

Transition Engineering

- Adaption pathways to a sustainable future



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Regenerative Business Development

When so much is at stake, why is there so little activity happening to really address climate change?



Our Modern Economy “works great”!



- It delivers new products making money and growing itself
- It meets the needs of society
- Political systems are dedicated to maintaining this economy

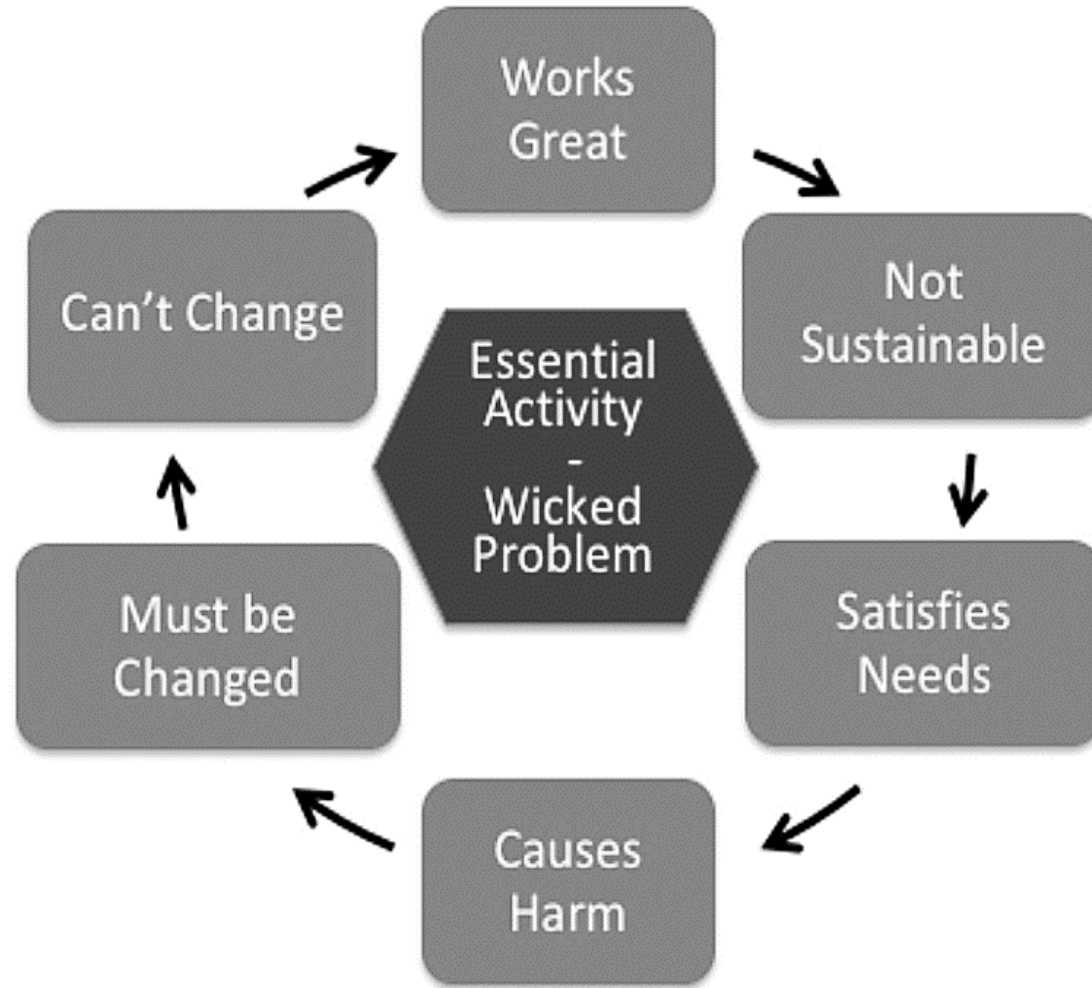


Our Modern Economy is not sustainable

- It leads to growth in extraction, consumption and waste
- It causes harm
- The modern economy must change



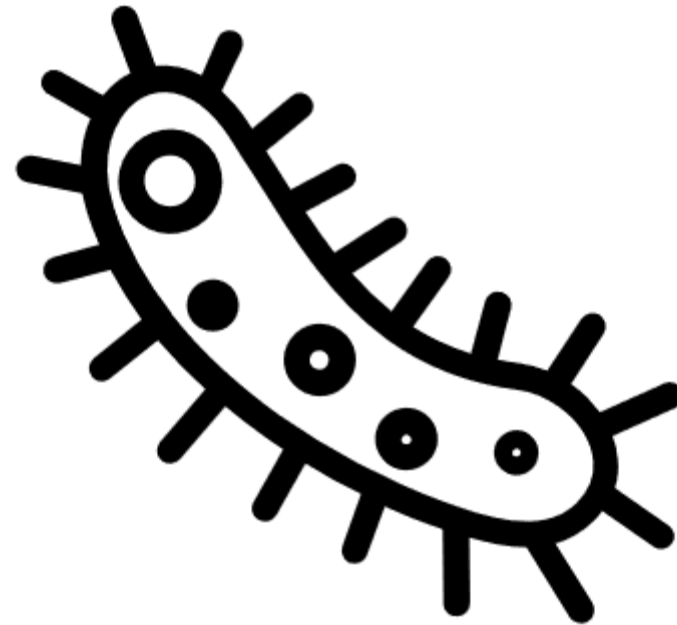
The Modern Economy is a Wicked Problem!

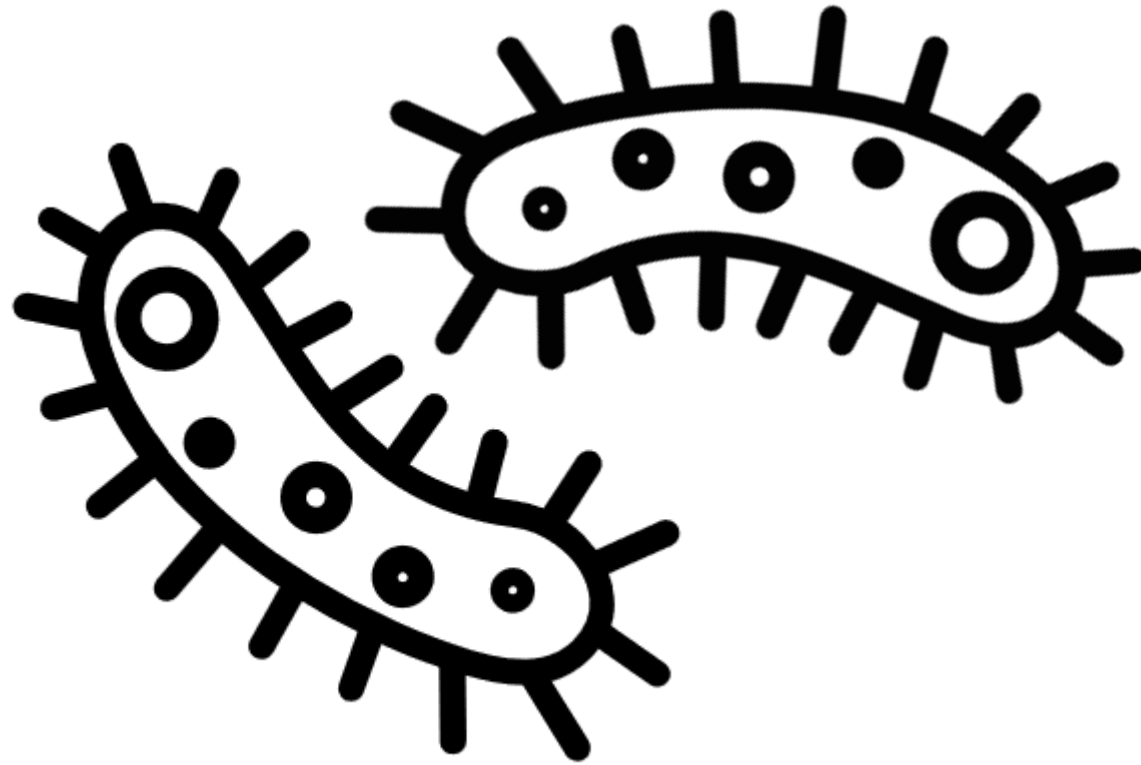


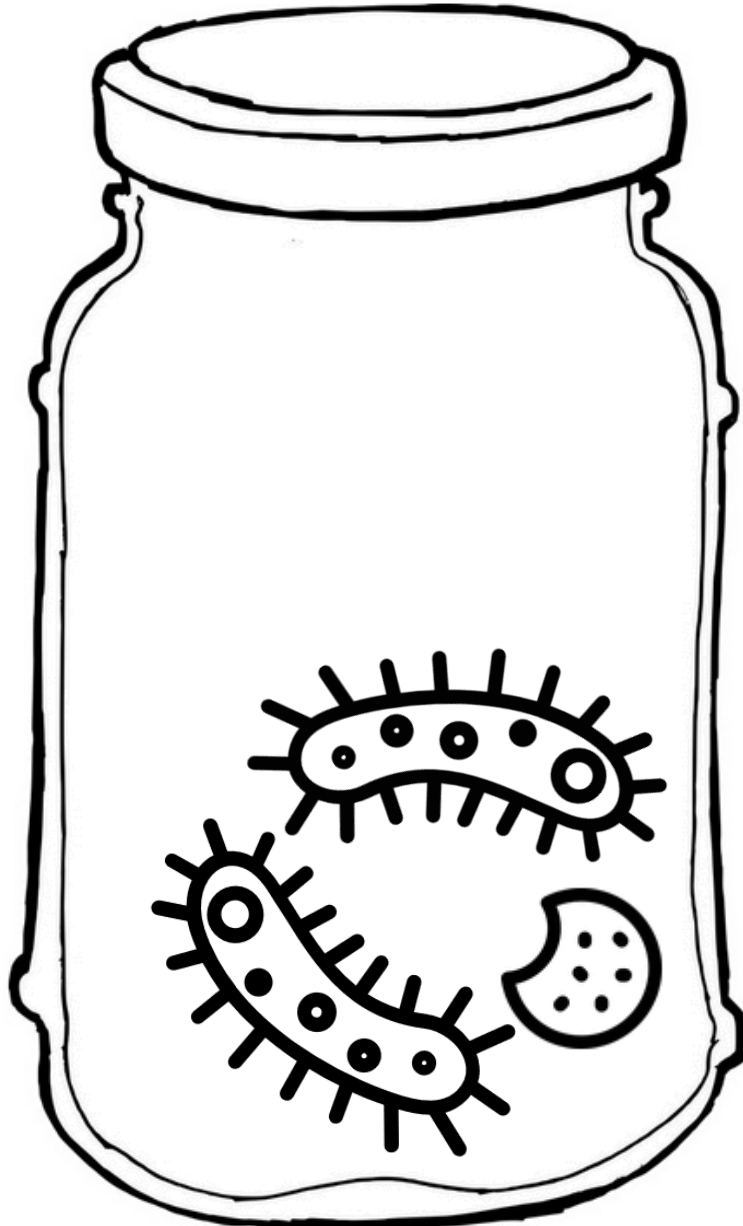
Transition Engineering is about addressing Wicked Problems

- There are no simple solutions to a wicked problem
- Wicked Problems require:
 - a perspective shift
 - a path change
 - a transition/adaption to a different way of operating





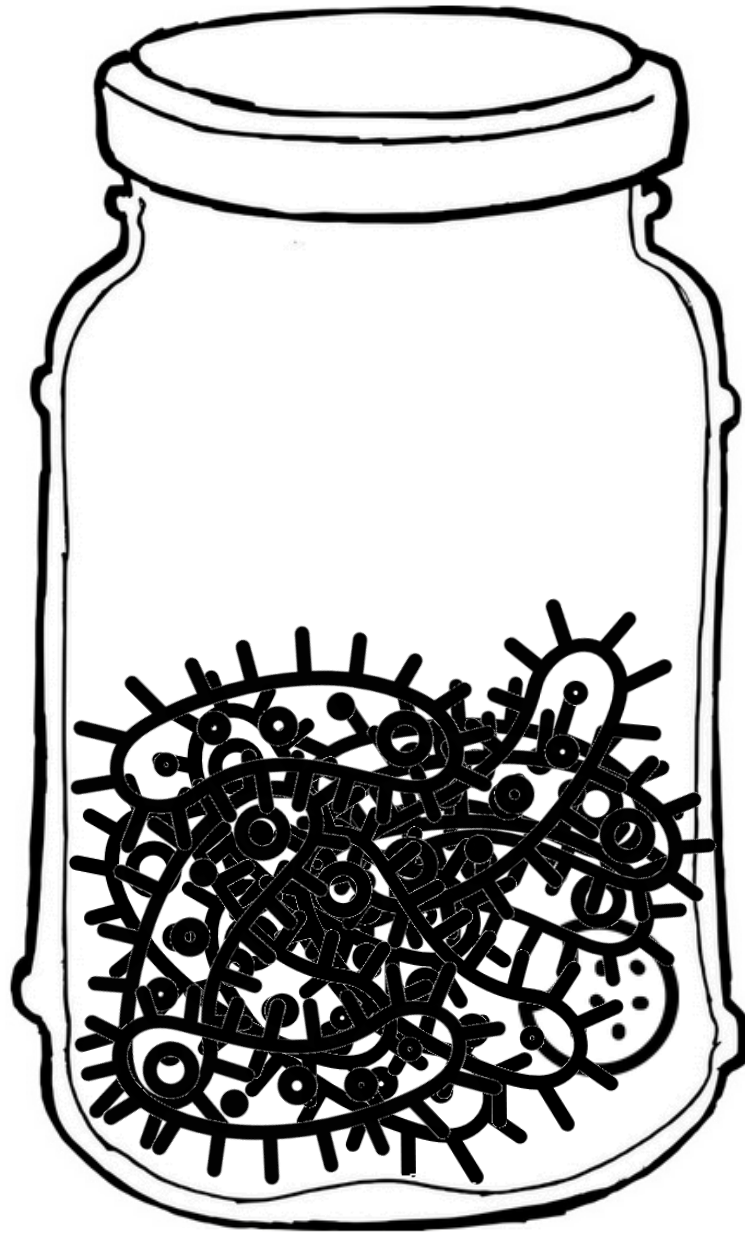


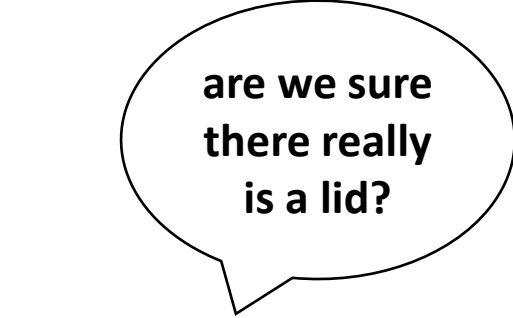


LIMIT
WARNING

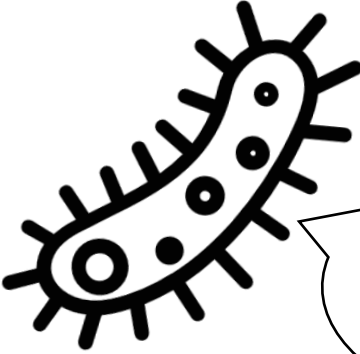


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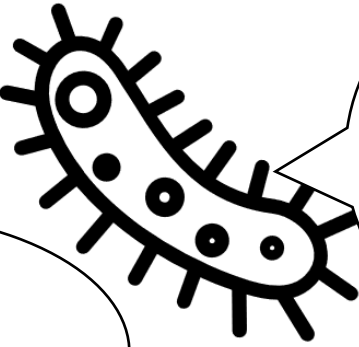




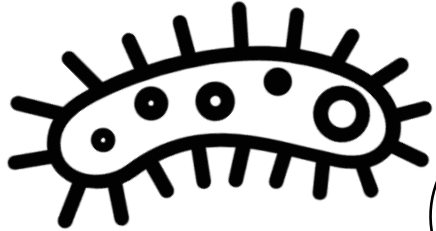
are we sure
there really
is a lid?




We can't just
stop dividing
because of a so
called lid theory



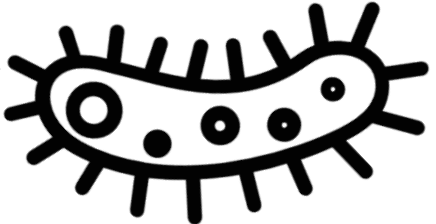
As food
becomes
scarce, prices
will rise and
new food will
be bought to
the market



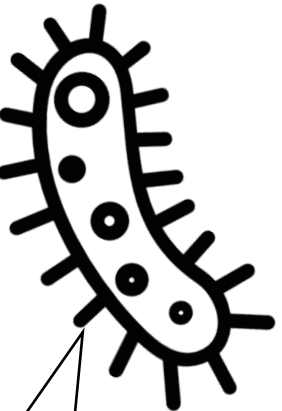
the
government
must do
something!



we need
sustainable
growth



I am going to
prepare: store
food, build
defences, get
guns..



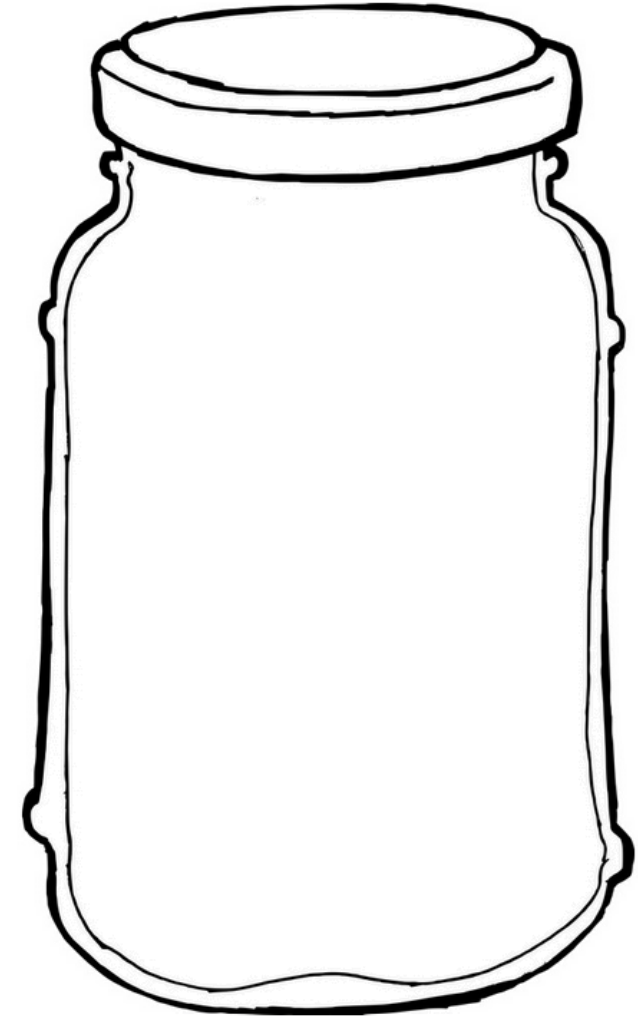
what if we
slowed
down our
growth?



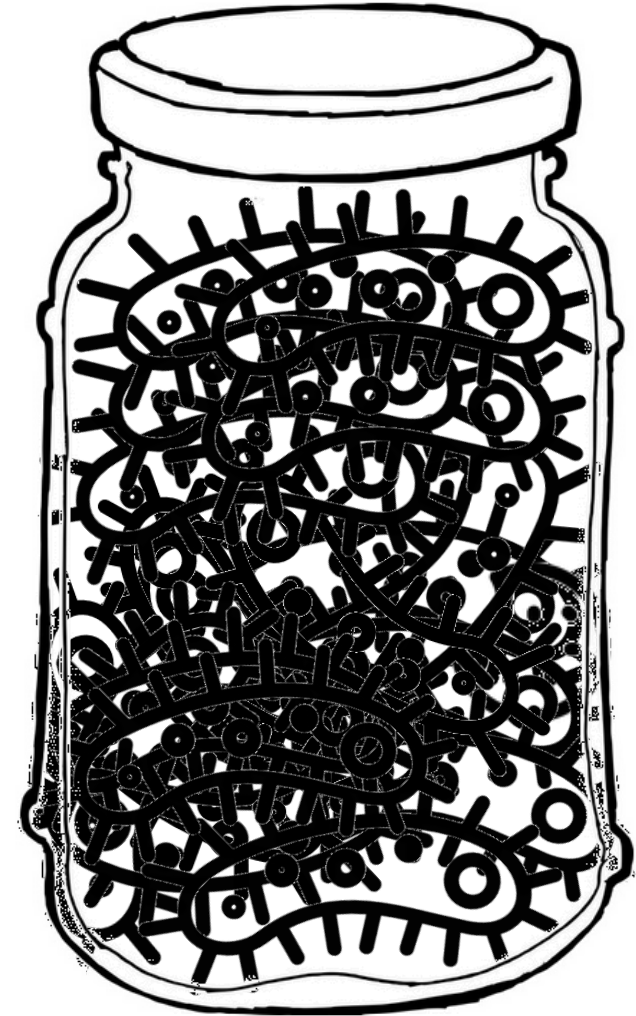
New
Technologies
will help us get
past the lid



23:59



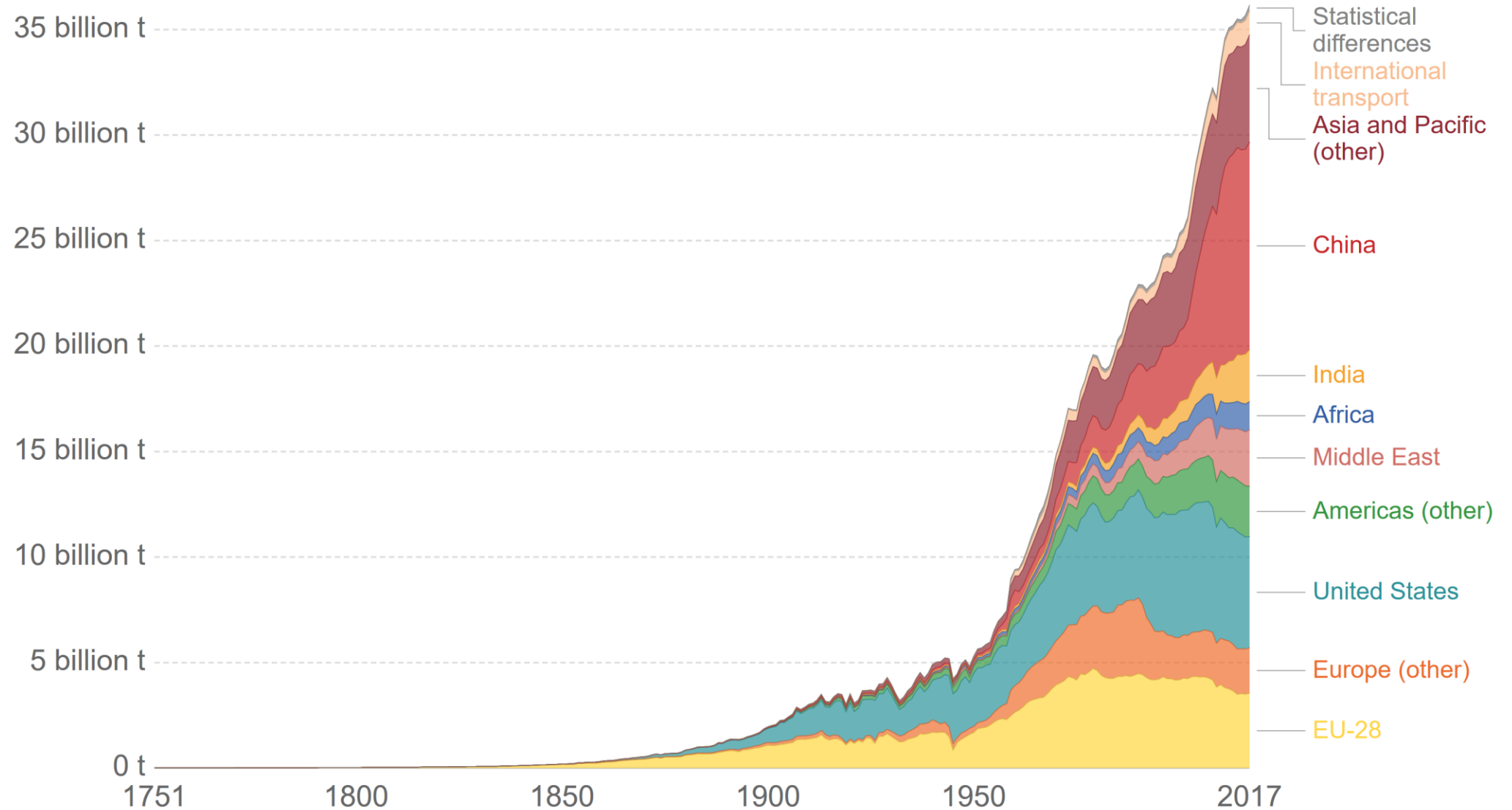
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Perspective Shift #1:
Continued growth in a finite world can **not be sustained**



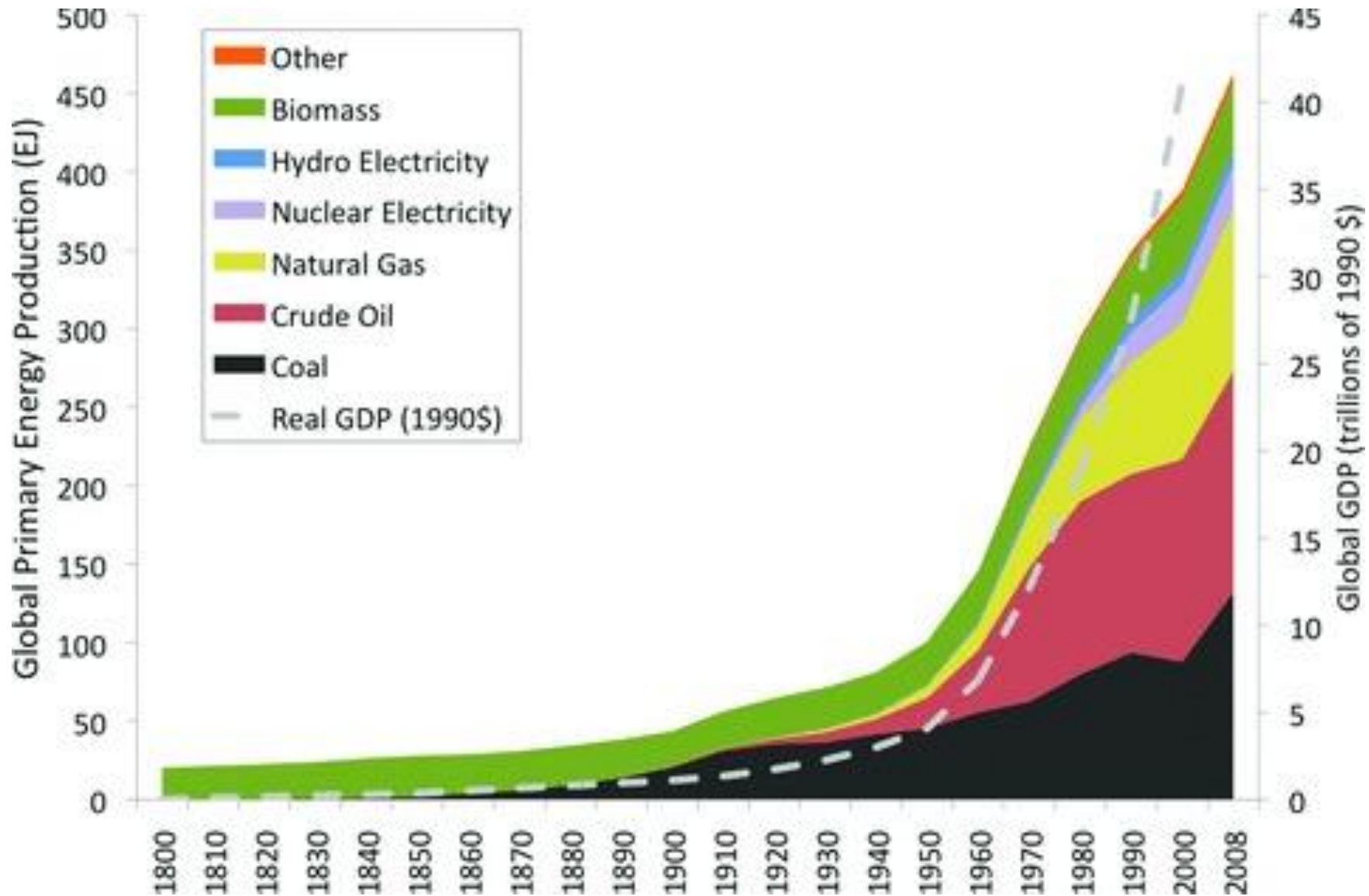
Annual total CO₂ emissions, by world region



Source: Carbon Dioxide Information Analysis Center (CDIAC); Global Carbon Project (GCP)



Global GDP and Global Primary Energy Production



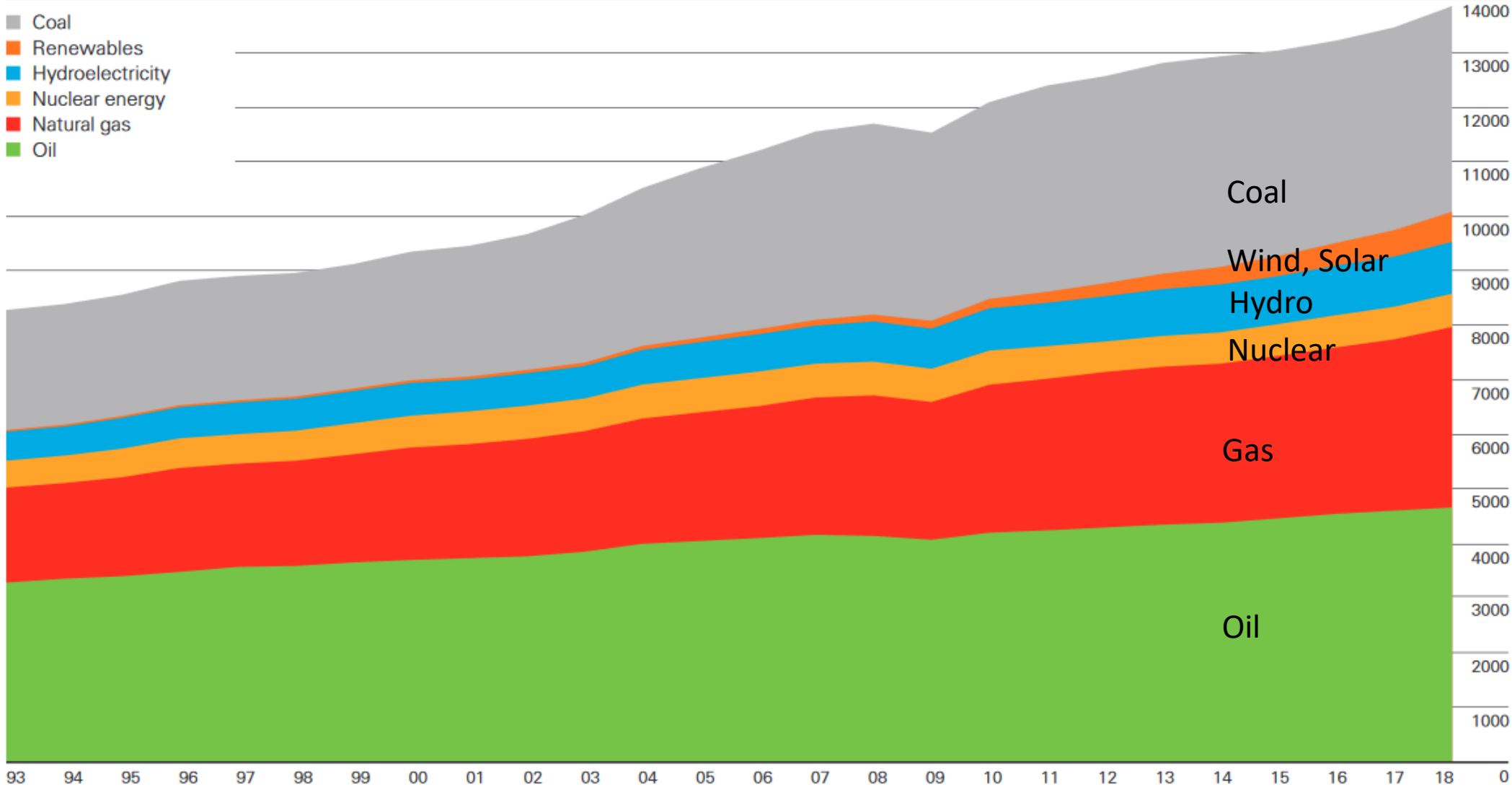
Source: Data from Kremmer and Smil.5,6



Perspective Shift #2:
Our Current Economy is completely dependent on Energy



World Energy Consumption in Million Tonnes of Oil Equivalent (1993-2018)

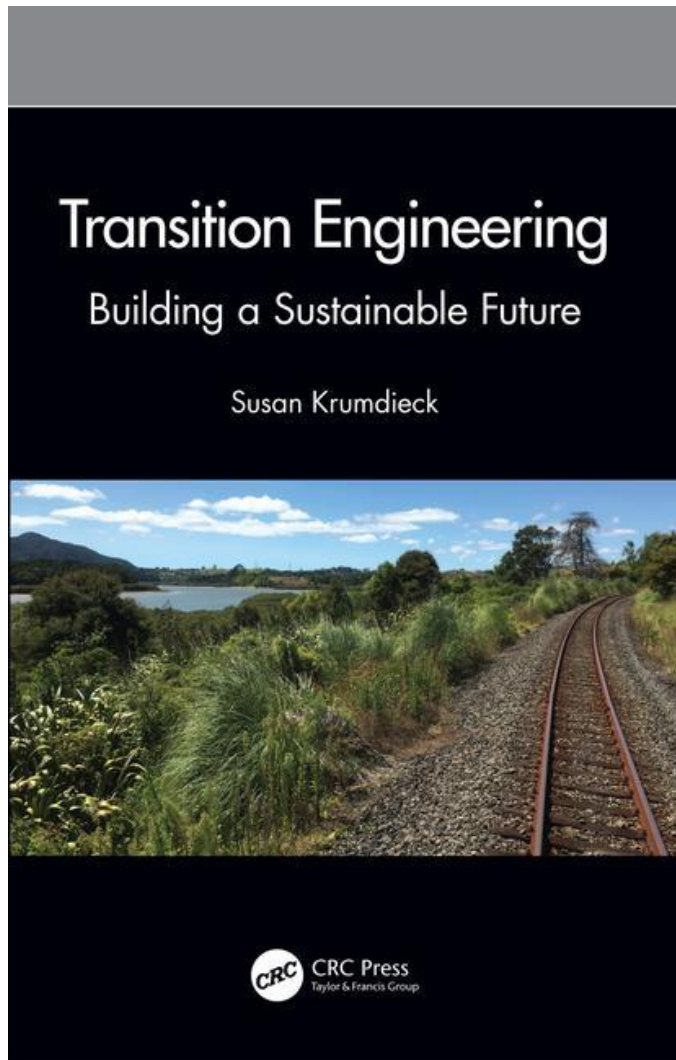


Source: BP Statistical Review of World Energy 2019 | 68th Edition



Perspective Shift #3:
A sustainable future is dependant on a **significant
reduction in energy production**





**The first book on HOW
to transition to zero carbon**



**A truly sustainable economy must be one:
“built on **care and responsibility**,
rather than profit, growth and self-interest”**

-Vijay Kolinjivadi

