



The power and potential of networks

The case of ECD in South Africa

Presentation to the Annual Meeting of the Early Childhood Regional Networks Fund

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DG Murray Trust
5 October 2023

The superpower of networks

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graph TD; A[The superpower of networks] --> B[The features of networks that create superpower]; B --> C[An example from ECD in South Africa]; C --> D[The risk of network sludge];
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The features of networks that create superpower

An example from ECD in South Africa

The risk of network sludge

The superpower of networks



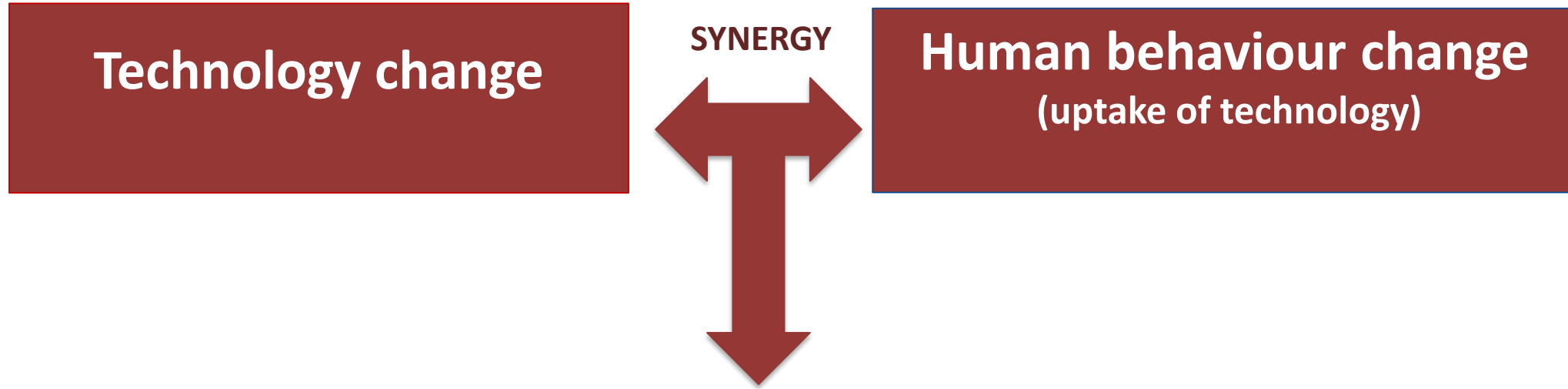
The features of networks that create superpower



An example from ECD in South Africa



The risk of network sludge



“Human and material resources are endowed with new and greater wealth producing capacity”

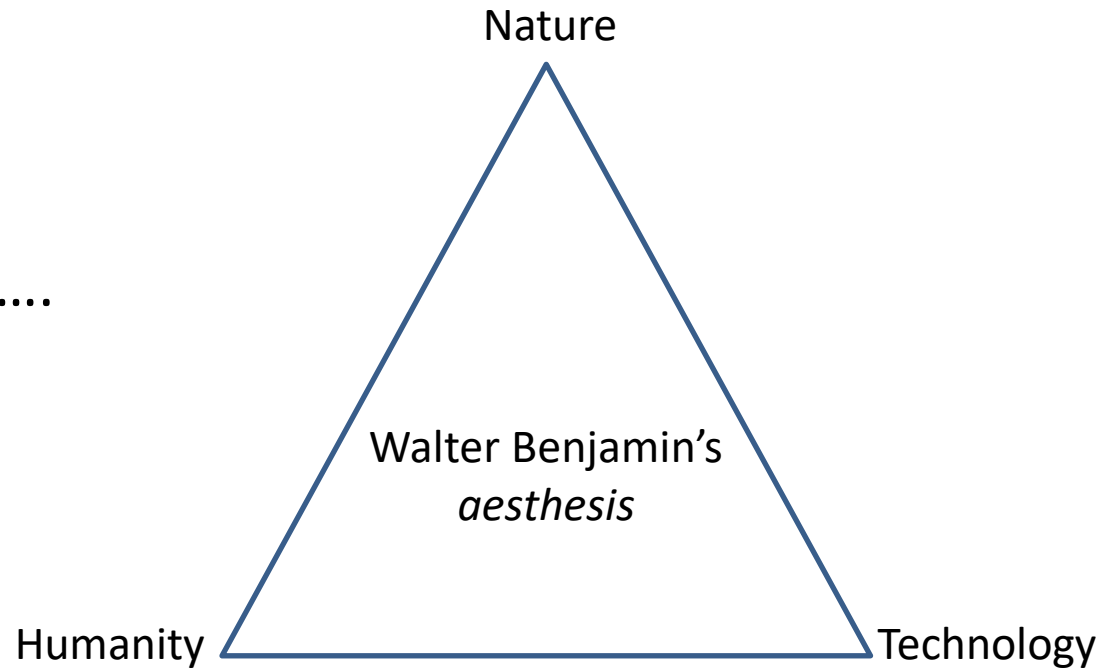
Drucker P (2006). Classical Drucker. Harvard University Press

But the capitalist understanding of innovation is incomplete

First, it subjugates nature and therefore threatens our future through environmental damage

“[T]he capitalist concept of technique as a whole” reflects “a wish of domination, a master and slave relationship” with nature”. - *Ernst Bloch, Principle of Hope, 1952*

Compare that to....



Source: Mourenza D (2020) Nature, Technology, Humanity: The Key Triangle for Walter Benjamin's aesthetics.

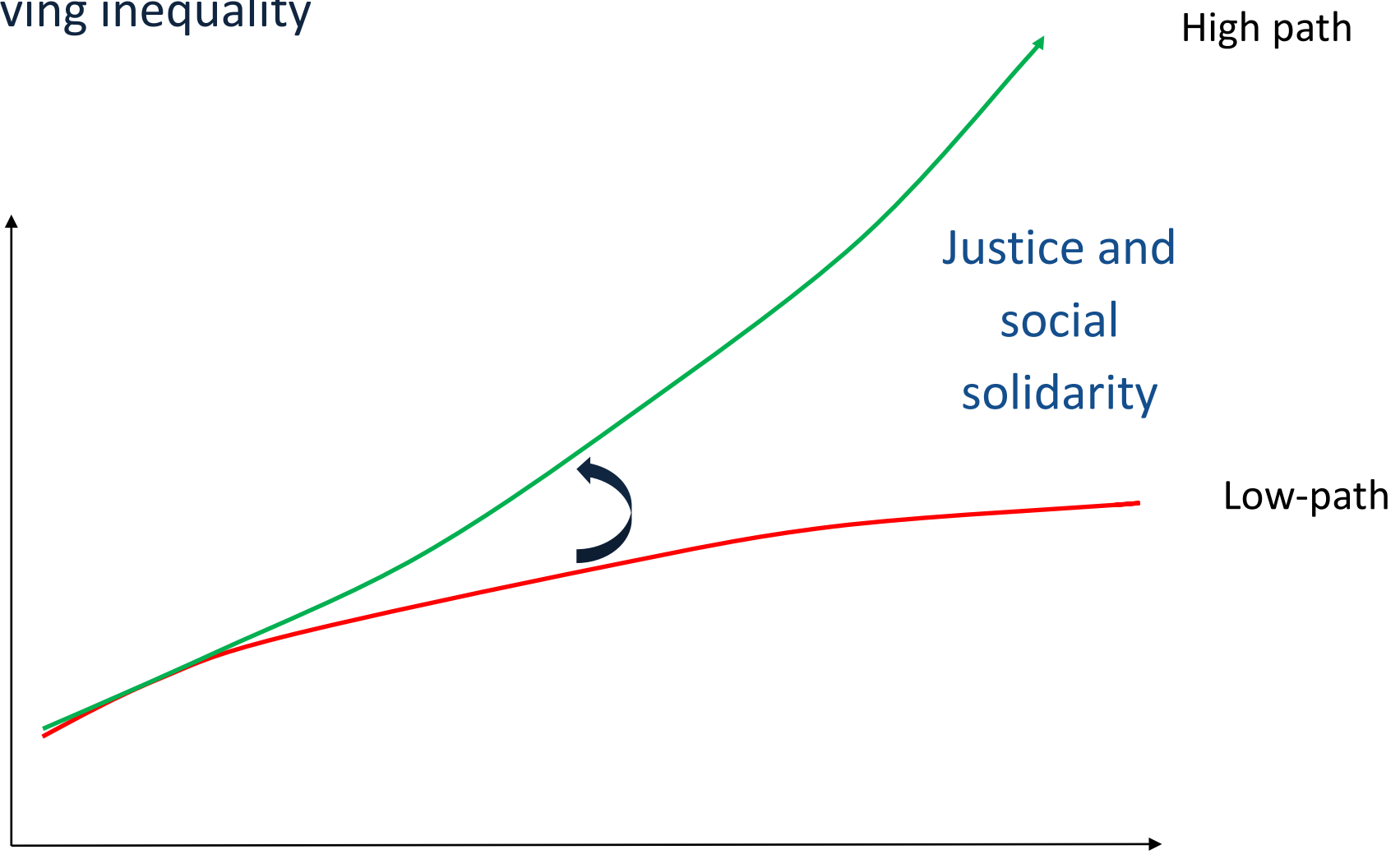
https://www.academia.edu/9117343/Nature_Technology_Humanity_The_Key_Triangle_for_Walter_Benjamin_s_aisthesis

The capitalist understanding of innovation is incomplete

Second, it reduces human development to wealth creation alone and threatens our future by driving inequality

Compare that to...

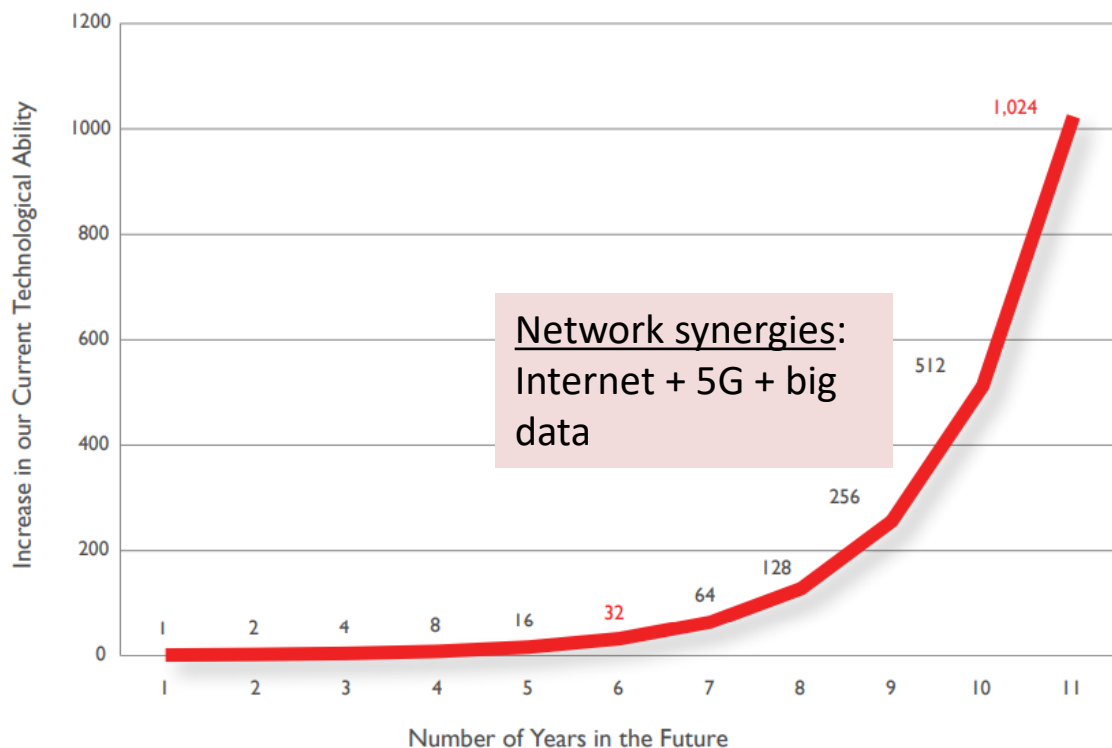
The Human Project



Today, acceleration of innovation is largely due to network-based synergy

Human Intuitive Perspective of Technological Advancement in Ten Years

A Thousand Times More Advanced



We are drowning in information, while starving for wisdom. The world henceforth will be run by synthesizers, people able to put together the right information at the right time, think critically about it, and make important choices wisely.

- EO Wilson (1998). *Consilience: The Unity of Knowledge*.



“The knowledge worker as synergiser”

Law of Accelerating Returns.

<https://theemergingfuture.com/speed-technological-advancement.htm>

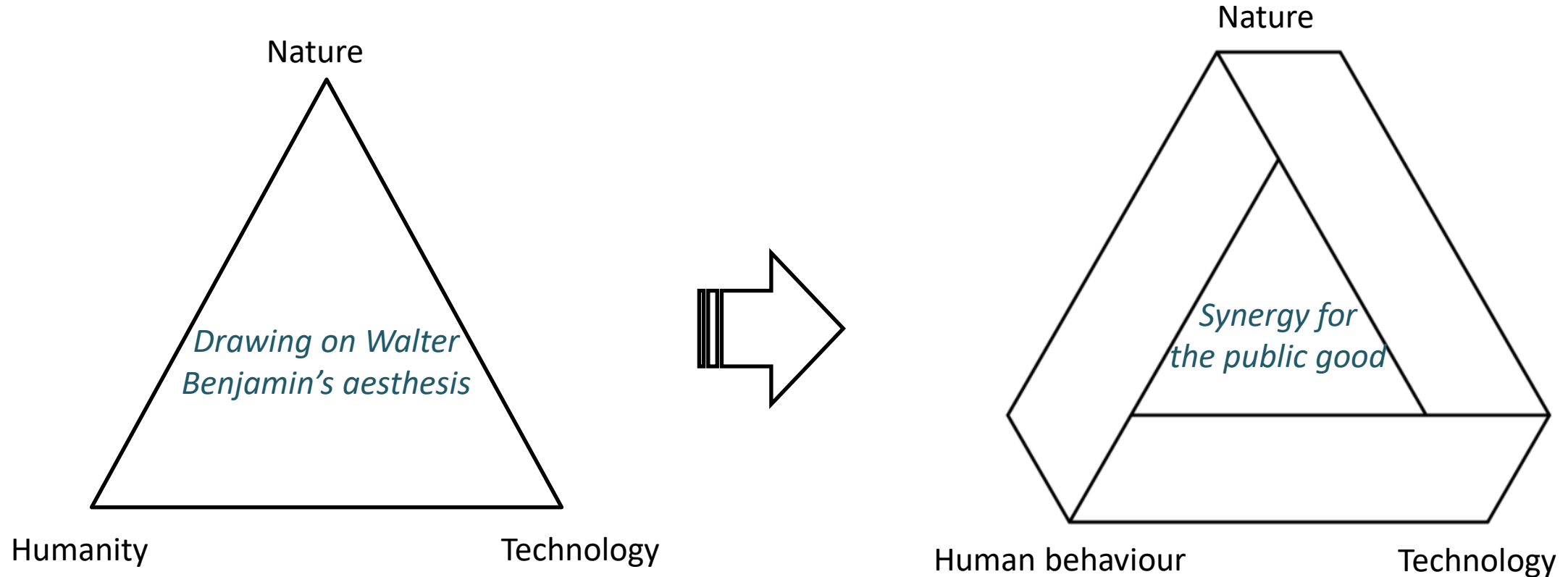
<https://www.kurzweilai.net/the-law-of-accelerating-returns>

Turriago-Hoyos A, Thoene U, Arjoon S (2026). Knowledge workers and virtues in Peper Drucker’s management theory. SAGE Open Jan-Mar 2016:1-9.

<https://journals.sagepub.com/doi/pdf/10.1177/2158244016639631>

We are not keeping up - we need more synergisers for the public good

Innovation for the public good is constrained by market failures – negative externalities like pollution, price-based subdued demand, information asymmetry – and needs powerful synergisers.



SYNERGY

through which

human and material resources are endowed with new and greater
value for all people and for our environment

The superpower of networks

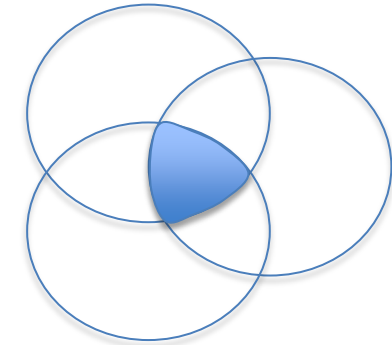
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NETWORKS CAN...

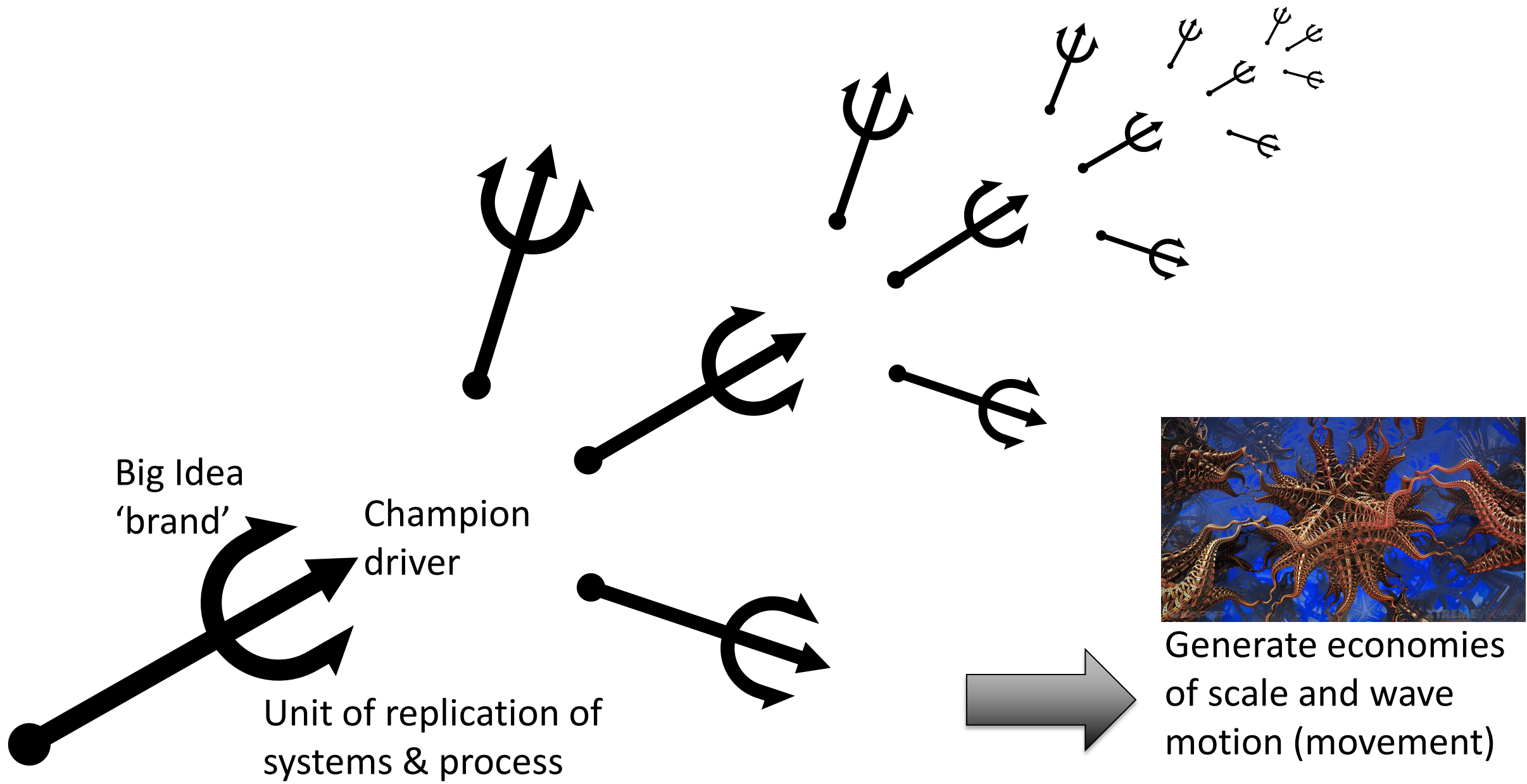
1. enable the 'complex contagion' of a Big Idea
2. be based on replicable fractals
3. be self-propelling



Complex contagion

Big ideas don't just go viral: To spread, they need a complex of reinforcing local ties and wide bridges.

Centola D (2010). The Spread of Behavior in an Online Social Network Experiment. *Science* (Sept. 3, 2010): 1,194-1,997



Provisioning and infrastructural networks tend to be 'vascular'

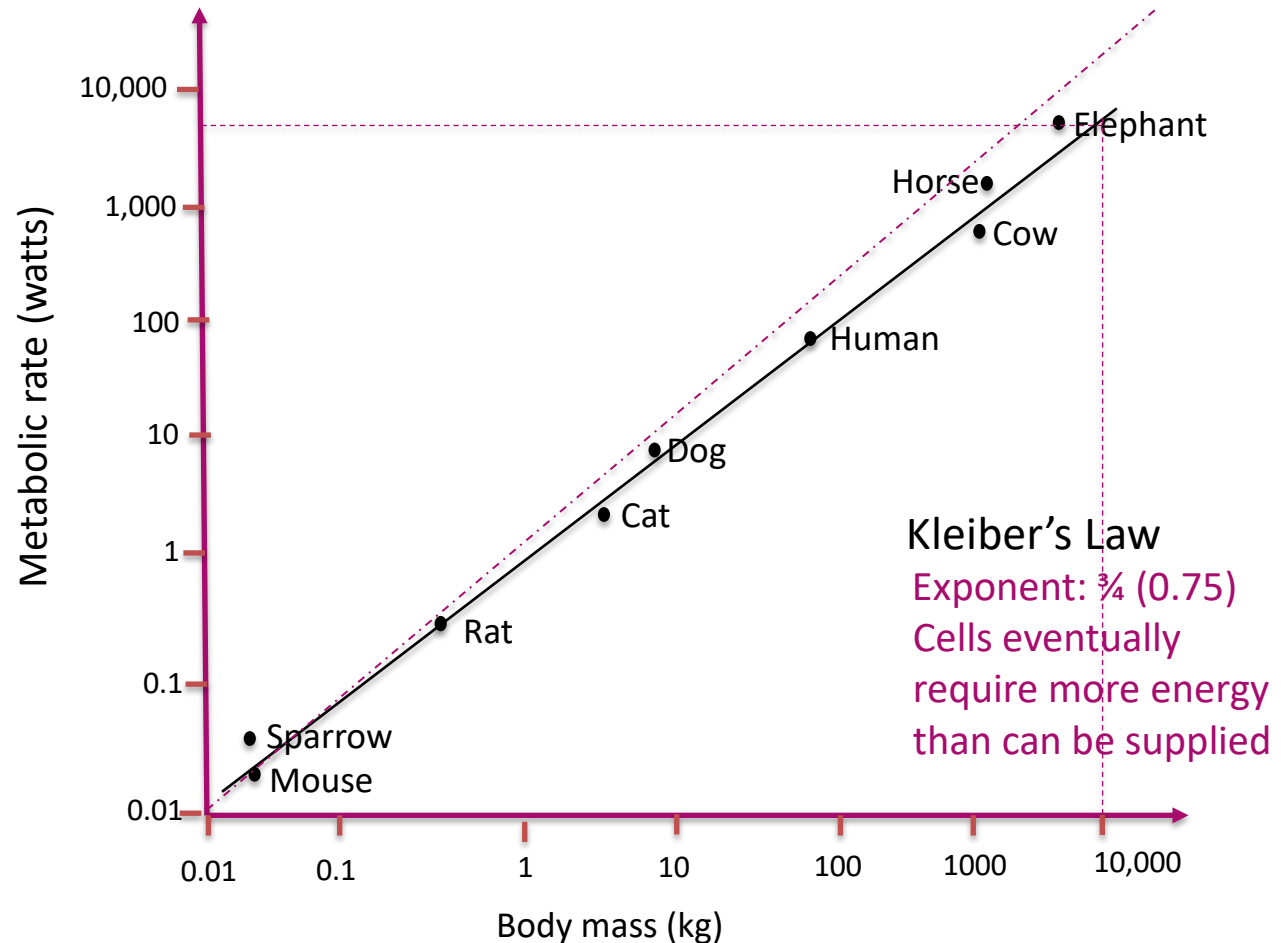


Source: West G (2017). *Scale: The universal laws of life, growth and death in organisms, cities and companies*. Penguin Books, NY

'Vascular' networks scale sub-linearly

Blood circulatory scaling is sub-linear.

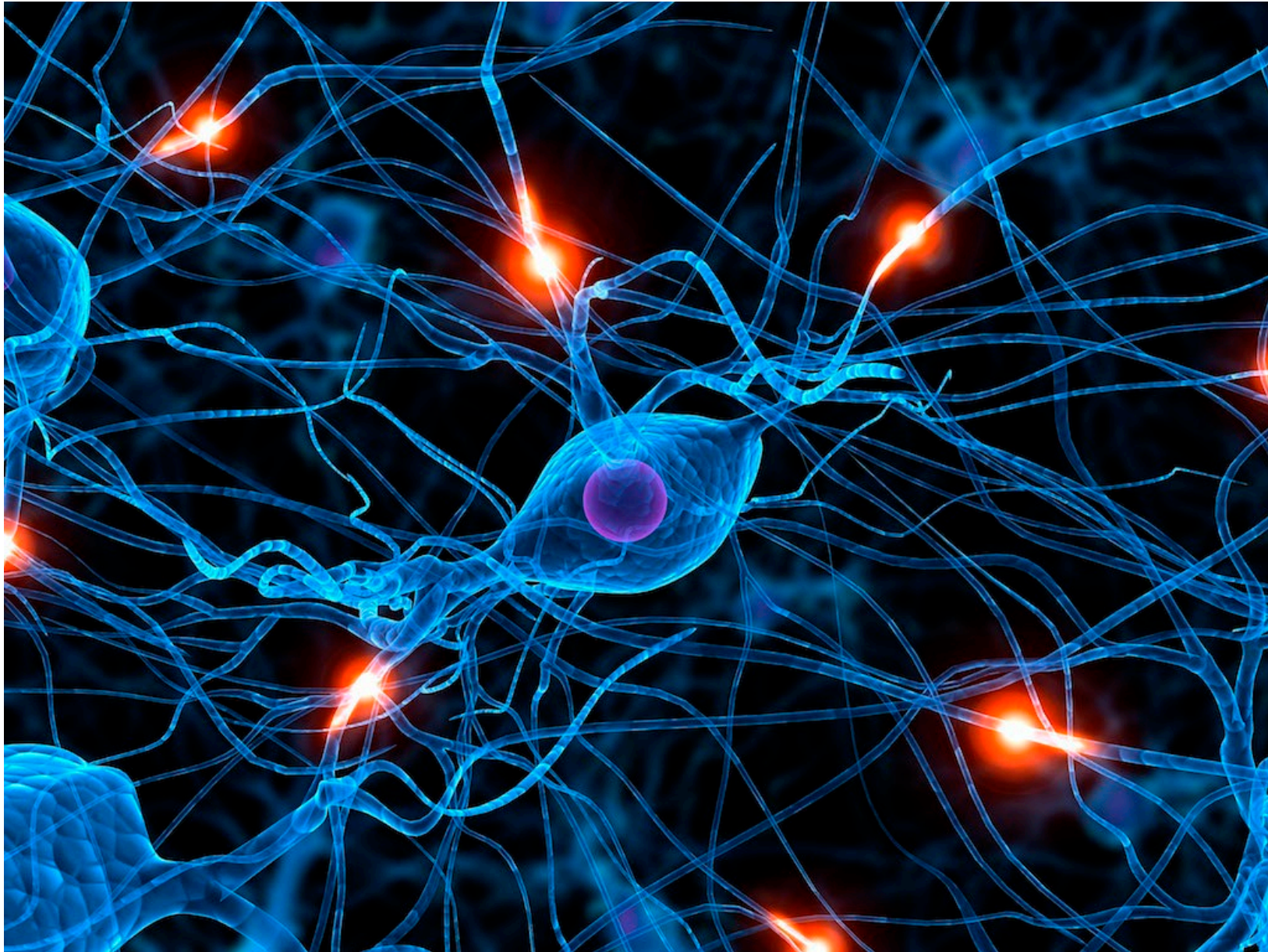
Metabolic rate can't keep up with animal size and ultimately end-user demand outstrips supply



Source: West G (2017). Scale: The universal laws of life, growth and death in organisms, cities and companies. Penguin Books, NY

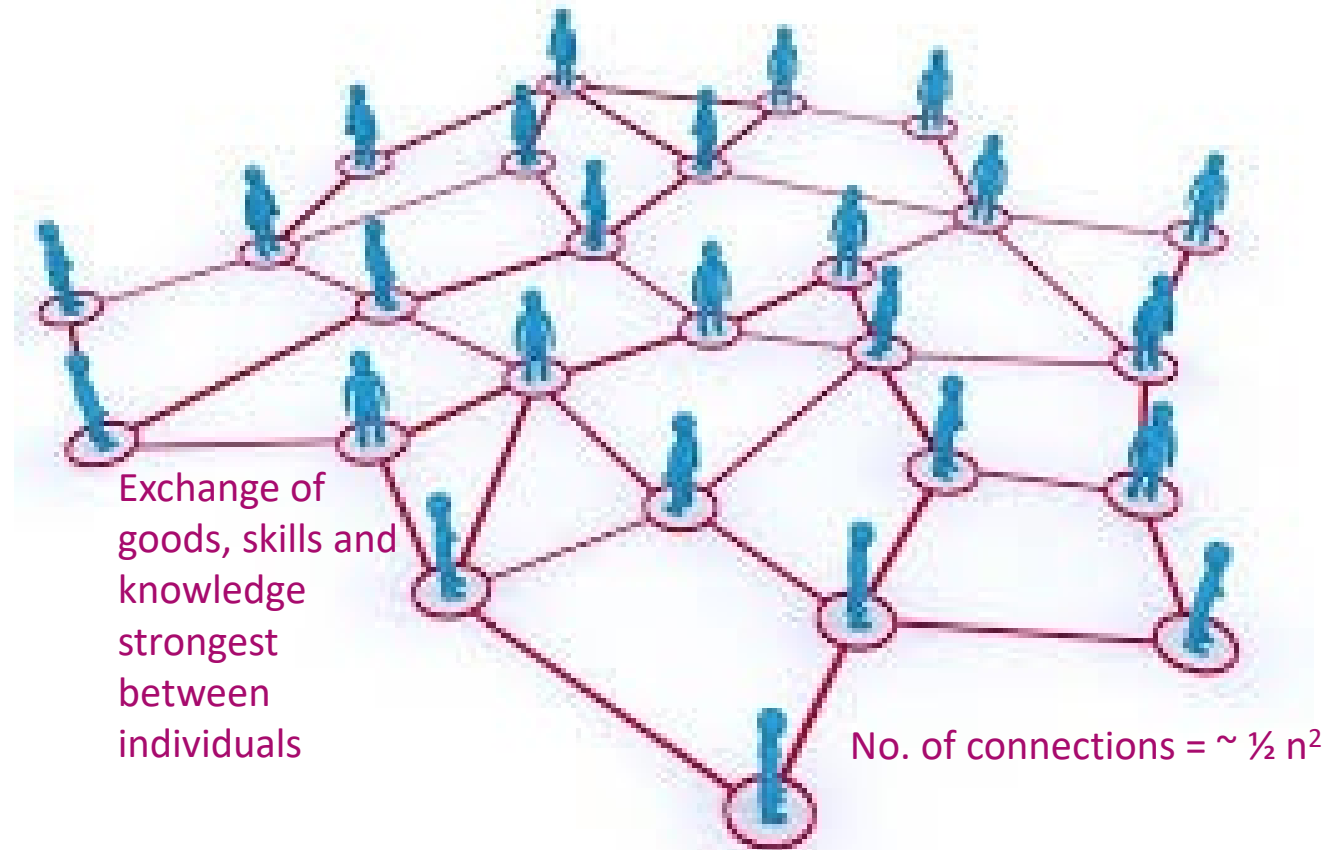
'Neural' networks scale superlinearly

The bigger they get, the more energy they generate



Knowledge-based networks are neural i.e. they scale superlinearly and are self-propelling

Each time a social network doubles in size, the number of connections increases ~ 4 fold and the sharing of knowledge keeps adding value at the periphery



The superpower of networks

The features of networks that
create superpower

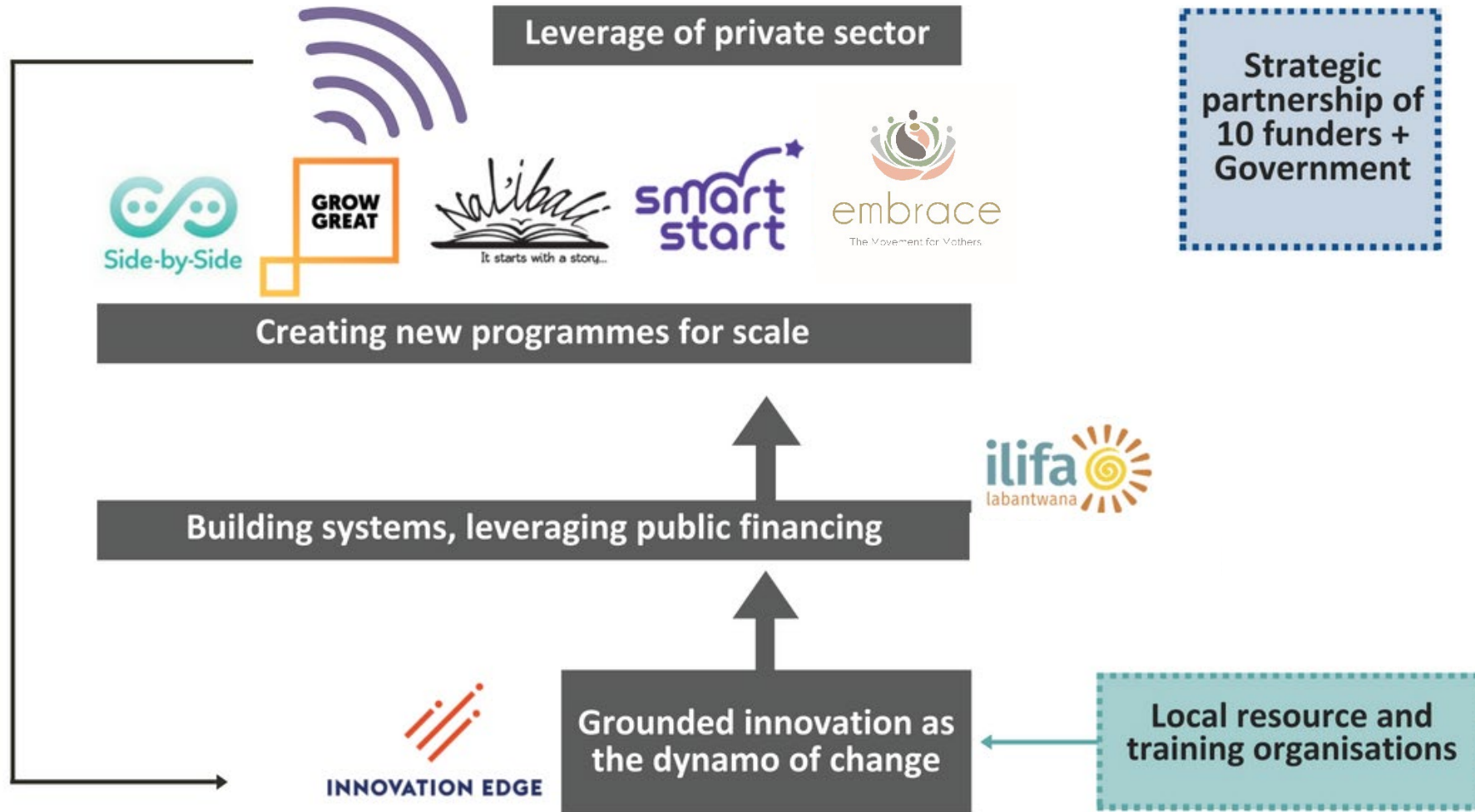
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Support for scale-up of ECD



Harnessing the power of networks: The ECD case in South Africa

ENABLE COMPLEX CONTAGION OF AN IDEA

Funding coalition:

- Pooled funding
- Collective custodianship of the idea
- Policy windows approach – empirical evidence, public demand and political interest ¹

USE FRACTAL DESIGN FOR SCALING PROGRAMMES

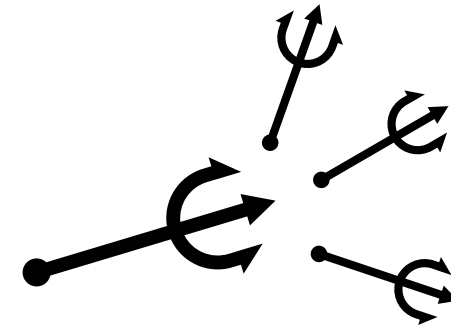
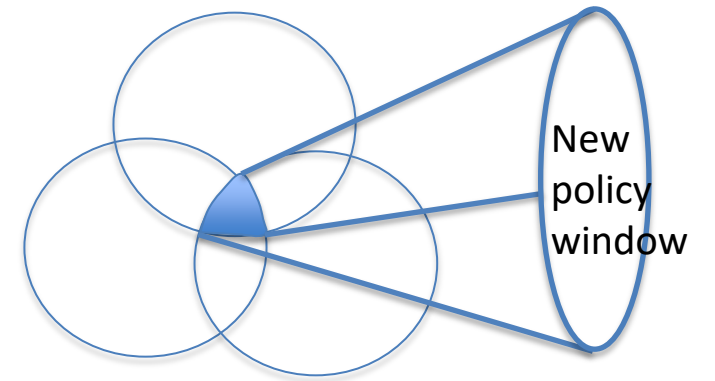
Social franchising:

- Strong brand
- Standardised unit of replication of process
- Champions franchisor and franchisees

BUILD ON EXISTING SELF-PROPELLING NETWORKS

Value-add to networks:

- Access to government funding
- Knowledge enrichment
- Quality enhancement



Informal socio-economic networks of childcare

1. John Kingdon (1984). Agendas, alternatives and public policies, Longman

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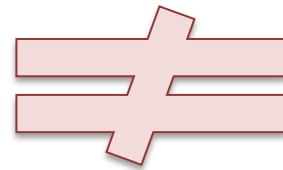


An example from ECD in South Africa



The risk of network sludge

Inefficient networks



Synergy

— Knowledge-hoarding

— Fear of competition for resources from new participants

— Echo chambers and talkshops

— Collective risk aversion to new ideas

Maximise the power of SYNERGY through your network strategies.