New economic models :
for an economy at the service of society and the environment

An interview with Bertrand Piccard (8'30") to introduce the concept of **the green economy.**

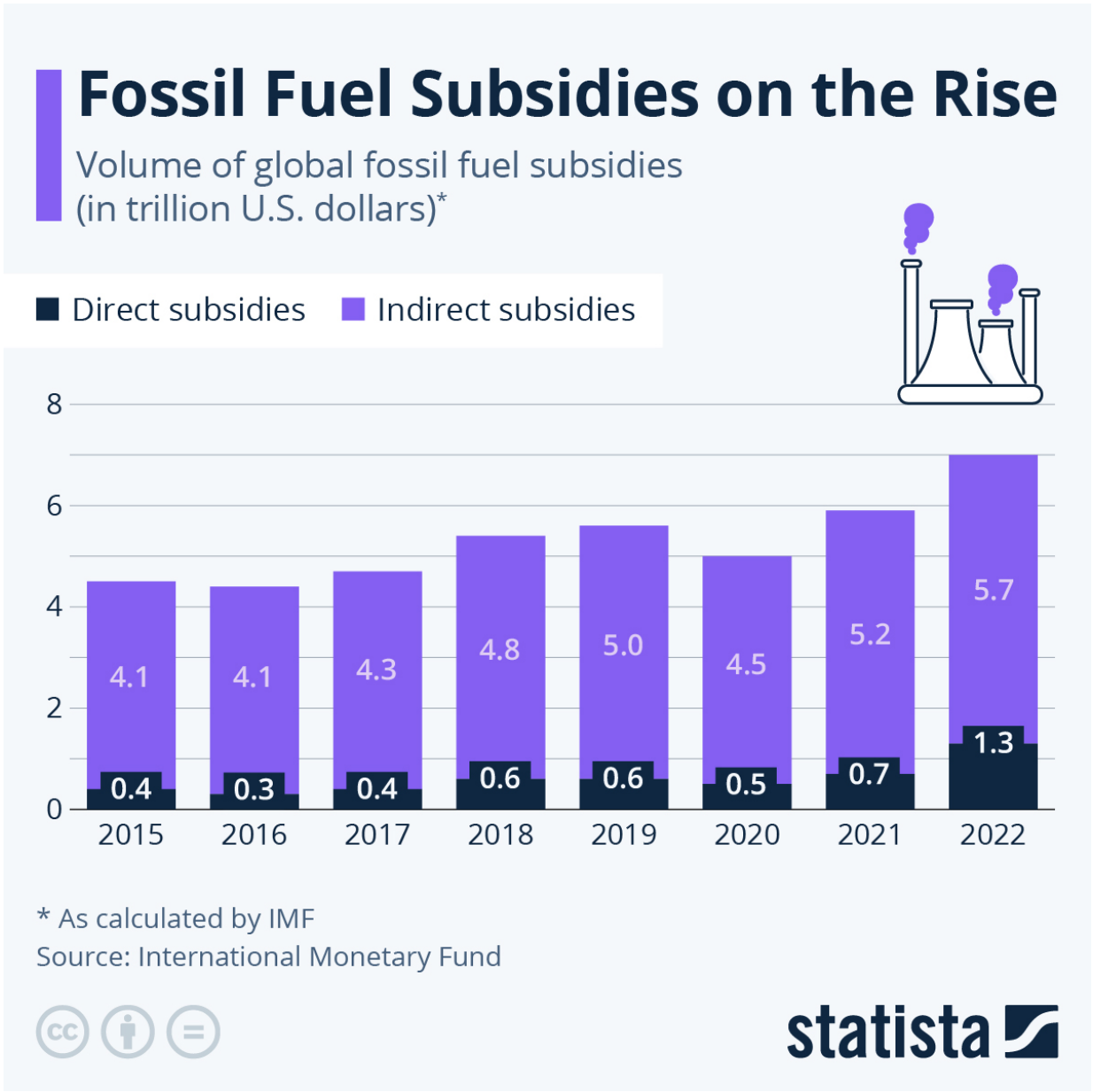
With his *Solar Impulse* Foundation, he is leading a number of projects that illustrate the principles of the green economy.

Sciences-Tech. Publié le 13 avril 2021 à 08:34 Partager

Bertrand Piccard: "Ecologie et économie peuvent se réconcilier"

Bertrand Piccard et ses 1000 solutions aux bénéfices de l'environnement et de l'économie (vidéo) / L'invité-e d'actualité / 8 min. / le 13 avril 2021

https://www.rts.ch/info/sciences-tech/environnement/12120433-bertrand-piccard-ecologie-et-economie-peuvent-se-reconcilier.html



https://www.statista.com/chart/31016/volume-of-global-fossil-fuel-subsidies-timeline/

→ Record level of seven trillion (7,000 billion) US dollars in 2022.

→ More than the world's annual spending on education (4.3% of global GDP), and around two-thirds of annual public spending on health (10.9%).

Green economy, a bridge between the economy and the environment

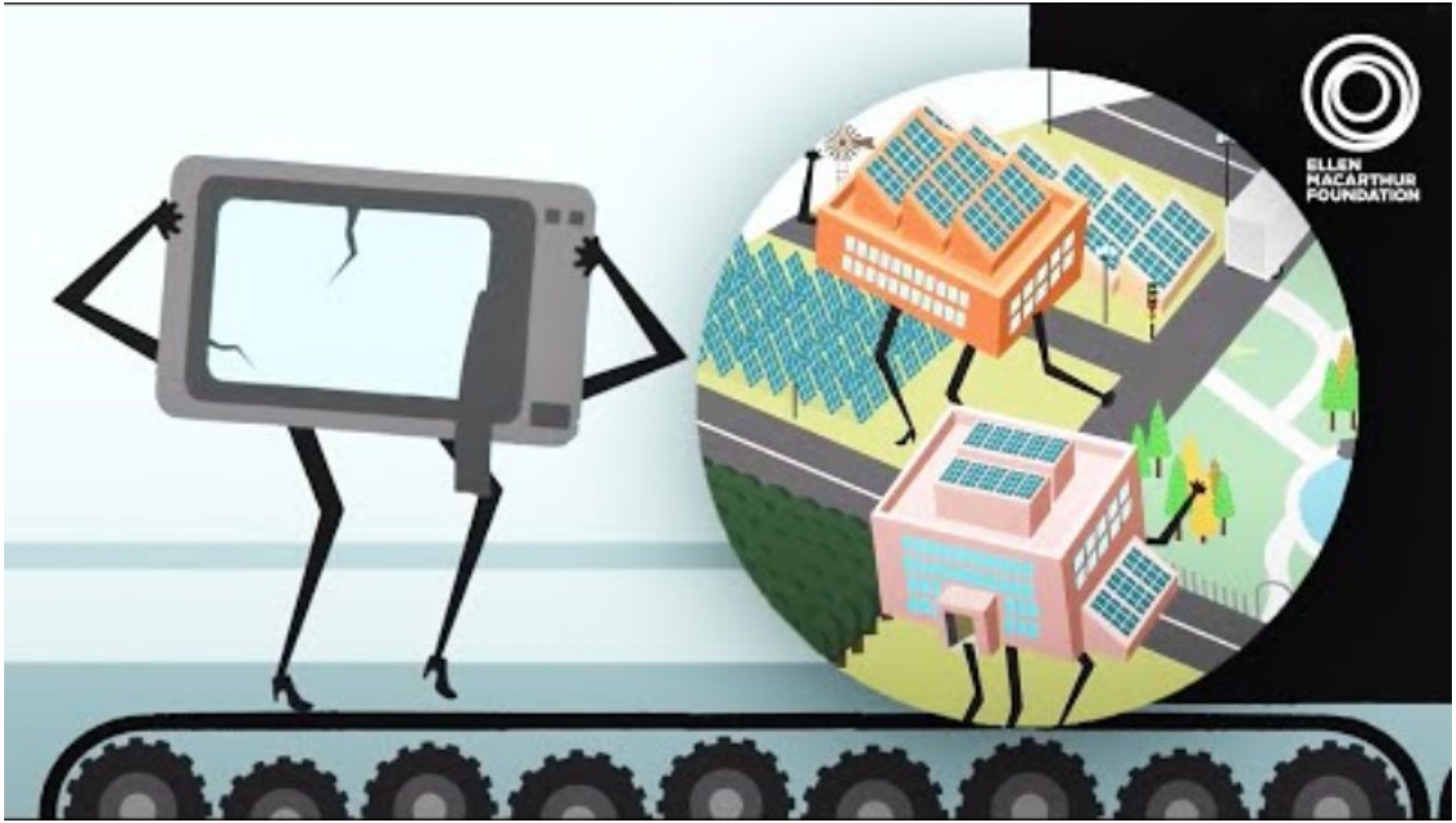
a form of economy "which takes into account the limitations of resources and the need to respect the regenerative capacity of renewable resources, which aims to improve the efficiency of these resources and which thereby contributes to improving the performance of the economy and, consequently, well-being in general". (FOEN 2016 cited in FSO, 2020, p.12)

or Green Growth

Paradigm	Brief definition	Consideration of and impact on ... natural resources	Consideration of and consequences on ... social cohesion
Green growth	Economic growth that ensures that natural assets continue to provide the environmental resources and services on which our well-being depends. Green growth is not a substitute for sustainable development but contributes to it	The key aspect of green growth is to ensure that natural resources can deliver their full economic potential in a sustainable way.	Green growth takes into account the social consequences of greening the growth dynamics of economies. Social cohesion is thus taken into consideration, but is not a central objective.

(Translated from Ferro Luzzi and Weber, 2021, p. 22)

Circular economy presentation 3'48



https://youtu.be/Vmp74mnJ9E8?si=zm9KKsLZbSfRSy7Y

12 CONSOMMATION ET PRODUCTION RESPONSABLES

Circular economy

THROWAWAY SOCIETY – A LINEAR ECONOMIC SYSTEM

Today's throwaway society is the result of a linear economic system. Many raw materials are extracted and products are made, used and disposed. This leads to a raw material shortage, large volumes of waste and the resultant environmental problems.

The linear economic system

CIRCULARITY INSTEAD OF A LINEAR ECONOMIC SYSTEM

The circular economy aims to solve the problems of the throwaway society. Instead of products being thrown away after use (graphic above), cycles are created by sharing, reusing, repairing, remanufacturing, refurbishing and recycling (green arrows in the right-hand graphic). In a circular economy, products, materials and resources are used or reused for as long as possible and their value is retained. Fewer primary raw materials are consumed and less waste is generated than in the linear economic system.

The circular economy is an integrated approach which considers the cycle as a whole from raw material extraction, through design, production, distribution and a use phase which is as long as possible, through to recycling. So that products and materials remain in the cycle, all the stakeholders must view it as a whole and act accordingly.

PRODUCT CYCLES

Share: Several users benefit from a product and intensity of use is increased.
Reuse: : A product in working order is passed on to other users.
Repair: Longevity is extended.
Remanufacture, refurbish: Defective or obsolete products are reconditioned and made to function again.

Using products for as long as possible is environmentally beneficial in almost all cases, because energy, water and chemicals are also needed for recycling. A product is only sent for recycling if it cannot be shared, reused, repaired, remanufactured or refurbished.

MATERIAL CYCLES

Recycling: Dismantle and separate products and remove pollutants so that the secondary raw materials are of high quality and can be marketed.

RENEWABLE AND NON-RENEWABLE RESOURCES

Renewable resources from agriculture, forestry or fisheries are used in ways which conserve the natural cycles and ecosystems.

Non-renewable resources are used in line with the vision of a circular economy, so that they are not dispersed in the environment. They then retain their quality and are used again and again in product and material cycles.

USE OF RENEWABLE ENERGY

The circular economy only uses renewable energy. It should be used as efficiently and economically as possible, because raw materials and natural resources are also required for the supply of renewable energy.

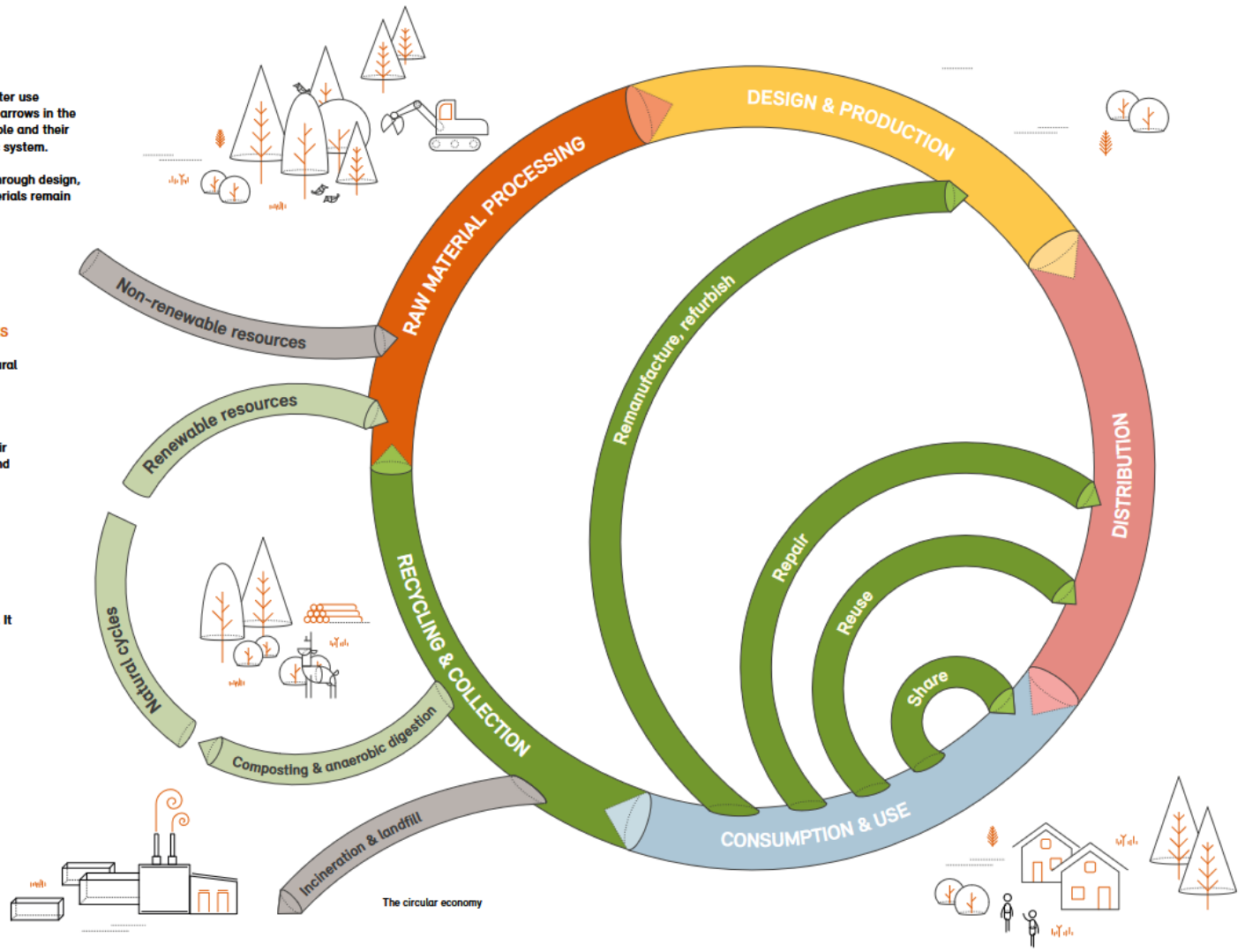
Key:
Transport
Renewable energy
Avoid where possible

BENEFICIAL FOR THE ENVIRONMENT? PERFORM A LIFE-CYCLE ASSESSMENT

A life-cycle assessment is the only way to ensure that projects or measures in the circular economy actually help to reduce the environmental impact. A life-cycle assessment includes all the relevant environmental effects over the full life-cycle of products.

CHARACTERISTICS OF CYCLABLE PRODUCTION – ECODESIGN

- Durable, repairable, modular design and products which can be dismantled
- No chemicals hazardous to the environment and health
- Separable, safe, recyclable materials



The circular economy

https://www.bafu.admin.ch/bafu/en/home/topics/economy-consumption/info-specialists/circular-economy.html#302932096

Circular economy according to ELLEN MACARTHUR FOUNDATION

The circular economy is a system where materials never become waste and nature is regenerated. In a circular economy, products and materials are kept in circulation through processes like maintenance, reuse, refurbishment, remanufacture, recycling, and composting. The circular economy tackles climate change and other global challenges, like biodiversity loss, waste, and pollution, by decoupling economic activity from the consumption of finite resources.

https://www.ellenmacarthurfoundation.org/topics/circular-economy-introduction/overview

Circular economy: going further

Flashlearn HES-SO - Circular economy

https://numerique.hes-so.ch/course/view.php?id=236

Hes·so NUMÉRIQUE

Accueil Tableau

2. L'ÉCONOMIE CIRCULAIRE

Cours Participant·es Notes Badges Compétences Plus

GÉNÉRALITÉS

BIENVENUE

> FLASHLEARN POUR ENSEIGNANT·E ET ÉTUDIANT·E, RÉALISÉ PAR DES EXPERT·E·S

OBJECTIFS PÉDAGOGIQUES

L'expression "économie circulaire" est utilisée un peu partout aujourd'hui en l'érigeant comme LA solution à notre société de consommation, qu'en est-il ? quel est cette notion, ce concept qui paraît comme une évidence ?

En s'inspirant de la parfaite circularité du monde naturel qui ne génère aucun déchets et réintègre et régénère tout, l'économie circulaire propose de boucler les flux avec l'ambition d'une totale circularité qui permettrait de ne plus rien extraire de nos sous-sol mais d'être complètement vertueux ... ce FlashLearn vous permettra de bien comprendre ce concept et, surtout, d'en identifier les opportunités et les limites pour pouvoir faire preuve d'un esprit critique et constructif pour appliquer à bon escient la pensée "circulaire".

A la fin du FlashLearning, le·la participant·e est capable de :

- expliquer le concept d'économie circulaire, ses avantages et ses limites
- identifier les aspects de circularité dans différents modèles économiques
- identifier les principes d'écologie industrielle et d'analyse de flux de matières
- décrire le principe de permacircularité et d'économie de fonctionnalité
- citer des exemples d'application du principe d'économie circulaire dans des entreprises et dans le monde naturel

Contenu:

- Thème 1: Définition, origines, émergences et évolutions

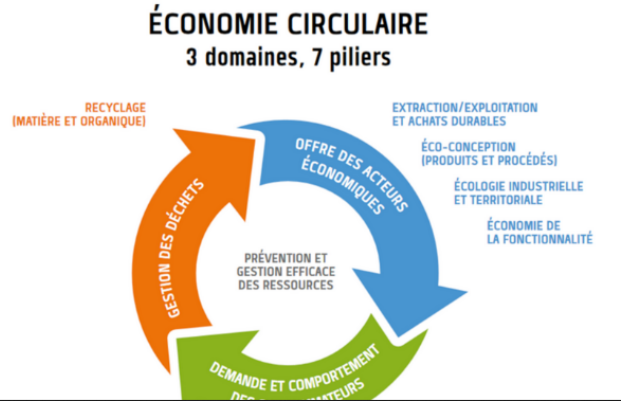


Illustration of **wellbeing economics (10'13")** - A speech by Nicola Sturgeon (former First Minister of Scotland) on the need to adopt economic policies that focus on wellbeing and whose effectiveness must be measured with appropriate indicators

TEDSummit 2019 ● July 2019 | 2.4M views

Why governments should prioritize well-being

https://www.ted.com/talks/nicola_sturgeon_why_governments_should_prioritize_well_being

Wellbeing Economy

https://wellbeingeconomy.org/key-concepts

Wellbeing Economy : the case of New Zealand

LRD

Axer la relance sur le bien-être : la Nouvelle-Zélande montre la voie

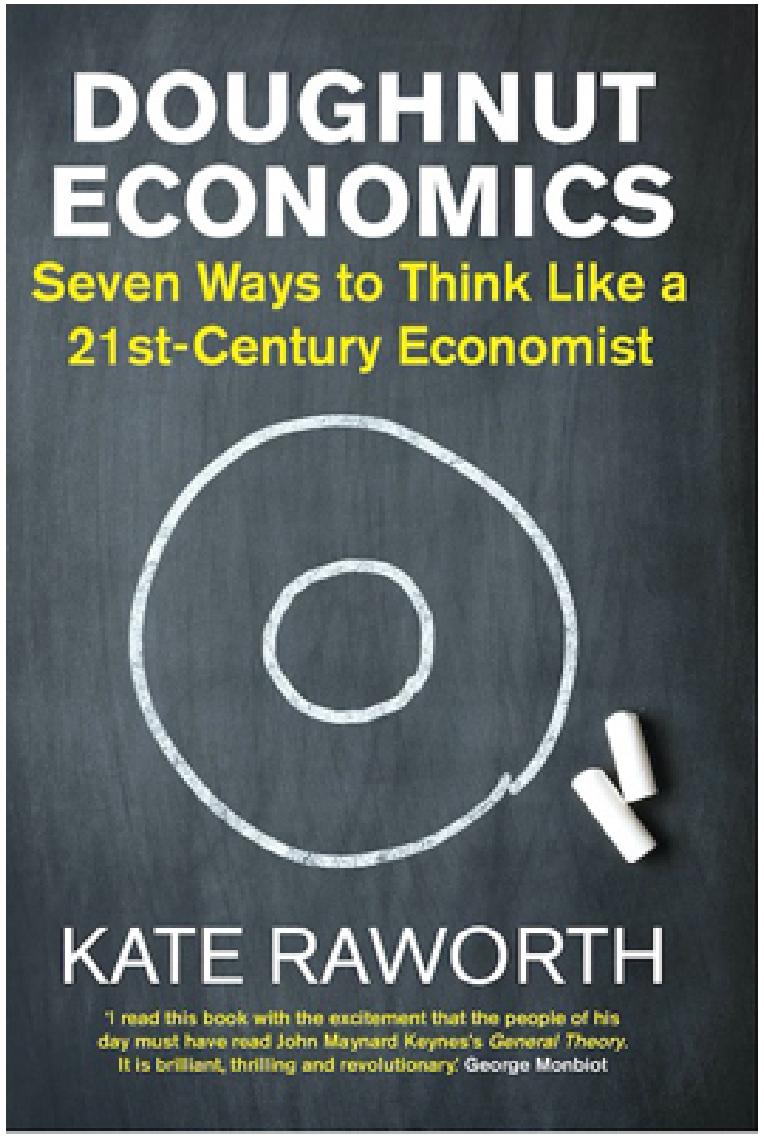
Au pays des All Blacks, la clairvoyance de Jacinda Ardern dans sa gestion de la pandémie de SARS-CoV-2, son empathie envers les migrants après le massacre de Christchurch, son action claire en faveur du climat et de l'égalité expliquent sa réélection triomphale en octobre 2020. L'économie du bien-être que promeut en outre cette femme exceptionnelle inspire d'autres jeunes dirigeantes dans le monde. Leur action rejoint l'engagement de nombreux chercheurs pour mettre fin à l'hégémonie du PIB, dont Tim Jackson, toujours aux avant-postes de la promotion d'une économie post-croissance calée sur les limites de la planète.

d'indicateurs sur les déterminants du bien-être d'une population. La Nouvelle-Zélande, qui suit de près ce travail depuis ses débuts, possède une longue expérience en la matière.

Parmi les cinq priorités politiques du Gouvernement néo-zélandais figurent :

- la création d'opportunités pour les entreprises, les régions et les tribus pour la transition vers une économie durable et à faibles émissions ;
- l'augmentation des revenus, les compétences et les opportunités des Maoris et des habitants du Pacifique ;

→ Read the full article on CL: indicators mentioned - what similarities with MONET or Measuring well-being?



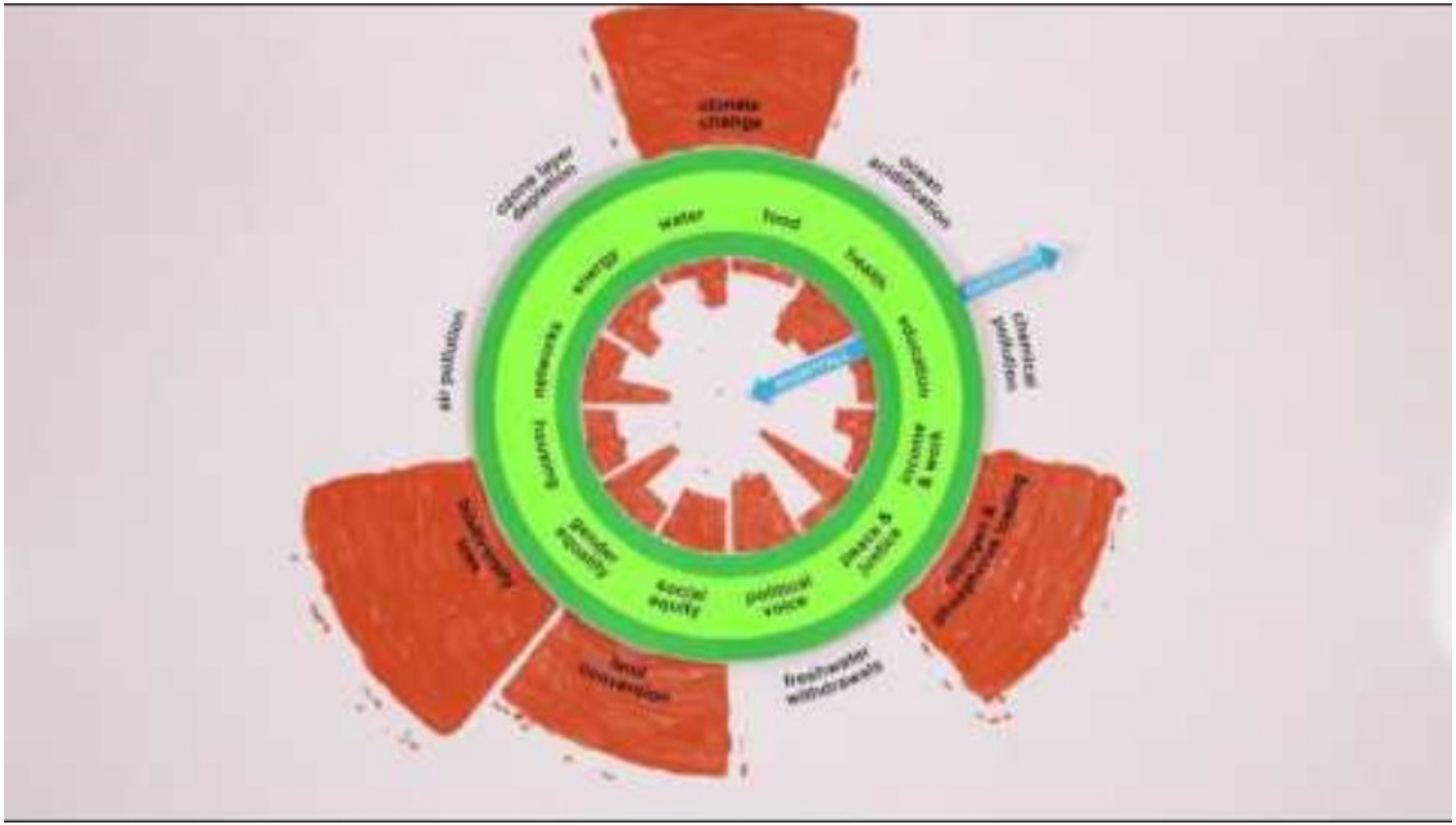
Kate Raworth

Kate Raworth ("Ray-worth") is a renegade economist focused on exploring the economic mindset needed to address the 21st century's social and ecological challenges, and is the creator of the Doughnut of social and planetary boundaries.

She is a Senior Visiting Research Associate at Oxford University's Environmental Change Institute, where she teaches on the Masters in Environmental Change and Management. She is also a Senior Associate at the Cambridge Institute for Sustainability Leadership.

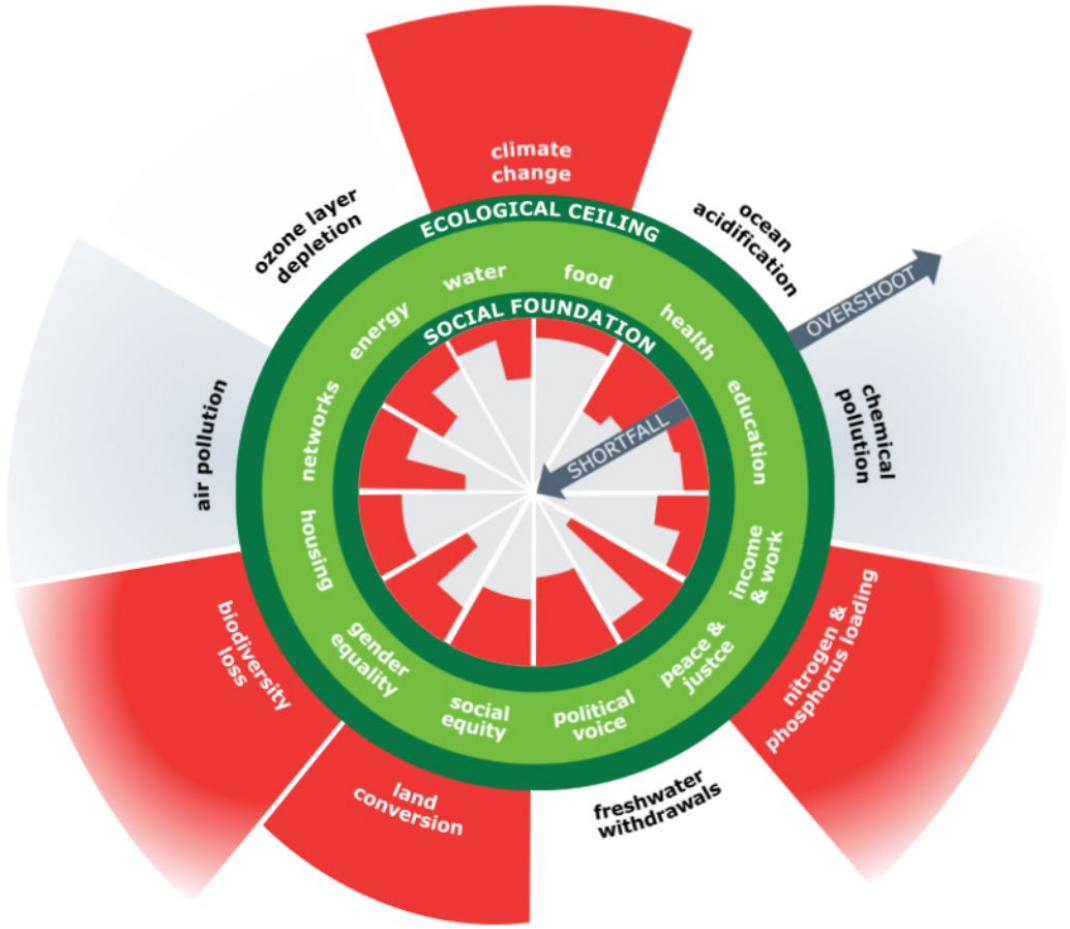
Her internationally acclaimed idea of Doughnut Economics has been widely influential amongst sustainable development thinkers, progressive businesses and political activists, and she has presented it to audiences ranging from the UN General Assembly to the Occupy movement. Her book, *Doughnut Economics: seven ways to think like a 21st century economist* was published in 2017 and has been translated into 15 languages.

From GDP to the doughnut theory



https://www.kateraworth.com/animations/

The Doughnut of social and planetary boundaries (2017)

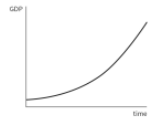
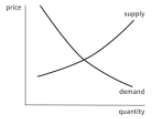
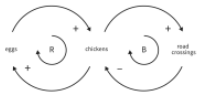
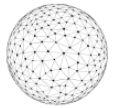
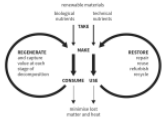
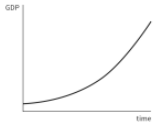
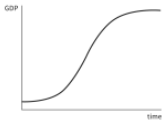


https://www.kateraworth.com/doughnut/

Seven ways to think like a 21st century economist

DOUGHNUT ECONOMICS ACTION LAB

VALAIS WALLIS

Seven Ways to Think:	From 20th-Century Economics		To 21st-Century Economics	
1. Change the Goal		GDP		the Doughnut
2. See the Big Picture		self-contained market		embedded economy
3. Nurture Human Nature		rational economic man		social adaptable humans
4. Get Savvy with Systems		mechanical equilibrium		dynamic complexity
5. Design to Distribute		growth will even it up again		distributive by design
6. Create to Regenerate		growth will clean it up again		regenerative by design
7. Be Agnostic about Growth		growth addicted		growth agnostic

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https://doughnuteconomics.org/about-doughnut-economics#what-is-doughnut-economics