



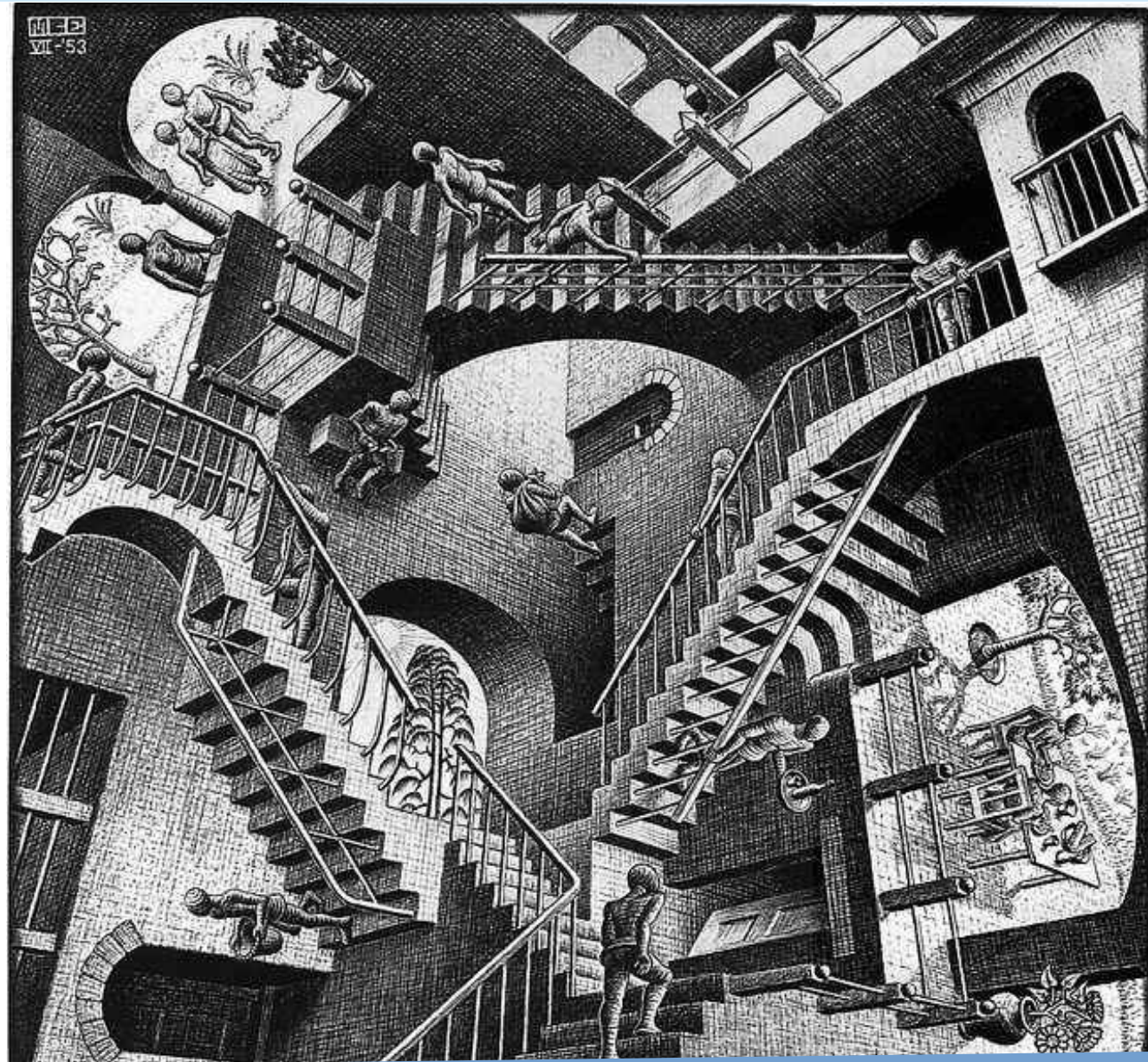
Comprendere l'Organizzazione

2023

Organizzazioni e gestione
delle risorse umane in
ambienti turbolenti:

Welfare, Crisi Ecologica e
Giusta Transizione

Marta Bonetti, Matteo Villa



Struttura della presentazione

1. La grande accelerazione
2. Rischi sociali di origine ambientale e da politiche ambientali
3. Il doppio vincolo della crisi ecologica
4. Affrontare il doppio vincolo della crisi ecologica
 - 4.1 Verso un welfare sostenibile?
 - 4.2 Economia circolare
5. Il progetto Ecoesione
6. Conclusioni

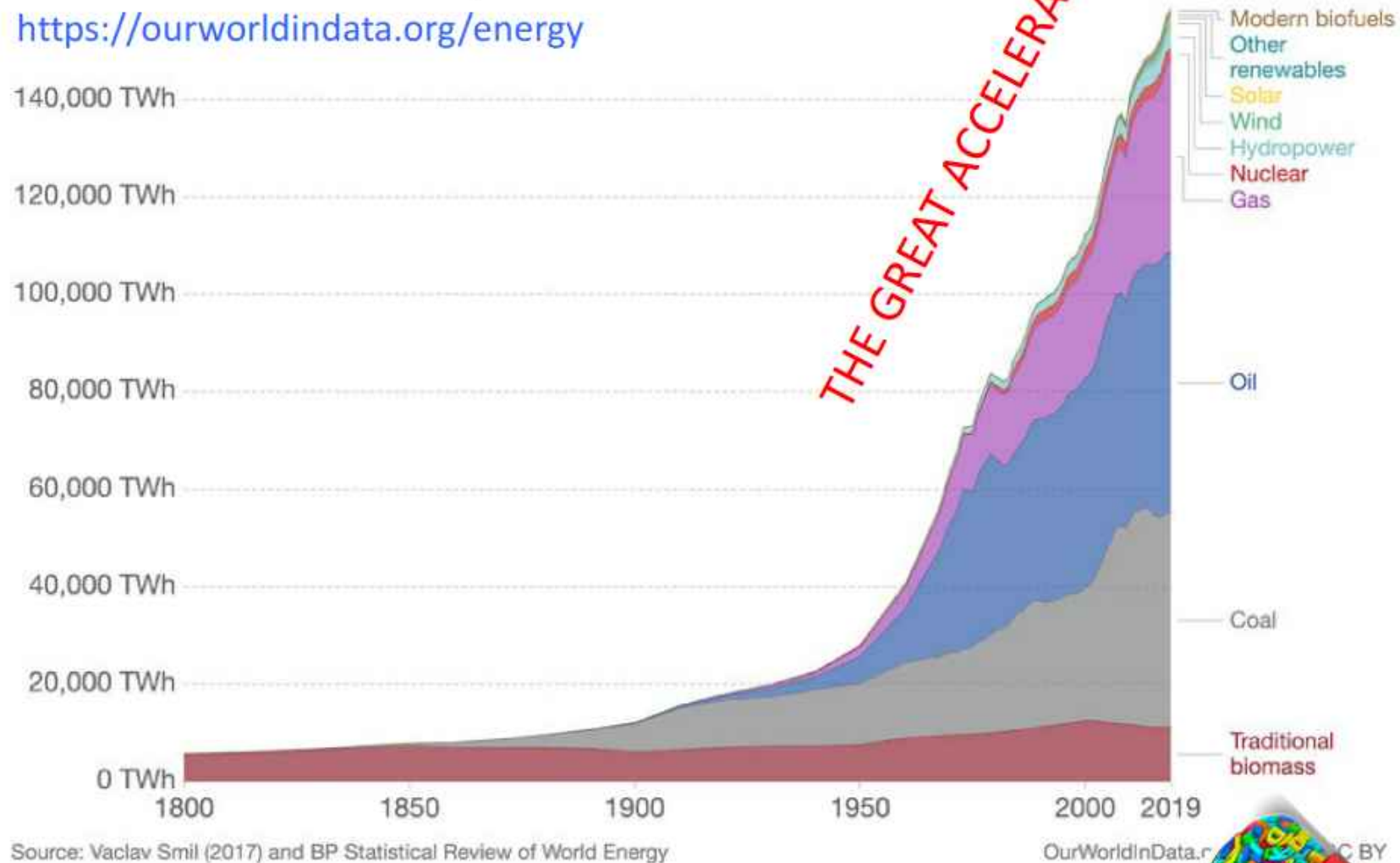


1. La grande accelerazione



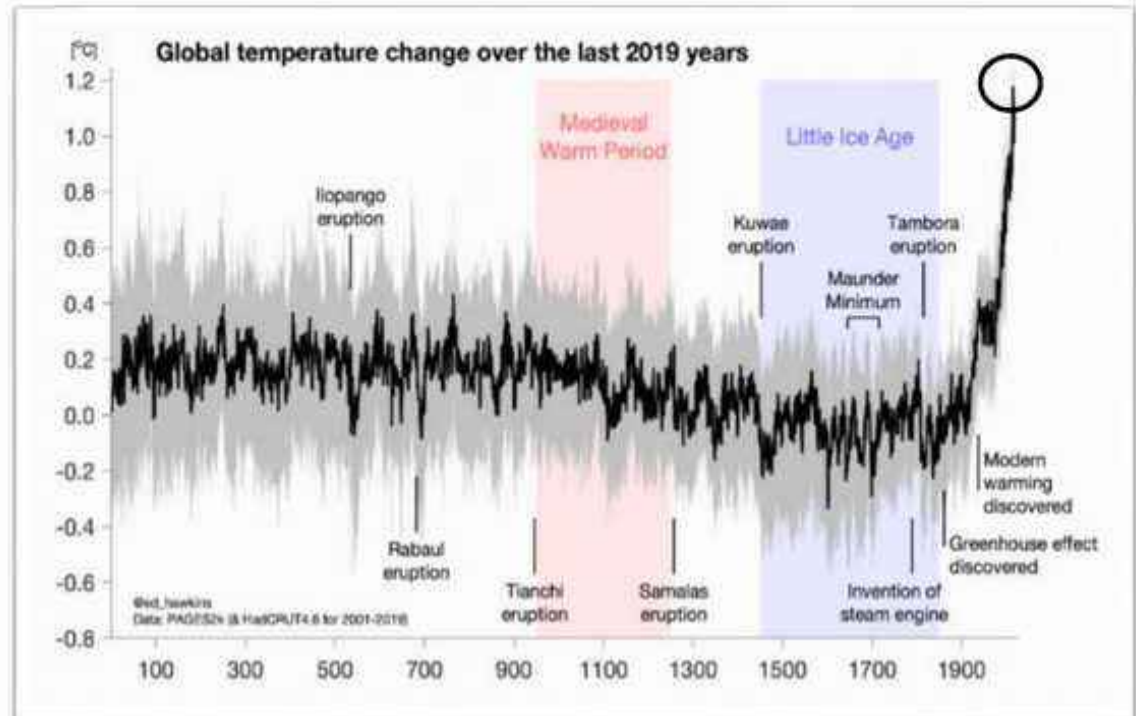
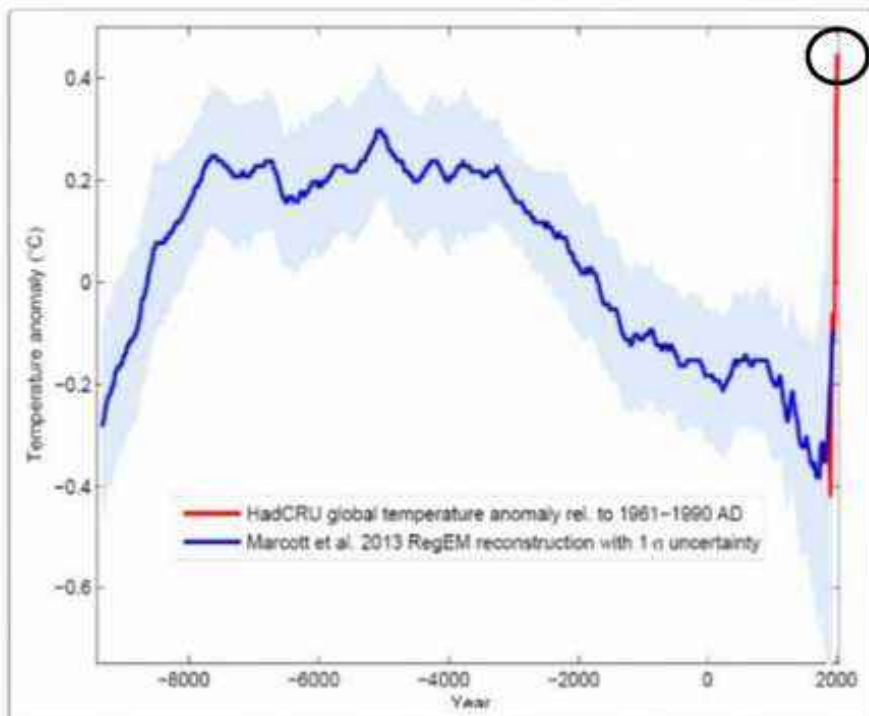
ENERGIA PRIMARIA distinta per fonte a livello mondiale, periodo 1800-2018 Terawatt-ora annui, TWh

<https://ourworldindata.org/energy>



Human influence has warmed the climate at a rate unprecedented in at least the past 2000 years

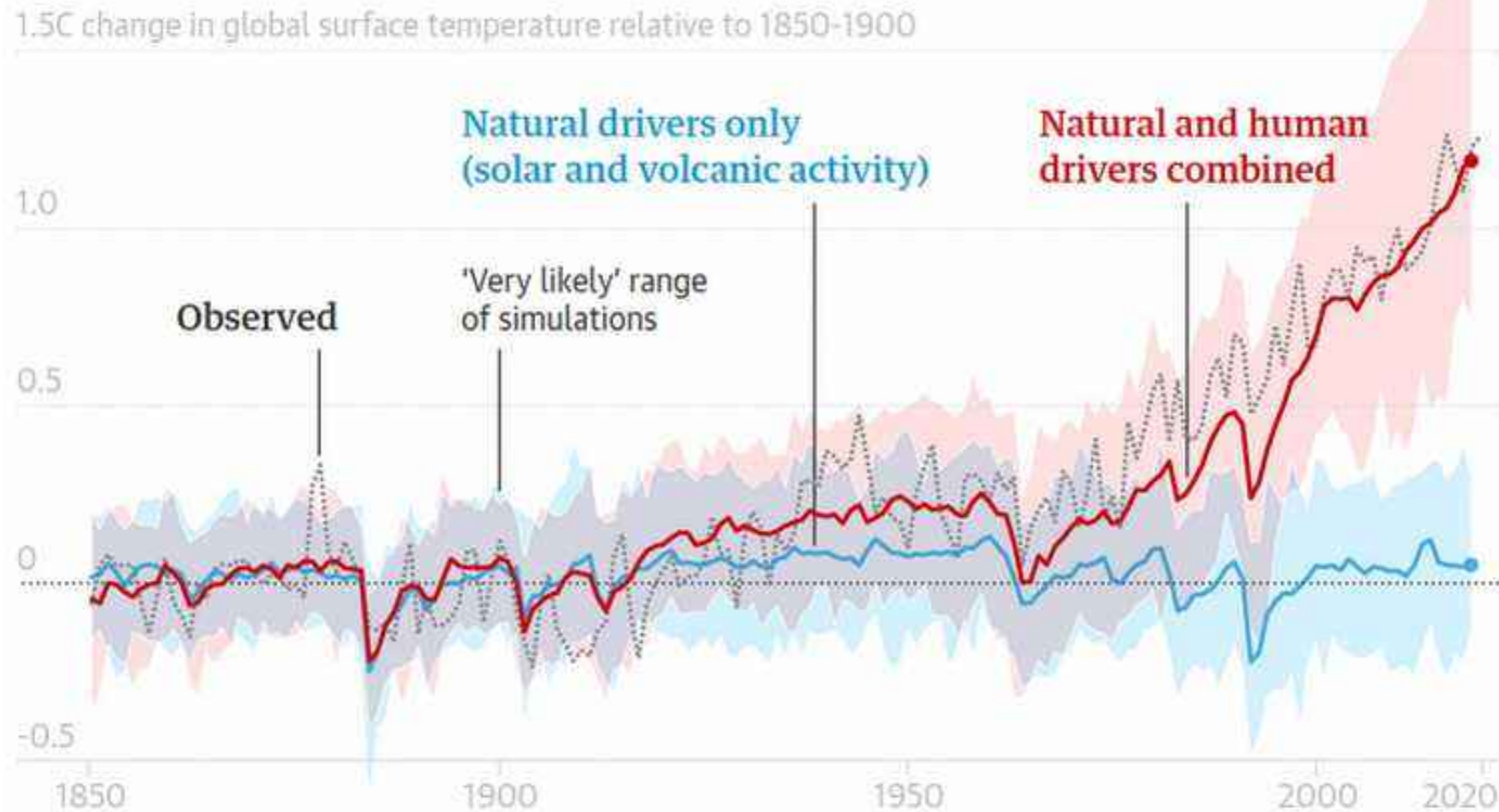
Andamento della temperatura globale negli **ultimi 9000 anni** (sinistra) e **2019 anni** (destra). In entrambi i casi si notano oscillazioni moderate e distribuire su archi temporali piuttosto ampi, mentre l'ultimo secolo si distingue per un'impennata senza precedenti sia in termini quantitativi ($1\text{ }^{\circ}\text{C}$), sia in termini temporali (**poche decine di anni**).



Fonte: G. Betti, Consorzio Lamma, 2021



Climate model simulations show how human factors have contributed to a rise in global surface temperatures



Guardian graphic. Source: Intergovernmental Panel on Climate Change

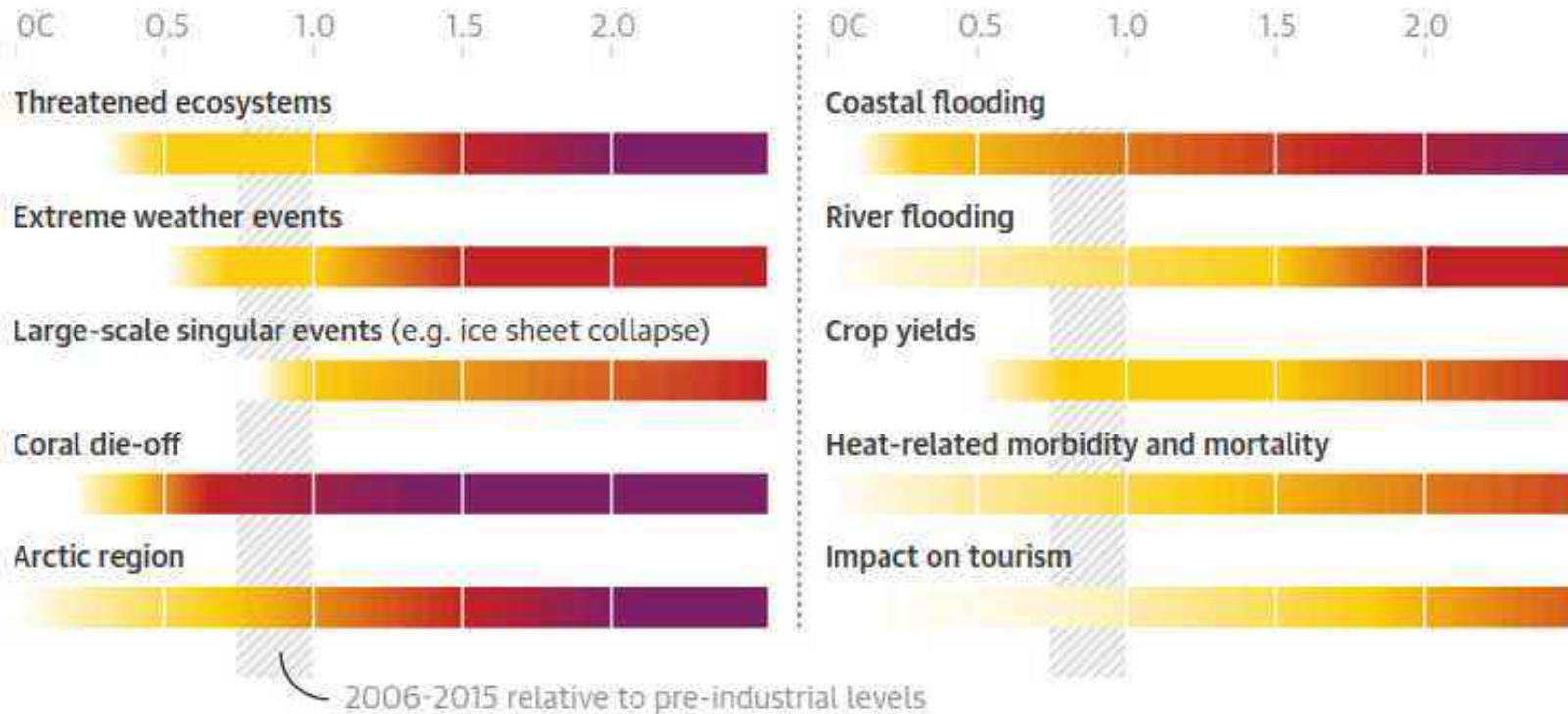


Rising temperatures, rising risks

Key to impacts and risks



Global mean surface temperature change relative to pre-industrial levels, C



Guardian graphic. Source: IPCC Special Report on Global Warming of 1.5C



The 2020 global Living Planet Index shows an average 68% (range: -73% to -62%) fall in monitored populations of mammals, birds, amphibians, reptiles and fish between 1970 and 2016¹.

Fonte: WWF, ZSL, 2021

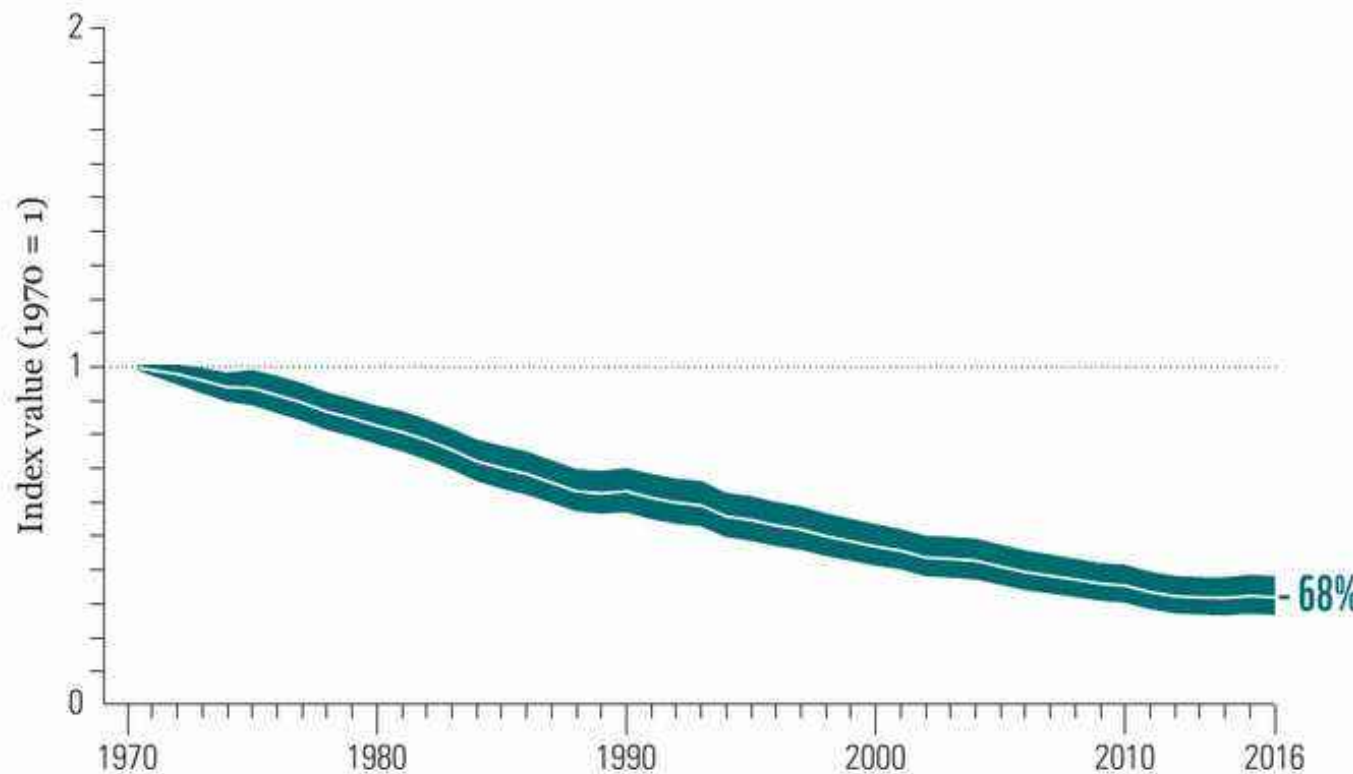


Figure 1: The global Living Planet Index: 1970 to 2016
Average abundance of 20,811 populations representing 4,392 species monitored across the globe declined by 68%. The white line shows the index values and the shaded areas represent the statistical certainty surrounding the trend (range: -73% to -62%). Sourced from WWF/ZSL (2020)¹.

Key

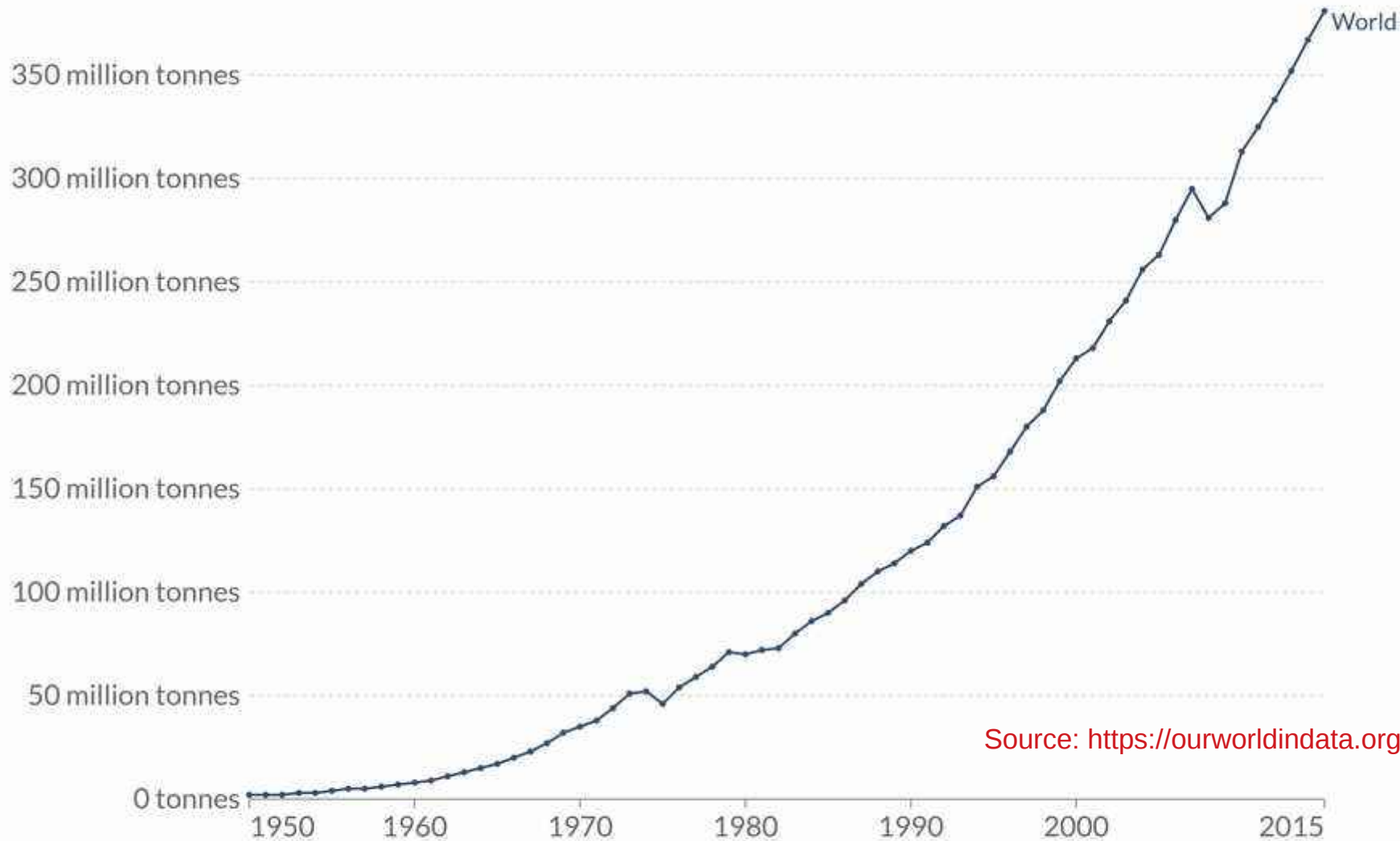
- Global Living Planet Index
- Confidence limits



Global plastics production, 1950 to 2015

Annual global polymer resin and fiber production (plastic production), measured in metric tonnes per year.

Our World
in Data



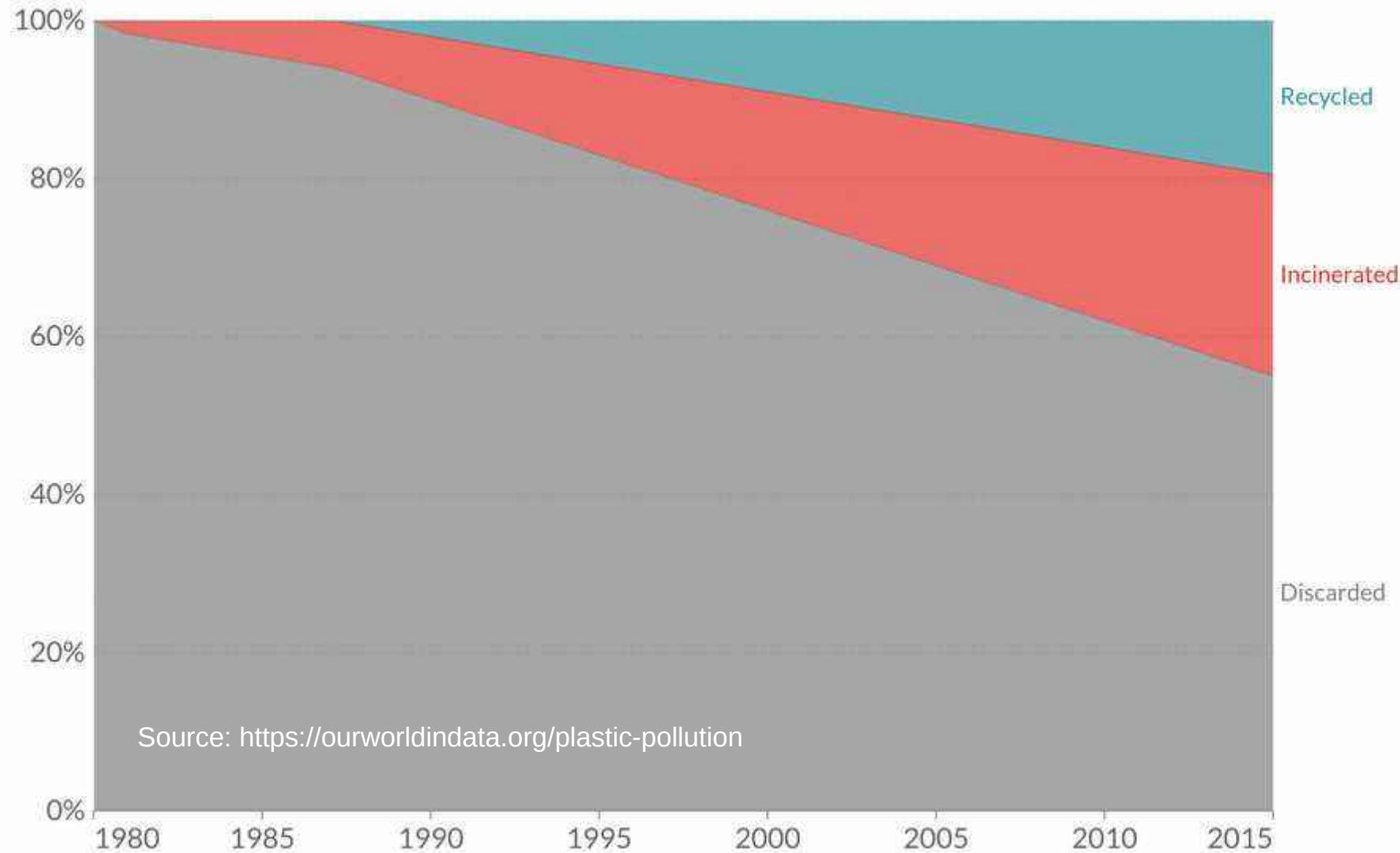
Source: <https://ourworldindata.org/plastic-pollution>



Global plastic waste by disposal, 1980 to 2015

Estimated share of global plastic waste by disposal method.

Our World
in Data



Source: <https://ourworldindata.org/plastic-pollution>



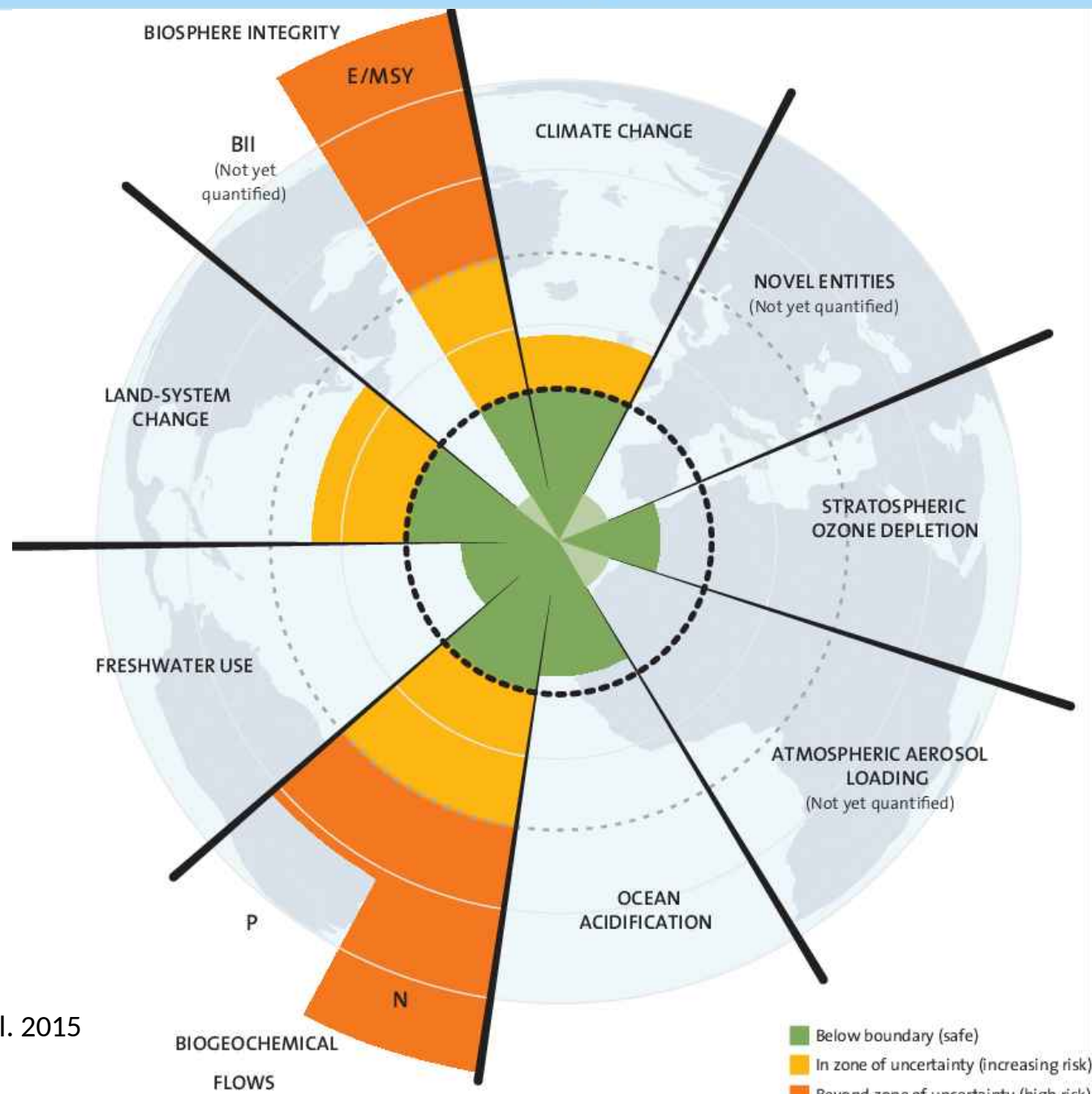
Exceeding the planetary boundaries and possible effects of interaction



What transition =

What change?

What level, type, method,
who does it involve, how?



The great acceleration

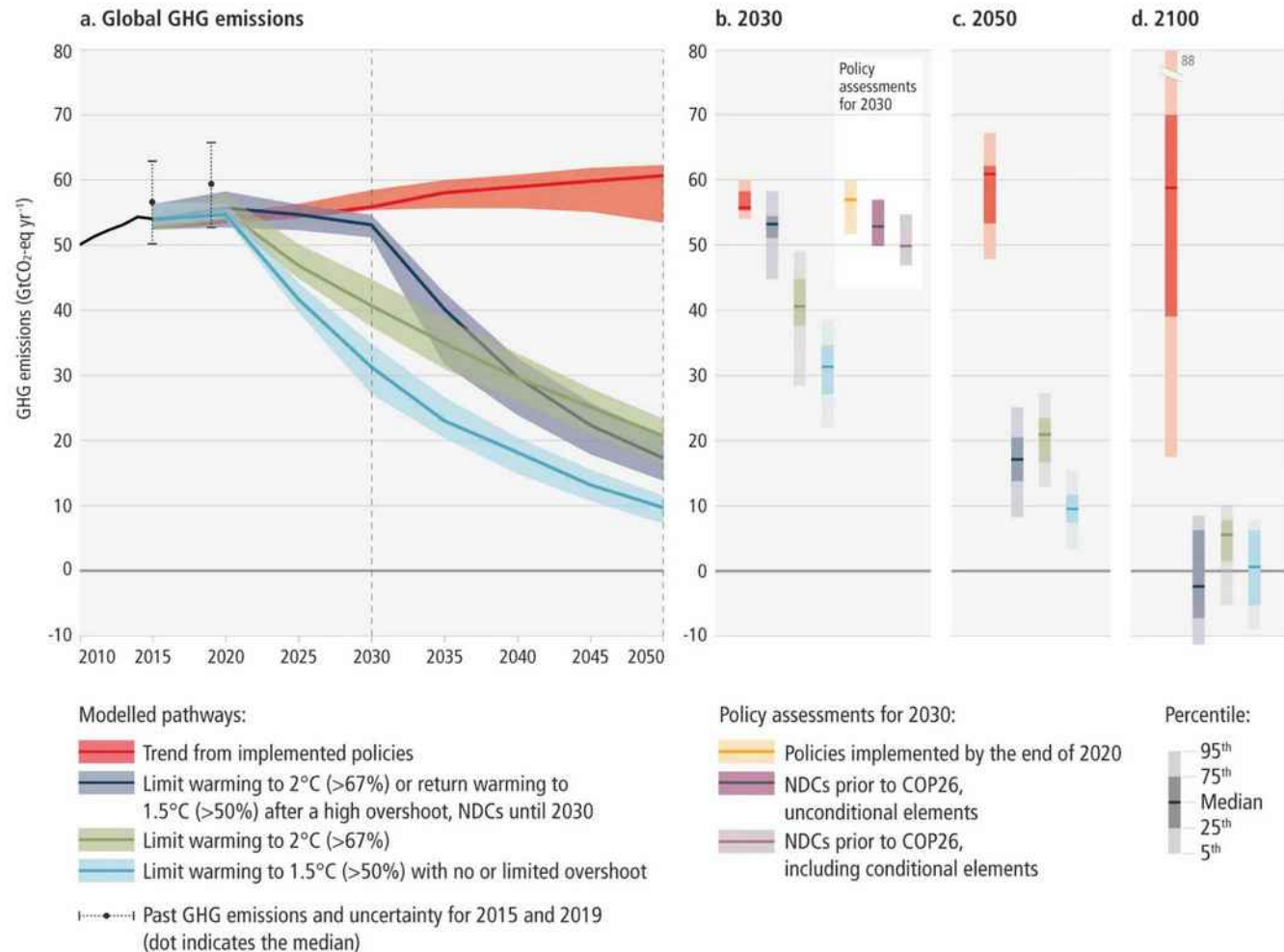
IPCC "Emissions Gap Report 2019": If all unconditional national contributions (NDCs) under the Paris Agreement are implemented > **still** temperature + 3.2°C.

Glasgow 2021: pledges would bring if met > **still** temperature + 2/2,4°.

IPCC 2022: exceeding 1.5° would have catastrophic effects anyway.

Current conflicts and tensions do not help...even considering the fragility of global climate governance

Projected global GHG emissions from NDCs announced prior to COP26 would make it likely that warming will exceed 1.5°C and also make it harder after 2030 to limit warming to below 2°C.



Source: IPCC 2022

Fonte: United Nations 2019

What is being done?

- **Strategies, Policies, Regulations:**
 - > Paris Agreement 2015, UN Agenda 2030, Green Deal EU, NRRP, Fit for 55 European Plan
 - > National Strategies for Energy Transition
 - > Regional Strategies for Climate Neutrality
 - > Measures for biodiversity, chemicals, etc.
- **Alternative energies (renewable and/or sustainable)**
- **Technological innovations**
- **Bottom-up initiatives, local, business, etc.**



 HISTORIC CLIMATE CHANGE DEAL

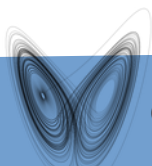
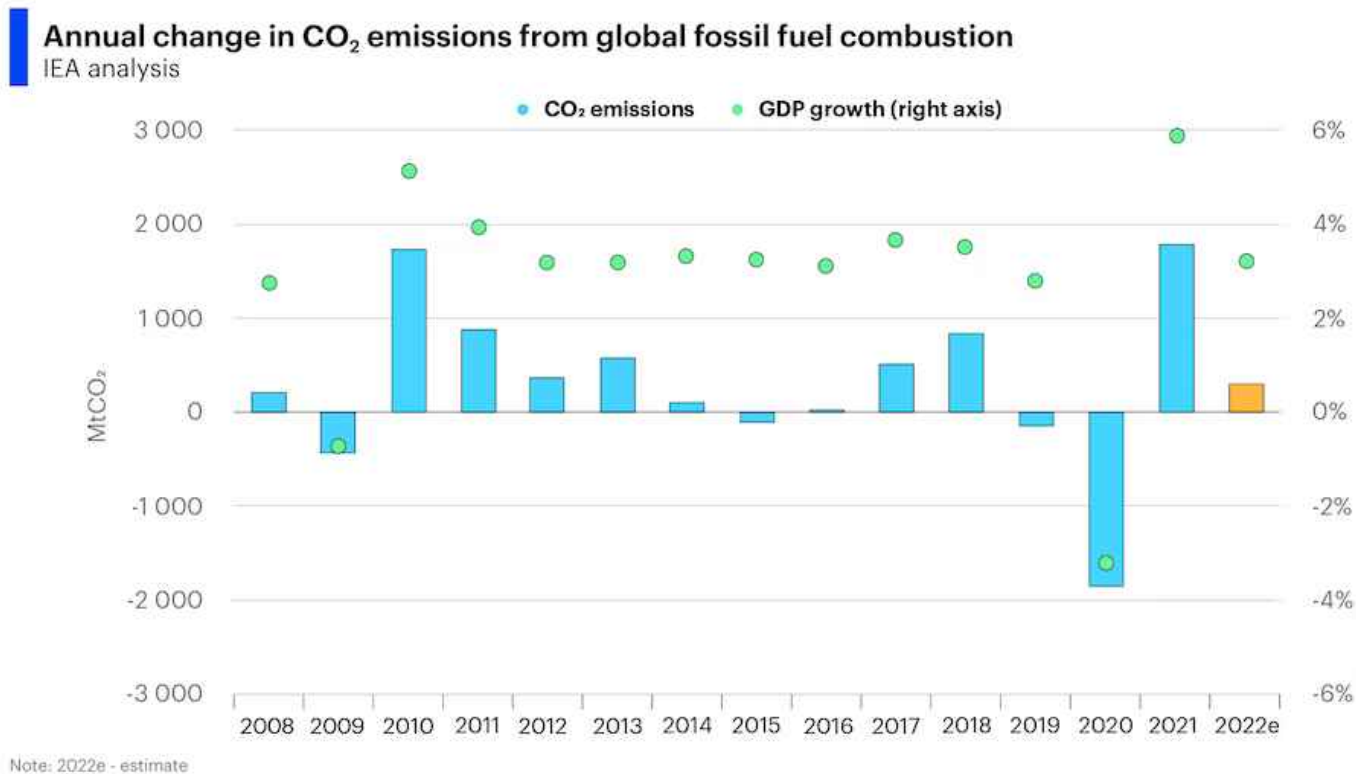


But global emissions are not decreasing...

Though there is almost good news for 2022: + 1%



Why?



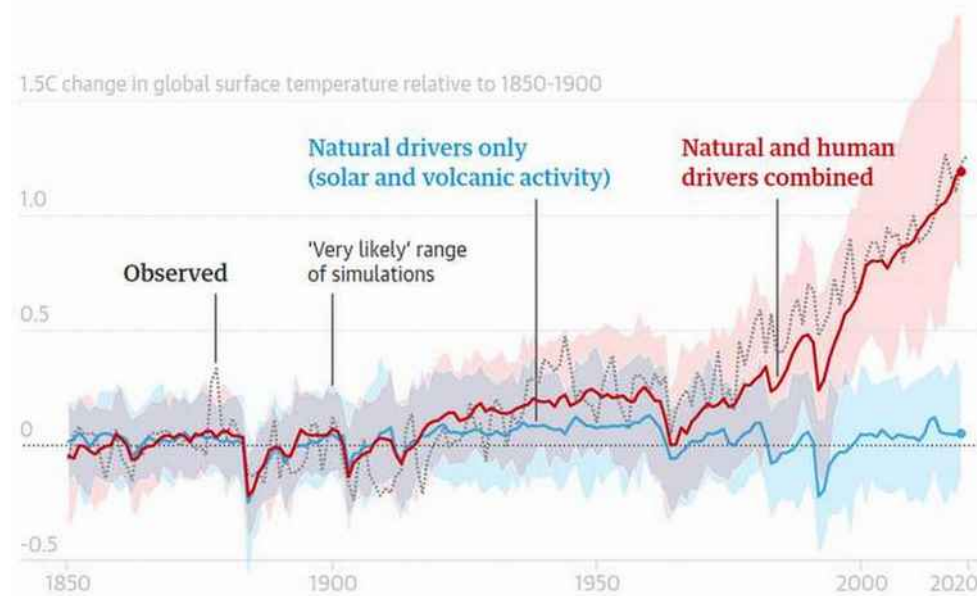
(1) Main strategies: mitigation and adaptation

- Mitigation usually pursued through **decoupling** growth from the damage it causes, namely: **green growth** or **ecological modernization** ... But:
 - innovation/efficiency paradoxical effects
 - absolute decoupling is not happening ...
 - global emissions are not decreasing...

But climate change:

- By size, complexity and speed is a **"super-wicked problem"**
- Cannot maybe be addressed based on **ultra-simplifying assumptions**

Climate model simulations show how human factors have contributed to a rise in global surface temperatures



Guardian graphic. Source: Intergovernmental Panel on Climate Change



2. Rischi sociali di origine ambientale



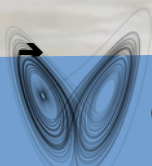
Welfare, lavoro e ecologia? Che c'entrano uno con l'altro?

Rovesciamento storico tra benessere, sussistenza e clima:

dipendenza > indipendenza > dipendenza



- **Per oltre 200 anni** welfare e benessere sono diventati **meno dipendenti** da tempo e clima
 - Ma sempre più ricchi stili di vita (di alcuni) hanno un **crescente impatto** su clima e condizioni meteorologiche (per tutti)
 - In un mondo in surriscaldamento il **benessere individuale** (es. accesso a cibo e energia) e **collettivo** (ricchezza di una nazione, coesione sociale) diventano **di nuovo più dipendenti** da tempo e clima
- **Decarbonizzazione:**
riduzione della dipendenza da modelli di benessere con effetti climalteranti



Exceeding the planetary boundaries and possible effects of interaction



What transition =

What change?

What level, type, method,
who does it involve, how?

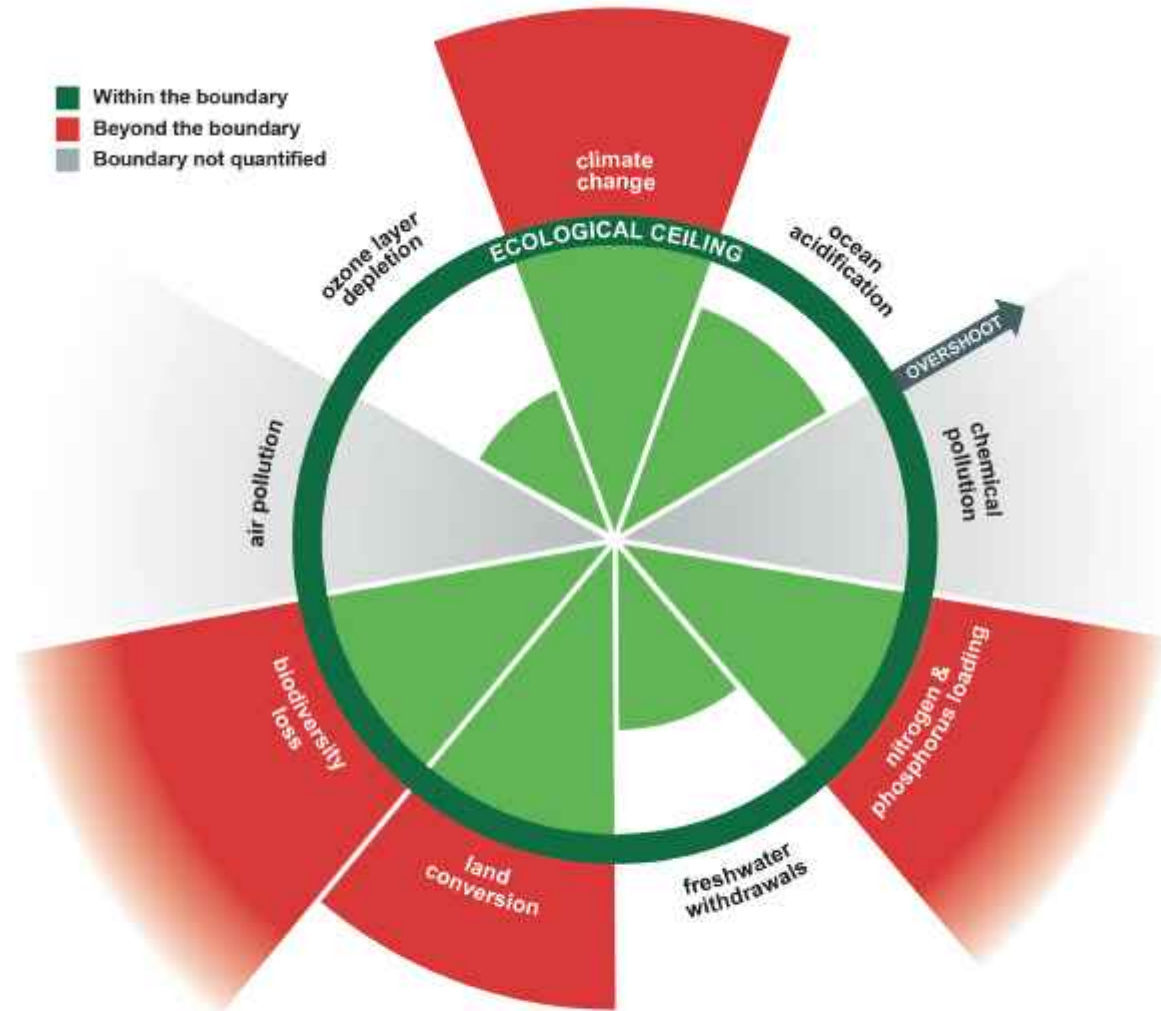
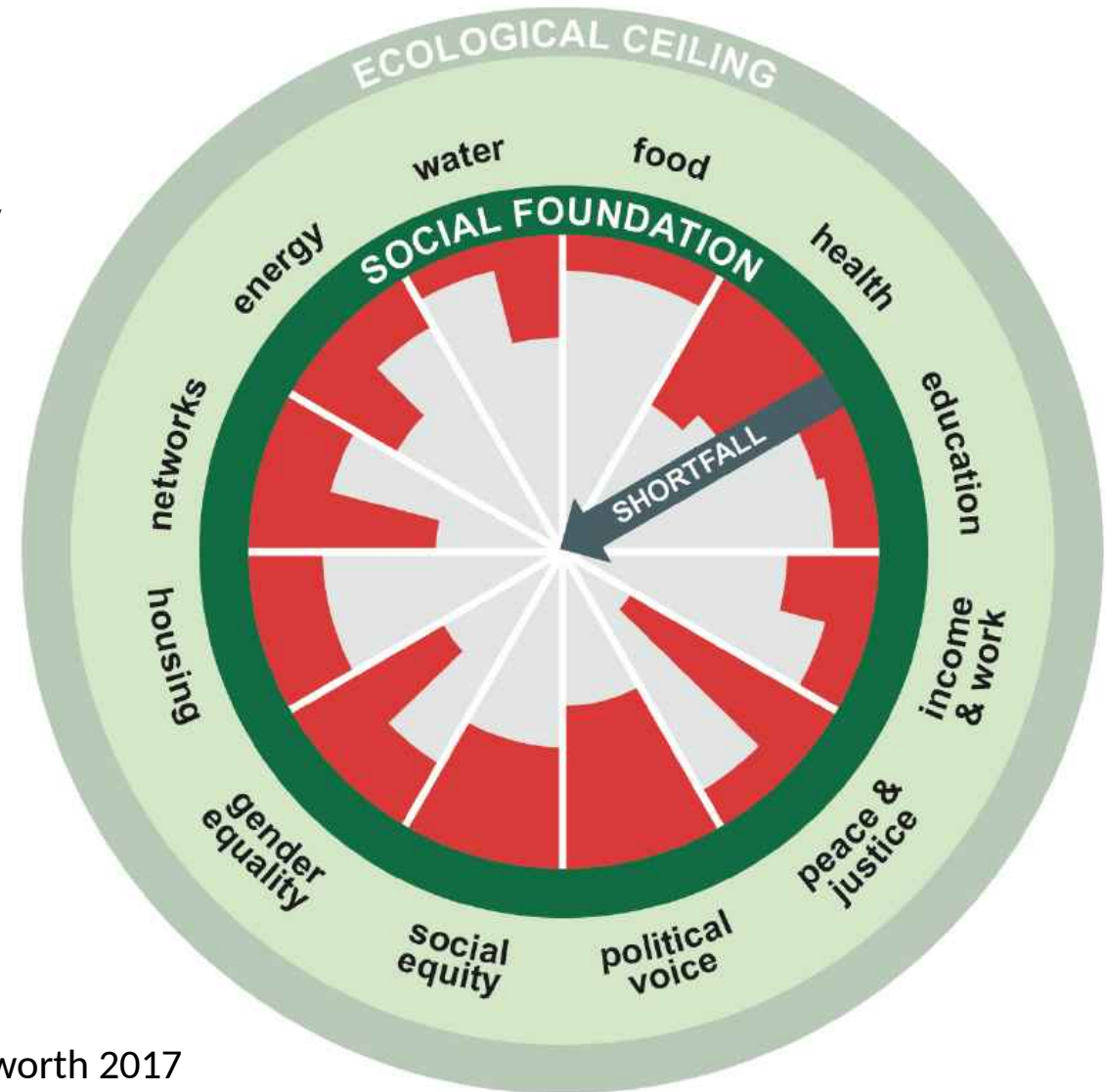


Figure A4: Overshoot of the planetary boundaries. The current extent of anthropogenic pressure on each of the critical Earth system processes is quantified, using either one or two variables for each of the nine dimensions of the ecological ceiling. The centre of the circle demarks the pre-industrial state of each Earth-system process (0% pressure) and the ecological ceiling demarks the point of transition (100%) between the safe zone within the boundary and the risk zone beyond the boundary.



The Doughnut Economy model:

- Globally
Millions of people lifted out of poverty
(but recent reversal underway)
- But both ecological and social limits are not being met
- Rising risks and inequalities:
 - between countries/territories
 - between classes
 - between generation



Source: Raworth 2017



A breve termine: crisi climatica aggravante dei rischi sociali esistenti (salute, povertà, disuguaglianza)

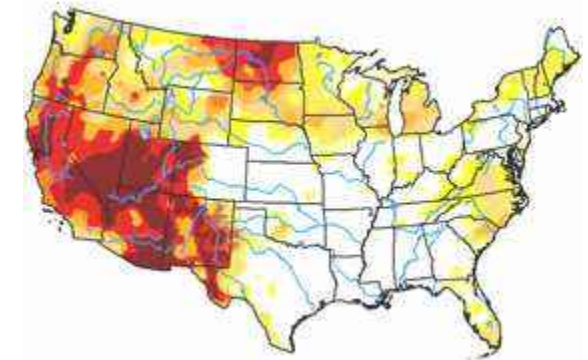
- Per comunità / territori vulnerabili
- Sfollamenti e migrazioni



A lungo termine: crisi climatica principale fattore di rischio sociale (con deboli politiche di anticipazione, mitigazione e conservazione):

A rischio:

- Ecosistemi, habitat, territori e infrastrutture
- Persone/comunità, organizzazione vita quotidiana, economie
- Sistemi di previdenza sociale (lavoro-assicurazione)



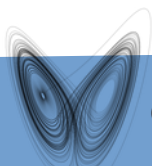
Implicazioni distributive complesse tra

- Individui e popolazioni, classi sociali, generazioni, luoghi
- Effetti combinati tra (In)sostenibilità e (Dis)eguaglianza

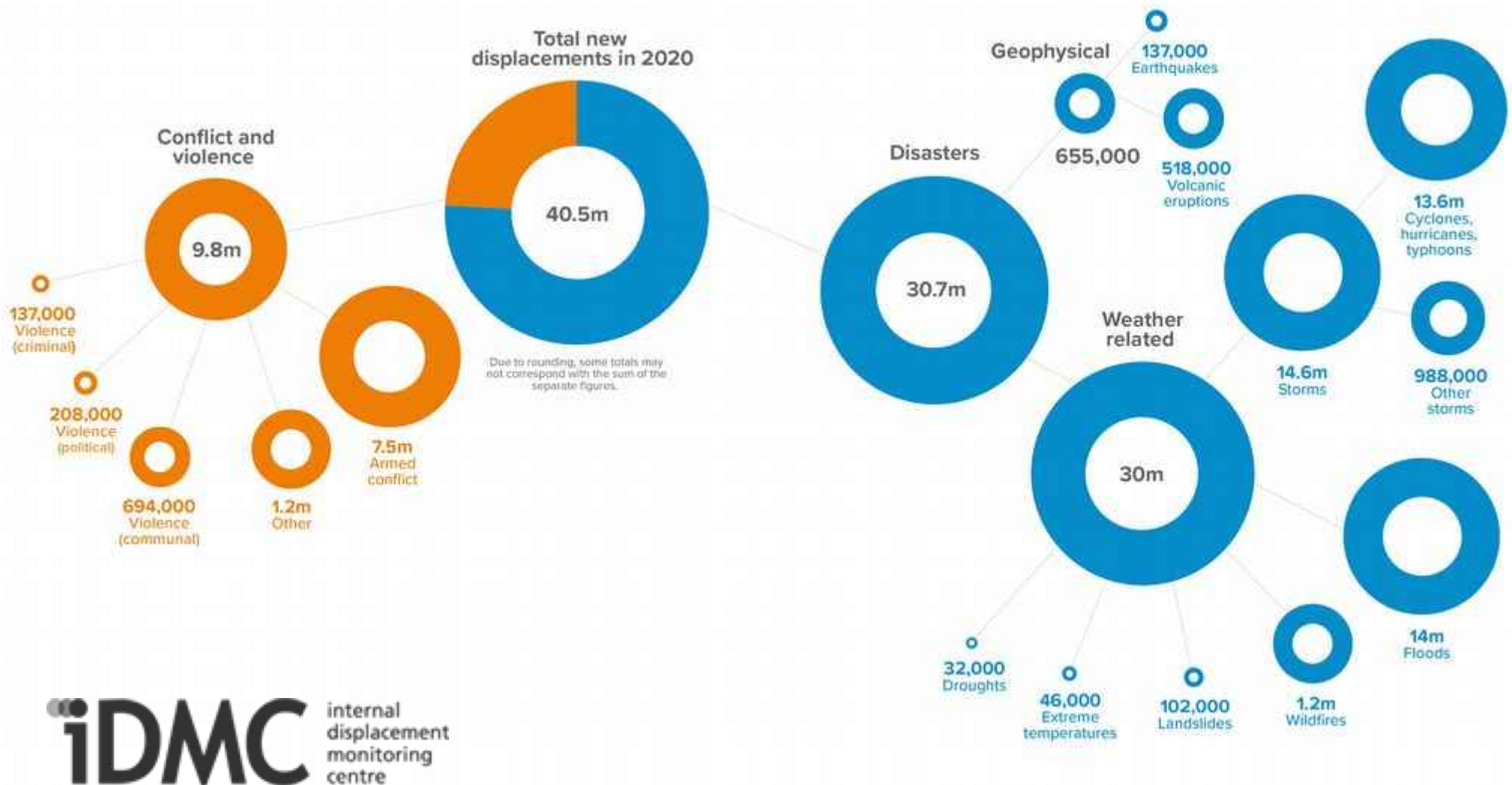




“more and more of the world will soon be too hot for humans” S. Lewis, 2021

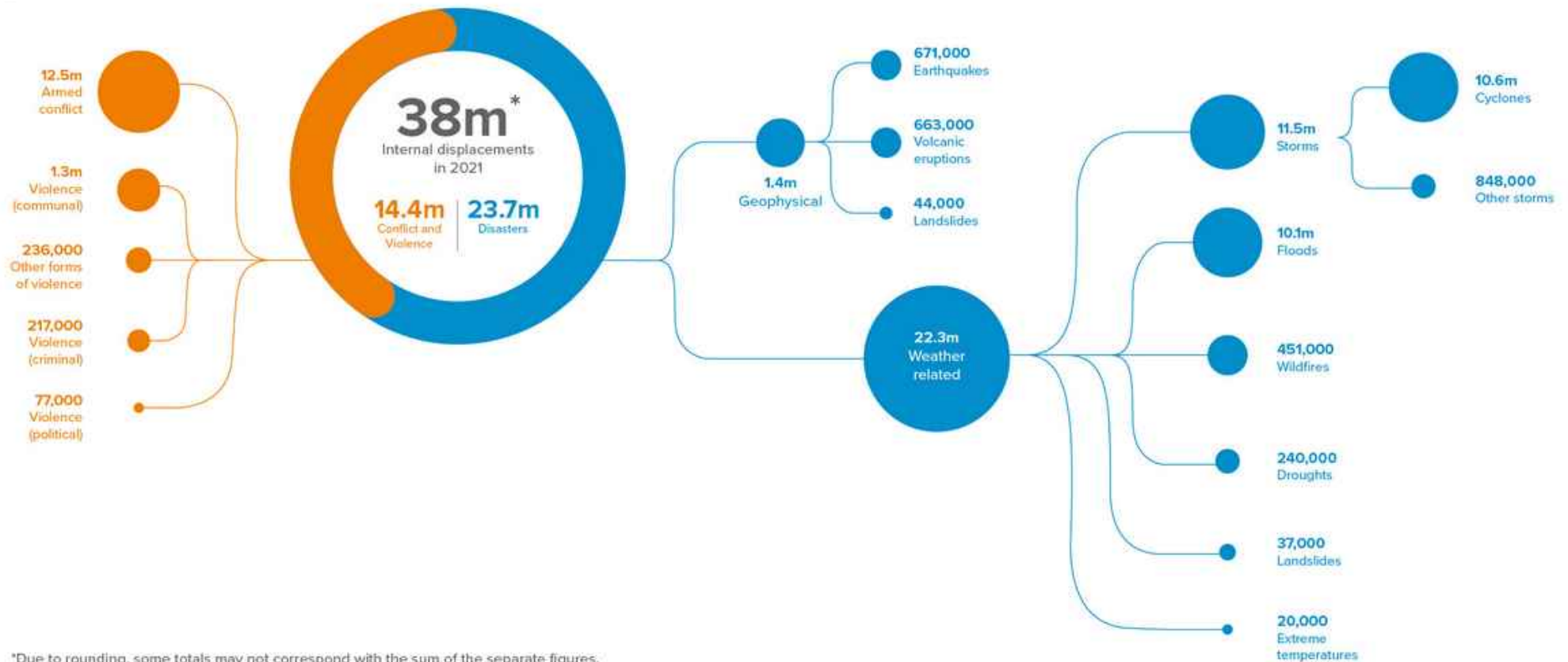


NEW internal displacement/dislocation in 2020: Distribution by conflicts, violence, and disasters



NEW internal displacement/dislocation in 2021: Distribution by conflicts, violence, and disasters

You can interact with this infographic to see in-depth data



*Due to rounding, some totals may not correspond with the sum of the separate figures.

Internal displacements breakdown by conflict, violence and disasters in 2021

Rischi sociali ...



A year later

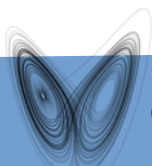
Puerto Rico: “People here have waited months for repairs with little relief. A year later, in house after house, it looks like the hurricane just hit.”

Houston: Poorest Neighborhoods Are Slowest to Recover (*NYT, Sept. 3 and 22, 2018*)

Adaptation policies: More equal? Probably not, for current conditions and capability for investment. Developed countries COP26 pledge still not accomplished



“Why should we pay for all?”



Some types of environmental social risk:

- Territories and infrastructure (including technology)
- Institutions and local economies
- Labor (employment and mismatch)
- Spending capacity and protection
- Energy (energy poverty)
- Housing (security, adverse conditions)
- Impoverishment multiple conditions (including opportunities, mobility, infrastructure, services)
- Food
- Health
- Migration



Different from "classic" social risks

Partly unpredictable:

- Not only individually but also collectively
- By spatial distribution
- By temporal sequences

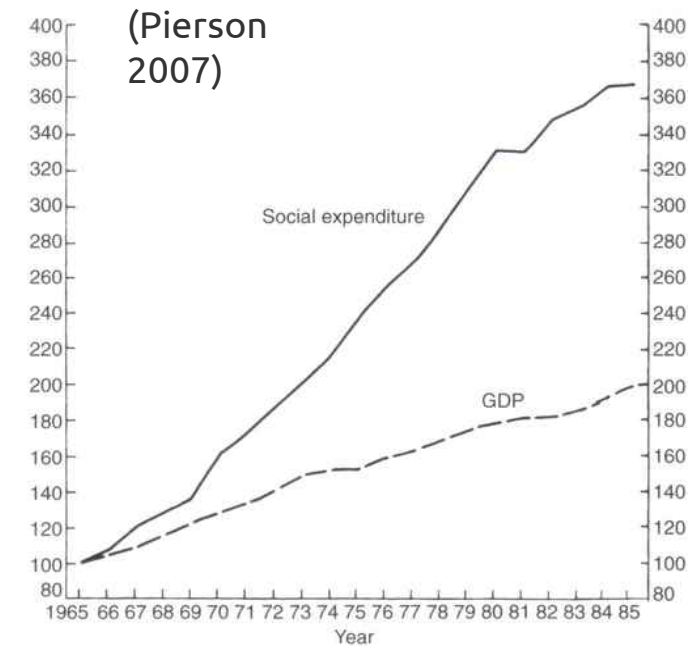
They do not necessarily reflect:

- Social categories
- Political-administrative boundaries
- Established interests
- Clusters, networks and constellations of actors

The legacy of the golden age welfare state

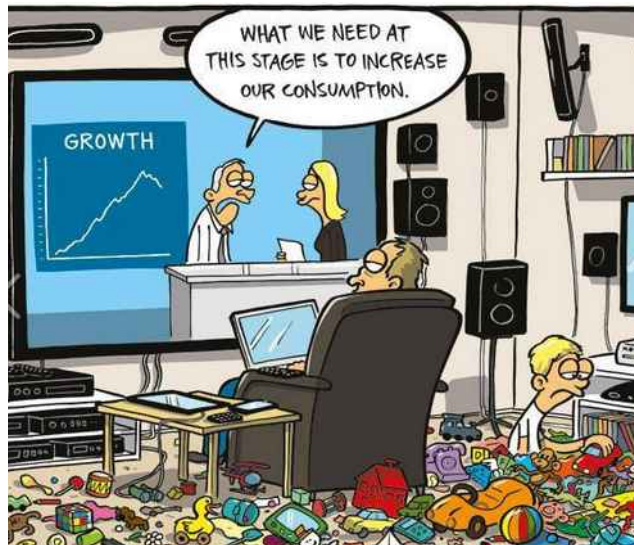
A model of **dependency on growth**:

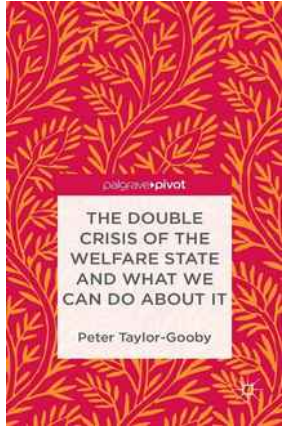
increasing productivity, employment and (re)distribution of benefits, mutually reinforcing each other in **alleged virtuous circles**.



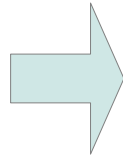
However:

- Possible declining effects on well-being and happiness
- No more greater equality and jobs
- Wrecking our ecology and wellbeing conditions





Double crisis of welfare state



Contradictions between (e.g. Taylor-Gooby 2004):

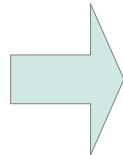
- increasing demands of social protection (new social risks)
- aggravating fiscal crisis due to states' responses to economic downturn in the wake of the austerity doctrine.

Worker =
money pump

“Why should we
pay for all?”



Triple crisis of welfare state



Contradictions between

- increasing demands or social protection
- fiscal crisis and limits to public spending
- new social risks and increasing demand of social protection due to climate change and climate policies



Occorre comprendere / affrontare il paradosso ecologico del welfare state:

- **Il cambiamento climatico** minaccia benessere e salute (globalmente *nel lungo periodo*, in diversi e sempre più numerosi contesti *nel breve periodo*)
- **Le politiche di mitigazione e adattamento necessarie** possono influenzare negativamente welfare e condizioni di benessere *nel breve periodo*
- **Ridurre la spesa sociale** per rendere il welfare più sostenibile può indebolire la sua capacità di sostenere le persone *nel processo di transizione*
- **Aumentare la spesa sociale** può aiutare le persone nel breve periodo e influenzare negativamente l'ambiente - e le persone - *nel lungo periodo*



→ **La distribuzione dei rischi e degli effetti potrebbe comunque rivelarsi molto disuguale**



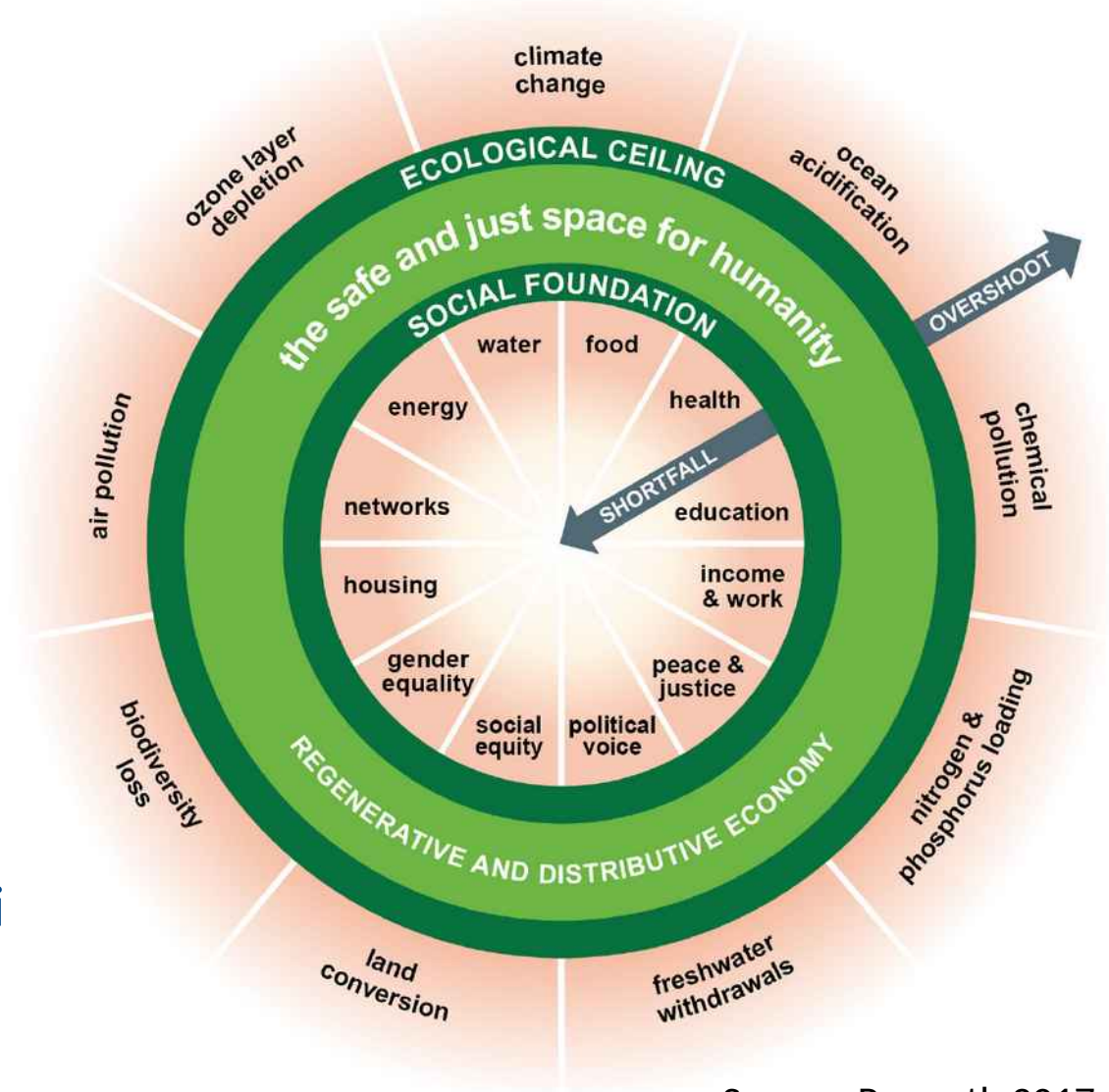
Doughnut Economy?

How to

- Combining ecological sustainability and social welfare
- At global level and across generations?

Parliamo di

- Crisi ecologica e nuovi rischi sociali
Verso un welfare sostenibile?



Source: Raworth 2017



Quale è la natura del problema che cerchiamo di affrontare?



“I più grandi problemi del mondo sono il risultato della differenza tra come la natura funziona ed il modo in cui le persone pensano”
(Gregory Bateson)



Quale è il problema?

Abbiamo idee obsolete?

Manca saggezza sistemica?



“i sistemi puniscono ogni specie che sia tanto stolta da non andare d'accordo con la propria ecologia”

“systems punish any species that is fool enough to quarrel with its own ecology”

Gregory Bateson



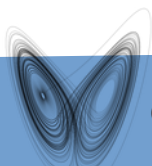
Current main strategy: mitigation/adaptation by green growth

Decoupling growth and environmental impact by technological innovations and mainstream economic recipes

- BUT:**
- > Decoupling is not enough (Keyßer and Lenzen 2021; Parrique et al. 2021)
 - > Growing risks of tipping points (Lenton et al. 2019)
 - > "The processes of ecology are not mocked" (G. Bateson):

The double bind of the ecological crisis:

Bateson's point of Lewis Carroll's fable of 'bread-and-butterflies': **they became extinct, not for any material reason** – because their heads were made of sugar, or because they could not find food - but because of the impossibility of contradictory adaptation, **a dilemma, and the world is made up that way, not of the linear single-purpose way [of materialist causality]**. (Bateson, 1978, 1991) (In Harries-Jones, 1995)



Trapped in a double bind? Trapped in a system of ideas turning out to be a bag of tricks?

Complexity and non-linearity: every change in one sphere create non-linear unpredictable effects and feedback loops in the overall system (Bateson 1972; Byrne 1998; Room 2011)

Combination of size, speed, uncertainty, contradiction and urgency (super-wicked problem)

Risks of deepening double bind conditions

- Any choice may have counteractive and counterintuitive effects up to make it look wrong anyway (Bateson 1972; Eriksen 2016).
- No strategy seems really effective in preventing us from falling into deep contradiction
- Simplification risks further boosting vicious circles



One example: circular economy >

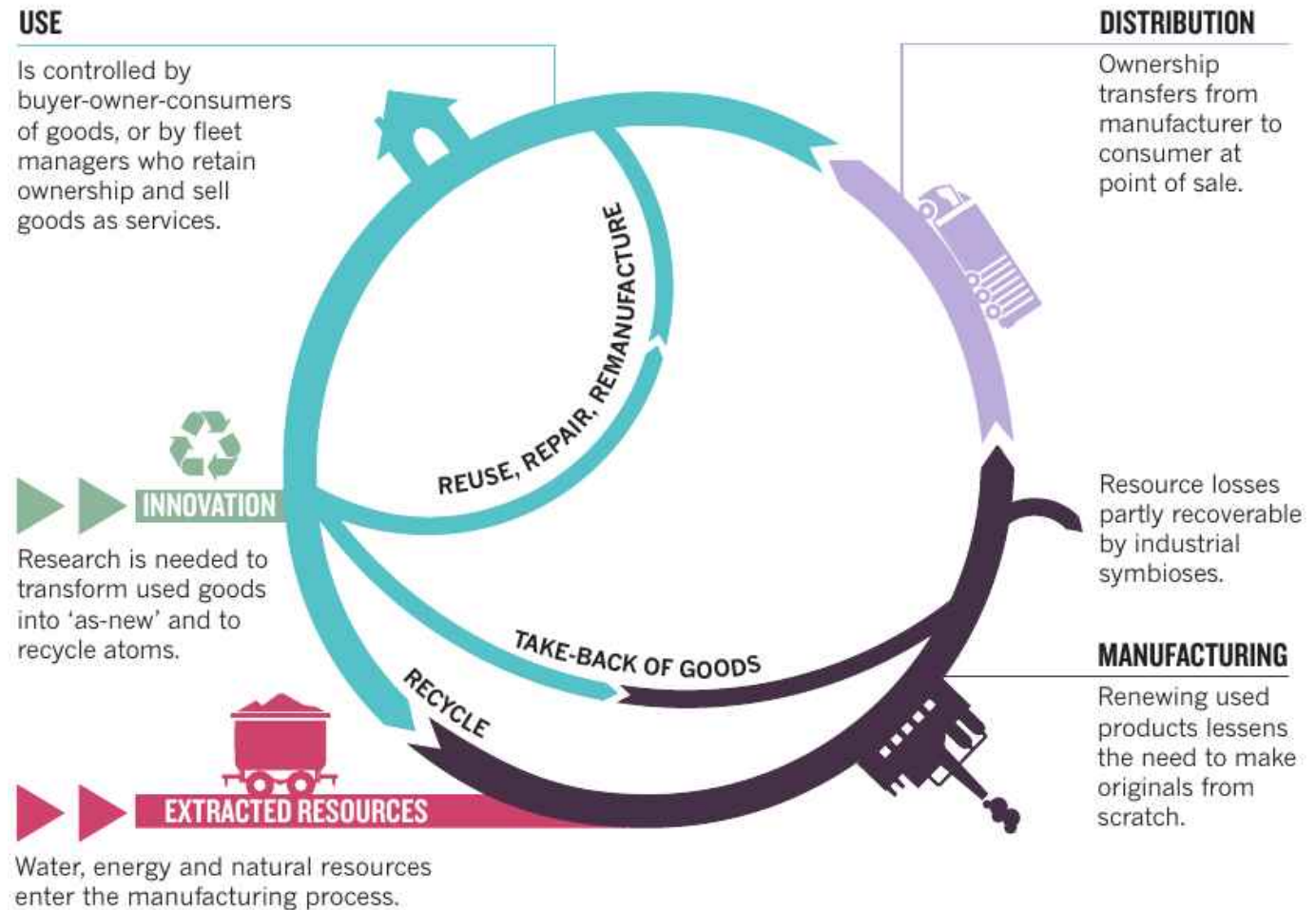


On the first day of school we learn that ... **in nature nothing is created, nothing is destroyed, everything is transformed**

A simple yet effective little sentence ... soon removed ... and replaced by the linear 'take–make–dispose' model of thinking, action, production, consumption, ... etc.



One example: Circular economy: is this the solution?

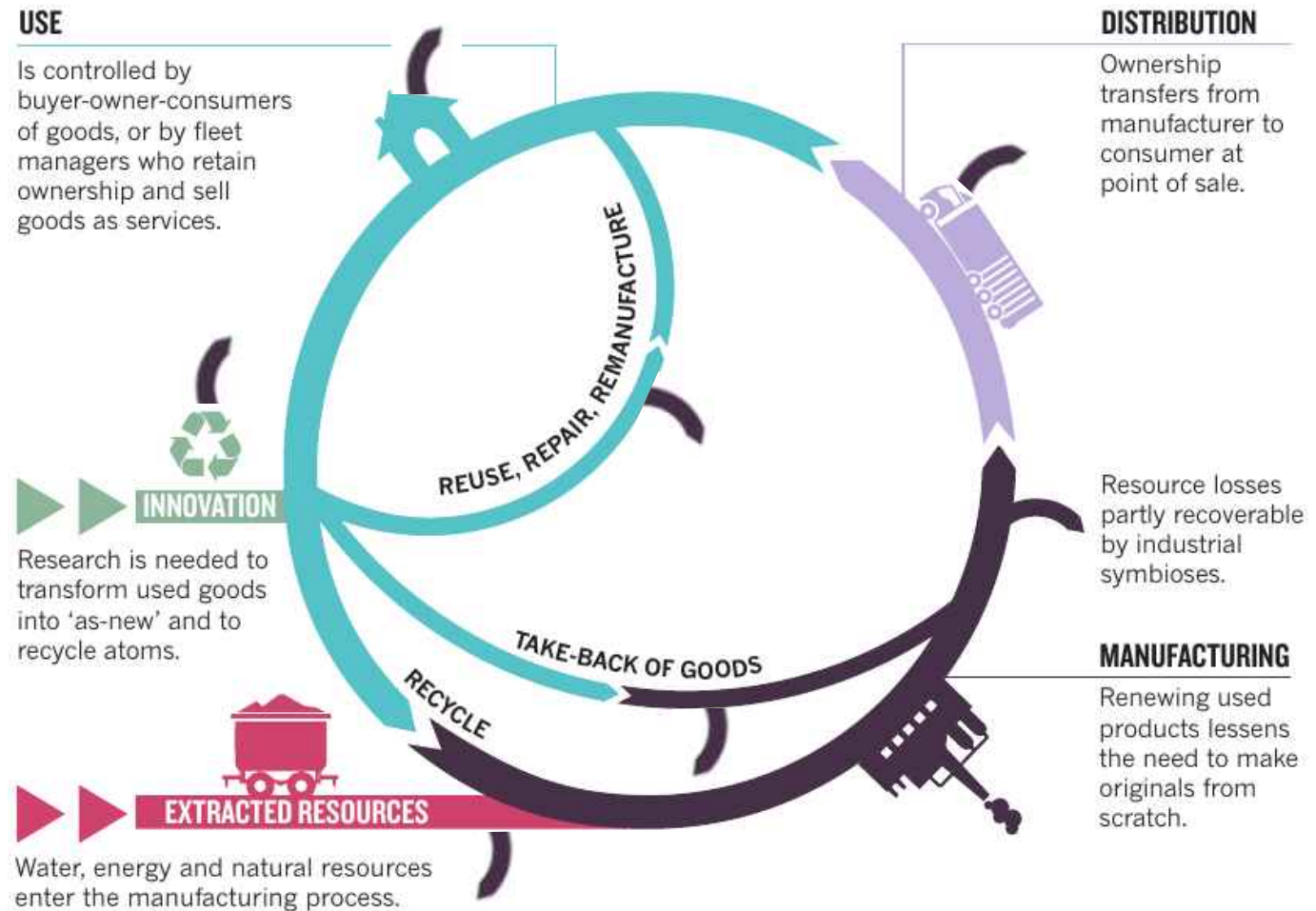


Source: Stahel 2016.



One example:
Circular economy:
is this the solution?

Firstly,
not simple,
incomplete
and biased →



Source: Stahel 2016.



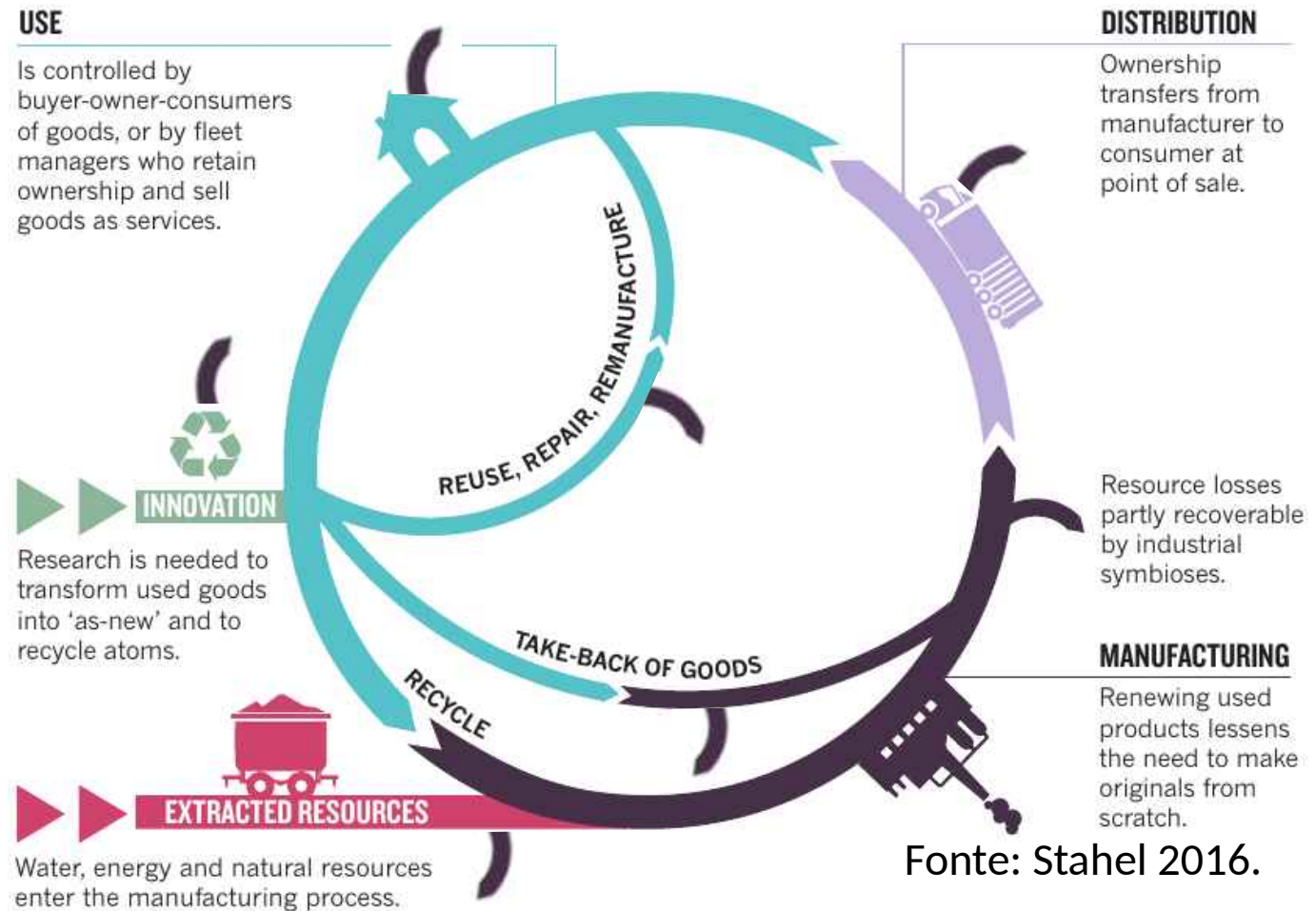
Esempio:

L'economia circolare è la soluzione?

Firstly,
not simple,
incomplete
and biased →

Secondly

more than a/the solution ... it is a systemic condition, and a way of thinking



Fonte: Stahel 2016.



Cosa succede quando non pensiamo in termini circolari ?



- Determinazione singola/semplice - lineare
- Esternalità
- Sostituibilità
- Efficienza (*the one best fit*, storie adattive)
- Massimizzazione (valori monotoni)



Dal film: *Life*

- Le nostre risposte ai problemi si traducono in un **bagaglio di trucchi** che rivelano un'apparente efficacia a breve termine, la nostra ignoranza riguardo a complessi circuiti causali, nonché le loro caratteristiche **anti-ecologiche** e molte possibili conseguenze “inattese” a lungo termine. (G. Bateson)

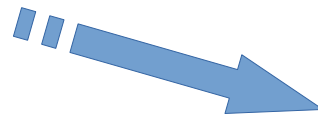
Obsolete ideas ...

- Monotone values: the more the better? (G. Bateson)
- Maximization or Adaptation (or Economics of Flexibility??)
- Evolution and unit of survival:
organism or organism + environment (= co-evolution)?
- Substantive economy
- Land, work, money: (fictitious) commodities
- Scarcity and sufficiency
- Criticism to fascism and its conception of man



Strategie contro il cambiamento climatico:

- Adattamento
- Conservazione
- Mitigazione
- Geoingegneria
- Innovazione tecnologica
- **Greenwashing ...**



Tutte hanno implicazioni sociali, ma come integrare:

- Politiche ambientali, sociali?
 - Innovazione tecnologia e trasformazioni organizzative e del lavoro?
 - Just Transition,
 - Sustainable welfare,
 - Circular economy,
 - Urban Regeneration,
 - Regenerative farming,
 - Energy Communities,
 - ...
- **Quale complessità/apprendimenti implicano?**



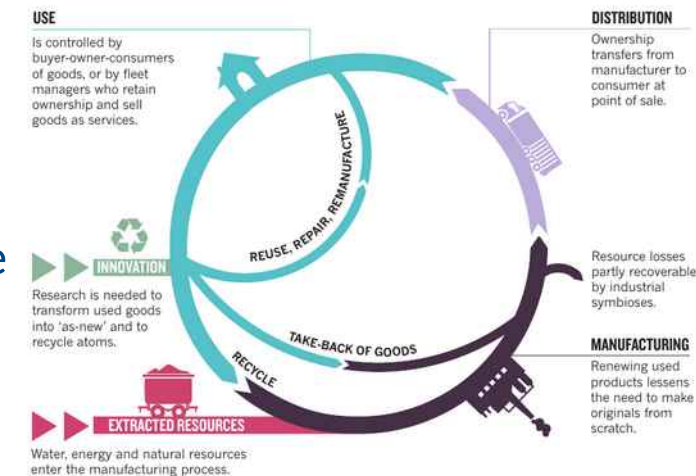
Puerto Rico 2017, Hurricane Maria. One year after

1. Circolare, cioè? E come?

1. Circular Economy (CE)

The principle (Korhonen *et al.* 2018): a kind of functional and **adaptive reciprocity** between economic and natural cycles:

- **CE should utilize nature's cycles** (and *technological innovation*) for preserving materials, energy and nutrients for economic use
- **The material flows** released from economy to nature should be in a form in which nature can utilize them in its own functions.
- **CE should not be a process peculiar to some productive sectors** but should take the form of a kind of inter-organizational and network environmental and sustainability management, involving a cultural change in the way corporations act, are organized and interact with the organizational environment, as well as in the way consumption occurs, in an attempt “to reduce the nature-society-nature linear throughput flow of materials and energy”.

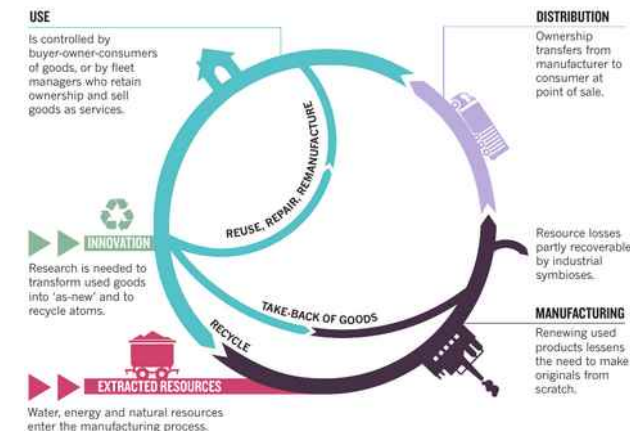


How circular may be the circular economy?



6 main limits to the application of CE principles in production-consumption processes:

- 1. Principles of thermodynamics (second law):** complete recycling, reuse, remanufacturing and refurbishment is impossible due to unsustainable levels of resource depletion, energy in particular
- 2. Spatial and temporal dimensions** of any recycling, reuse, remanufacturing and refurbishment processes, considering the global-complex production, trade, waste chains powered by fossil fuels.
- 3. Limits posed by physical economic growth.** Eg.: Rebound Effect (greater productive efficiency easily leads to increase in productivity > physical growth of economy); E.g. better environmental laws risk displacing impactful production in poorer countries. A problem: economy measured in abstract exchange value does not account for its physical size (difficult decoupling)
- 4. Path dependency and technological lock-in:** in many cases to survive are not necessarily the fittest but the first (Granovetter 2017).
- 5. Relationships between intra- and inter-organizational dimensions,** involve skills, competencies and cultures of workers, managers and technicians (HR), and networks.
- 6. Categories** (recycling, reuse, remanufacturing, refurbishment, waste, side-product) not necessarily found/used in administrative systems globally and differently interpreted based on cultures, societies, communities, histories, types of economies (e.g. waste, Eriksen 2016).



How circular may be the circular economy?



S. Pollard, A. Turney, F. Charnley, K. Webster, The circular economy – a reappraisal of the 'stuff' we love, Geography, Vol 101, Part 1, Spring 2016, <https://doi.org/10.1080/00167487.2016.12093979>

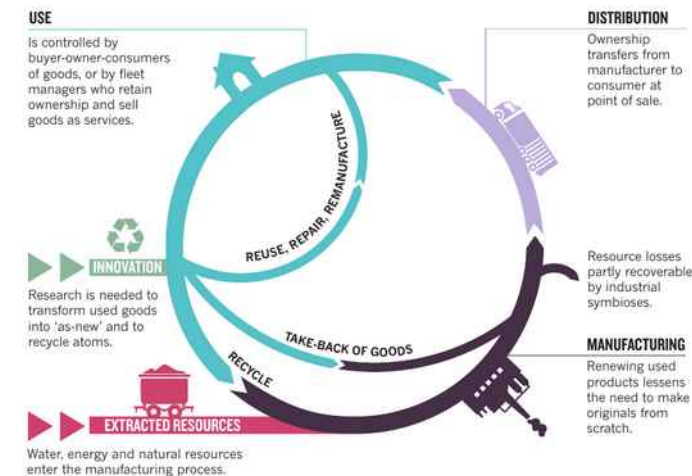
Topic: does the 4th industrial revolution may help the transition towards a strongly reduced carbon- and material foot-print?

The essay sounds a **cautious note** about the many challenges ahead of making economy circular

“**What is missing**”: ability to include CE processes in the geographies and operating principles of the system-earth and social systems: concepts of feedback, synergy, complexity and system metabolism

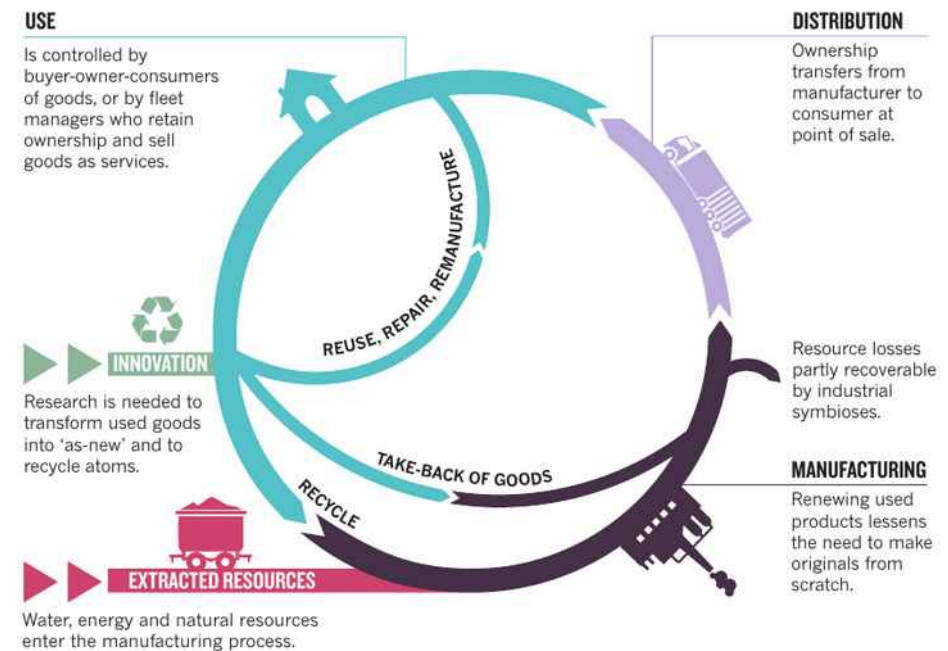
These are indispensable for analyzing “the interconnectedness of what is being termed the energy-water-food nexus”, the manufacturing systems, beyond mechanistic reductive models.

Following this systemic approach, fragility of these global-local chains can be better understood and differently organized on the basis of the combined principles of **scarcity, security and efficiency**, instead of pursuing the latter as the only guiding criterion



Quindi?

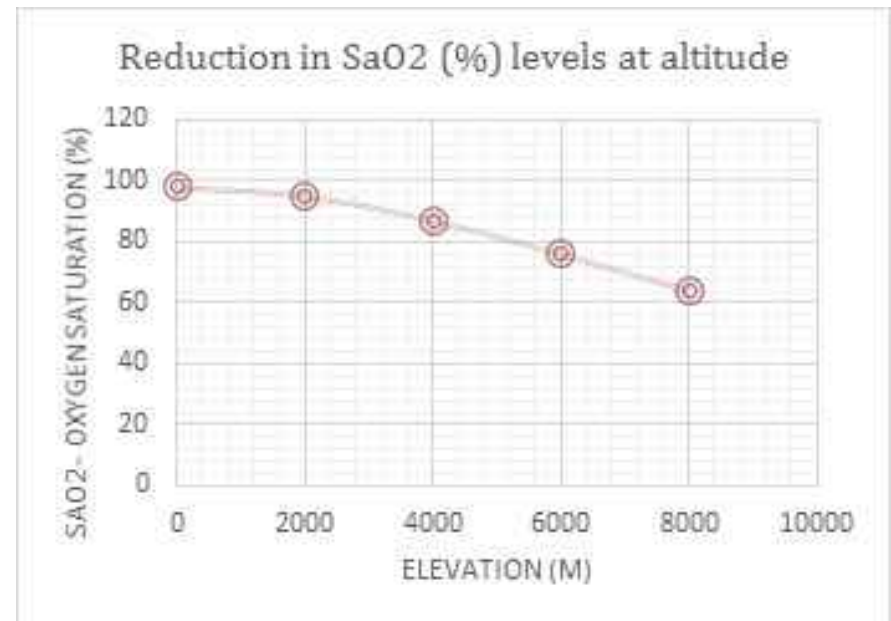
quale transizione verso un'economia circolare
crescita o post-crescita e il decoupling
pil: lavoro o produttività?



Fonte: Stahel 2016.

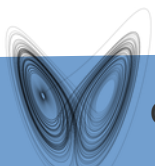


Un'economia della flessibilità e della variabilità?



Ipotesi guida: l'economia della flessibilità

- “Potenziale non impegnato di cambiamento” (Ashby 1957)
- Quando le variabili interconnesse di un sistema non siano costrette – per effetto di una qualche tensione - ad assumere un valore prossimo al limite superiore o inferiore di tolleranza (Bateson, 1972)
- ➔ Includendo pleroma e creatura e sia le dimensioni bioenergetiche che informazionali, questo concetto può anche meglio delle leggi della termodinamica aiutare a comprendere i processi co-evolutivi e di adattamento nei rapporti società/ambiente



2. Just transition

Mappare la giusta transizione

Quattro approcci ideal-tipici (JTRC, 2018)

Un *continuum* che va da approcci che mantengono l'economia politica esistente a quelli che immaginano futuri molto diversi (Fraser, 2005; Hopwood et al., 2005, Stevis e Felli, 2015)

- Status quo
- Riforma manageriale
- Riforma strutturale
- Trasformativo

Più o meno lavoro?

Quale lavoro?

Per chi?



Quale lavoro?

- Indicatori, interessi e scopi ambientali e sociali oltre che economici / diversamente economici ...
- Quali scelte politiche
- Quale partecipazione



3. Verso un welfare sostenibile: dibattito e ipotesi

1. Più welfare: Social investment WS per integrare politiche climatiche e sociali
2. Meno welfare: es. retrenchment e/o post-growth
3. Diverso welfare: es. approcci contestuali e bottom-up



1. Più welfare: Social investment WS per integrare politiche climatiche e sociali

Verso un eco-social state? Es. risultati (apparentemente) positivi dei paesi nordici

- Politiche per il corso della vita: Child care, Pari opportunità; Istruzione; Attivazione
 - Nel breve periodo: aumento di costi per investimenti
 - Nel lungo periodo: riduzione costi per effetti su qualità vita, salute e meno costi assistenza
 - Preparazione ai cambiamenti del sistema economico-produttivo (anche legati a ambiente)
 - Maggiore sensibilità ambientale per istruzione

Possibili effetti eco-sociali:

- Verso un eco-social state? (es. risultati positivi paesi nordici)
- Produttivismo, flexicurity, sviluppo capitale umano (BAU?)
- Scarsi risultati ecologici? Più growth-dependence? (es. risultati contraddittori paesi nordici)
- Messa in discussione teoria della sinergia



2. Meno (costi di) welfare: es. retrenchment e/o post-growth

Basato su modelli di decrescita (degrowth) → Stato stazionario (steady state)

Differenze tra retrenchment neo-liberale e degrowth by design

- Politiche che implicano meno costi e uscita dalla dipendenza dalla crescita (disaccoppiare)
 - Bisogni essenziali invece che wants/desideri → sufficientarism
 - Bisogni disegnati collettivamente e non individualmente
 - Redistribuzione lavoro e riduzione orario di lavoro
 - Servizi e Forme di reddito universali di base
 - Sistemi pensionistici universalistici ed equi

Possibili effetti eco-sociali:

- Decarbonizzazione del welfare (diretta e indiretta)
- Maggiore equità e redistribuzione vs. rischi disequaglianze come effetti dei tagli?
- Stati sociali più efficaci /più deboli nell'affrontare la crisi?
- Necessità e possibilità della decrescita vs. Complessità, rischi possibili disequilibri (effetti di feedback loop)? Es. occupazione → disequaglianze → - consenso → politiche ambientali più deboli



3. Diverso welfare: es. approcci contestuali e bottom-up, processi organizzativi

- **Quale paradigma: green-growth, post-growth, de-growth?**
- **Conciliare differenze locali e rischi diseguaglianze**
- **Coinvolgimento di aspetti culturali, abitudini, modelli istituzionali e comportamentali**
- Politiche bottom-up, mirate ai contesti e basati su partecipazione e attivazione locale
 - Sviluppo comunità locali, aree interne, legami di reciprocità, comunità energetiche
 - Modelli produttivi sostenibili (industria e agricoltura locale)
 - Forme lavoro non di mercato o miste
 - Integrazione tra politiche sociali top-down e bottom-up
 - Processi organizzativi mirati a ridurre consumi, burocrazia sprechi, ottimizzare risorse

Possibili effetti eco-sociali:

- Azioni mirate in base a contesti/ambienti, ruolo proattivo attori, collaborazione e integrazione
- Complessità metodologiche delle transizioni di sistemi complessi / gestione trade-off e conflitti
- Risultati incerti e rischi diseguaglianza territoriale
- Valenza globale dubbia
- Costi per investimenti con possibili effetti entropici

Welfare sostenibile: “verso la soddisfazione dei bisogni umani entro limiti ecologici, dal punto di vista intergenerazionale e globale”

Politiche eco-sociali: “strategie e strumenti per affrontare i rischi sociali riconoscendo l’integrazione ecologica delle società e le implicazioni che ne derivano per l’uso delle risorse naturali”

Eco-social work: come un modello ecologicamente e socialmente sostenibile di intervento e pratica socio-politica locale che muove da una prospettiva olistica e riflessiva sui metodi del lavoro sociale

Alcuni interrogativi:

- Modelli basati su crescita verde o post-crescita? Desideri o bisogni universali di base?
- Welfare nazionale e/o/vs. sub- e sovranazionale?
- Generazioni attuali e/o/vs. Generazioni future?
- Come affrontare il paradosso ecologico del welfare?

In breve:

- Quali modelli di sviluppo?
- Quali misure, processi di implementazione e governance?
- Come andare verso di essi?



Esempi di politiche eco-sociali (Mandelli 2022)

Sanità > servizio sanitario di base universale

Pensioni > investimenti verdi attraverso i fondi pensione

Occupazione > riduzione dell'orario lavorativo

Formazione/educazione > sviluppo di competenze (& riqualificazione) verdi

Housing > investimenti in efficienza energetica per l'edilizia sociale

Povertà > sconti in bolletta per famiglie vulnerabili

Consumo di cibo > voucher verdi per cibo sano e sostenibile

Produzione energetica > comunità energetiche rinnovabili

Mobilità > trasporto pubblico gratuito

Disastri ecologici > reddito di transizione

Carbon tax > compensazioni redistributive

Ristrutturazione industriale > politiche attive e passive per lavoratori in esubero



4. Un'organizzazione ecologica?

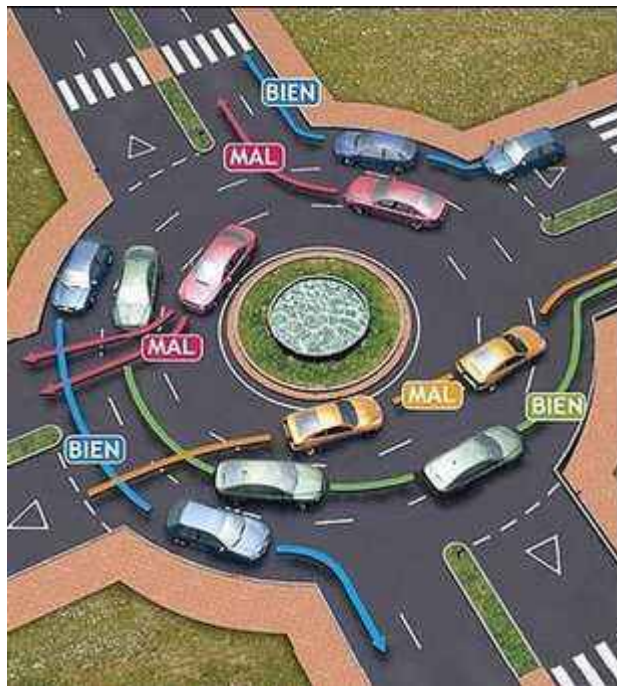
The problem: how change and innovation can create a fuller voice for ecological interests



Una metafora della flessibilità



UNIVERSITÀ DI PISA



Un esempio



UNIVERSITÀ DI PISA



Una storia particolare...

L'automobile a
combustione,
elettrica o... ?



Piccolo esercizio:

Provare a rispondere alle seguenti domande

Perché dopo più di un secolo di storia solo ora emerge in modo importante la

Una storia particolare...

L'automobile a combustione, elettrica o... ?

Da quando è stata inventa l'automobile, nel XIX secolo, si sperimentano alimentazioni alternative, tra cui vapore e gas. E l'elettricità ovviamente. All'inizio del XX secolo, i veicoli elettrici erano diffusi quasi quanto quelli che consideriamo tradizionali.

Numeri molto piccoli, ma in città come New York c'erano stazioni di ricarica ogni dieci isolati e molte auto, camion e taxi utilizzavano motori elettrici e non a combustione interna. Erano più costosi, ma preferiti perché molto più silenziosi, più semplici da mantenere e, soprattutto, non serviva l'avviamento a manovella.

Detroit Electric. Nel 1907 mise in produzione il primo veicolo a batterie e per le tre decadi successive ne avrebbe prodotti circa 13.000.

Fonti:

T. Standage, *The Guardian*

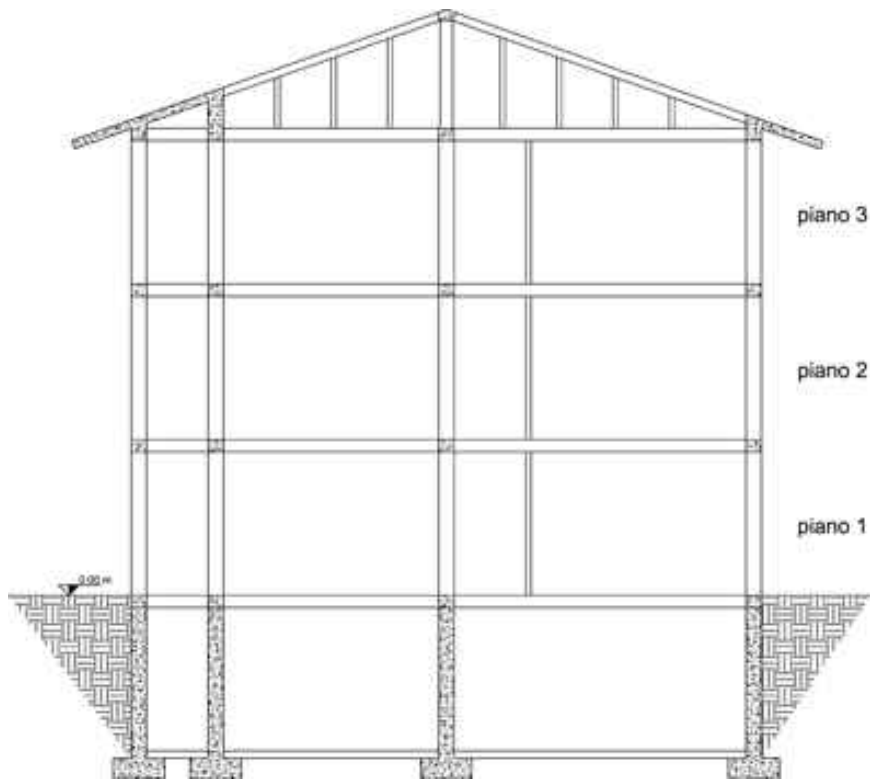
A. Spitti, *targetmotori.com*

Download: <https://cloud.owncube.com/s/QasxFex4cwWQbm8>

L'auto ultracentenaria di Detroit Electric antenata della Tesla

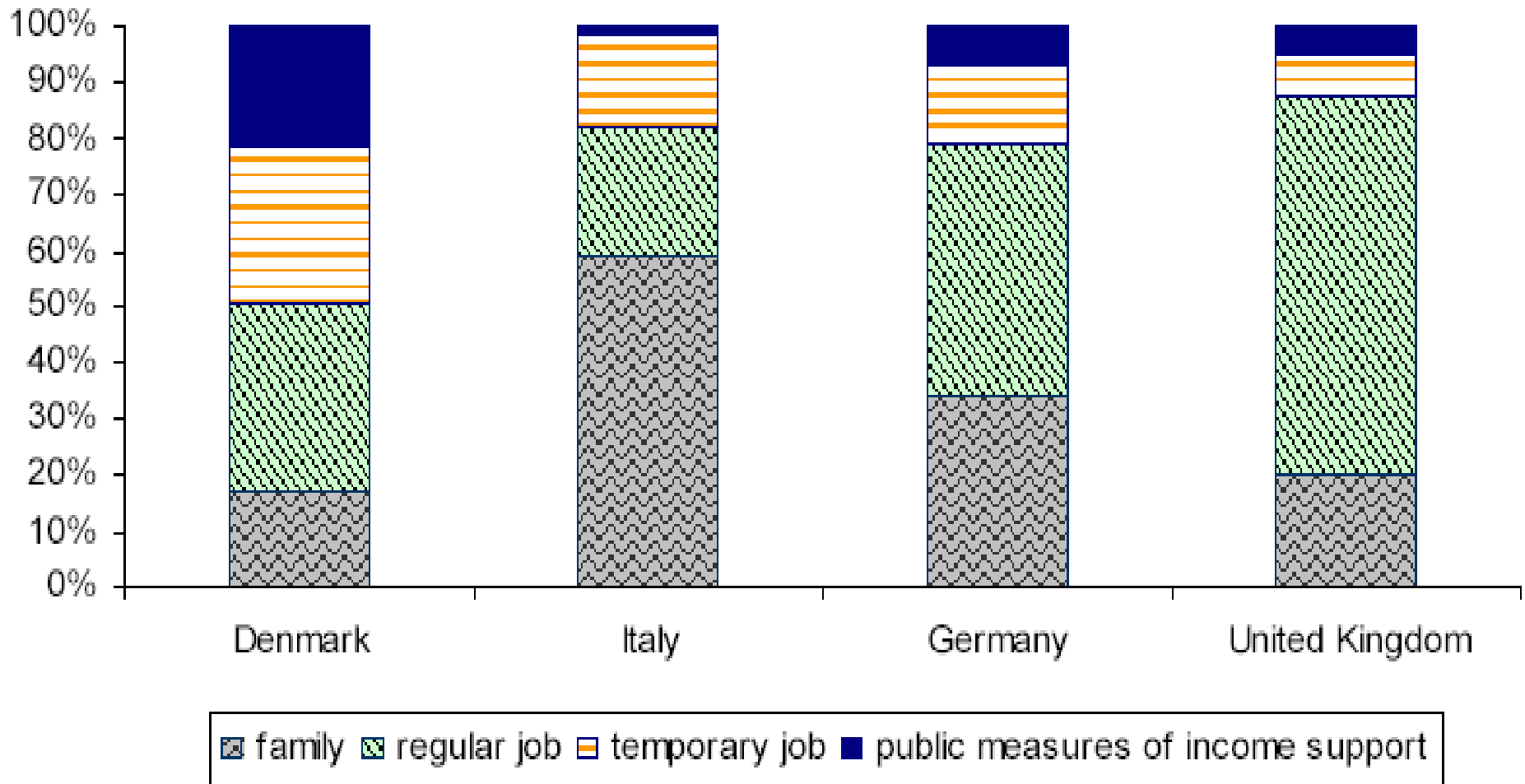
Quasi cent'anni prima di Elon Musk, la Detroit Electric era l'azienda leader nell'allora florido settore dei veicoli elettrici





Lische, M. Bertolio

Fonti di reddito giovani fino a 24 anni



Source: Kazepov, Barberis, Carbone, Pohl, Walther 2005

Sistema di welfare e capacità di conciliare

- Riproduzione
- Cura
- Lavoro
- Reddito



Italia:

- Tasso di fertilità
- Servizi di cura dei figli 0-3 anni
- Servizi di cura degli anziani non autosufficienti
- Tasso di occupazione femminile



Ecoesione: coesione sociale nella transizione ecologica



HOME

SIMULATORE

PUBBLICAZIONI

MATERIALI UTILI

EVENTI

PERSONE

CONTATTI

ENG



Difficile cambiare presupposti, ideologia, sistemi di premesse
(paradigms, basic assumptions underlying industrial society)

Esempi: Kyoto, Grecia, Lavoro e Reddito di Base (Cfr. processi di apprendimento 3 in Bateson)

Three necessary paradigm shifts:

- **Scientific.** Some perspectives: System theory, Gaia theory, Thermodynamics
- **Economics, moving from the simplifying assumptions:** (1) the economy can grow forever; (2) natural resources and energy for economic activity will always be there; (3) the individual self-interest is the best mechanism for the fair allocation of resources.

Towards: Steady State Economy, Communitarianism

- **Management** (which factors / realities are included? Have a role? Take part in?):
Earth as ultimate stakeholder
Organizational cognition, Enterprise strategy, Learning organizations

- The problem:** how change and innovation can create a fuller voice for ecological interests in organizations and public policy → change mechanisms, institutional versus organizational level
- First, newer systems-based and inclusive approaches** to organizational development practice and theory may overcome shortcomings of earlier approaches to planned change.
- Second, co-evolutionary approaches** that use complex adaptive systems thinking will more effectively structure such third-generation interventions
- Third,** it examines a **dialectical model of institutional change** which incorporates **activist** input and channels **conflict** into innovative outcomes.
- Finally,** it presents a case **example** of how a dialectical model combined with a co-evolutionary perspective could foster the institutional change required to facilitate the integration of ecological priorities into the human systems of organizations
- (The case: The case of decision-making concerning the largest store in the world of the so-called intractable waste, hexachlorobenzene (HCB), stockpiled in the grounds)*
- *Non solo cambiare i paradigmi má anche come promuovere/accompagnare tale cambiamento sul campo*

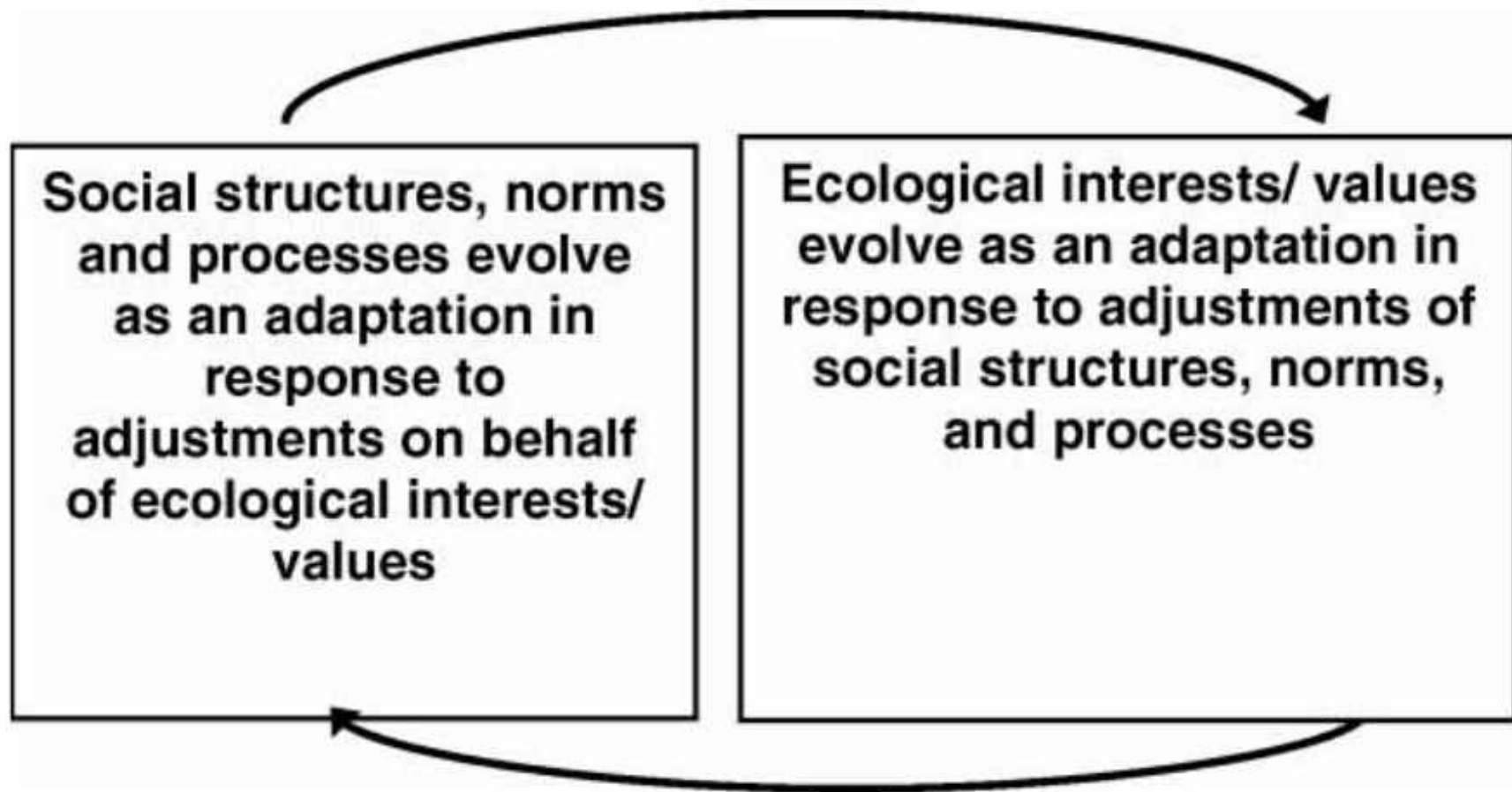


Figure 1. Co-evolution of social and ecological interests.

- 1) Provare a formulare esempi: possibilità e difficoltà
- 2) Vedere se manca qualcosa

Apprendimento:

- Quale ruolo
- Che tipo/livello
- Quali fattori
- Come si apprende / Cosa lo favorisce

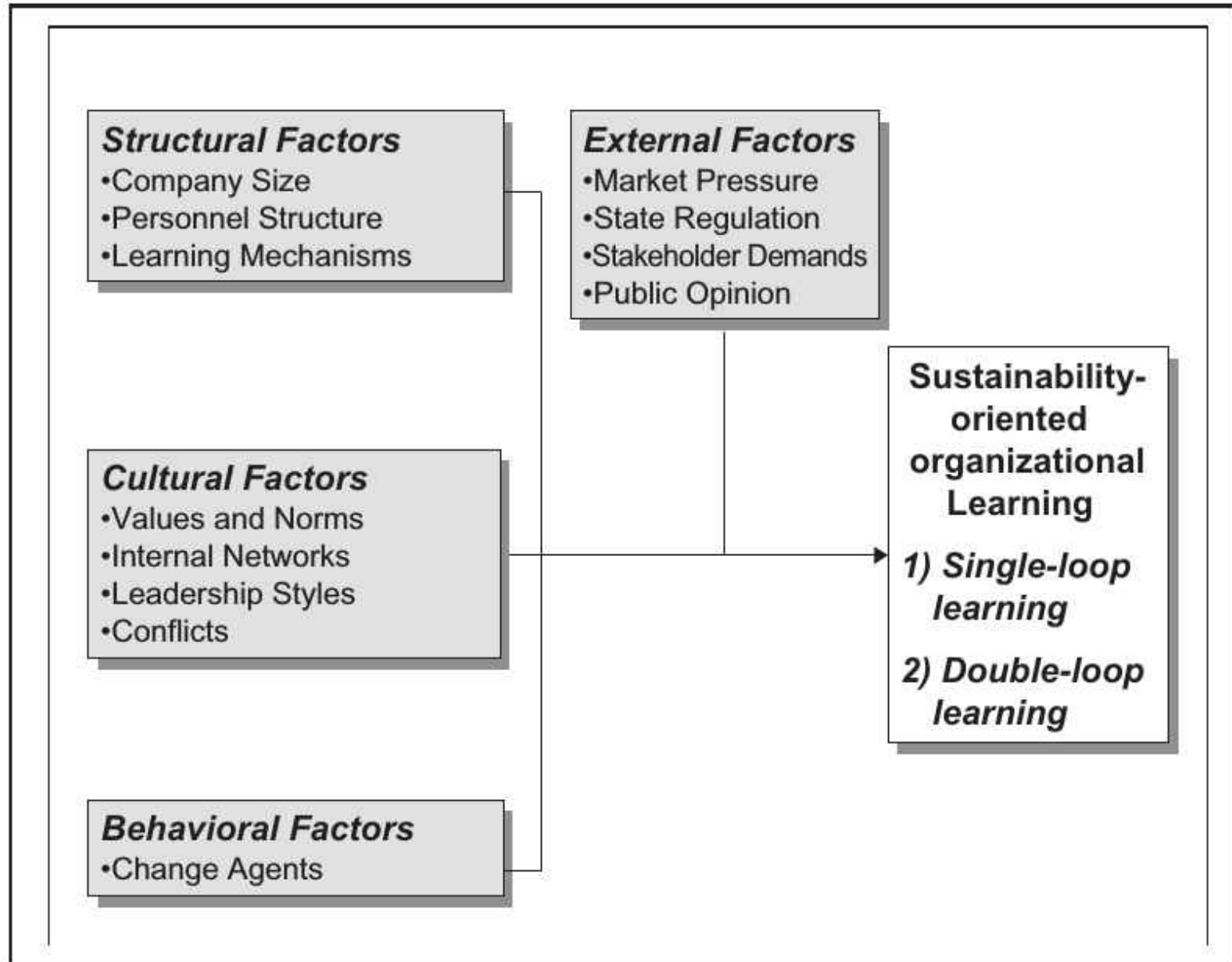
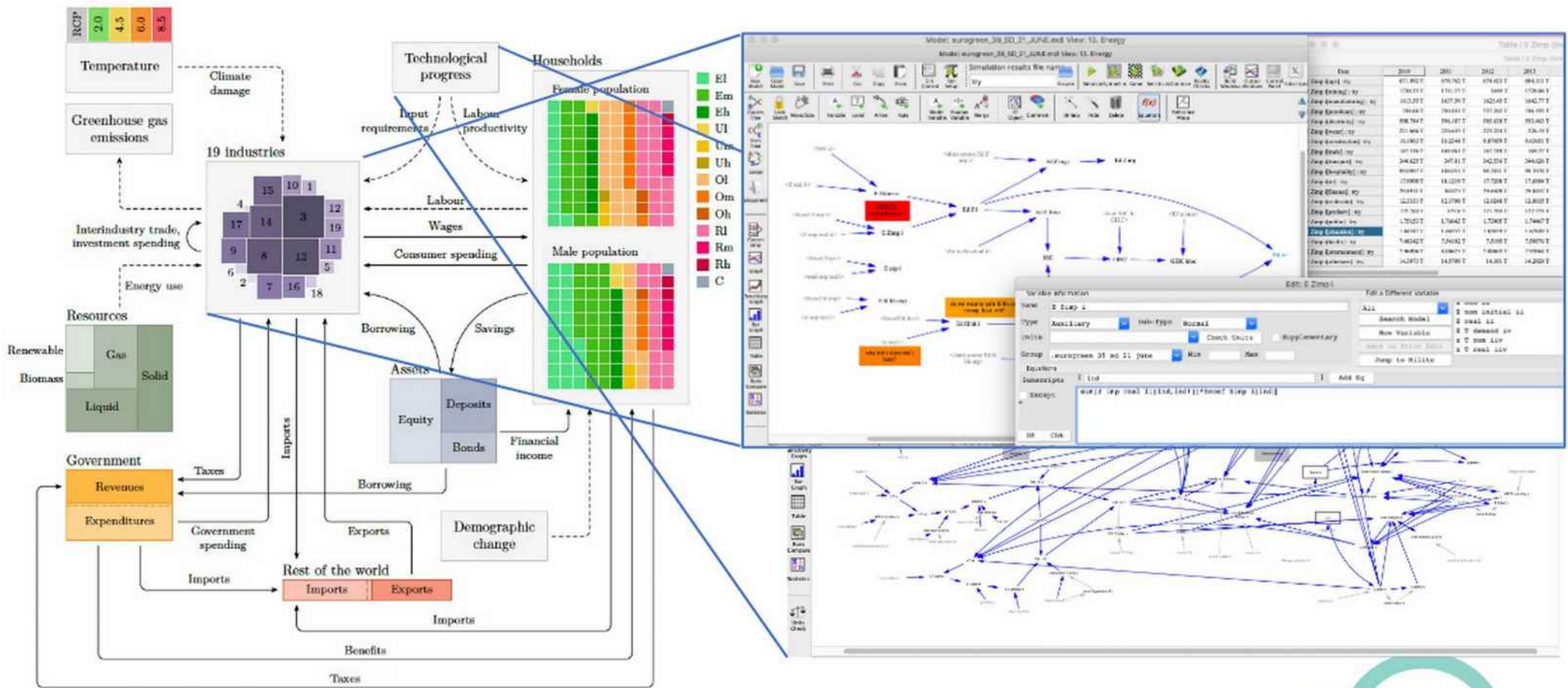


Figure 1. Analytical framework for sustainable learning processes

1. The project / I: Macro-simulation model ecoesione (ecological economics)



The Tuscan regional and local context of transition

- **Institutional framework:** policies, strategies, regulations
- **Meso level:** combined top-down / bottom-up relational, organizational, institutional processes
- **Local dimension as a gateway** to complex multi-level / trans-contextual patterns of transition

Main areas of investigations

- Contextual characteristics and stakes
- Emerging social/environmental risks
- Actors' constellations, trade-off, conflicts
- Policies, practices and modes to cope with them
- Possible role of welfare policies, services and redistributive mechanisms



3. Identified and Selected Cases



Topic	Identified and selected case studies
<i>Production and employment transition processes</i>	Vitesco (formerly Continental) Pisa Transition from combustion to electric engine technologies
	Steel Mill, Piombino Steel mill closure, site disposal and possible future renewal
	ENEL Power Plant, Piombino Oil-fired power plant closure, site disposal and future redevelopment (Progr. Futur-e)
<i>Energy transition and territorial conflicts</i>	Geothermal cultivation, Mount Amiata
	Wind Power Plant, Mount Giogo
<i>Circular Economy</i>	Tanning district (leather, leather), Pisa Province
	Paper district, Lucca Province
	Textile District, Prato
<i>Land use conflicts</i>	Marble mining, Carrara quarries
	Airport expansion, Florence
	Floriculture, Province of Pistoia
<i>Alternative development models and practices</i>	Sustainable agriculture practices and networks (e.g. Genuino Clandestino)
	Districts/practices of solidarity-based or civic economies (e.g. Lucca)
	Inland areas revitalization projects

Selected case studies: short description

(a) **Vitesco (formerly Continental), Pisa:**

Conflicts in labor relations over the employment risks of the transition from combustion to electric motor
(Just transition)



(b) **Tanning district (leather, soft leather), Pisa Province:**

Disputes over production processes and industrial waste/scrap with high impact due to chemical pollution and intensive livestock exploitation
(Circular economy)



(c) **Geothermal cultivation, Mount Amiata:**

Contrasting evaluations on the sustainability/renewability of an energy source
(Energy transition and territorial conflicts)



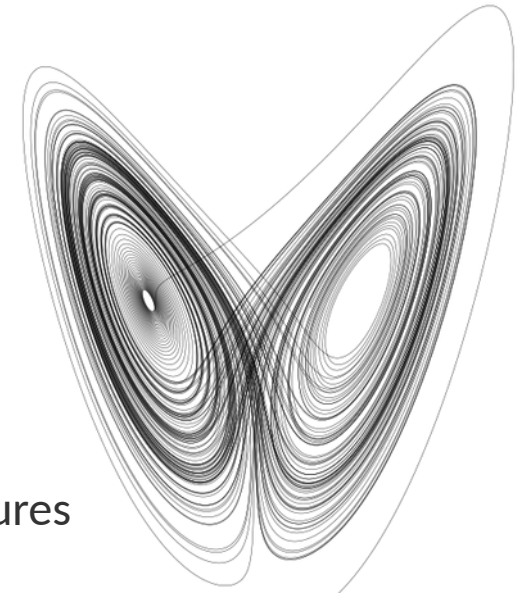
- **Innovation:**

- **Institutional:** trasformativa on paper; mainly top-down, sector-specific; embedded in “outdated” self-reproducing bureaucratic structures/cultures
- **Technological:** intertwined with social-economic dynamics with diverse and contradictory social and environmental effects

- **Time and space**

- **Different speeds and difficult synchronization**
- **Variable geographies and scale levels**

Between ecological, technological, political and social dynamics



- **Actors constellations and socio-environmental conflicts:** context-specific combinations of
 - shifting networks and institutional arrangements
 - knowledge/views and patterns of behavior
 - interests/needs, trade-offs, risks/benefits
- **Solving trade-offs and conflicts:**
 - **Assessing sustainability, renewability, impact:** complexity and controversies
 - **What conflicts?** difficult shared understanding of what is at stake
 - **Conflict resolution:** customary paths and apparent impossibility of w
 - **Methods for transition:** who were they?

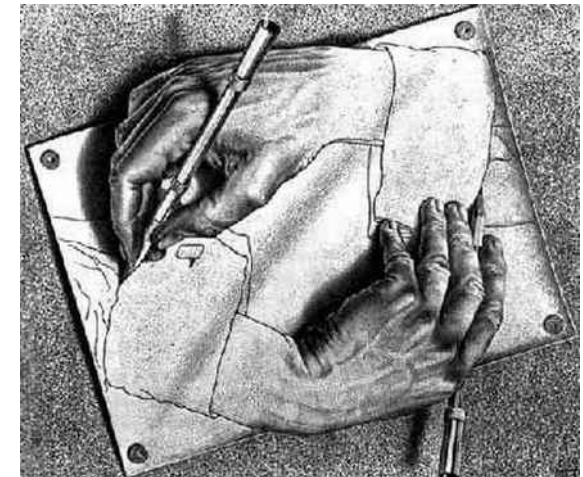


- **Types, sources and use of knowledge:**
 - scientific, professional, practical, militant (specialization; difficult synthesis and sharing)
 - Intertwining of knowledge, power and trust
 - emerging, reproduced, distributed, and contested across contexts, networks and media
- **Mental constructs** (Granovetter 2017):
places, stories and belonging; norms, values, perceptions; emotions and trust
 - proximity and sense of urgency
 - local cultures and practical knowledge
 - perceptions of risk and ensuing modes of adaptation



- **Policy making, processes and practices**
 - Strategies, innovations and experiments **fragmented** on a variety of scale-levels and issues
 - **Policy embeddedness**: practices of translation, enactment and assembling in their moving across contexts and from decision-making to implementation (Clarke et al., 2015).
 - **Mix** of learned habits and cultures / Institutional design / welfare regimes

- **Governance, Leadership, Power and Procedural Justice**
 - Fragmentation, improvisation, public actor weakness
(partially different in coordinated municipal projects)
 - Diverse separations / connections
between central / peripheral actors, institution, ideas
 - Combined top-down and bottom-up mobilization effects



- **Welfare, eco-social policies and ecological transition:**
 - **Top-down:** absent or limited; adapting measures and local practices
 - **Bottom-up:** in specific projects, but ecological argument often ancillary
 - **Eco-social welfare system?**
 - marginal, implicit, ex-post or project-specific
 - rare or absent ex-ante institutional integration with environmental policies (eco-social policies)
- **Social work:**
 - **Ex-post** emergency and adaptation (fixing broken situations).
 - **Ecological skills:** personal/generational and adaptive
 - **Proactive role** in bottom-up particular projects
- **Environment, welfare and social work:**
 - **anthropocentrism**, separation, dualism
 - **Integration** in limited/specific cases/actors



Strategie di sostenibilità nella gestione delle risorse umane *Modelli e casi studio per una giusta transizione ecologica*

Grazie per l'attenzione!



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