

The Circular Economy: Creating the World We Want

Speakers:

- Bill Wescott, Brain Oxygen LLC
- Pramod Kumar Sharma, Foundation for Environmental Education



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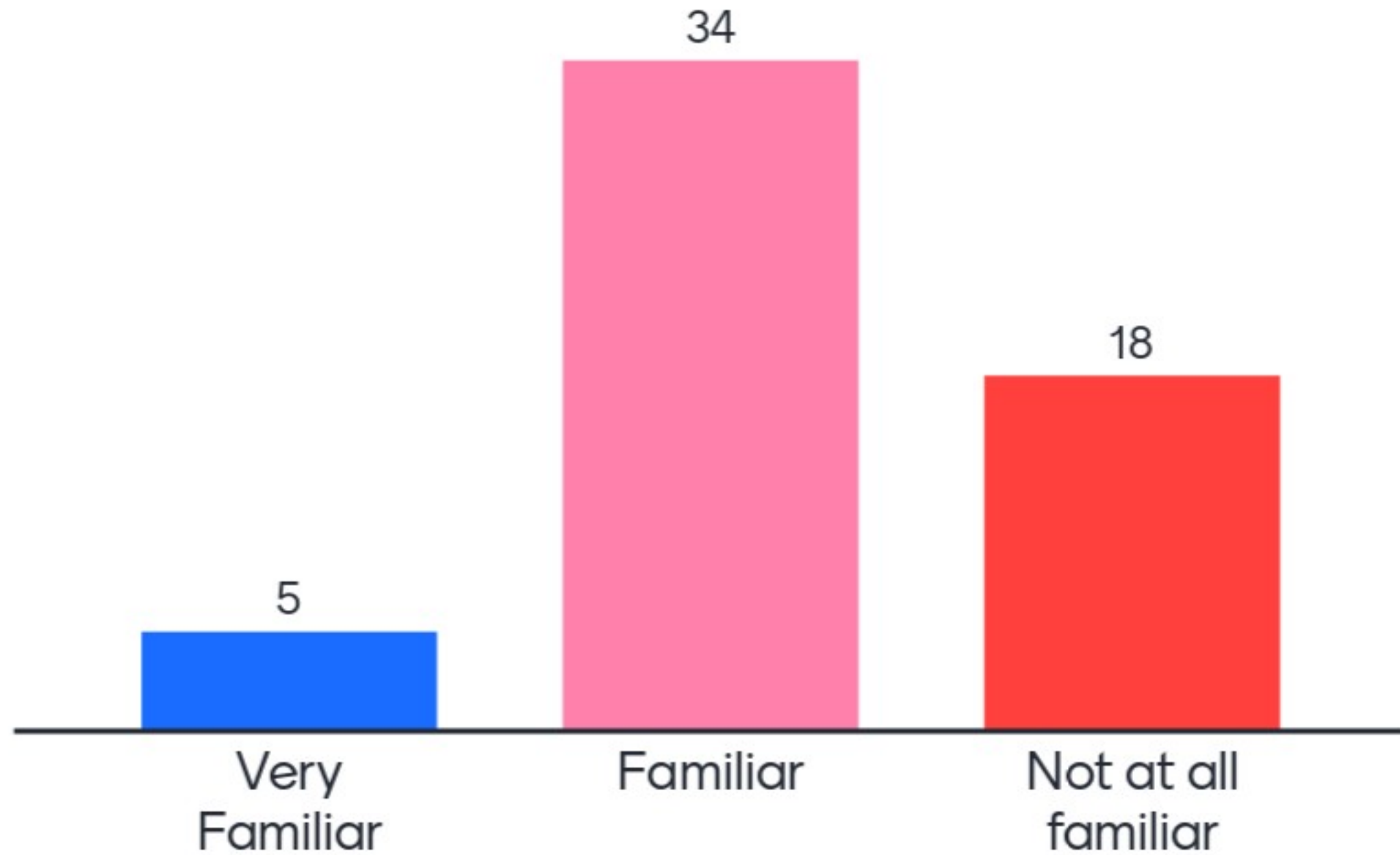
North American Association
for Environmental Education

Webinar: July 16, 2020, 3-4:15 PM ET

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How familiar you are with Circular Economy?



The Circular Economy: Creating the World We Want

William Wescott Ph.D.
Managing Partner
BrainOxygen LLC

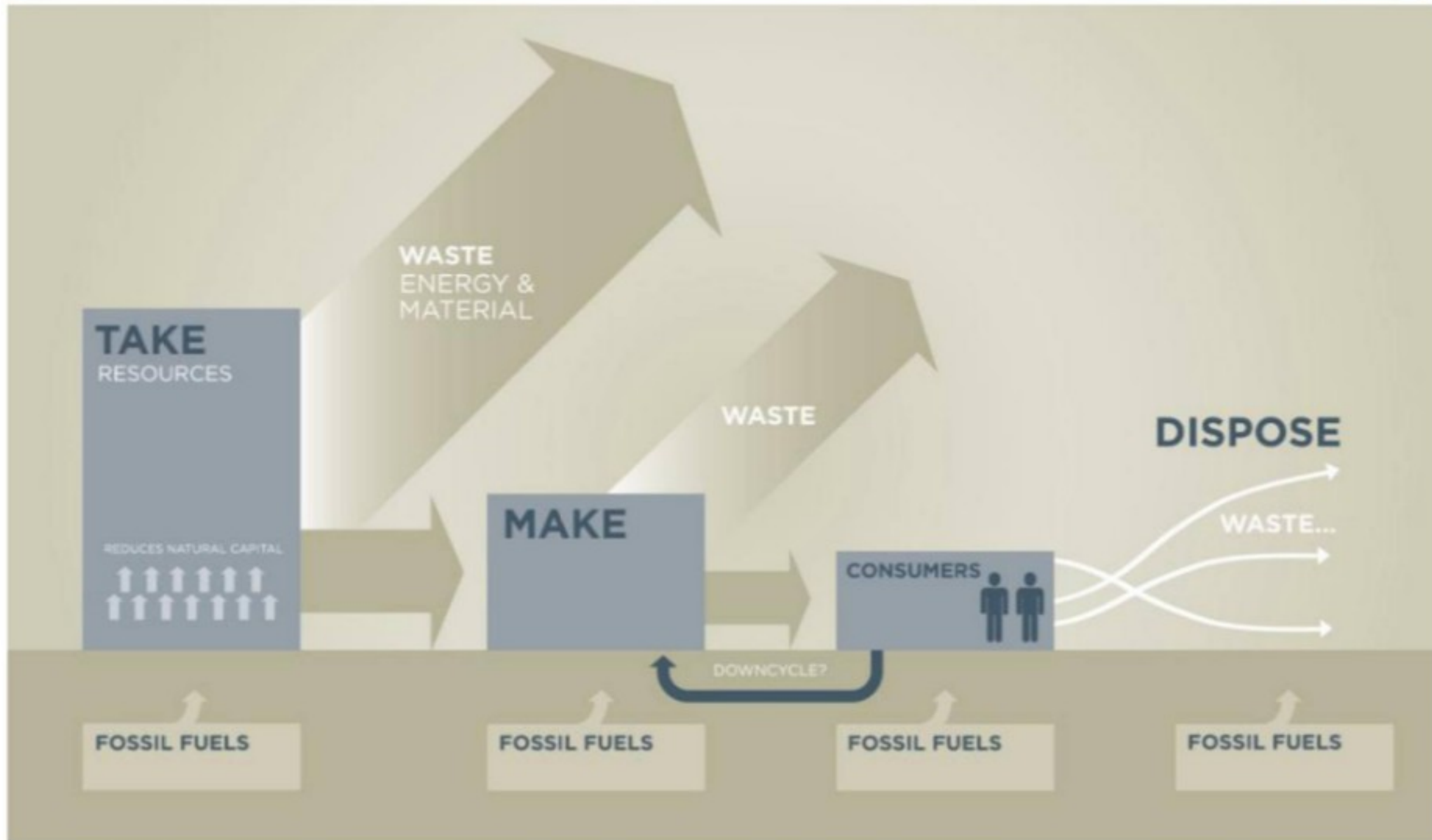
BRAIN  ₂



- Getting to “Duh!”
 - Think BIG & Ask WHY – Design Thinking + Systems Thinking
 - Circular Economy and the Meaning of Life
- How Did We Get in this Mess?
- Ways to Think about the Circular Economy

- Quick stories
 - Who wants to own motor oil?
 - My accidental technology museum
 - What my grandmother and emerging economies have in common
- Quick questions
 - Why are we not following common sense that reduces cost as well as social/environmental impacts?
 - How did we get off track?

How Did We Get into This Mess? The Linear Economy

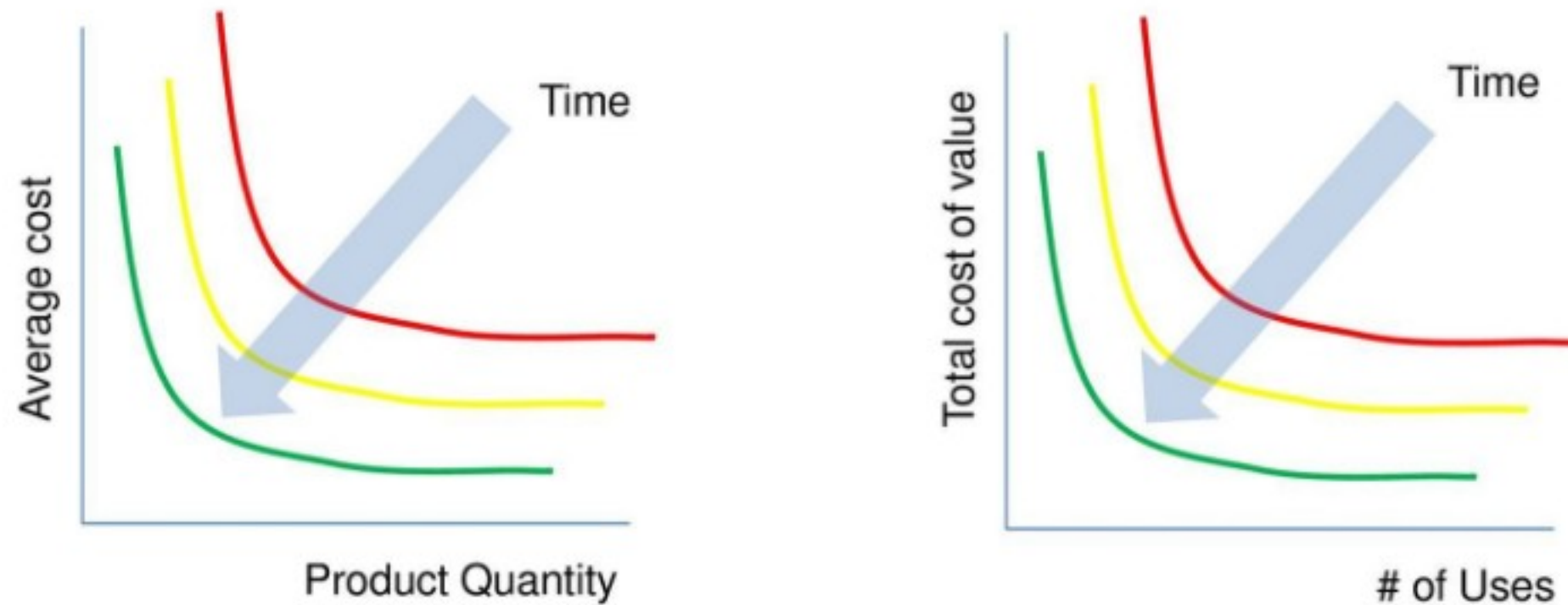


Source: Ellen MacArthur Foundation, 2015



How Did We Get into This Mess? The Linear Economy

We have been focused on reducing the average cost of goods vs minimizing the cost of value provided (+ minimizing total lifecycle costs)



We forgot to ask the basic questions:

What is the meaning of life? Is life about our experiences or about our stuff?

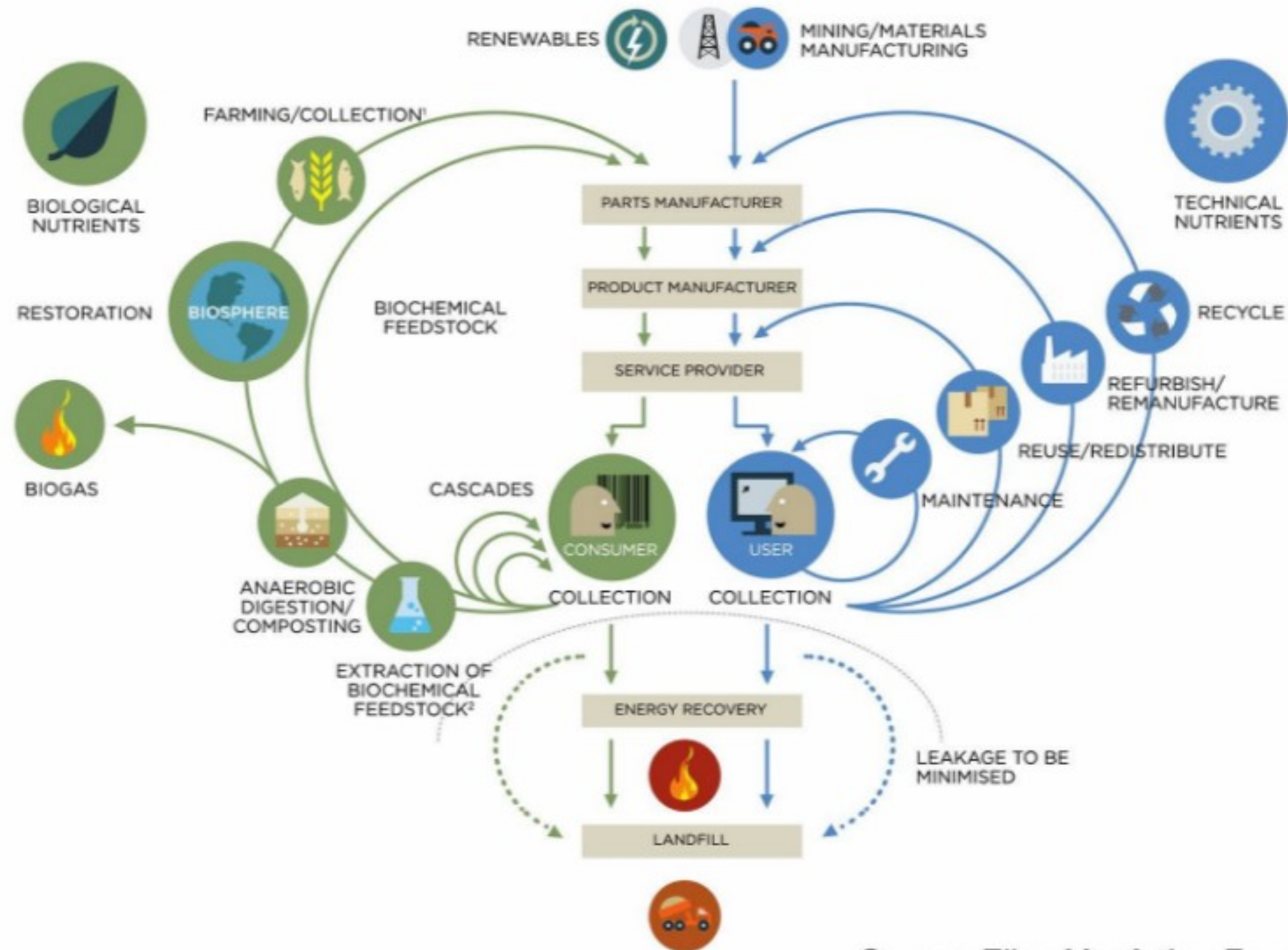
Vision: Decoupling Quality of Life and Materials

Applying Design Thinking in a Deep Way – Think BIG & Ask Why?

1. Do you *really* need that? (Virtualization is a Virtue!)
2. If a good is required, do you need to own it? (X as a service, sharing economy)
3. Can there be a positive contribution to natural capital?



Vision: A World Without Waste



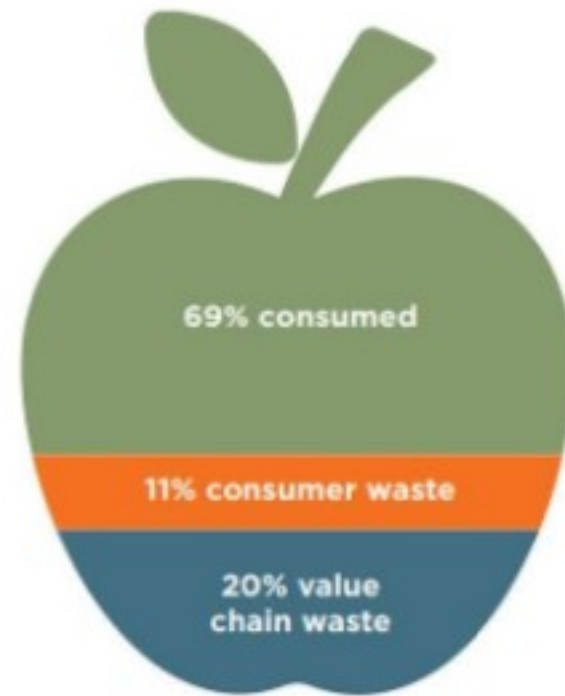
Source: Ellen MacArthur Foundation, 2015

Circular Economy in the Cafeteria

FIGURE 4 STRUCTURAL WASTE IN THE FOOD SYSTEM

● Productive use

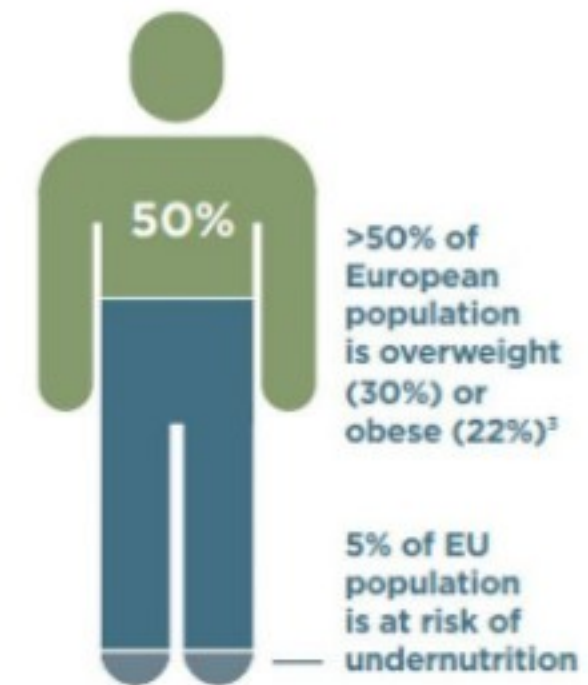
FOOD WASTE
31% of food produced is lost or wasted



FERTILISER UTILISATION
95% of fertilisers do not provide nutrients to human body



MALNUTRITION DEATHS AND DISEASES
Obesity causes 5% of deaths



LAND DEGRADATION:

30-85%

-30-85% of European agricultural land is affected by soil degradation (range depending on definition and data set used)

Source: Ellen MacArthur Foundation, 2015



Circular Economy Benefits – What's Not to Like?

Our June 2015 report, *Growth Within*, estimates the following benefits by 2030:



€1.8 tr

Per Annum to the economy by 2030



+11%

GDP



+18%

Disposable income



-48%

CO₂ reduction



++

Positive employment

Where else are the benefits?

How does the concept of Circular Economy relates to my role as an Educator?

Pollution prevention

Critical thinking

Inspire change for the future!

Materials used, practices modeled with students, direct instruction

Empowering students with knowledge

It is connected to our daily lives and solving problems in our lives.

I must take into account it when we are trying to solve life problems with my students

Important to integrate economics into our work! Great interdisciplinary opportunities!

Encourage people to buy sustainable items with least amount of packaging.



How does the concept of Circular Economy relates to my role as an Educator?

By understanding this system, my teaching will interweave this concept into my lessons/activities.

Teaching about the environment and solid waste management!

Helping students understand ecological systems in nature and human roles and impacts.

I already integrate this when teaching about history of economic systems and industrialization in Global History class, I foster Eco Schools work in Green Team, and I also add in these themes to my micro and macro economics course.

The future people who would participate in this economy must be onboard and understand how it works, why it's important, should be educated about it. We also must educate the current people participating so they can help make the transition.

I work for a recycling and Waste to Energy facility as an educator in our communities, and we want to push material up the Solid Waste Hierarchy to better and higher uses, and encourage source reduction. In Maine, we're making the case for EPR!



Supported by



Eco-Schools Project Advancing Circular Economy

Pramod Kumar Sharma, Senior Director of Education
Foundation for Environmental Education





Foundation for Environmental Education



- **A non-profit, non governmental organisation**
- **Promoting Sustainable Development through Environmental Education worldwide**
- **An umbrella organisation with one member organisation in each country**
 - 4 member organisations in 4 countries in 1981
 - Over 100 member organisations in 79 countries in 2020
 - 5 environmental education programmes

Our programmes



Eco-Schools & FEE
EcoCampus



Blue Flag



Learning about Forests



Green Key



Young Reporters for
the Environment



FEE



Eco-Schools

Eco-Schools

STATS AND FIGURES

Registered Schools

59,458



Green Flags Awarded

17,703



Local partners globally

1,877



Students involved

19.6 million



Teachers involved

1.4 million

50%

of Eco-Schools countries receive support from their national government



Teacher training sessions

820

Programme Participants



A Seven-Step Change Framework for Continuous Improvement



Sustainable Development Goals (Agenda 2030)

THE GLOBAL GOALS For Sustainable Development





HAND PRINT

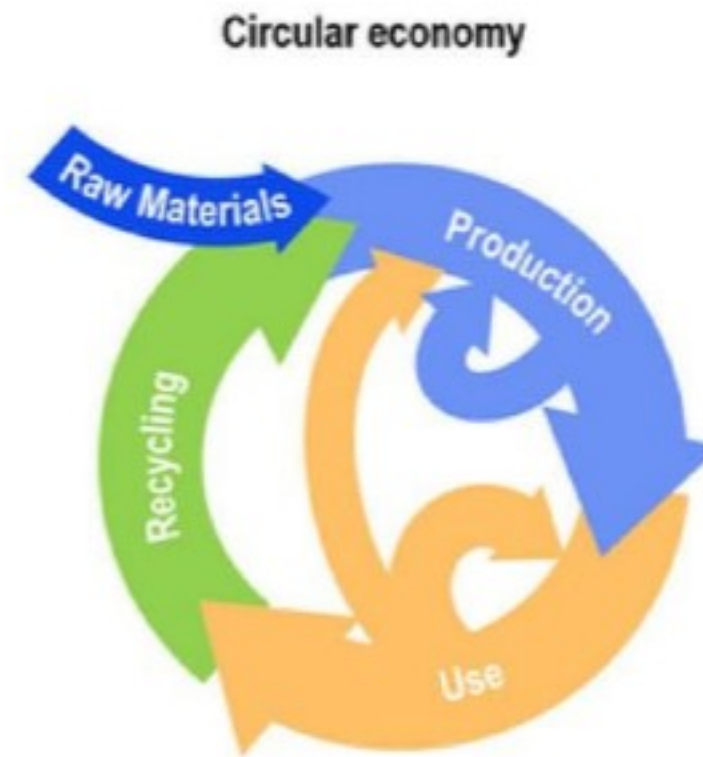
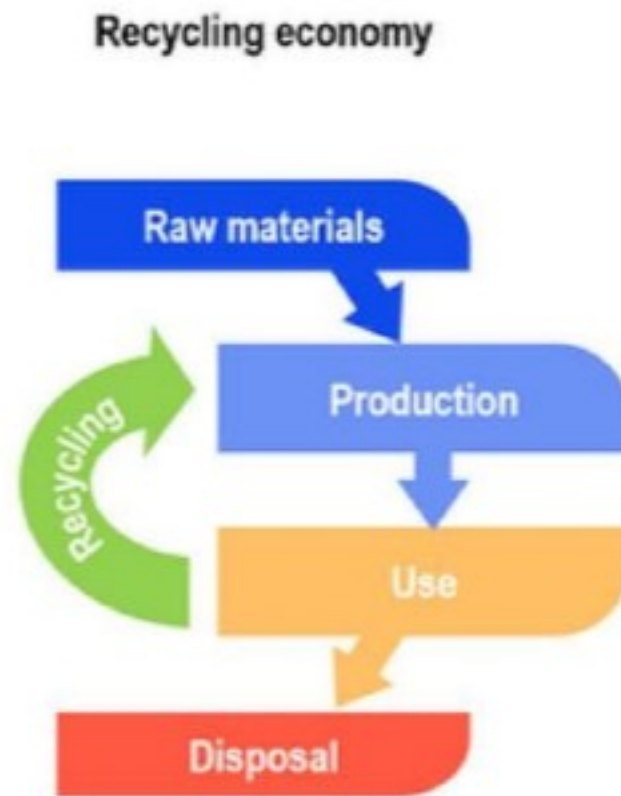
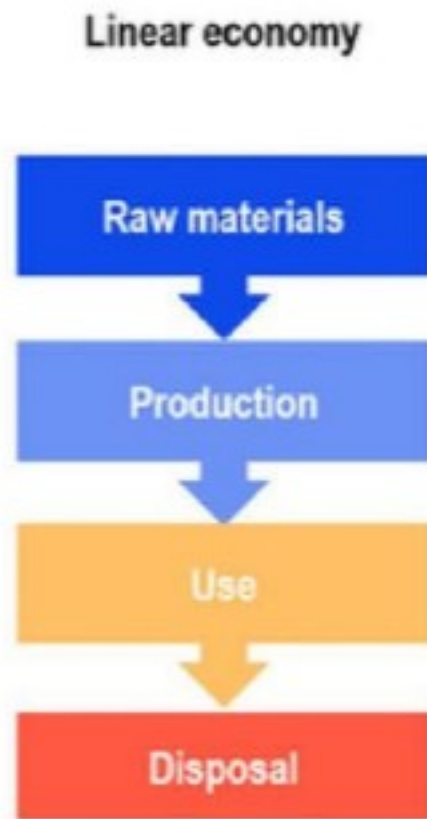
Action Towards
Sustainability

Positive Action Towards Sustainable Development



- Increase actions that reduces consumption (SDG 3, 10, 11, 12, 13).
- Take actions that support resilience of Earth Systems (SDG 14 and 15).
- Take actions for waste minimization (SDG 11 and 12).
- Support sustainable products and services (SDG 12).
- Increase awareness of actions that supports Sustainability (SDG 4.7).

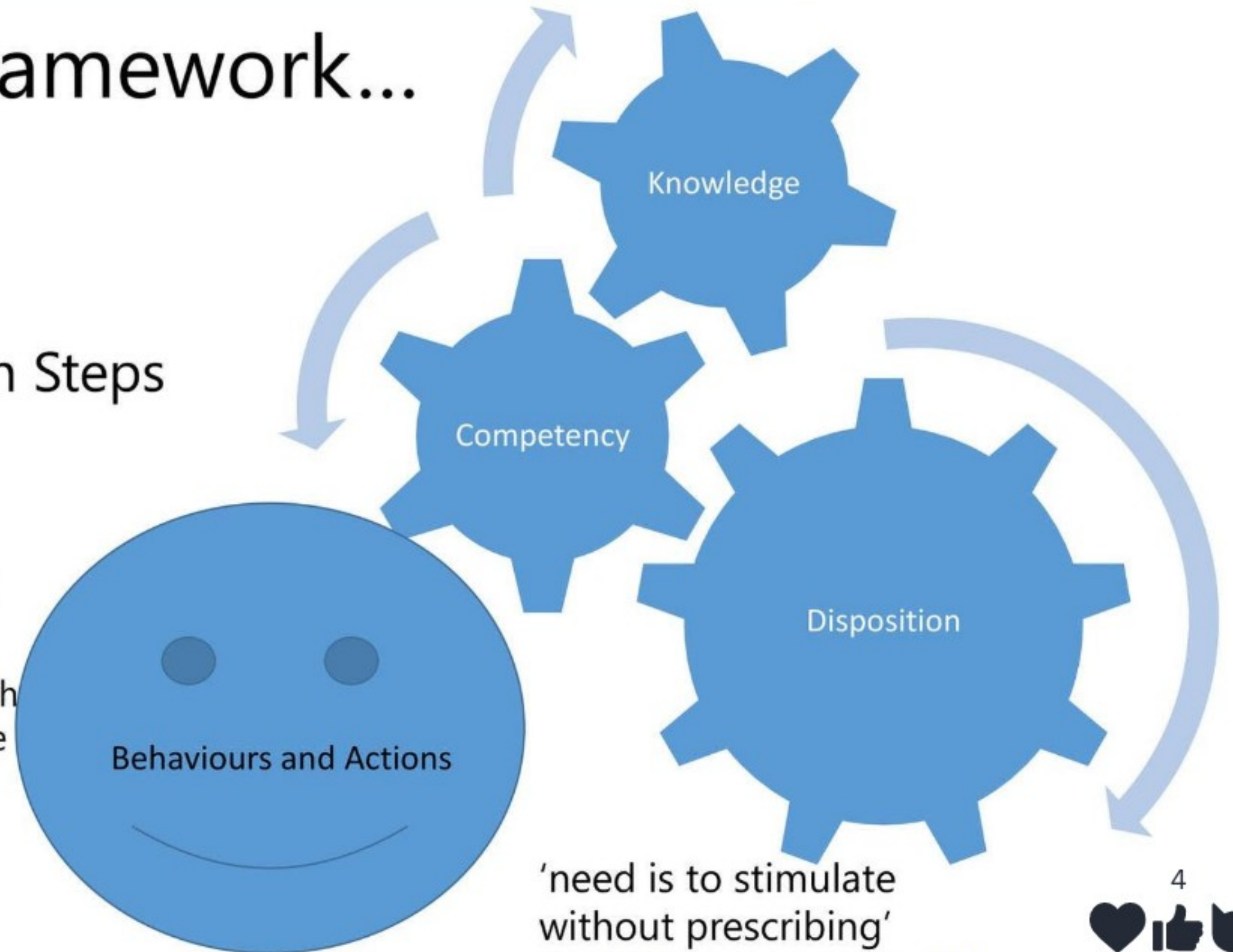
Education for transforming from Linear to Circular Economy



Curricular Framework...

Material
Assessment
Experiences – Seven Steps

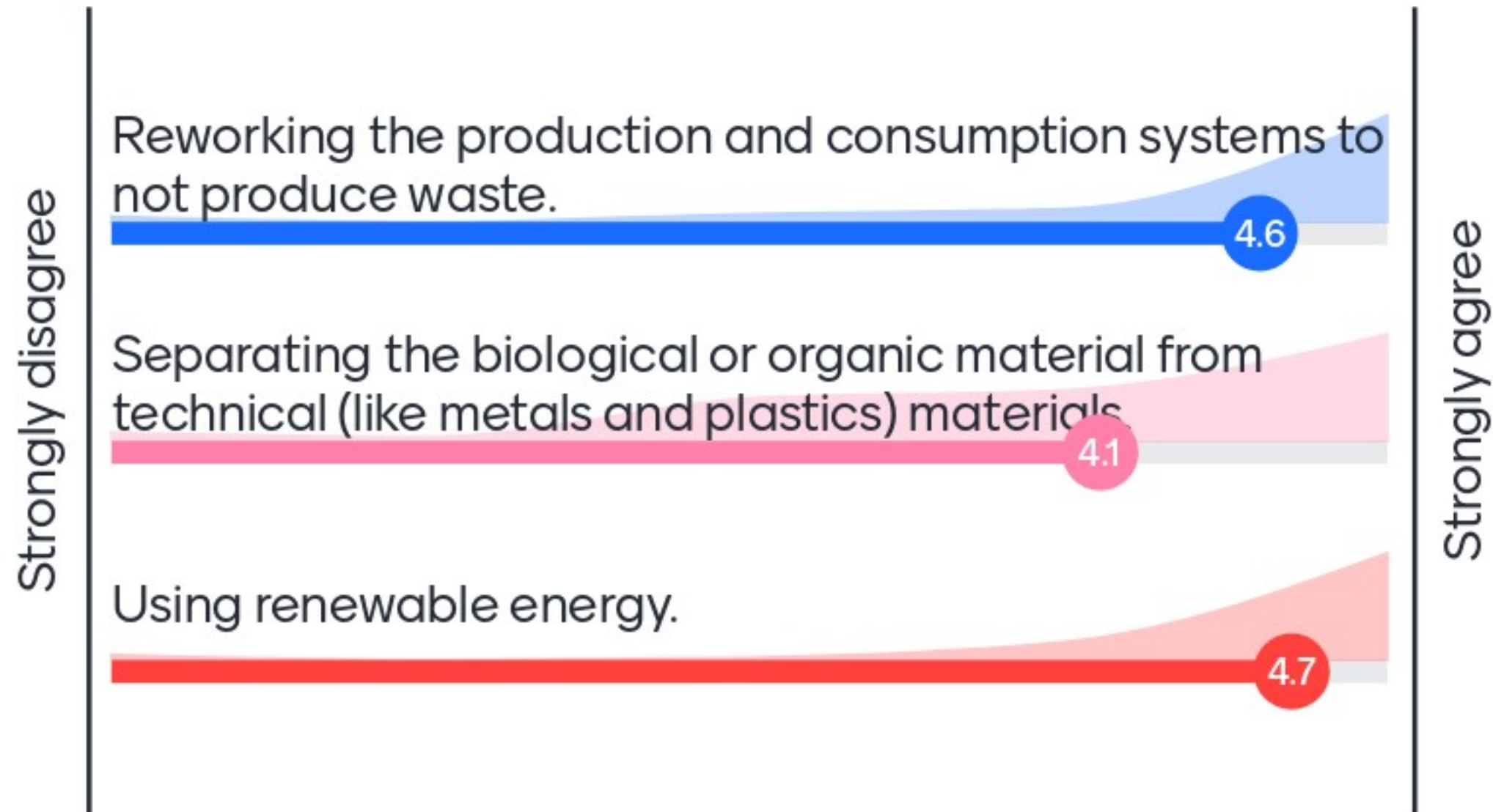
...requires pedagogical strategies that involve in both critical reflection on theory of sustainable production and different business models, such as de-growth and steady-state economy.



'need is to stimulate without prescribing'
(Scott 2002 in Webster and Johnson 2009)



Rate the importance of the following principles for circular economy?

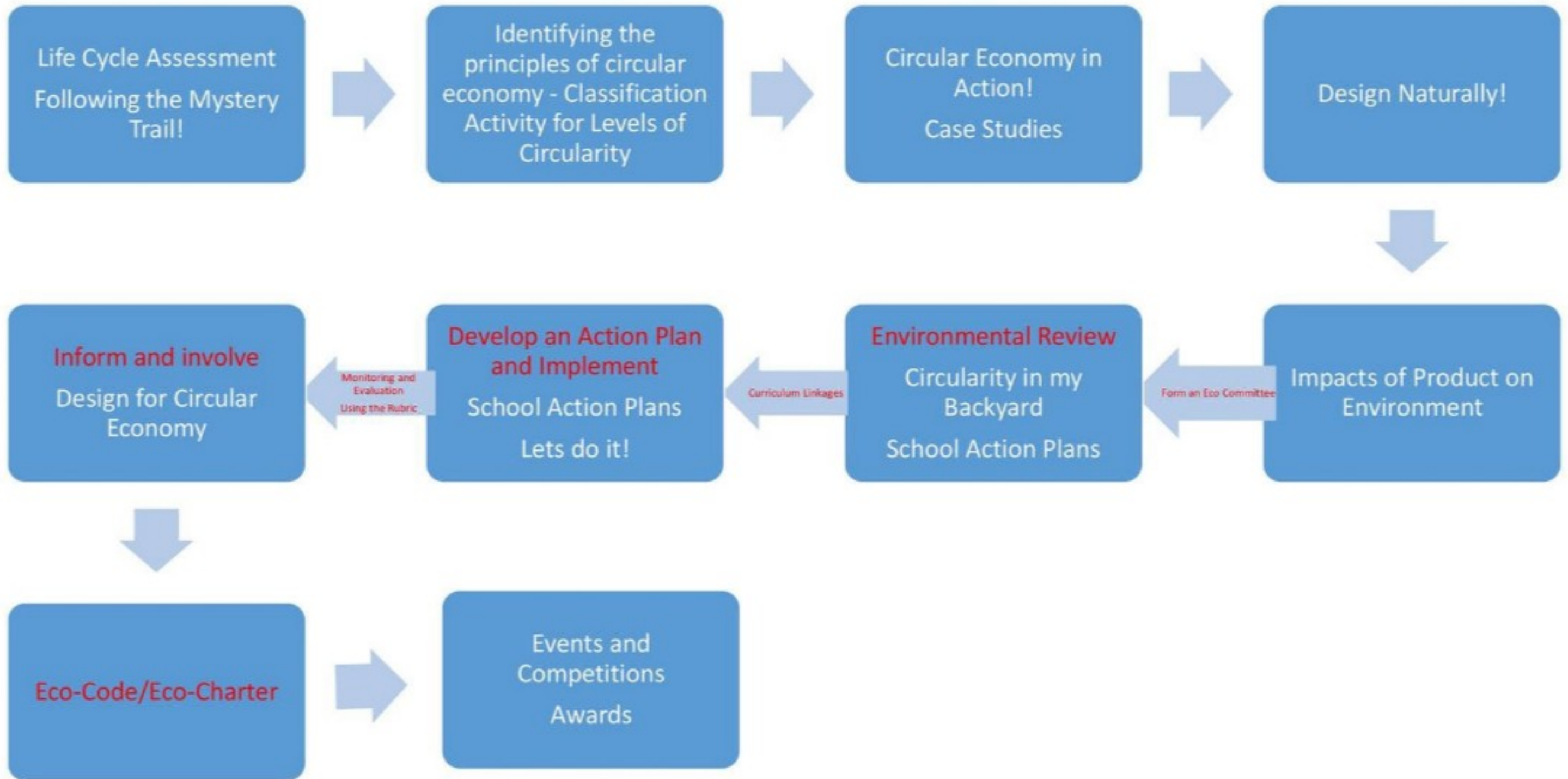


A Seven-Step Change Framework for Continuous Improvement



This block contains several logos and graphics:

- Eco-Schools** logo (top left)
- E-SPACE** logo (top center)
- E-co-Schools Project Advancing Circular Economy** text (top middle)
- Hand Print Action Towards Sustainability** graphic (center)
- FEE** logo (bottom left)
- LUCART PROFESSIONAL** logo (bottom center)
- Small icons for water, paper, clothing, news, and recycling (bottom middle)
- Number **1** and social media icons (bottom right)



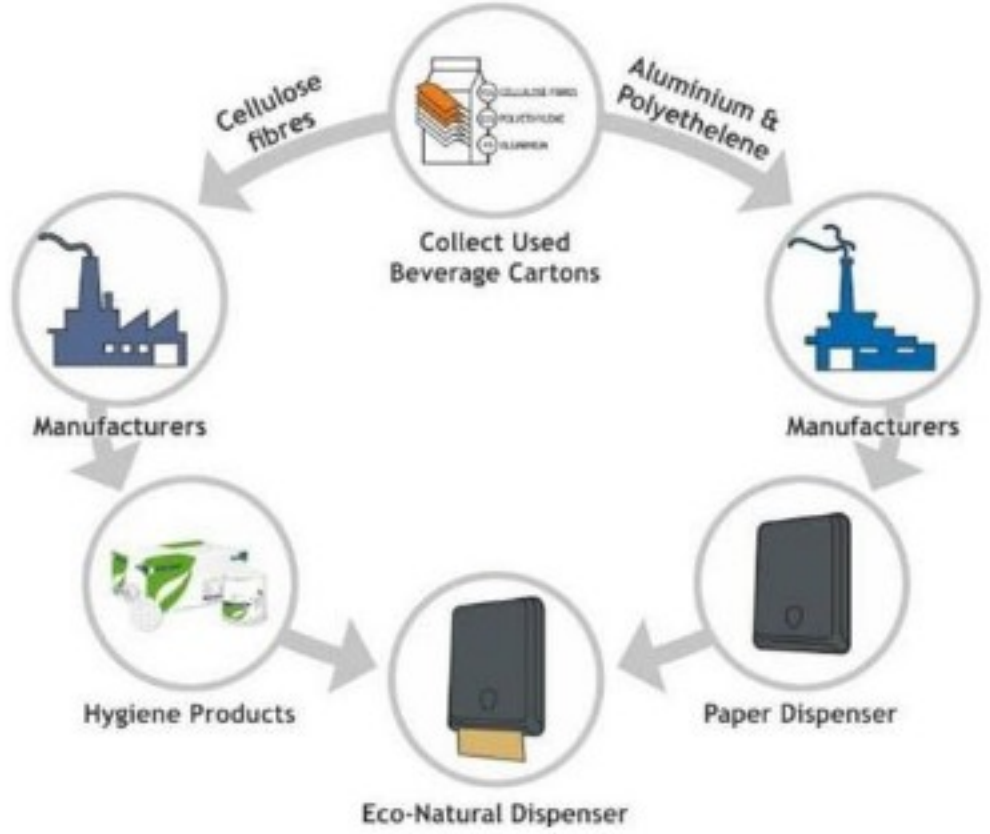
Advancing Circular Economy of Paper



Use By-Products as alternative material sources

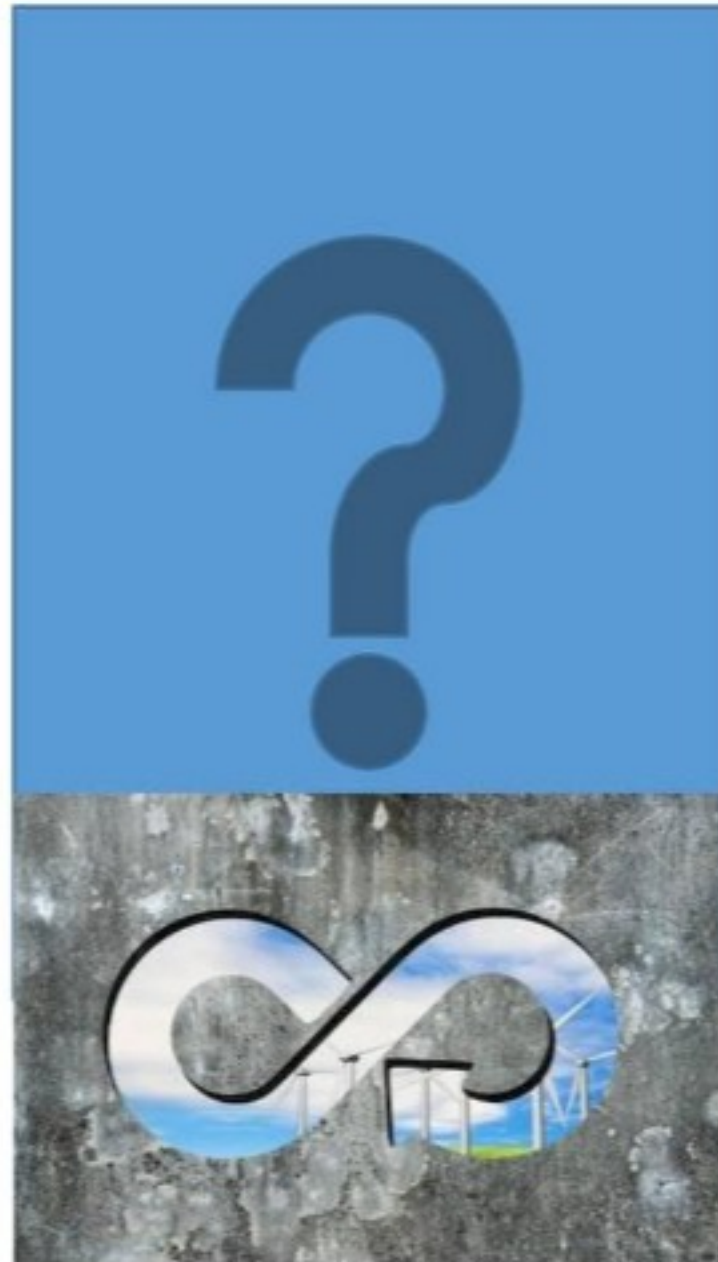


Give back to make new products!



Questions to ask to evaluate a consumption chain?

To what extent their practices are advancing circularity:



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1. Are paper products made of recycled papers?

2. Where can paper use be reduced or eliminated?

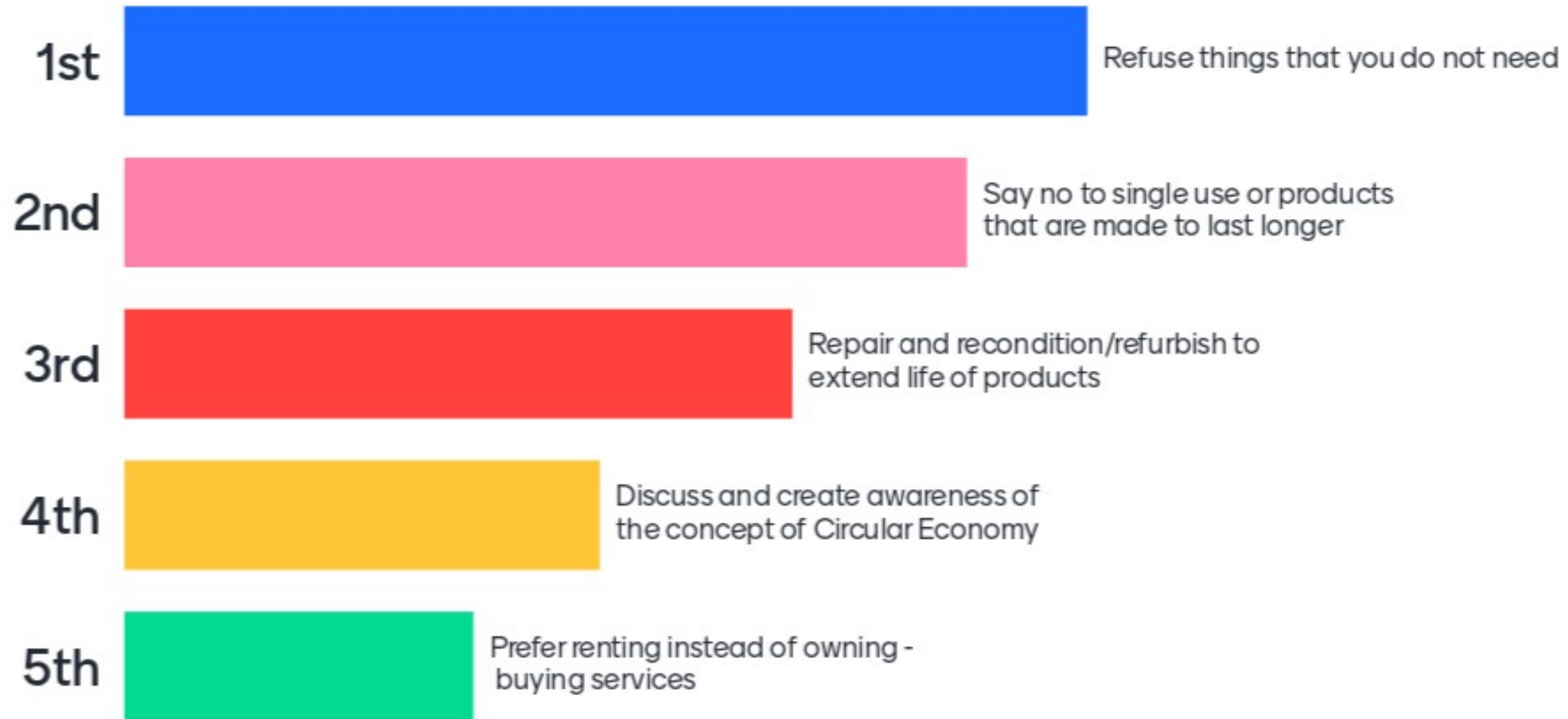
3. Do the products have sustainability labels like – Forest Stewardship Council (FSC)?

4. What is done with used books – passed on to the next batch of students?

5. How and where can used paper be reused?



Which One Hand Print Action you will take...



One takeaway from the webinar...

Teaching about circular economy could be very empowering for students

Integrating circular economy into design thinking work we're doing

Circular economy is not a scary topic

think about the end before the start

Linear vs recycle vs circular economy

Reframing the circular economy as a positive challenge rather than a chastisement on society

Handprint

Awareness that I've been educating about circular economy, but didn't know that terminology

I liked learning about the Foundation for Eco Schools and want to learn more about their curriculum.



One takeaway from the webinar...

The circular economy can help us create the world we want!

We need to change our behaviors

the circular revolution is coming!

That I must be an example or model about circular economy to my students

Europe is way ahead of the U.S.

Circular economy is more profitable on multiple dimensions than a linear economy.

Change our consumption habits

Services rule, more stuffs drool

Information about FEE and the hope that this form of education empowers our future generations to achieve near-perfect efficiency in resource-use



One takeaway from the webinar...

It is important to start educating our youngest children on circular economies

Teaching students how to be smart circular members of society.

Open minded to new ways of acting

Renting vs owning

Circular economy is a necessity for our survival. Linear economy is unsustainable!

Learn from successful countries who has implemented such measures

Keep learning about the circular economy and what that means for education!

Think about the life of a product before buying anything

People need to return to the natural state of being.

One takeaway from the webinar...

I live in the countryside where options are limited. I took recyclables to the city until those options were shut down. It seems that transport and sales of goods haven't got this message...yet.

We should be talking about circular economy more often.

We need change our behaviors

It's all possible

Love the idea of approaching it from the point of putting value on use and not owning things. Lots of people don't understand why I don't make purchases lightly but I want to buy durable and useful things! "We need to stimulate without prescribing."

I'm disappointed to notice that the US does not have much buy in on the FEE programs.

We need to embrace a circular economy in to be a global competitor!

I need more research papers to read about this that give data for successful initiatives.

There is a need for a global change towards circular economy to avoid greenwashing - exporting the problem, this requires buy-in all across the world.

