



Webinar

21 February 2018 (9:30 – 10:30):
ICLEI World Congress 2018
Webinar - The circular
economy in cities and
regions

Presentation:
Guiding principles for a transition
toward a Circular Economy

Kevin de Cuba | Americas Sustainable Development Foundation



www.sustainableamericas.com

About



ing. Kevin H. de Cuba MSc.

Director ASDF y Founder of the
Circular Economy Platform of
the Americas

Senior Energy and Sustainable
Development Specialist



circular
economy
platform

About



- A nonprofit independent advisory Foundation that promotes innovative strategies to achieve sustainable development in the American Continent (**20 years of experience**)
- **Mission:** Facilitate the transition to sustainable development connecting people, ideas and actions throughout the Americas.
 - We create awareness in revolutionary ideas and strategies for sustainable development;
 - We establish strategic public-private alliances; and
 - We assist companies and organizations to make the shift toward sustainable development practices.

About

- Committed to promote, develop and implementing projects and initiatives inspired by the Circular Economy principles in the American Continent.



- For more info, visit: www.cep-americas.com

Our Platform Experts



ARUBA



ING. KEVIN DE CUBA MSC.

Director ASDF
Fundador y Presidente de la
Plataforma de Economía Circular



ARGENTINA



**FEDERICO MANUEL
GÓMEZ GUIOLI**

Director Ejecutivo y
Oficial de Felicidad
Más Oxígeno



BOLIVIA



OLIVER CAMPERO RIVERO

Investigador y Profesor
Universidad Católica Boliviana,
Tecnologías en Desarrollo



BRASIL



**ALEXANDRE GOBBO
FERNANDES**

Director y Cofundador
EPEA Brasil



BRASIL



LÉA GEJER

Directora en Flock y
Co-Creadora en Ideia
Circular



CHILE



RUBÉN CONTRERAS LISPERGUER

Oficial de Programa Regional
Agencia Internacional de
Energías Renovables (IRENA)



PETAR OSTOJIC

Gerente, Neptuno Pumps
Neptuno Pumps / Centro de
Innovación y Economía Circular -
CIEC

Our Platform Experts



COLOMBIA



JUANA CAMACHO-OTERO

Investigadora Doctoral
NTNU: Norwegian University of
Science and Technology



SANDRA PALACIO-VÉLEZ

Docente, Departamento de
Organización y Gerencia,
Universidad EAFIT



DANIEL GÓMEZ

Director
Hub para la Economía
Circular Colombia



ALEJANDRO ÁLVAREZ-VANEGAS

Profesor
Universidad EAFIT



**JOSÉ ALEJANDRO
MARTÍNEZ**

Director del Departamento
de Sostenibilidad,
Universidad EAN



LORENA GARCÍA

Science and Innovation
Management Consultant
ASDF



ADRIANA ÁLZATE

Gerente de Negocios
Centro Nacional de
Producción Más Limpia

Our Platform Experts



ECUADOR



PAULINA CRIOLLO ALVAREZ
Consultora
Evolution Engineering, Design
and Energy Systems



MÉXICO



RICARDO WEIGEND
Desarrollador de Negocios
Circulares
ECOR Europa



ADRIÁN VELASCO-JÁCOME
Consultor Asociado y Director
de Proyectos
ix Agency y Escato



PERÚ



PERCY GRIFFITHS
Consultor Asociado
ASystematic Innovation UK



**MARÍA DE LOS ÁNGELES
FRANCO ESCOBAR**
Diseñadora de Proyectos
Young Professionals for
Agricultural Development



**TRINIDAD Y
TOBAGO**



DR. KERON NILES
Gerente de Unidad
Economic Development
Advisory Board



**ESTADOS
UNIDOS**



KEN ALSTON
CEO,
McDonough Braungart
Design Chemistry (MBDC)

About



- **Create awareness** and demonstrate the value to generate appropriation of the principles of Circular Economy.
- **Unify the region** to facilitate, expand and scale the Circular Economy in the Americas.
- **Develop the capacities** in the public and private sector, recognizing the needs and local contexts in the different nations of the continent.
- **Integrate** all efforts for a transition to a Circular Economy in the region: Governments, Cities, Companies, Academia and Society.

About



01 / AWARENESS

Introduce and create awareness and knowledge of the concept of Circular Economy throughout the Western Hemisphere (Americas).

02 / DATABASE

Host a digital library of technical information, data, and research publications regarding Circular Economy relevant to the Americas.

03 / DECISION

Trigger policy development and informed decision making to enable Circular Economy adoption in the region.

04 / NETWORK

Serve as the regional hub for facilitating partnerships and business opportunities relevant to Circular Economy in the Americas.

05 / SHARING

Share experiences and best practices among experts, project developers, and other change agents in the Circular Economy field in and for the Americas.

06 / INNOVATION

Promote innovative business models, tools, and methods to facilitate the transition towards a Circular Economy in the Americas.

07 / NEWS

Provide the latest updates about ongoing Circular Economy programs, initiatives and projects, and upcoming events in the Americas.

08 / MONITOR

Monitor Circular Economy implementation activities across the Americas and their collective contribution to the United Nations Sustainable Development Goals.

09 / BENCHMARK

Present and compare macro-economic, social and environmental outputs and benefits from applying Circular Economy in the region.



circular
economy
platform

Why is there a need for:
a global **Circular Economy?**

Why we need to change the economic model



Photo by Mark Gamba

Why we need to change the economic model

Photo by Daniel Dancer



Why we need to change the economic model

Photo by Kevin de Cuba



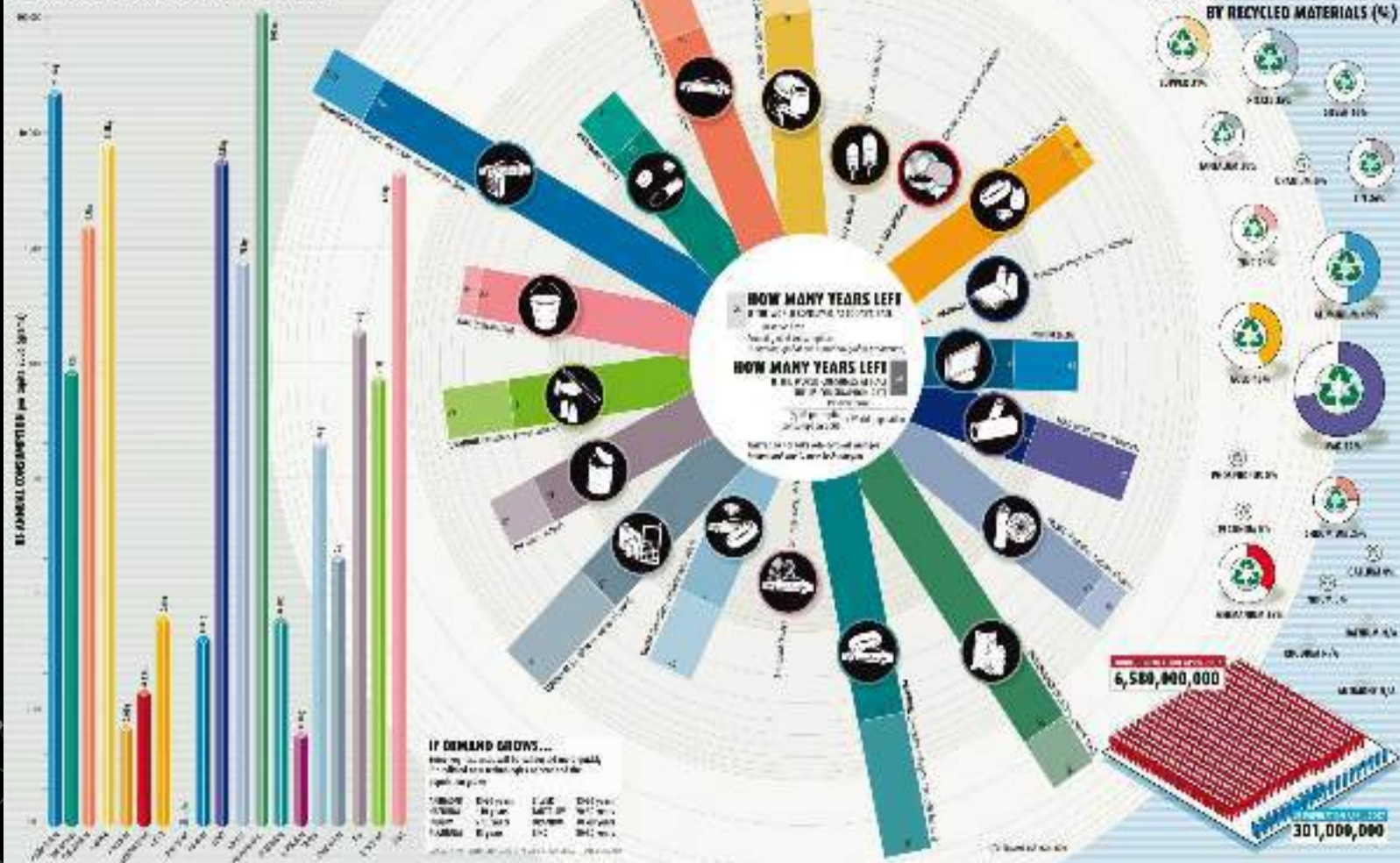


circular
economy
platform

Why Circular Economy matters to cities and regions?

Access to future strategic raw materials and resources?

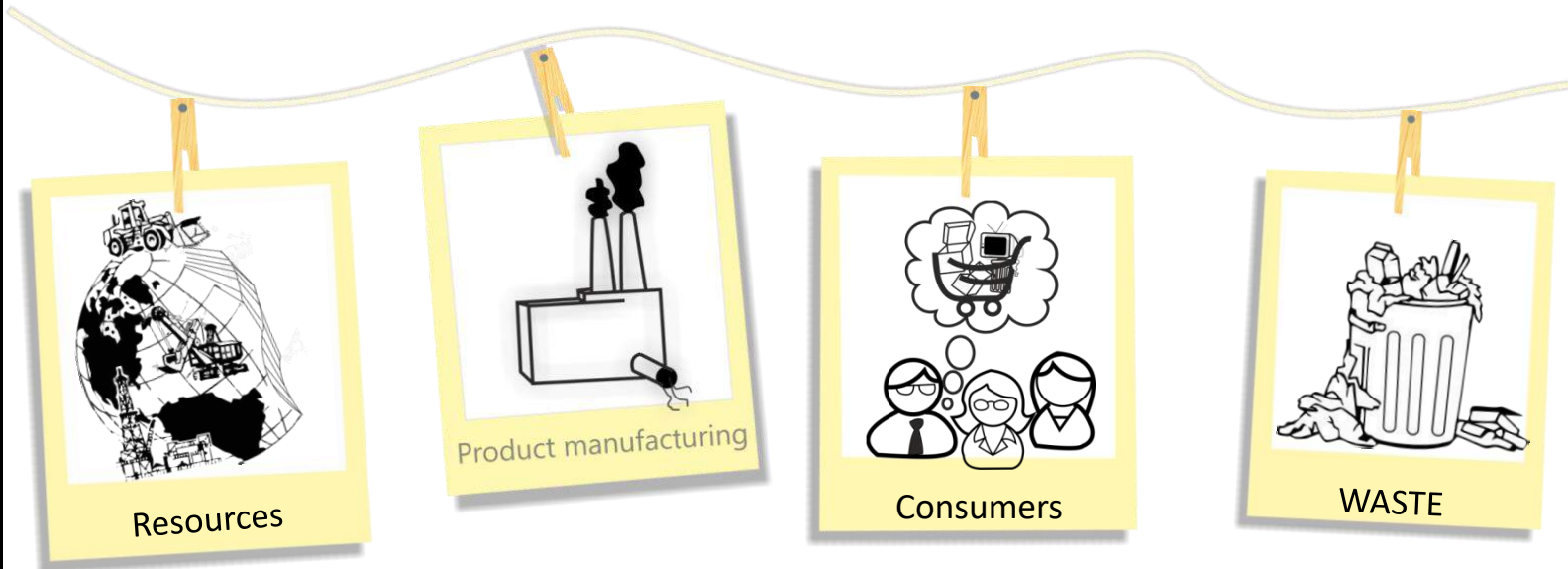
HOW LONG WILL IT LAST?





circular
economy
platform

Linear Economy

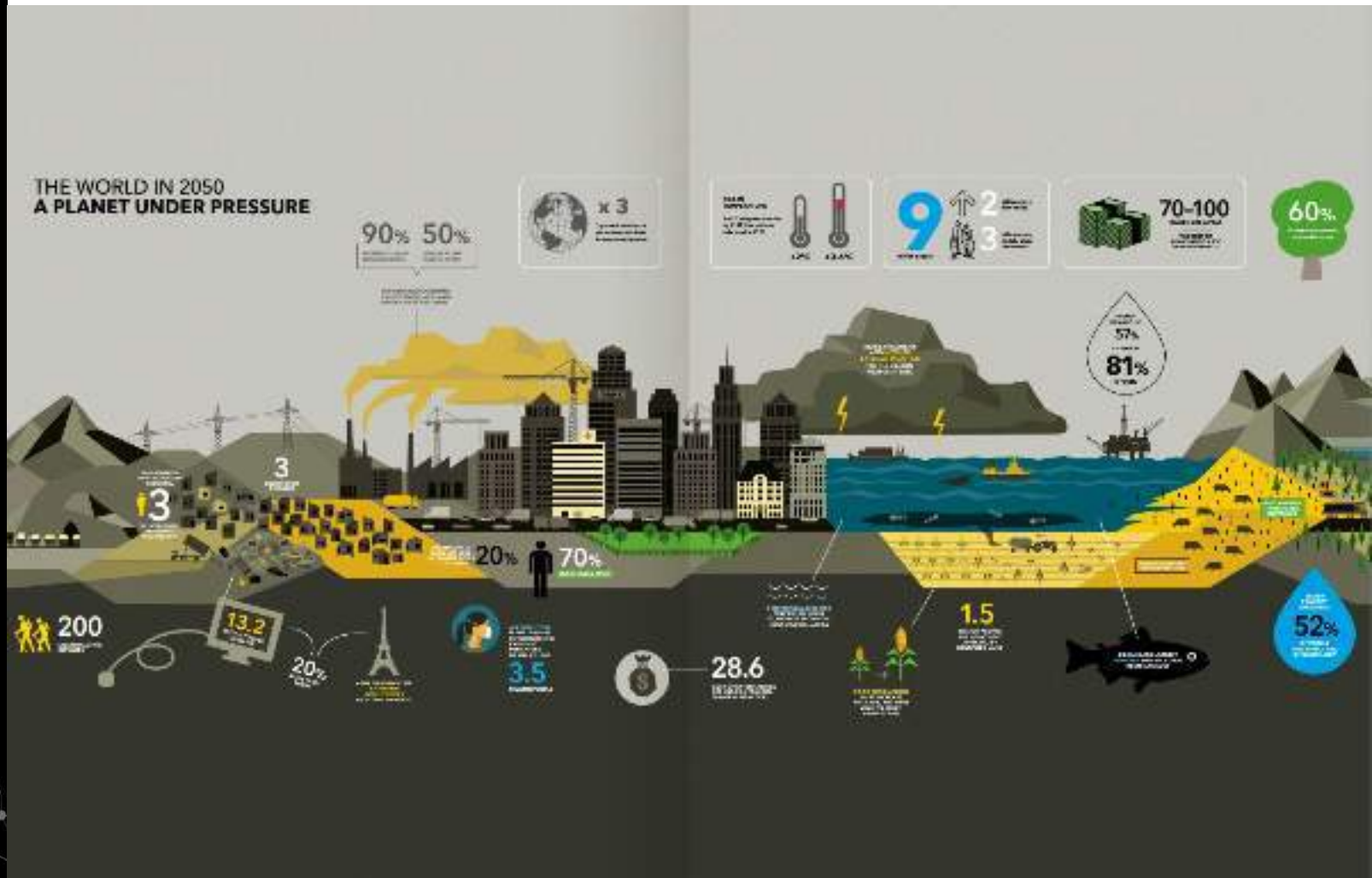


Take -> Make -> Use -> Waste



circular
economy
platform

Linear Economy -> Cities of the Future?



Take -> Make -> Use -> Waste



circular
economy
platform

Why Circular Economy matters to cities and regions?



Source: http://people-dont-have-to-be-anything-else.wikia.com/wiki/Male,_Maldives



circular
economy
platform

Why Circular Economy matters to cities and regions?

TAKE – MAKE – WASTE ECONOMIC MODEL ->



Source: <https://www.pinterest.com/pin/355362226821118392/>



circular
economy
platform

What is:

Circular Economy?



circular
economy
platform

What is Circular Economy?

Recycling? Natural Capitalism? Resource Efficiency?
Sustainable Production & Consumption?
Performance Economy?
Internet of Things? Lean Production?
Non-toxic materials?
Blue Economy? Biomimicry? Green Growth?
Bioeconomy? Eco Design? Disruptive Innovation?
Regenerative Design? Reduction?
Industrial Ecology? Reuse? Green Economy?
Cleaner Production? Eco-Efficiency? Cradle to Cradle?
Recovery?
Product as Service? Eco-innovation? Closing Loops?



circular
economy
platform

What is Circular Economy?

Current definition:

“Circular Economy” is an economy “that is **restorative** and **regenerative** by **design**, and which aims to keep products, components and materials at their **highest utility** and **value at all times**, distinguishing between **technical** and **biological cycles**” (Ellen MacArthur Foundation, 2016).



circular
economy
platform

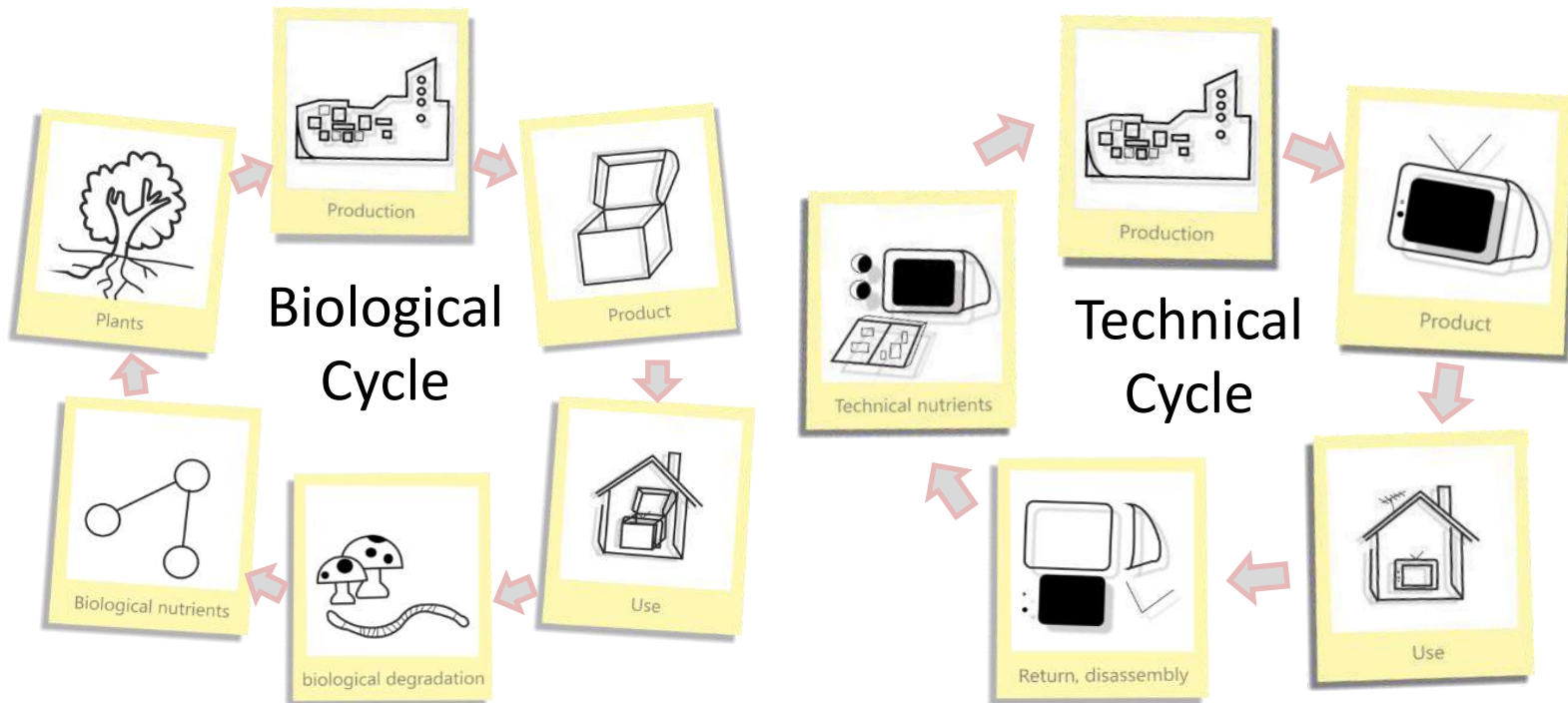
Circular Economy principles

- (1) Circular Economy is a global economic model that **decouples economic growth and development** from the consumption of finite resources;
- (2) Distinguishes between and separates **technical and biological materials**, keeping them at their highest value at all times;
- (3) Focuses on **effective design and use of materials** to optimize their flow and maintain or increase technical and natural resource stocks;
- (4) Provides **new opportunities for innovation** across fields such as product design, service and business models, food, farming, biological feedstocks and products; and
- (5) Establishes a **framework and building blocks for a resilient system** able to work in the longer term



circular
economy
platform

Circular Economy



A **restaurative y regenerative economy!**



circular
economy
platform

How to become a regenerative and restorative city by intent and design?



©2017 **ASDF**



circular
economy
platform



1. Business Models

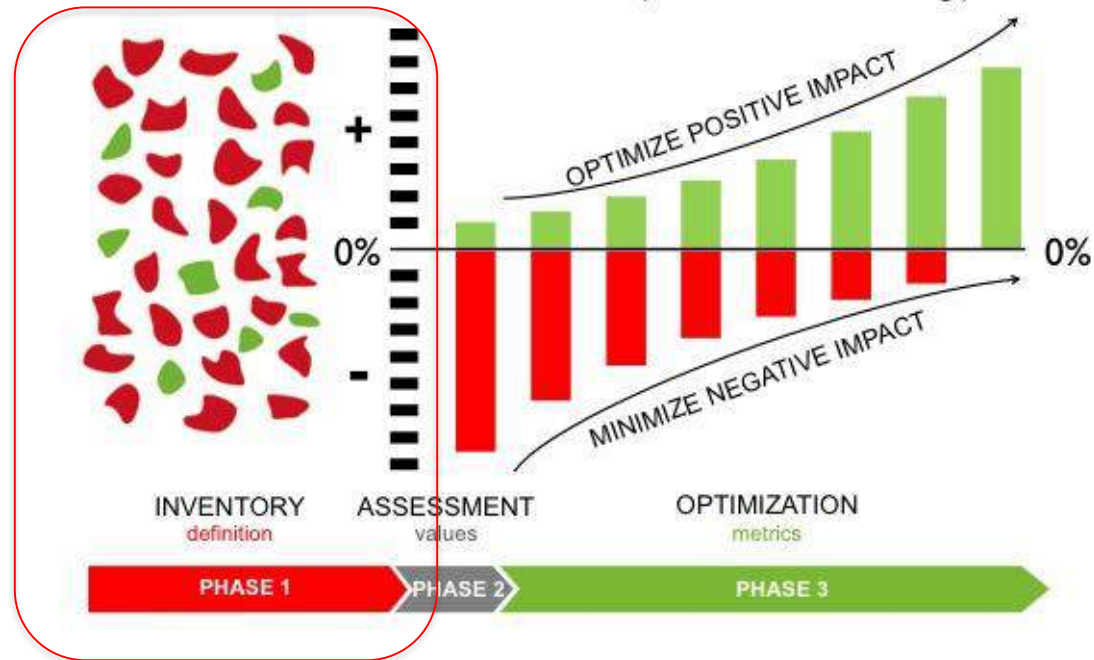
-> Focus on the Private Sector (origin of challenges and opportunities) -> rethink values and rethink service.



circular
economy
platform

THE UPCYCLE CHART

Cradle to Cradle® Continuous Improvement Strategy

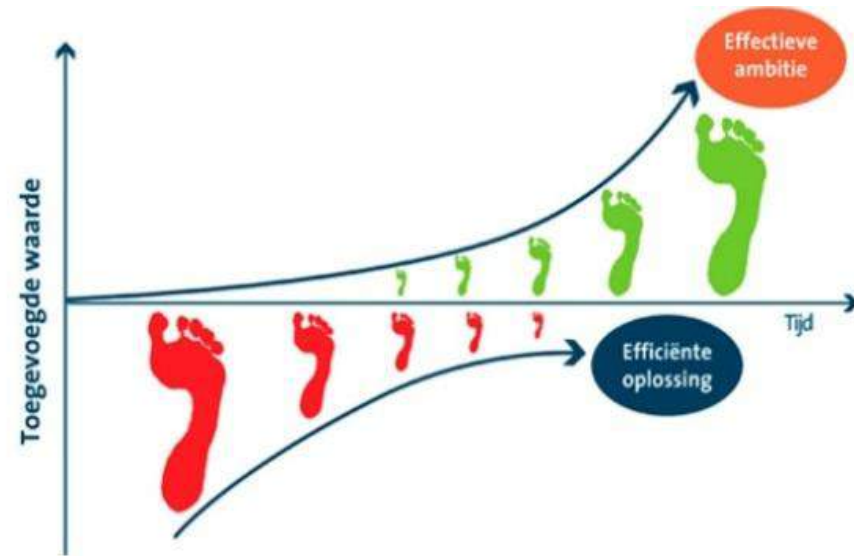
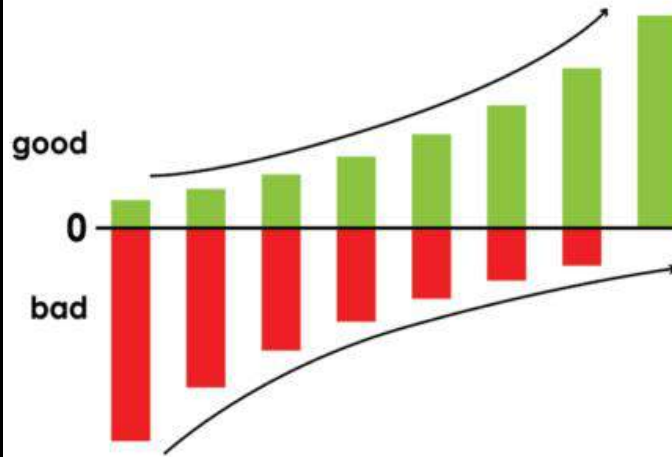


2. Non-toxic materials

-> non-harmful materials and chemicals, without impact on the environment, health and environment using filters (Material Health Assessments)



circular
economy
platform



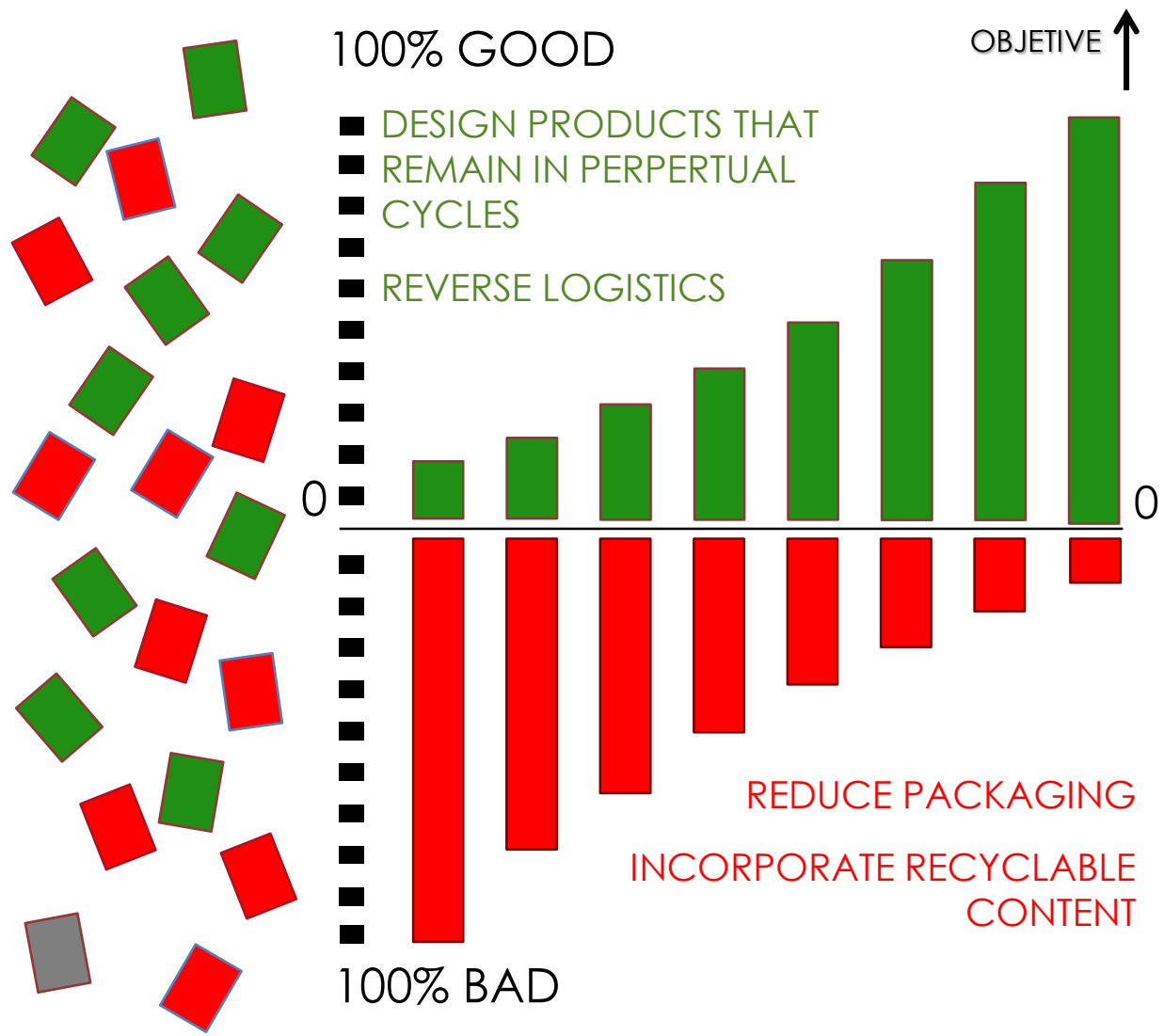
3. Eco-efficiency VS Eco-effectiveness

-> understand the difference in doing something intentionally well from its conceptualization versus improving something that already exists.



circular
economy
platform

THE UPCYCLE CHART: CIRCULAR ECONOMY



INVENTORY

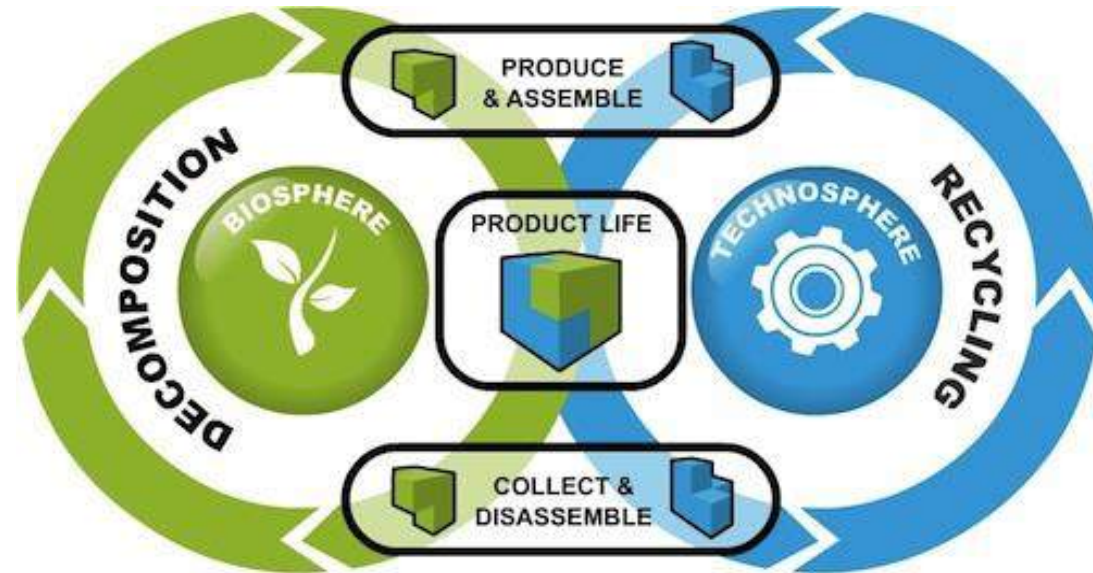
ASSESS.

OPTIMIZATION





circular
economy
platform



4. Redesign y Reorganize production, distribution y use cycles

-> superior design of products and services to close material flows recognizing the role of producers and consumers



circular
economy
platform

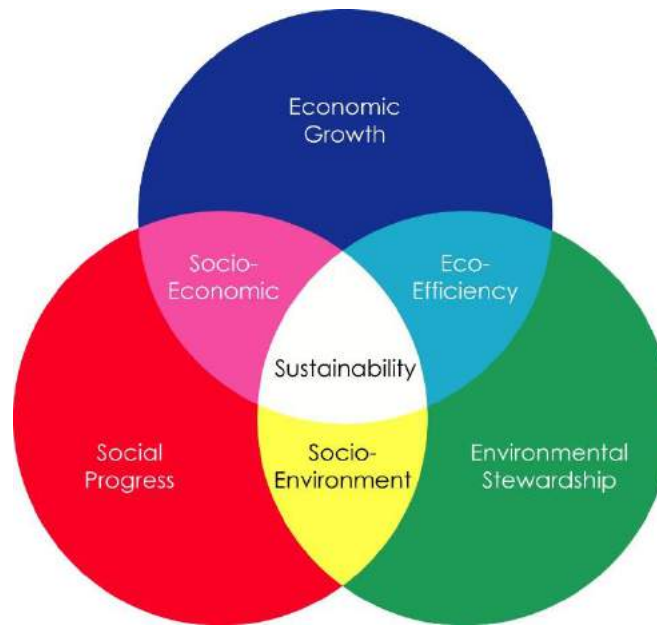


5. Systemic Thinking

-> make changes at the micro level (products, companies, consumers), meso (eco-industrial parks) and macro (city, region and beyond) as part of a road map to a circular region or country



circular
economy
platform



6. Achieve Sustainable Development: **improve environmental quality, economic prosperity & social equity**, to the benefit of **present & future generations** -> look for a balance in priorities and recognizing the time dimension and availability of resources



circular
economy
platform

Traditional Design -> Eco-Intelligent Design



www.pec-americas.com



circular
economy
platform

Traditional Design -> Eco-Intelligent Design





circular
economy
platform

In summary:

Adopting Circular Economy principles will lead to:

- **Reduce dependence** on natural resources
- **Effectively de-linking** economic growth from socio-environmental damage
- **Encourage new and innovative business models**
Strengthening competitiveness and innovation
capacity in the country
- **Access to new markets and global supply chains**
- Strategic business sectors **resilient and prosperous**



circular
economy
platform

Services we offer:

- **Awareness and training workshops** on the Circular Economy in general and by sector (General and Sectorial Awareness Raising and Training workshops)
- Evaluations of enabling conditions for the transition to a circular economy in prioritized sectors (**Circular Economy Readiness Assessments**)
- Design and prepare a roadmap for the transition to a circular economy in Honduras (**Circular Economy Roadmap**)



circular
economy
platform



Americas Sustainable Development Foundation

Kevin de Cuba
Director, ASDF

Aruba (Headquarters):
Salina 4 (Moko)
Oranjestad
Aruba, Caribe Holandés

Colombia:
Cra. 46 N° 56-11 Piso 8
Edificio Tecnoparque
Medellín - Colombia

T: +297 594 8101 (cel.)
E: kdecuba@sustainableamericas.com
U: www.sustainableamericas.com

Circular Business as Solution?

From Design for obsolescence -> circular design



Apple iPhone Time Line And Evolution

Source: <http://www.postlandfill.org/planned-obsolescence-solutions/>



circular
economy
platform

Circular Business as Solution?

From Design for obsolescence -> Circular / C2C Design

iPhone: US\$549



iPhone: <https://www.cnet.com/uk/products/apple-iphone-5s/review/>

FairPhone: US\$600



FairPhone: <http://www.digitaltrends.com/cell-phone-reviews/fairphone-2-review/>

www.cep-americas.com

Circular Business as Solution?

From ownership -> service based relation



Source: <https://www.youtube.com/watch?v=aD8AczO6Jdg>

www.cep-americas.com



circular
economy
platform

Circular Business as Solution?

From resource dependency -> Dematerialization



Source: <https://cityofhumans.com/zero-packaging-store/>

www.cep-americas.com



circular
economy
platform

Circular Business as Solution?

From passive recovery -> active recovery, refurbish and repair



<http://allproductspainting.xtrememarketingllc.com/telephone-refurbishing/>

www.cep-americas.com



circular
economy
platform

Circular Business as Solution?

From traditional -> innovative circular building



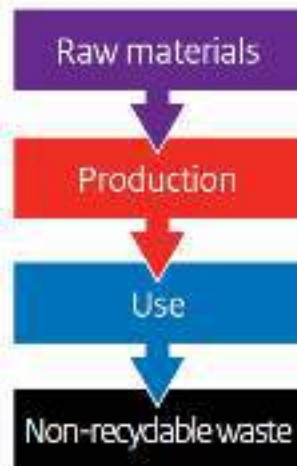


circular
economy
platform

Finding Opportunities!

Business in a Circular Island Economy?

Linear economy



Reuse economy



Circular economy



Source: www.government.nl/circular-economy