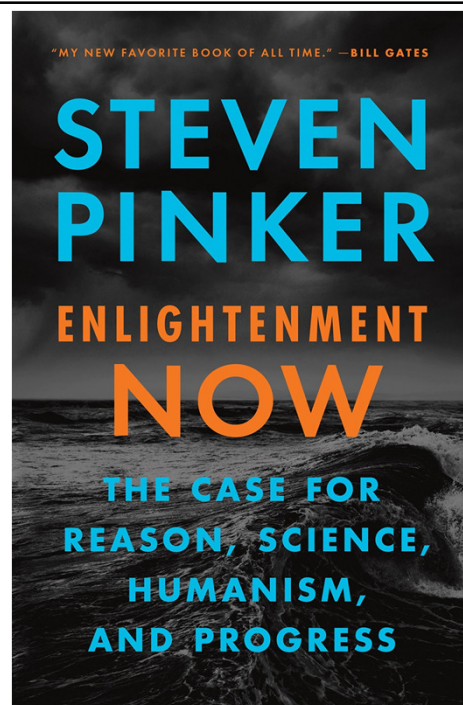


Plan

1. Etat du monde
2. Etat de l'environnement
3. Impacts sur le secteur privé
4. Devoirs du secteur privé



Espérance de vie

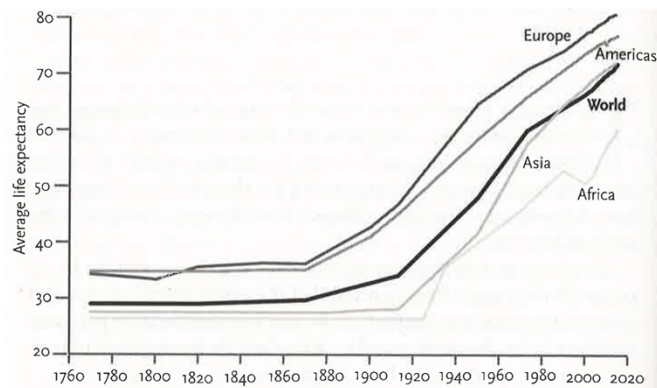


Figure 5-1: Life expectancy, 1771–2015

Sources: *Our World in Data*, Roser 2016n, based on data from Riley 2005 for the years before 2000 and from the World Health Organization and the World Bank for the subsequent years. Updated with data provided by Max Roser.

Pinker, 2018

Produit mondial brut

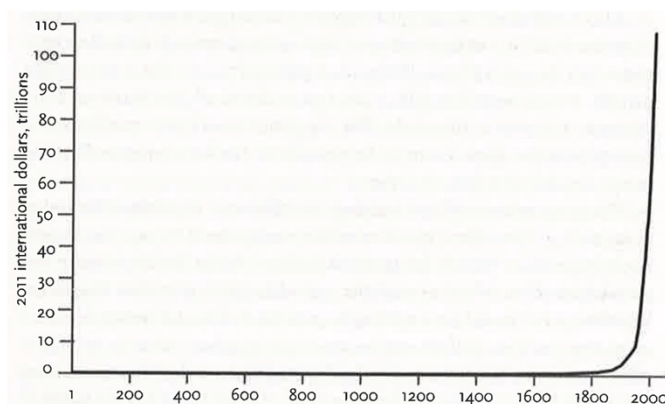


Figure 8-1: Gross World Product, 1–2015

Source: *Our World in Data*, Roser 2016c, based on data from the World Bank and from Angus Maddison and Maddison Project 2014.

Pinker, 2018

PNB par habitant

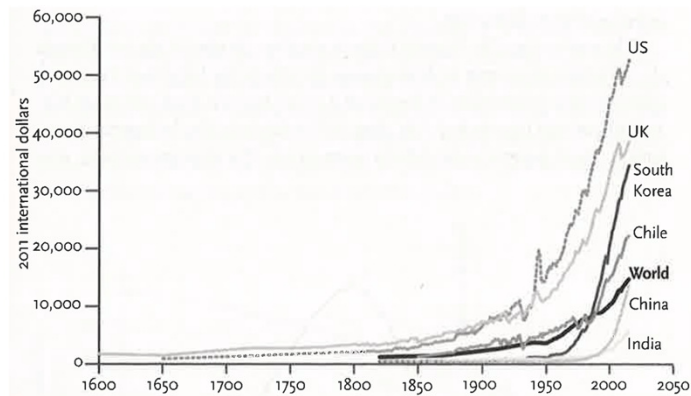


Figure 8-2: GDP per capita, 1600–2015

Source: *Our World in Data*, Roser 2016c, based on data from the World Bank and from Maddison Project 2014.

Pinker, 2018

Pauvreté extrême

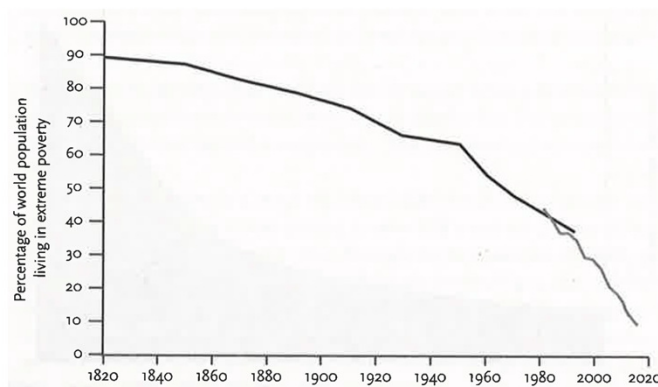


Figure 8-4: Extreme poverty (proportion), 1820–2015

Sources: *Our World in Data*, Roser & Ortiz-Ospina 2017, based on data from Bourguignon & Morrison 2002 (1820–1992), averaging their “Extreme poverty” and “Poverty” percentages for commensurability with data on “Extreme poverty” for 1981–2015 from the World Bank 2016g.

Pinker, 2018

Dépenses sociales

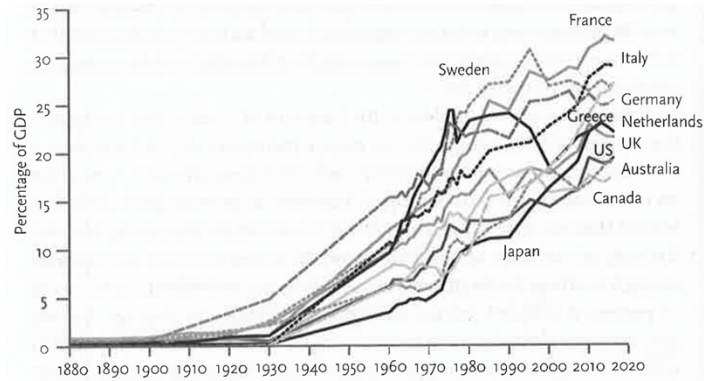


Figure 9-4: Social spending, OECD countries, 1880–2016

Source: *Our World in Data*, Ortiz-Ospina & Roser 2016b, based on data from Lindert 2004 and OECD 1985, 2014, 2017. The Organisation for Economic Co-operation and Development includes thirty-five democratic states with market economies.

Pinker, 2018

Guerres entre grandes puissances

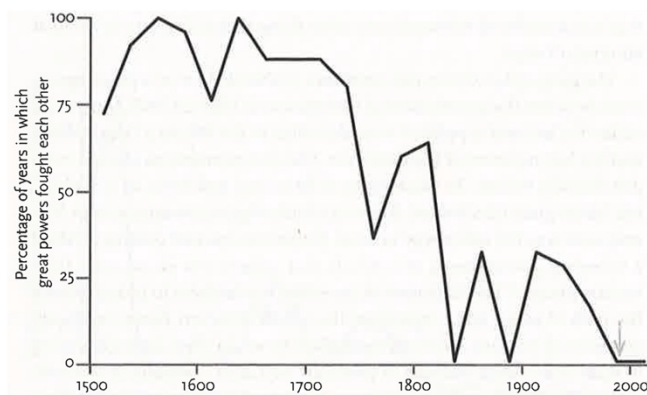


Figure 11-1: Great power war, 1500–2015

Source: Levy & Thompson 2011, updated for the 21st century. Percentage of years the great powers fought each other in wars, aggregated over 25-year periods, except for 2000–2015. The arrow points to 1975–1999, the last quarter-century plotted in fig. 5–12 of Pinker 2011.

Pinker, 2018

Démocratie



Figure 14-1: Democracy versus autocracy, 1800–2015

Source: *Human Progress*, <http://humanprogress.org/tv/2560>, based on *Polity IV Annual Time-Series, 1800–2015*, Marshall, Gurr, & Jaggers 2016. Scores are summed over sovereign states with a population greater than 500,000, and range from –10 for a complete autocracy to 10 for a perfect democracy. The arrow points to 2008, the last year plotted in fig. 5–23 of Pinker 2011.

Pinker, 2018

Valeurs libérales

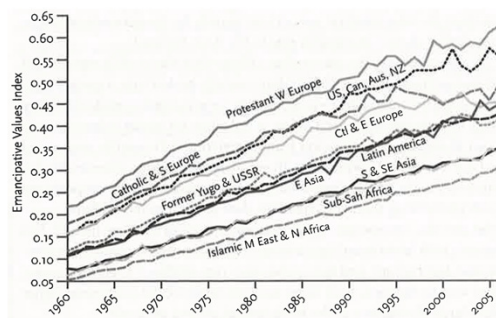


Figure 15-7: Liberal values across time (extrapolated), world's culture zones, 1960–2006

Source: World Values Survey, as analyzed in Welzel 2013, fig. 4.4, updated with data provided by Welzel. Emancipative value estimates for each country in each year are calculated for a hypothetical sample of a fixed age, based on each respondent's birth cohort, the year of testing, and a country-specific period effect. The labels are geographic mnemonics for Welzel's "culture zones" and do not literally apply to every country in a zone. I have renamed some of the zones: Protestant Western Europe corresponds to Welzel's "Reformed West." US, Canada, Australia, New Zealand = "New West." Catholic & Southern Europe = "Old West." Central & Eastern Europe = "Returned West." East Asia = "Sinic East." Former Yugoslavia & USSR = "Orthodox East." South & Southeast Asia = "Indic East." Countries in each zone are weighted equally.

Pinker, 2018

Alphabétisation

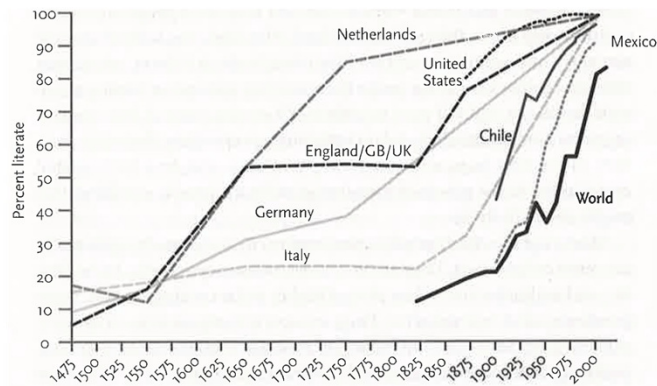


Figure 16-1: Literacy, 1475–2010

Source: *Our World in Data*, Roser & Ortiz-Ospina 2016b, including data from the following. **Before 1800:** Buringh & Van Zanden 2009. **World:** van Zanden et al. 2014. **US:** National Center for Education Statistics. **After 2000:** Central Intelligence Agency 2016.

Pinker, 2018

Intelligence

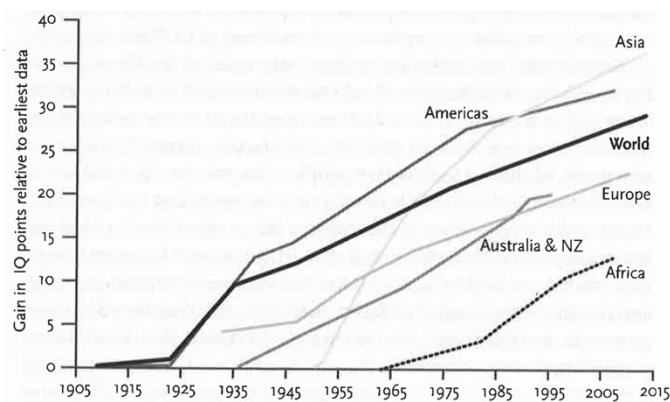


Figure 16-5: IQ gains, 1909–2013

Source: Pietschnig & Voracek 2015, supplemental online material. The lines display changes in IQ measured by different tests starting at different times and cannot be compared with one another.

Pinker, 2018

Travail

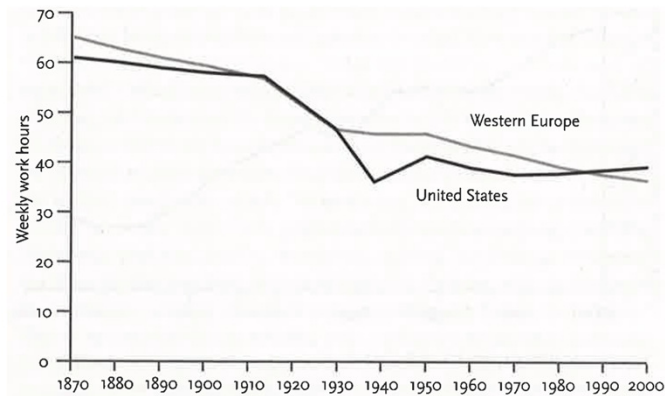


Figure 17-1: Work hours, Western Europe and US, 1870–2000

Source: Roser 2016f, based on data from Huberman & Minns 2007 on full-time production workers (both sexes) in nonagricultural activities.

Pinker, 2018

Bien-être

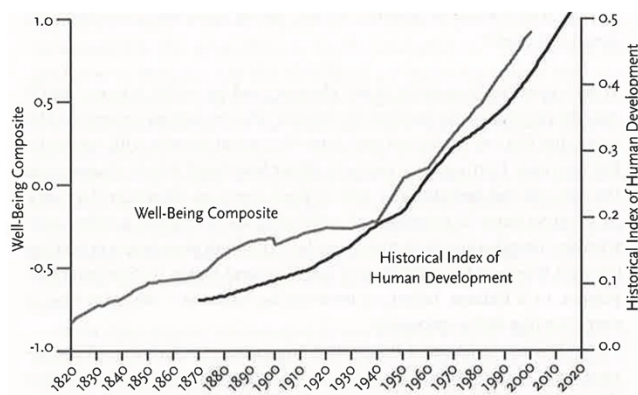


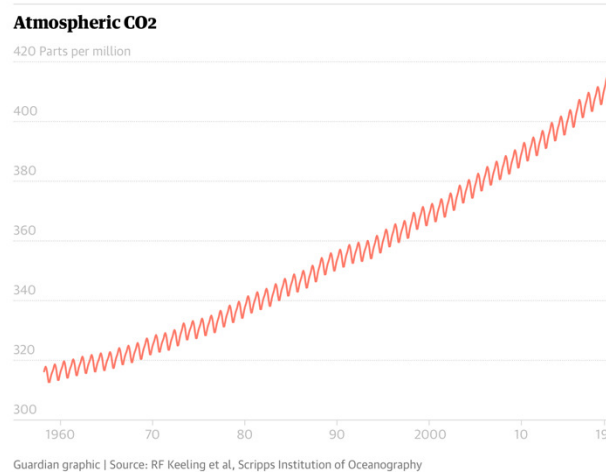
Figure 16-6: Global well-being, 1820–2015

Sources: Historical Index of Human Development: Prados de la Escosura 2015, 0–1 scale, available at *Our World in Data*, Roser 2016h. Well-Being Composite: Rijkman 2014, p. 259, standard deviation scale over country-decades.

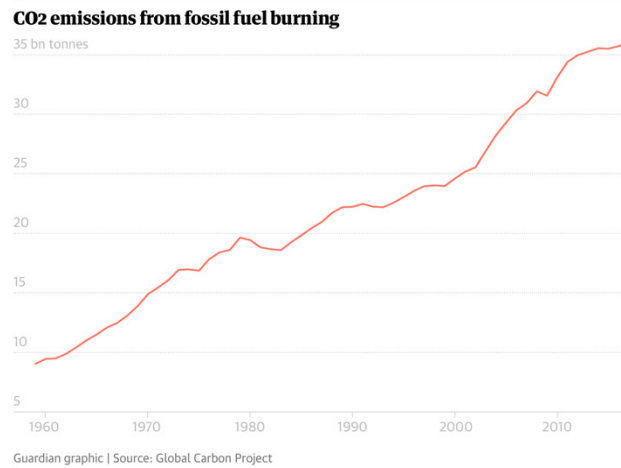
Pinker, 2018

II. Dégradation de l'environnement

CO₂ atmosphérique



Emissions de CO₂ par combustibles fossiles

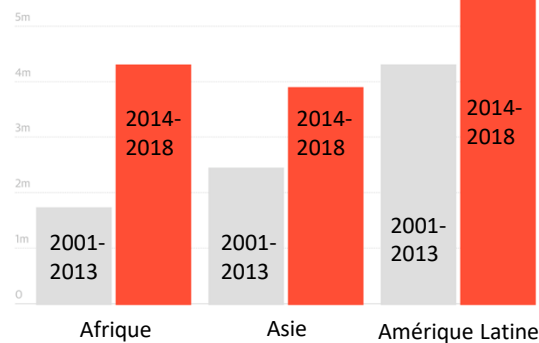


Déforestation tropicale

Tropical forest destruction before and after international declaration in 2014 to tackle deforestation

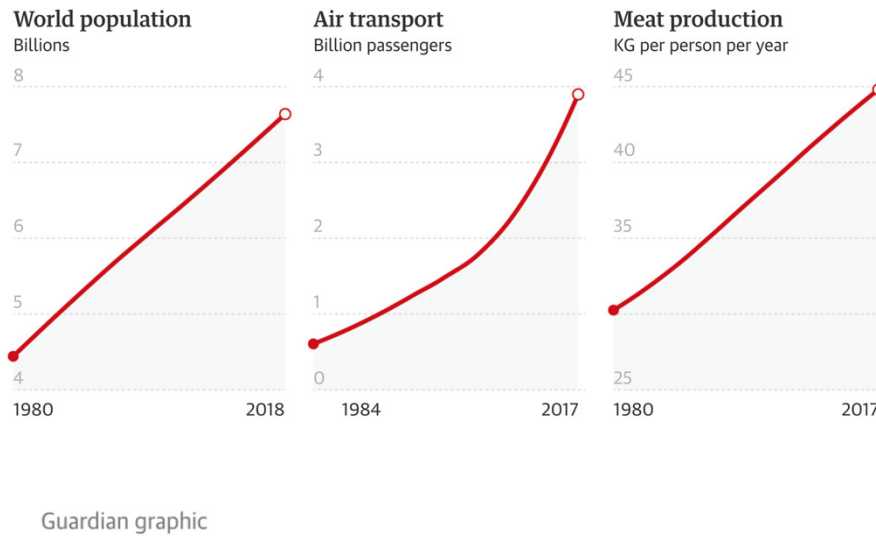
Average annual loss in million hectares before and after the New York declaration on forests

■ Before NYDF (2001-13) ■ After NYDF (2014-18)

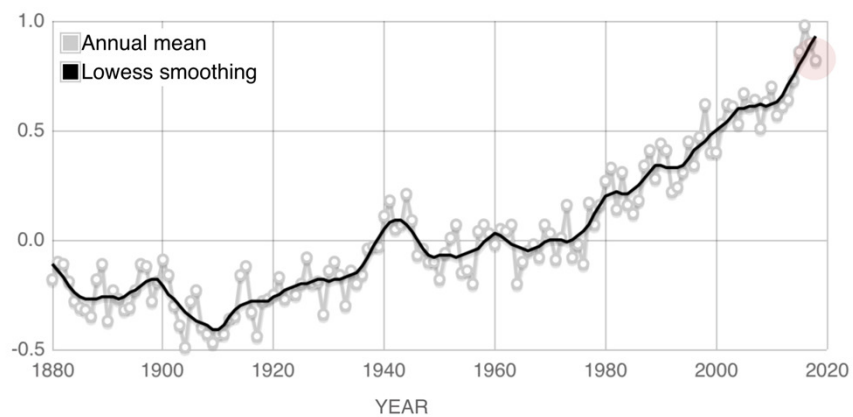


Guardian graphic

Population, transport, viande

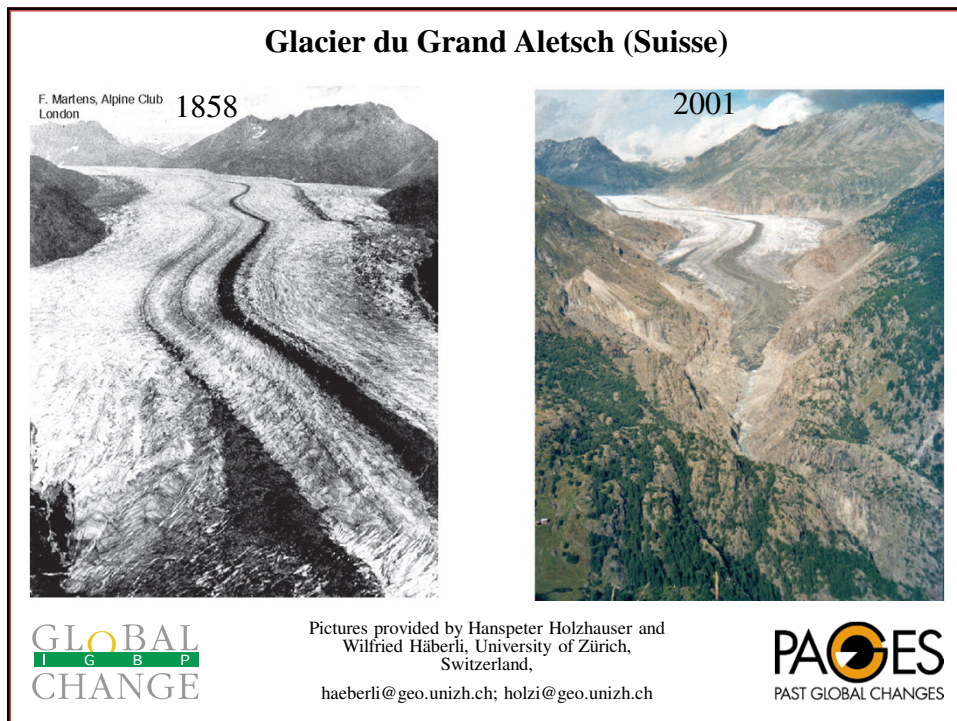


Température globale moyenne



18 des 19 années les plus chaudes se sont produites depuis 2001

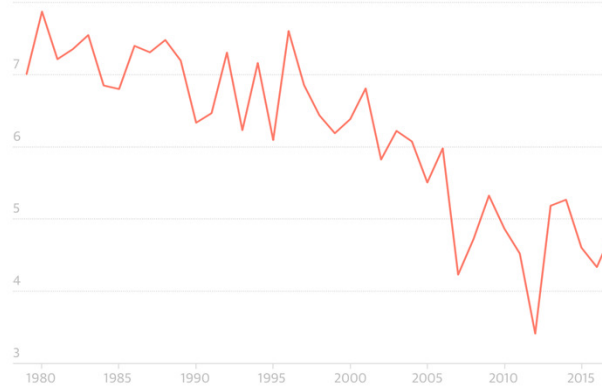
NASA, 2019



Calotte de glace Arctique

Arctic sea ice

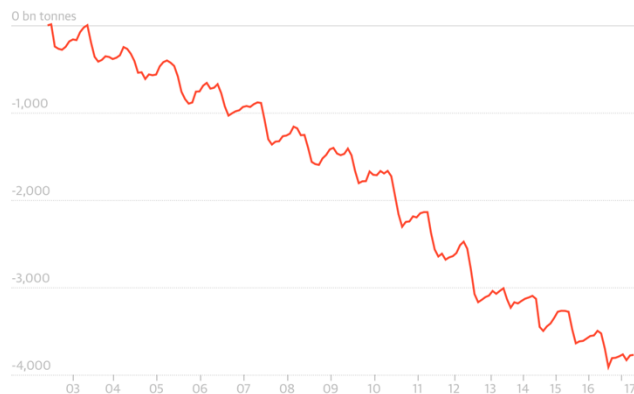
8 million square km in September



Guardian graphic | Source: NSIDC/NASA

Glaces du Groenland

Greenland ice loss



Guardian graphic | Source: Wiese et al, NASA JPL GRACE

Rising sea levels pose threat to homes of 300m people - study

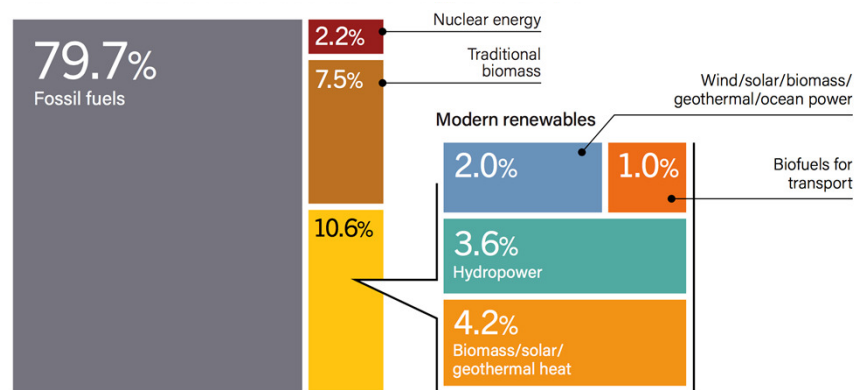
Figure based on new analysis of coastlines is more than three times previous estimate



River erosion in Bangladesh. The numbers at risk of an annual flood by 2050 in Bangladesh increased more than eightfold in the study. Photograph: Zakir Hossain Chowdhury/Barcroft Media

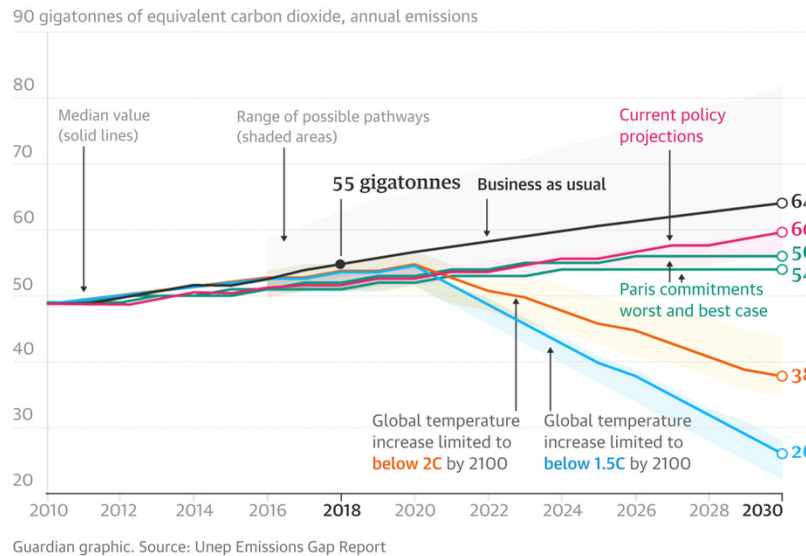
Guardian graphic

Consommation énergétique totale, 2017



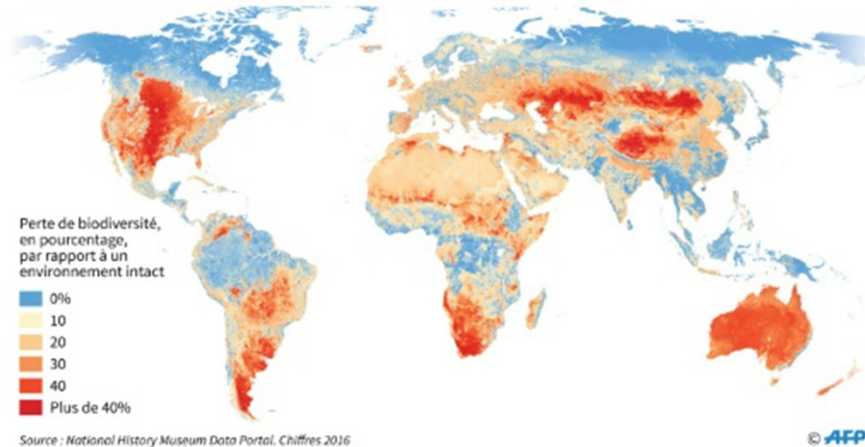
Source: Based on OECD/IEA and IEA SHC.

Scénarios d'émissions de CO₂



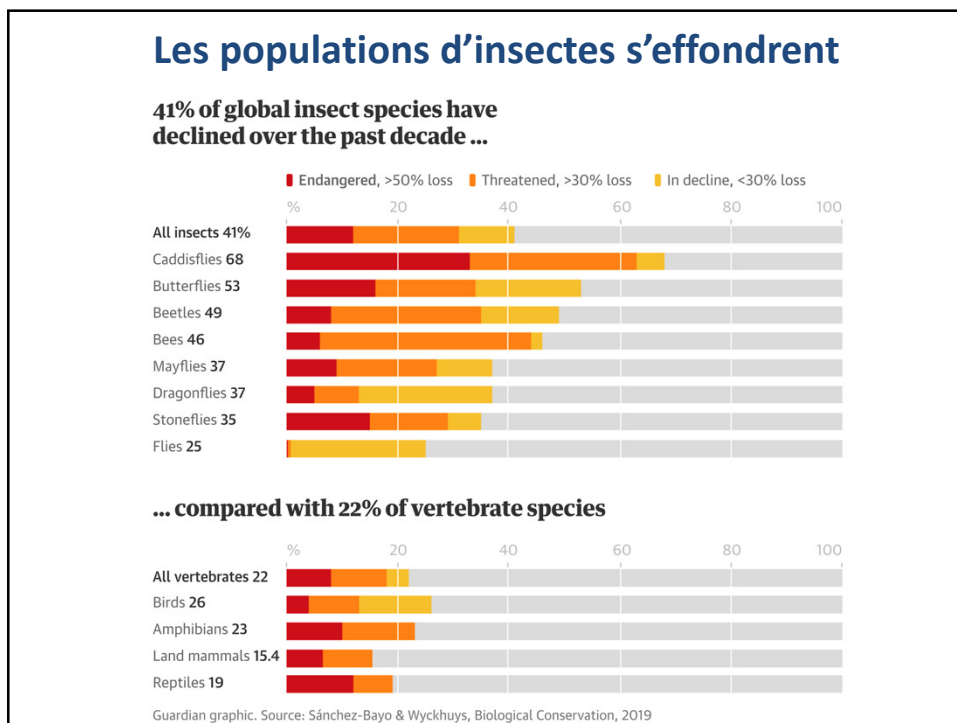
One million species at risk of extinction, UN report warns

Perte de biodiversité dans le monde





Les océans se vident



Zones protégées

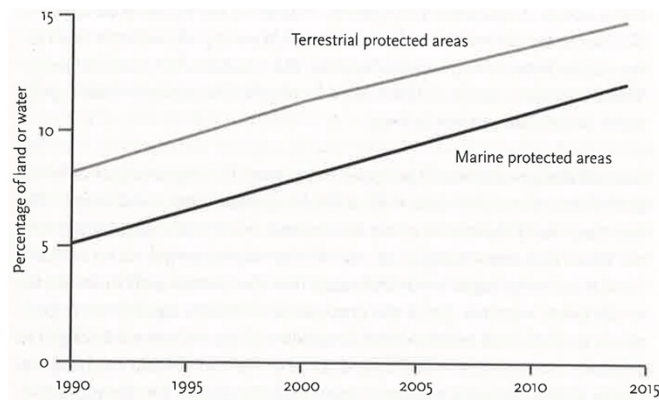
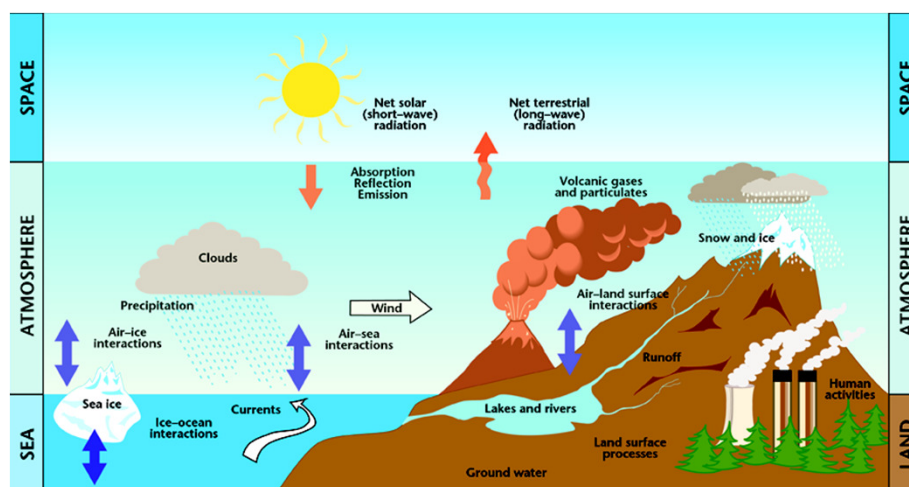


Figure 10-6: Protected areas, 1990–2014

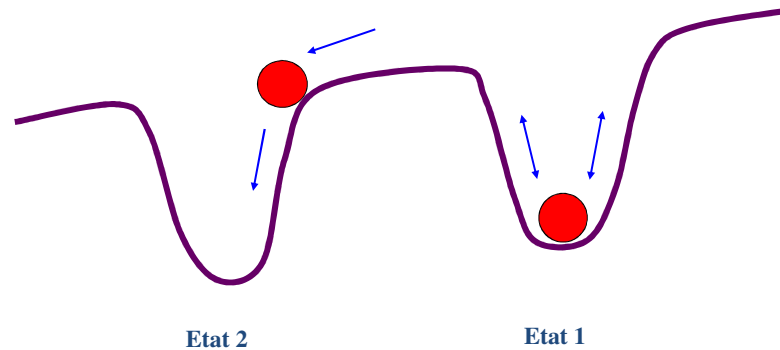
Source: World Bank 2016h and 2017, based on data from the United Nations Environment Programme and the World Conservation Monitoring Centre, compiled by the World Resources Institute.

Pinker, 2018

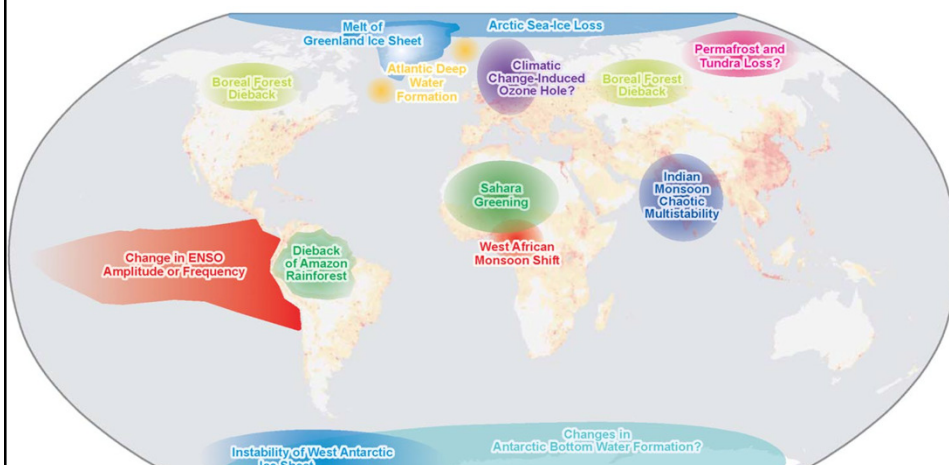
Système Terre

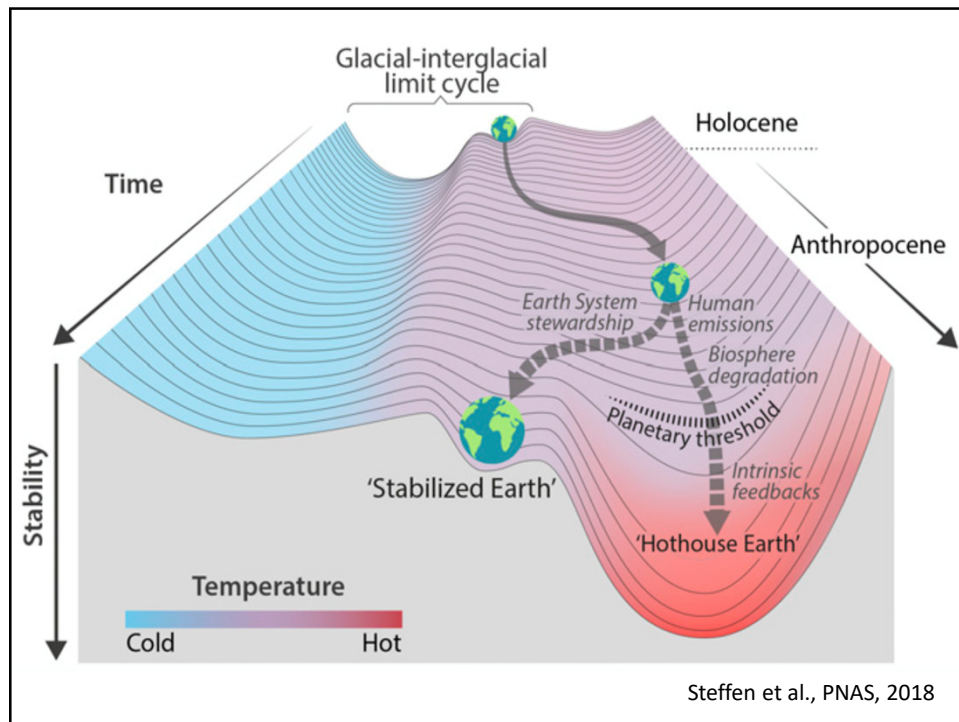


Changements non-linéaires

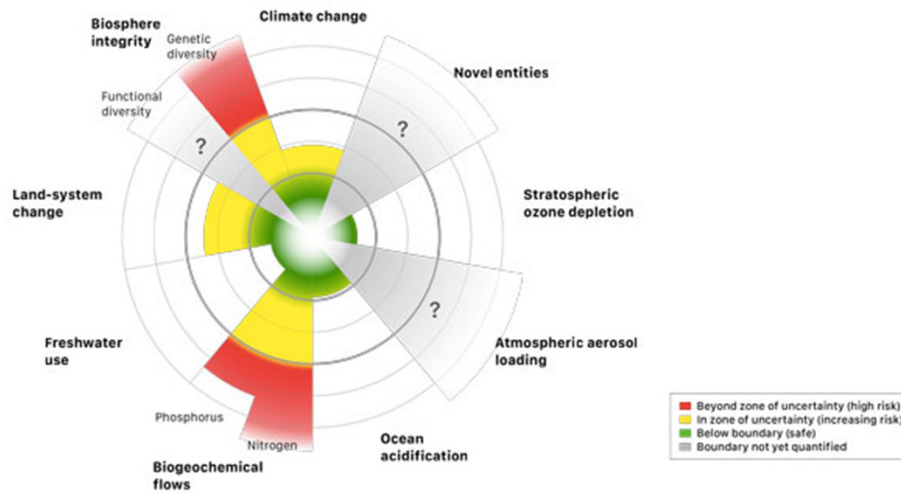


Points de basculement régionaux

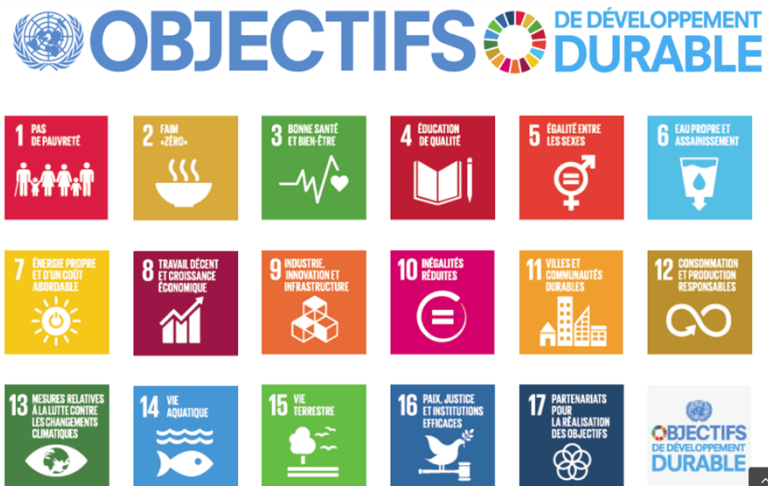




Neuf frontières planétaires



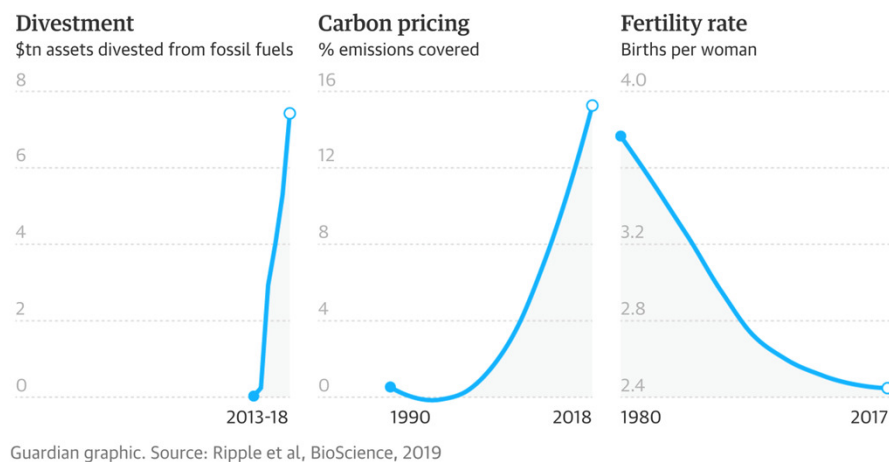
Steffen et al., 2016



Solutions

1. Abandonner les **combustibles fossiles**
2. Protéger/restaurer les **écosystèmes naturels**
 - Taxe carbone
 - Utilisation plus efficace de **l'énergie**
 - Stabilisation de la **population** mondiale
 - Système de valeurs **post-matérialiste**
 - Régime alimentaire plus **végétarien**
 - Alternatives au **Produit National Brut**
 - etc.

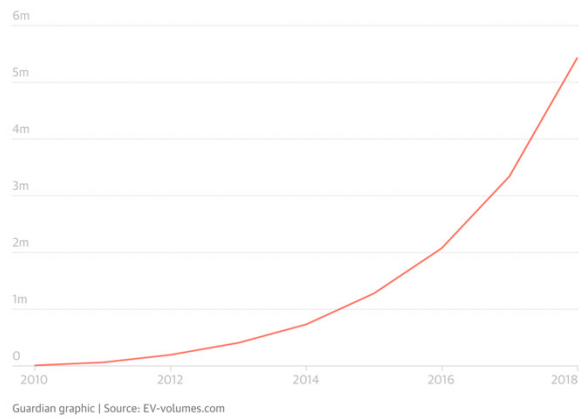
Frémissements ou tournant?



Véhicules électriques

Electric vehicles

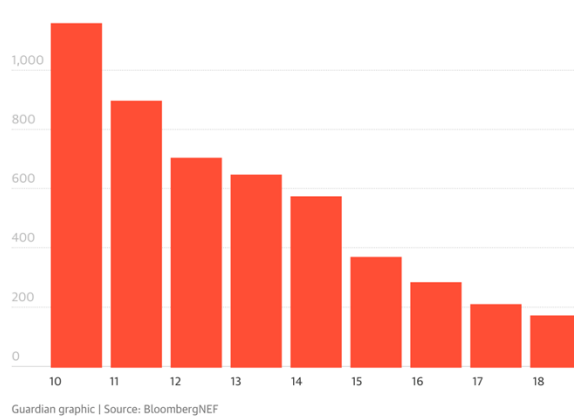
Cumulative sales of battery and plug-in hybrid cars, vans, light trucks



Coût des batteries

Lithium-ion battery cost

Real 2018 \$/kWh



« Upscaling »

- Des transformations rapides se produisent localement.
- Le défi est de réaliser une transition *à l'échelle*.

III. Impacts sur le secteur privé

1. Impacts directs: **forêts, agriculture, pêche, tourisme...**
2. Régulations environnementales
3. Attitudes et normes sociales

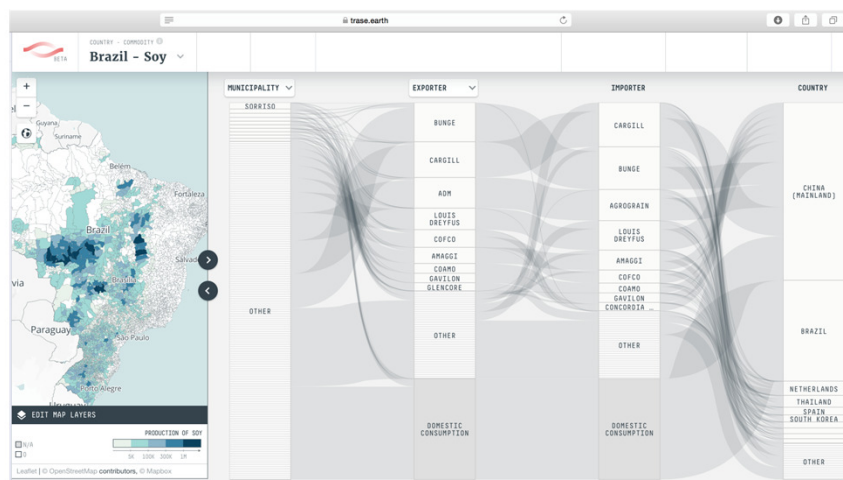
Le Monde

La loi française sur « le devoir de vigilance » fait peu à peu des émules

Quelques pays européens travaillent sur des dispositifs responsabilisant les multinationales en cas de violations des droits humains.

« Obligation faite aux entreprises donneuses d'ordre de prévenir les risques sociaux, environnementaux et de gouvernance liés à leurs opérations, leurs filiales et leurs fournisseurs ».

Transparence accrue, p.ex. TRASE



Satellites commerciaux



Nouvelles normes sociales

Consommateurs, investisseurs, employés
présents et futurs, lanceurs d'alerte...



COLLECTIVE ACTION

Social norms as solutions

Policies may influence large-scale behavioral tipping

Science, 2018

IV. Responsabilité du secteur privé



← 7,6 milliards de consommateurs

← 300 multinationales

← 1 milliard de producteurs

THE DECADE TO DELIVER A CALL TO BUSINESS ACTION

The 2019 United Nations Global Compact
Accenture Strategy CEO Study on Sustainability



United Nations
Global Compact

accenturestrategy

99%

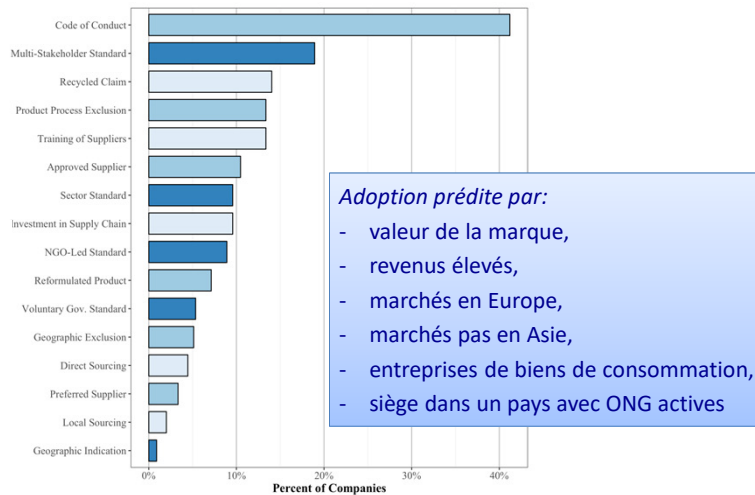
OF CEOS FROM COMPANIES
WITH MORE THAN \$1 BILLION IN
ANNUAL REVENUES BELIEVE
SUSTAINABILITY WILL BE
IMPORTANT TO THE FUTURE
SUCCESS OF THEIR BUSINESS

**BEYOND
INCREMENTALISM:**
A CALL FOR
GREATER ACTION
FROM BUSINESS
AND REAL
SYSTEMS
CHANGE



Pratiques durables d'approvisionnement des compagnies

450 compagnies des secteurs alimentaire, bois, textile



Thorlakson, de Zegher and Lambin, *Proc. Nat. Ac. Sci.*, 2018

Zero déforestation



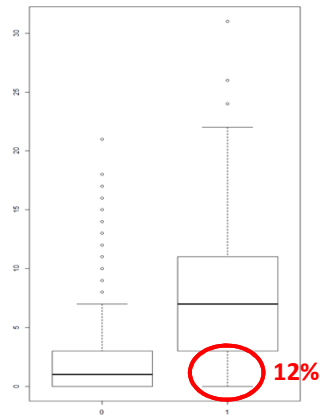
The Consumer Goods
FORUM
The Global Network Serving
Shopper & Consumer Needs

“Nous nous engageons à mobiliser des ressources au sein de nos business respectifs pour aider à atteindre zéro net déforestation d’ici 2020.”



« Greenwashing »

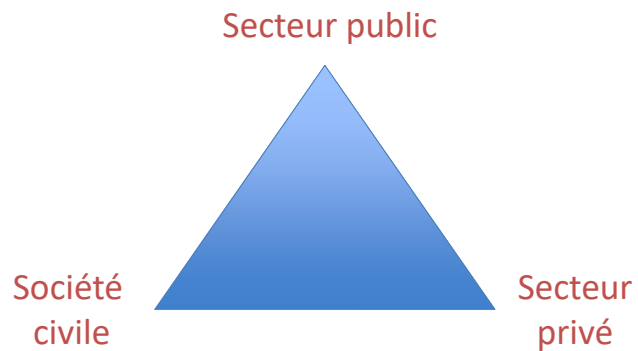
Nombre de
pratiques durables
adoptées par
l'entreprise



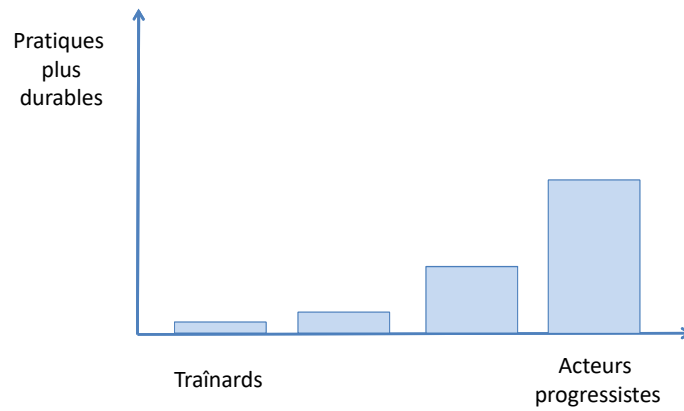
L'entreprises se considère: pas durable (0) ou durable (1)

Bager and Lambin, forthcoming

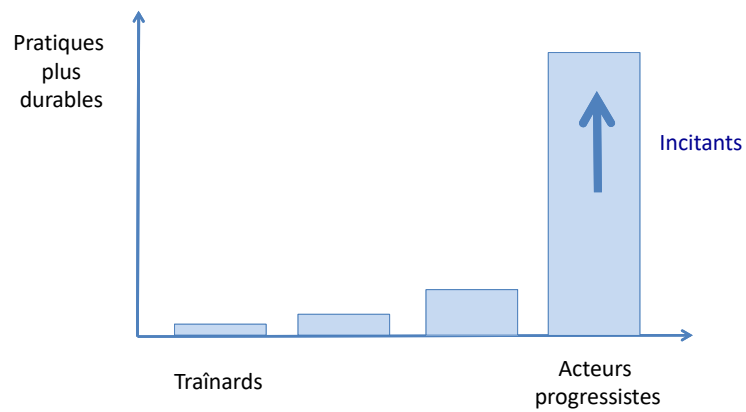
Gouvernance hybride



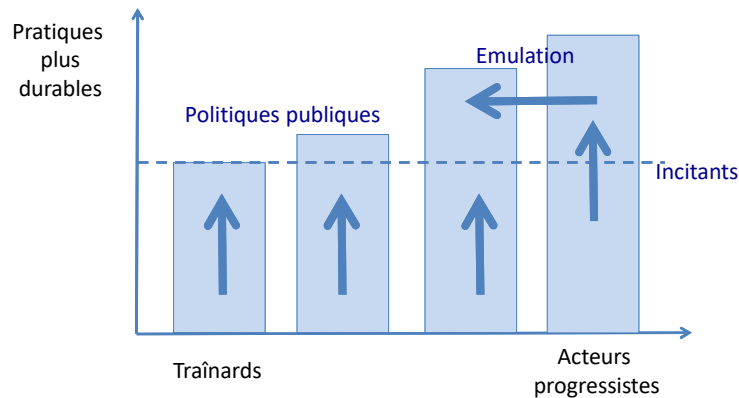
Hétérogénéité entre acteurs



Politiques volontaires



« Policy mix »



« Nous avons atteint la fin des progrès
incrémentaux. Seules les entreprises qui
sont capables de créer des révolutions
dans leur secteur vont prospérer dans la
nouvelle économie. »

Gary Hamel

p.ex. Biochar

