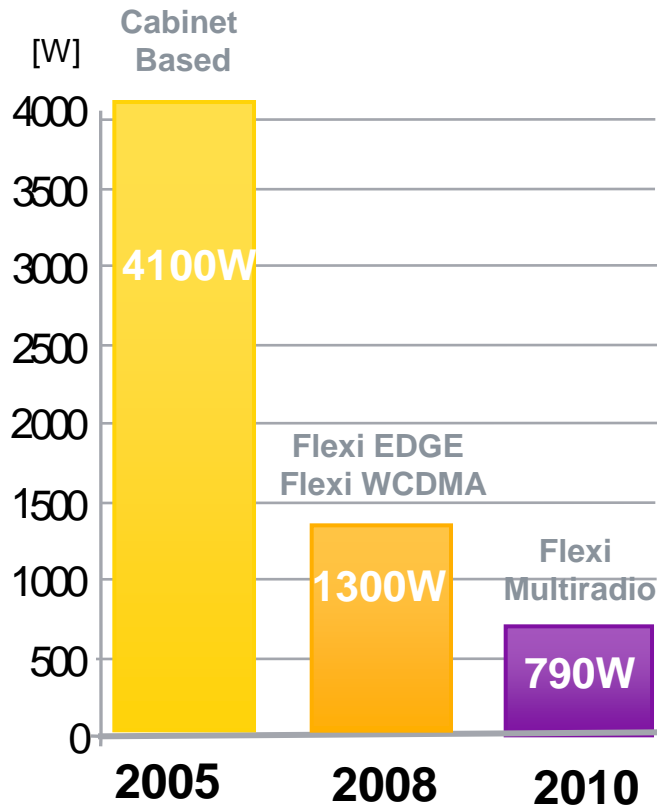
Environmentally sustainable development



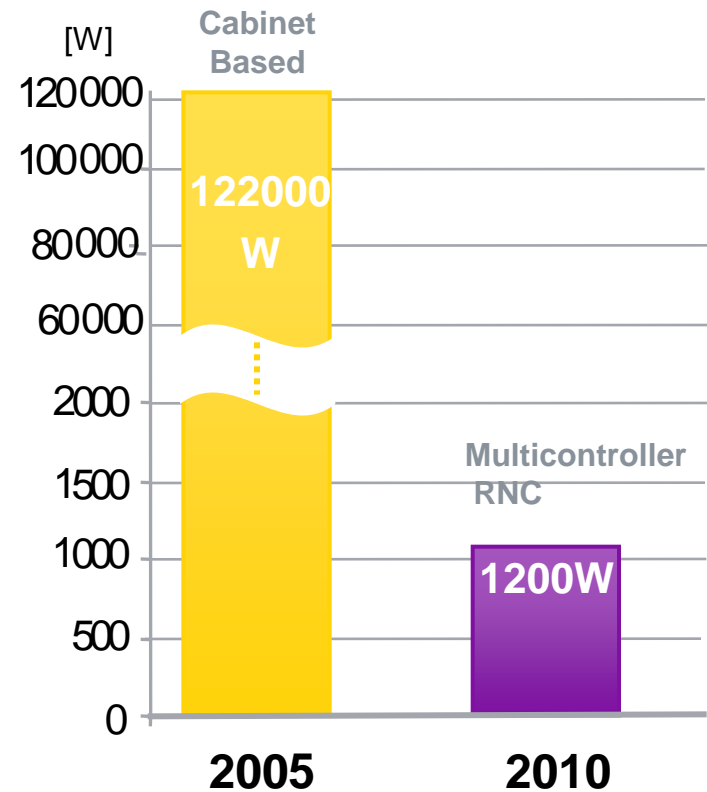
Reinventing. The world. Connected.

Continuous improvement in radio energy efficiency

GSM + WCDMA
BTS site



RNC capacity of
4Gbps



Based on 1+1+1 WCDMA BTS and 4+4+4 GSM BTS

Reinventing. The world. Connected.

Smart packaging reduces waste & transport

Minimizing packaging materials starts in the product design phase.

Less packaging means:

- **Less waste.**
- **Less trucks, ships and airplanes to transport.**
- **Smaller logistics expenses.**

All delivery packaging is designed to be recyclable and reusable: in 2008 we reused over €3 million of packaging materials.

Packaging material is sourced from the country of utilization whenever possible.

Environmental compliancy is an integral part of our global product packaging platform strategy and design principles



Environmentally friendlier logistics

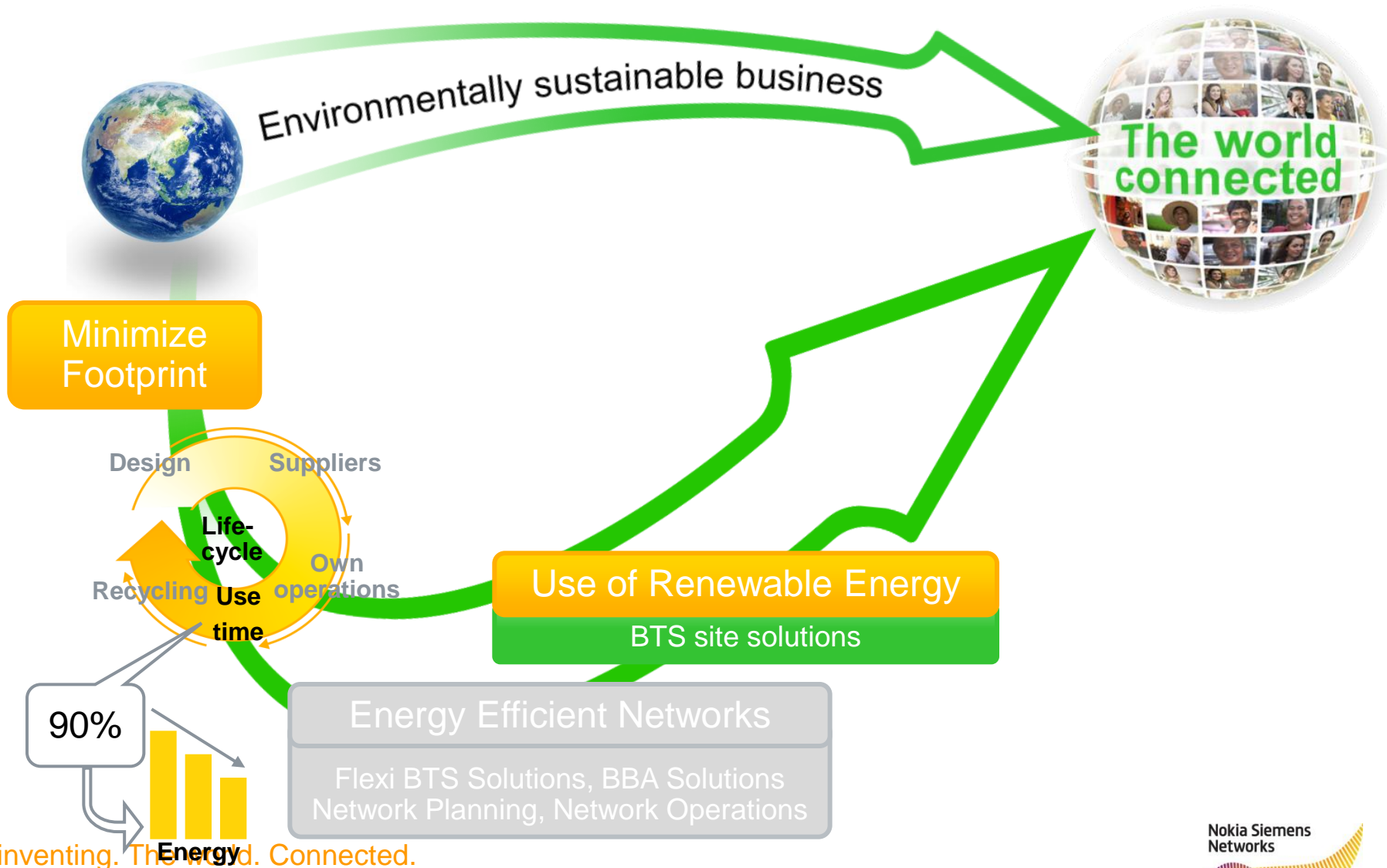
Different modes of transport have different environmental impacts.

- **We now include CO2 emissions into our landed cost calculation process to ensure environmental impacts are integrated into decision-making.**
- **We collect CO2 data of our main international lines in order to monitor the realized CO2 amount.**
- **Air freight produces majority of the CO2 emissions. We aim to reduce air freight usage by 2% by 2010. This means approximately 8% less CO2 in NSN logistics.**

We constantly evaluate possibilities for transportation optimization in order to minimize environmental impacts



Environmentally sustainable development

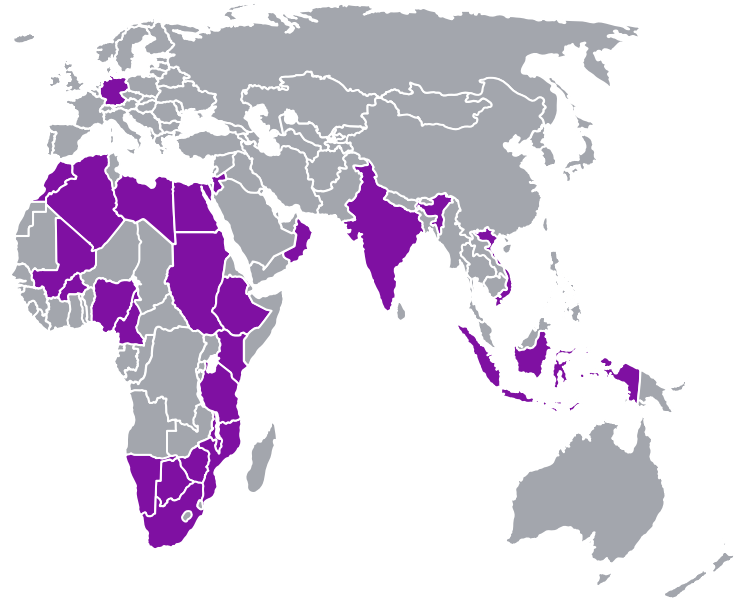


Reinventing. The world. Connected.

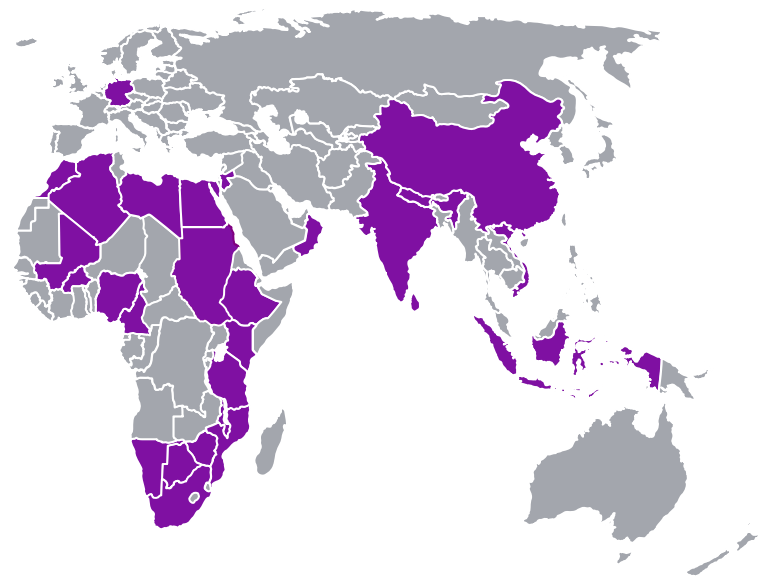
Using renewable power since 1981

Renewable energy will be the first choice for all remote base station sites by 2011

Nokia Siemens Networks
and renewable energy

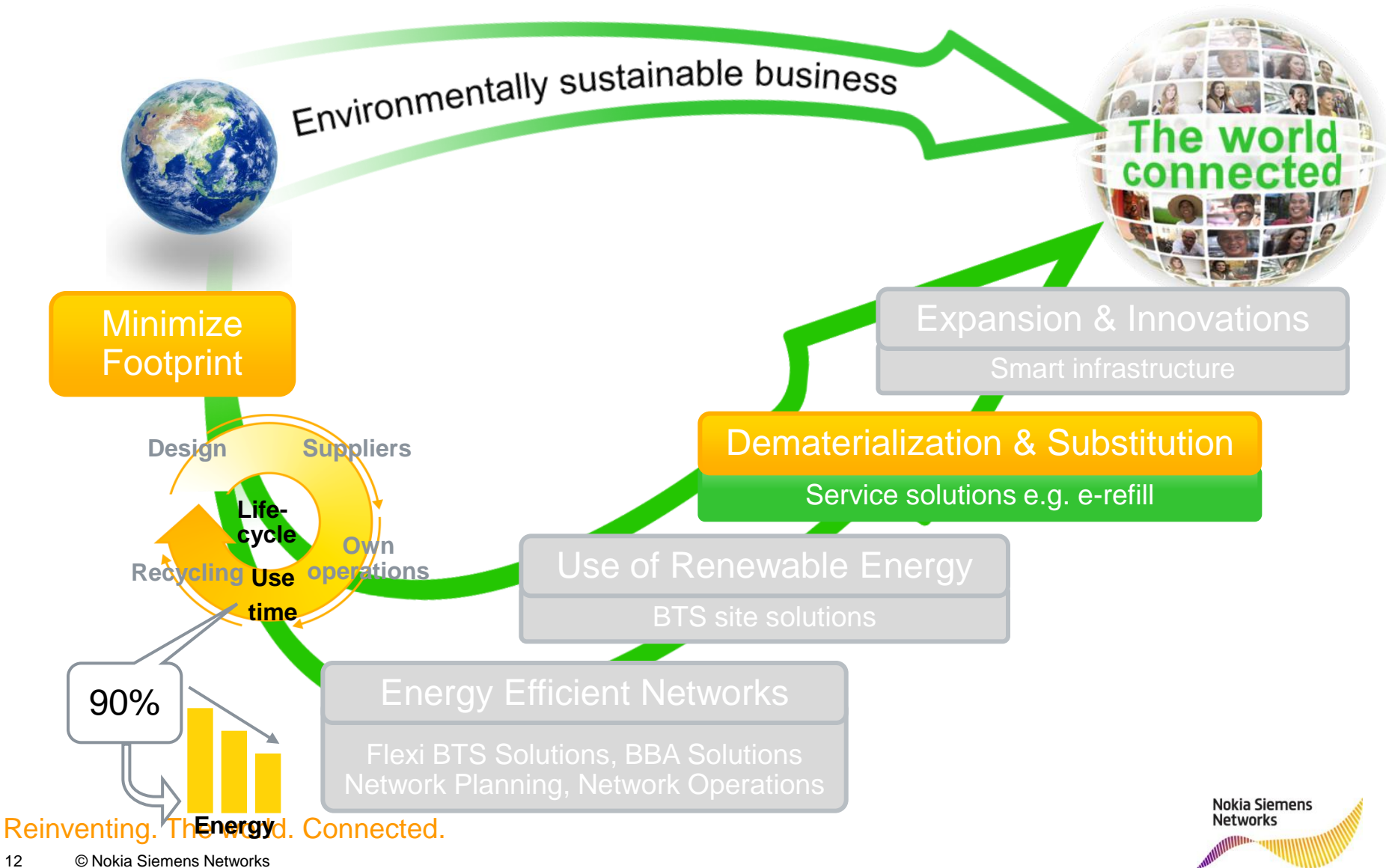


Examples of Renewable Energy BTS Sites



Reinventing. The world. Connected.

Environmentally sustainable development



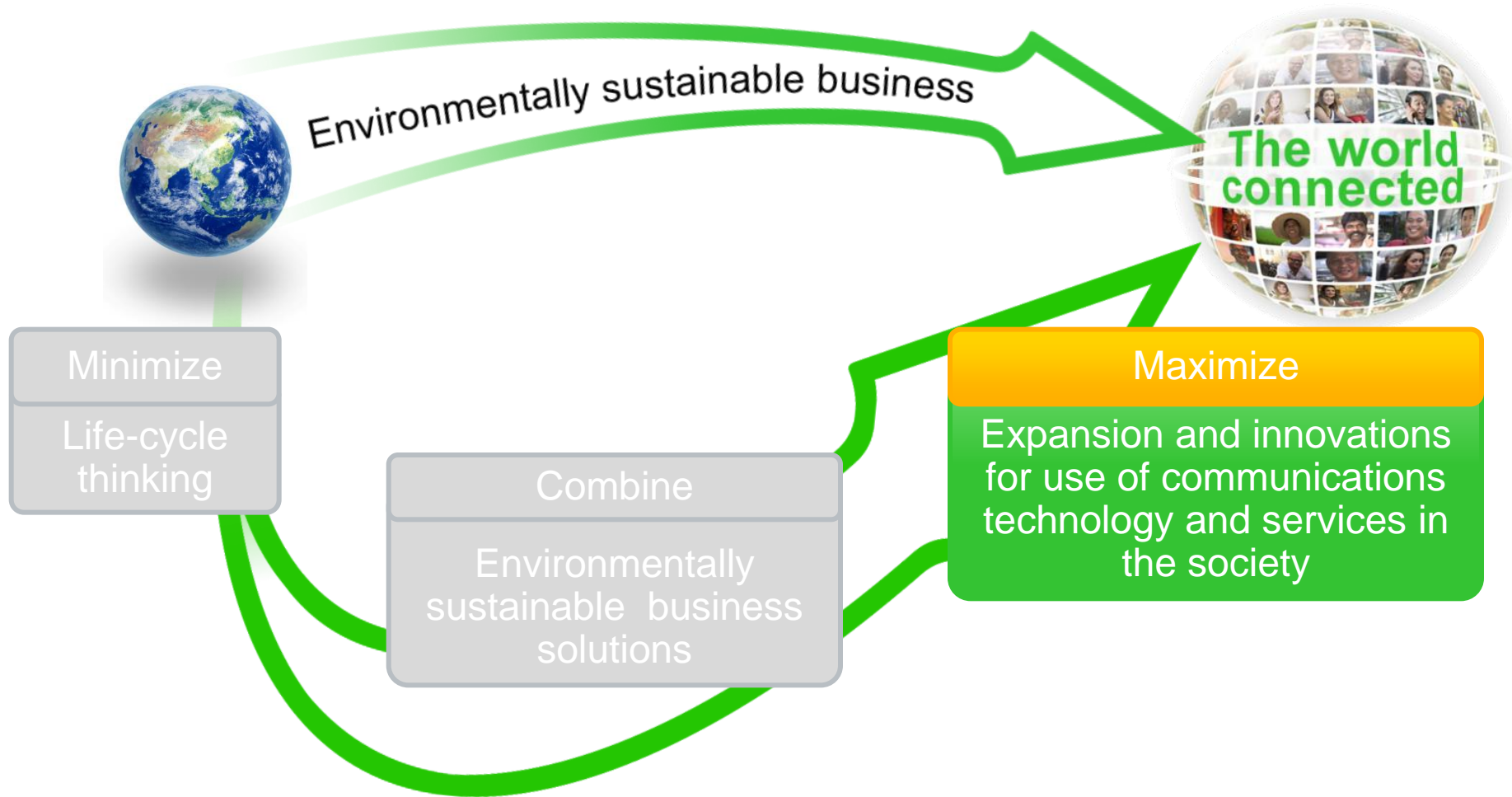
Dematerialization



| Dematerialization processes | CO2 emissions reduction per unit |
|--|----------------------------------|
| Digital sale of music and video replacing CD and DVD cases | 554g CO2/ CD |
| Virtual answering machines substituting physical devices | ~30kg approx/ user |
| On-line invoicing substituting paper based invoicing | 0,783kg/ person/ y |
| Web taxation substituting paper based forms | ~1kg/ person/ y |
| A 140g daily newspaper | 350 – 462g |
| A 160g weekly magazine | 608g |
| A 500g paper catalogue | 1,25 – 1,65kg |
| Office paper | 3,8t CO2/ t office |

Source: The potential global CO2 reductions from ICT use

Environmentally sustainable development – Net positive impact



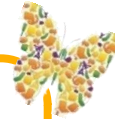
Reinventing. The world. Connected.

The connected world enables people and industries to change their impact on the environment



Online tax report

Connectivity brings convenience, economic and environmental benefits



SMS car pooling



Music / Video download



Fleet management



Tele working



SMART2020: Enabling the low carbon economy in the information age

A report by The Climate Group on behalf of the Global eSustainability Initiative (GeSI)

- **ICT's own sector footprint currently is two per cent** of global emissions and will almost double by 2020
- this is countered by the sector's unique ability to monitor and maximize energy efficiency both within and outside of its own sector
- **ICT could cut CO2 emissions by up to five times**
- **ICT's own footprint**
- the biggest and most accessible opportunities identified: smart motors, smart logistics, smart buildings and smart grid.

Thank you.

Reinventing. The world. Connected.
www.unite.nokiasiemensnetworks.com/environment



Nokia Siemens
Networks

