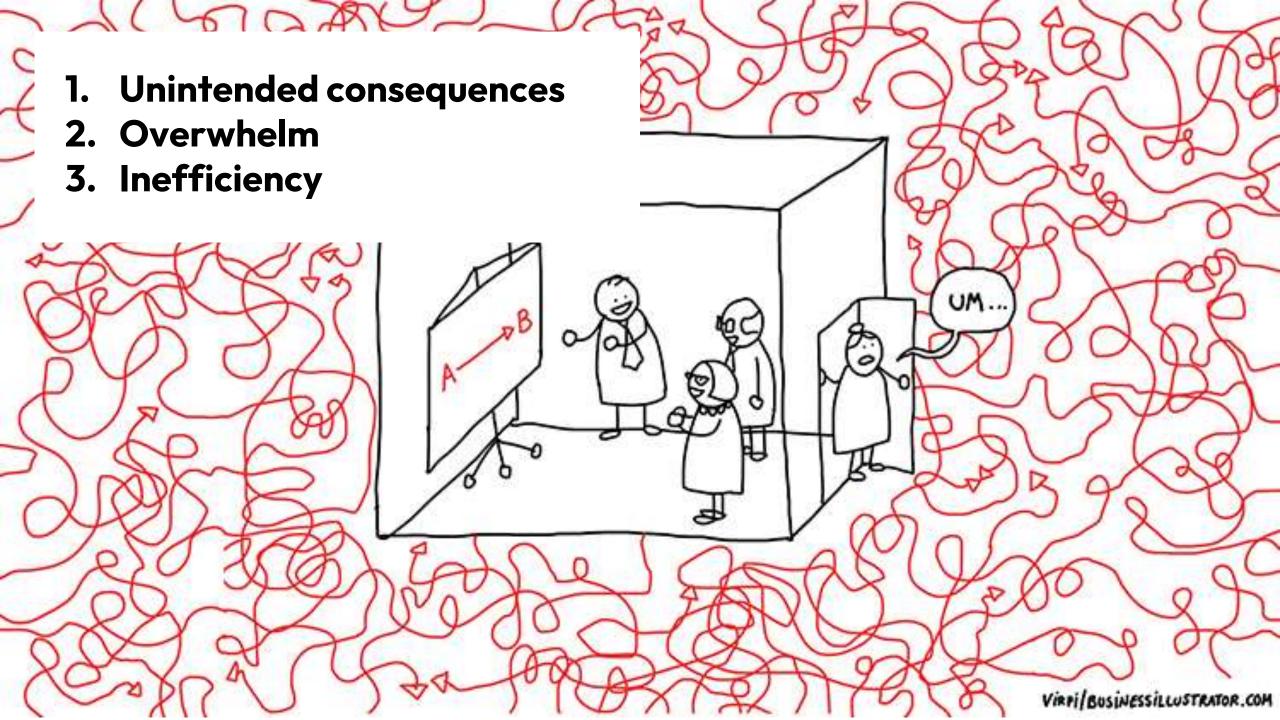
Positive Tipping Points TIPPING POINT SYSTEM STATE BASIN B The point at which a series of small changes or incidents becomes significant enough to cause a larger, more important change BASIN A Oxford English Dictionary

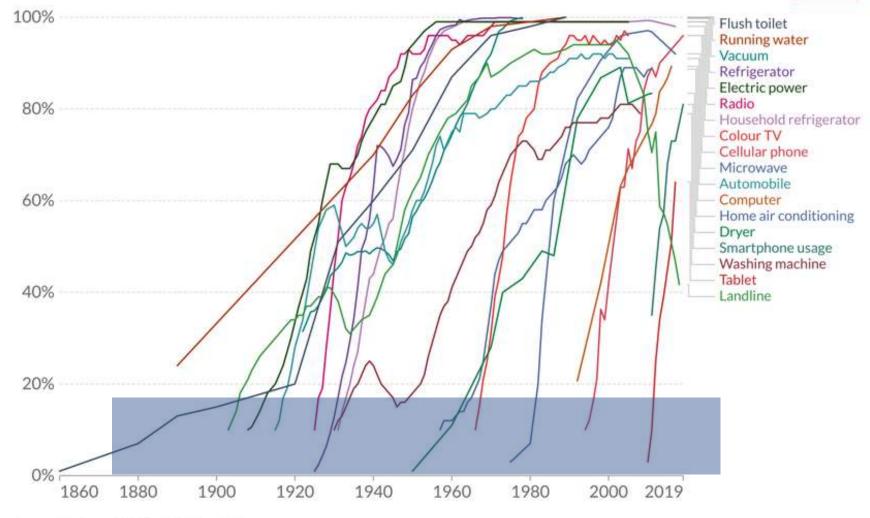
Illustration by Andrew Bernier, adapted from Walker, B. & Salt, D. (2006) Resilience Thinking: Sustaining Ecosystems and People in a Changing World. Island Press: Washington, DC.





Share of US households using specific technologies, 1860 to 2019





Source: Comin and Hobijn (2004) and others

Note: See the sources tab for definitions of adoption rates by technology.





Photo by Alex Perez on Unsplash

Photo by neil macc on Unsplash

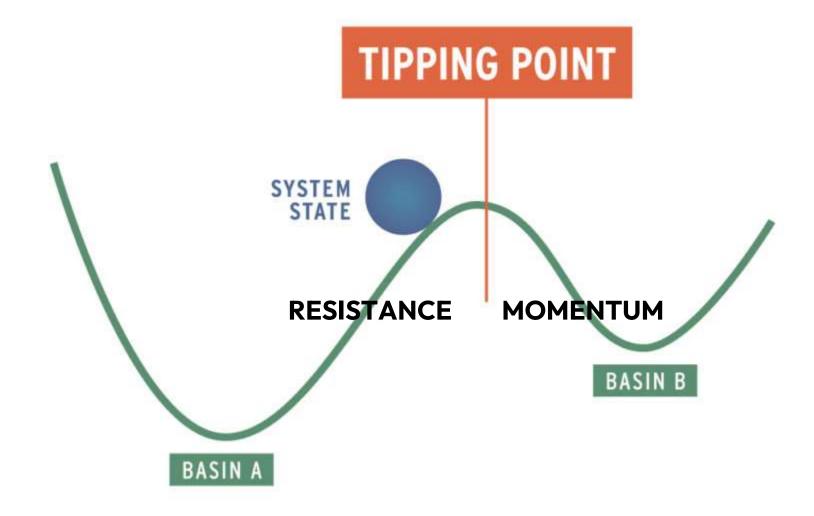


Illustration by Andrew Bernier, adapted from Walker, B. & Salt, D. (2006) Resilience Thinking: Sustaining Ecosystems and People in a Changing World. Island Press: Washington, DC.

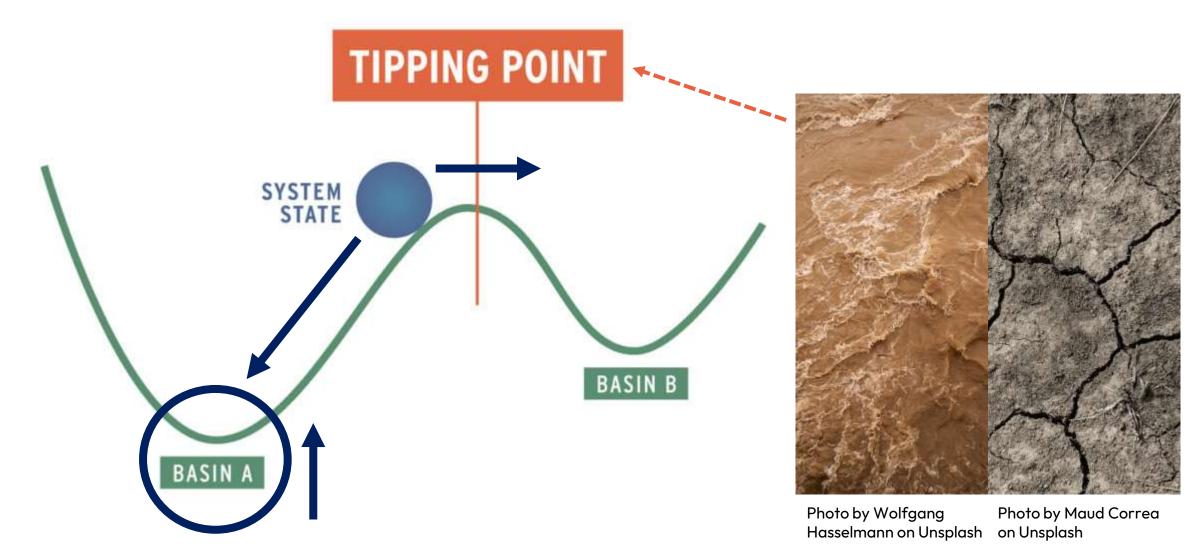
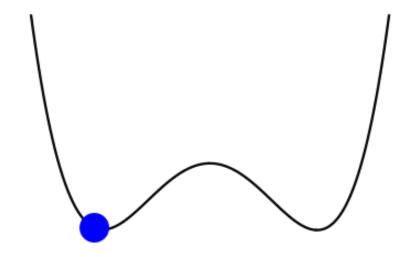
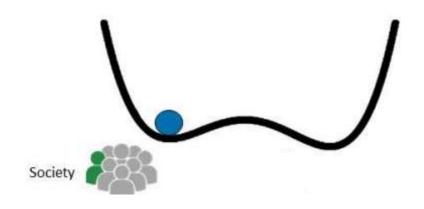


Illustration by Andrew Bernier, adapted from Walker, B. & Salt, D. (2006) Resilience Thinking: Sustaining Ecosystems and People in a Changing World. Island Press: Washington, DC.

Passing a tipping point



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Create the conditions for change

Find reinforcing feedbacks

Trigger the change

Create the conditions for change



Number of people



Access to information



Affordability



Quality



Desirability



Accessibility

Find the feedback loops



Critical mass



Economies of scale



Learning by doing



Co-ordination



Social networks

Trigger the change



Innovation



New policy



Behaviour change



Investment

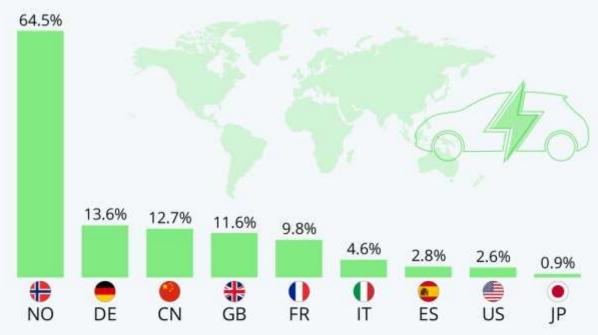


New information



E-Mobility: Norway Leads the Charge

Share of electric vehicles in new passenger car registrations in selected countries in 2021*



^{*} battery electric vehicles (BEV) excl. plug-in hybrids (PHEV) Sources: ACEA, CAAM, PwC





Price goes down

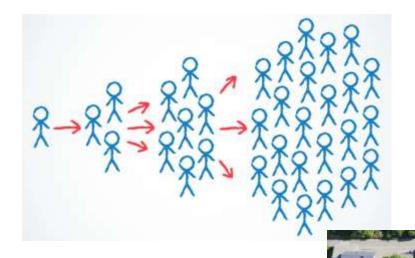
Quality goes up

Desirability goes up

Accessibility goes up

Cost of alternative goes up

Social contagion



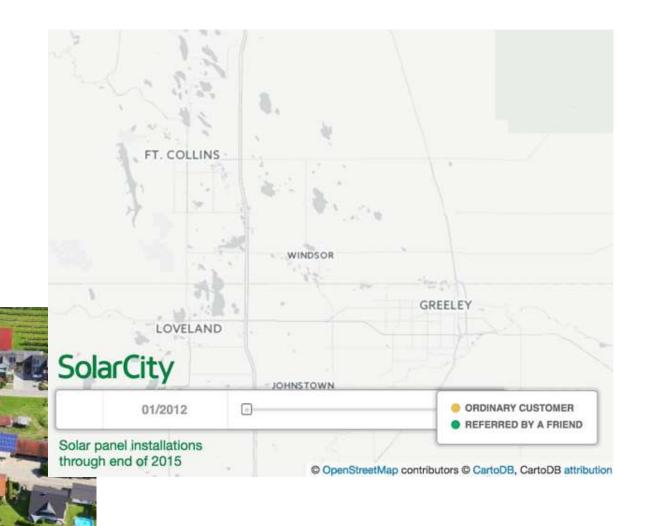


Figure 5: Super-leverage points and tipping cascades

Greater battery/powertrain deployment in cars reduces cost for trucks & vice versa + shared charging infrastructure

SLP 1. MANDATING ZERO-EMISSION VEHICLES







Greater electric vehicle deployment increases demand for renewables

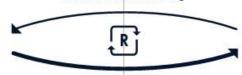
Cheaper batteries reduce costs of renewable energy + storage



Cheaper renewables reduces cost of running electric vehicles



Greater green H2 production increases demand for renewables + use for seasonal balancing



Cheaper renewable power reduces cost of running electrolysers

Greater heat pump deployment increases demand for renewables Cheaper renewables reduces cost of running heat pumps



SLP 2. MANDATING GREEN AMMONIA USE IN FERTILISER PRODUCTION







Source: The Breakthrough Effect, Systemia





Green Futures Network





Local knowledge
Communication channels
Roles and processes
Legitimacy

"Mutual aid offered by groupbased models and social movement networks provides routes to community resilience that support community-led responses to climate change focused on collective advocacy and care."

Elise Harrington and Aileen Cole Typologies of Mutual Aid in Climate Resilience: Variation in Reciprocity, Solidarity, Self-Determination, and Resistance – June 2022

VOLUNTEER FOR MUTUAL AID

