

”De-Central Acting Teams & Shared Info and Objectives ”

ir. Jaap van Till, visiting professor
09 sept 2023 11:00 – 12:00

- How to create value together ?-

A little rebellious talk to inspire

at the Piratenweekend 8 t/m 10 September 2023

Bergen (NH) , The Netherlands

Blog: TheConnectivist dot wordpress dot com

1. Introduction:
What are the Problems



- Unexpected? Governments and press jump from Crisis to crisis. I counted at least 32 issues which are not adressed/ solved
- NL 1 million people below poverty level → our teflon PM “ do not blame me “ WEF does not know HOW solve: Extracting Value?
- Solutions? Postponed. Complexity (interwoven) -Fighting symptoms? Get stucked ! Unhappy and depressed young people: Future?
- Stronger Command & Control vs extreme viewpoints THEY BOTH JUST DO NOT WORK Politicians: Rebuild, rebuild HOW 2

Herstel? Wereld zit nog steeds in een Crisis, en midden in een **Transitie**

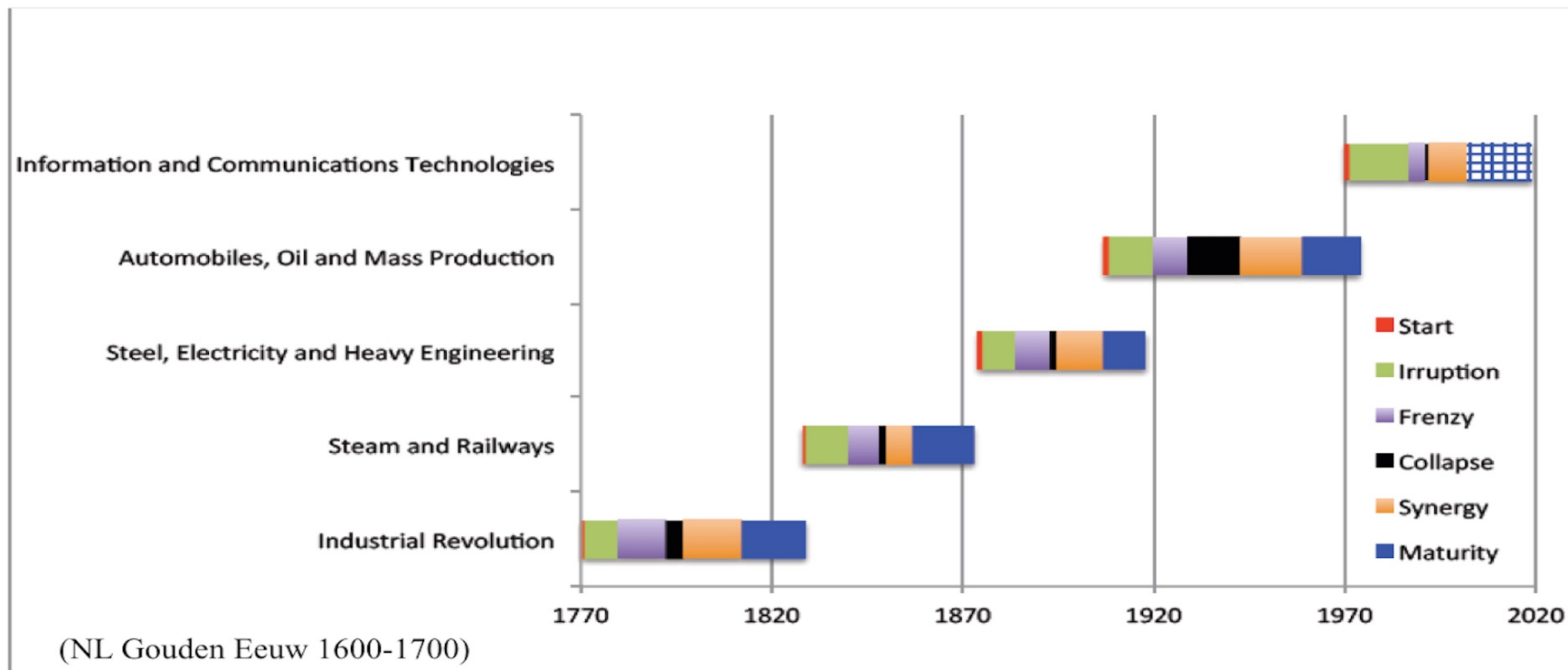


Figure 1: Technological revolutions since 1770 for the five different technology disruptions. (Source: C. Perez (2004) and authors' calculations)

Vorige = Industriële Know How: gedreven door Olie, Chemie en Electro-Mechanica als 'General Purpose Technology'. Grote bedrijven waren de hoofd spelers.
Huidige G.P.T. = ICT: Computer HW, SW en... **Verbindingen** ertussen. Zit overall in.
" The Age of Infrastructure " (Rifkin)

2. What is coming

In aantocht zijn de achtereenvolgende leercurves en infrastructuren: (Innovatie clusters)

- 6. 2024 **Circulaire Economie**, Biotech, Nanotech, reparatie en hergebruik. Donut economy.
- 7. **Regeneratie** van *Ecologies of Life* in en ondergeschikt aan de 1Planet Natuur, topsoil (16 cm)
- 8. Constructie van netwerken met “**collective intelligence & decentrale autoriteit**”, hologram, networked democracy
- 9. Bouw van de **Global Brain**: connectivity van $> 10^{10}$ mensen
- 10. **Gaia** komt tot leven, wordt bewust en begint verbindingen met andere planeten te maken

Voor toelichting zie video: https://www.youtube.com/watch?v=Tz6_Zuvvrt0

ERROR: Assumptions, structures, habits and policies in (Civil) society are still INDUSTRIAL THINKING⁴

AGRICULTURE PERMACULTURE

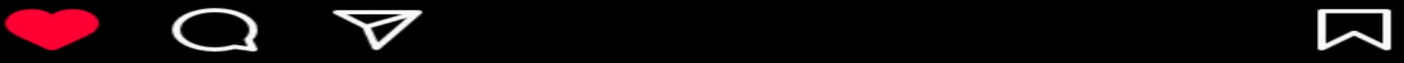


Industrialised Farming

COMMAND & CONTROL NATURE ??

RE - GENERATION

With many life forms
In Nature blooming



toritsui_ en 17.965 anderen vinden dit leuk

earthlyeducation It's time for a transformative

Also in-body: Neuro-plasticity

What is the problem: Neoliberal Capitalism does not work any more.

Value extraction at the expense of people (slaves) and nature.

old **hierarchical** organizations (Napoleons army **central control**) **Taylor: Thinkers/doers**

can no longer cope with COMPLEXITY --→ Simplifications, ineffective

- Too many levels of management
- Decisions **Too slow** (reaction time)
- Inward looking Command & Control
- Endless meetings, present/approval
- Filtering (bits, simple, good news)
- Upwards information (aggregates)
- Downwards: instructions
- No overviews, no explanations
- Could not communicate with lower layer employees
NOW WE CAN !!
(**networked** transparency)



- Central Overview (model) Too simple
- **Out of touch** with reality (busin. process)
- Confirmation of “working” model only (prejudices); Push R&D → market
- Cannot cope with unexpected surprises
- Vulnerability * huge bureaucracies (Ashby’s Law)
- Organization does not Learn, innovate
- Talent and creativity wasted : young nerds
- Does not scale up well
- Cannot cope with diversity
- Middle management, admin jobs ?? AI ??
- Competing silos, power struggles, non sharing, does not work. Mis- trust , Controlaholics
- Both young & innovative ignored, excluded

External:
Complex
Reality



Business Process

aanpak : Kantelen & P2P Co-creation
Value chain of partners
Aanpak complexity : Liebig’s Law

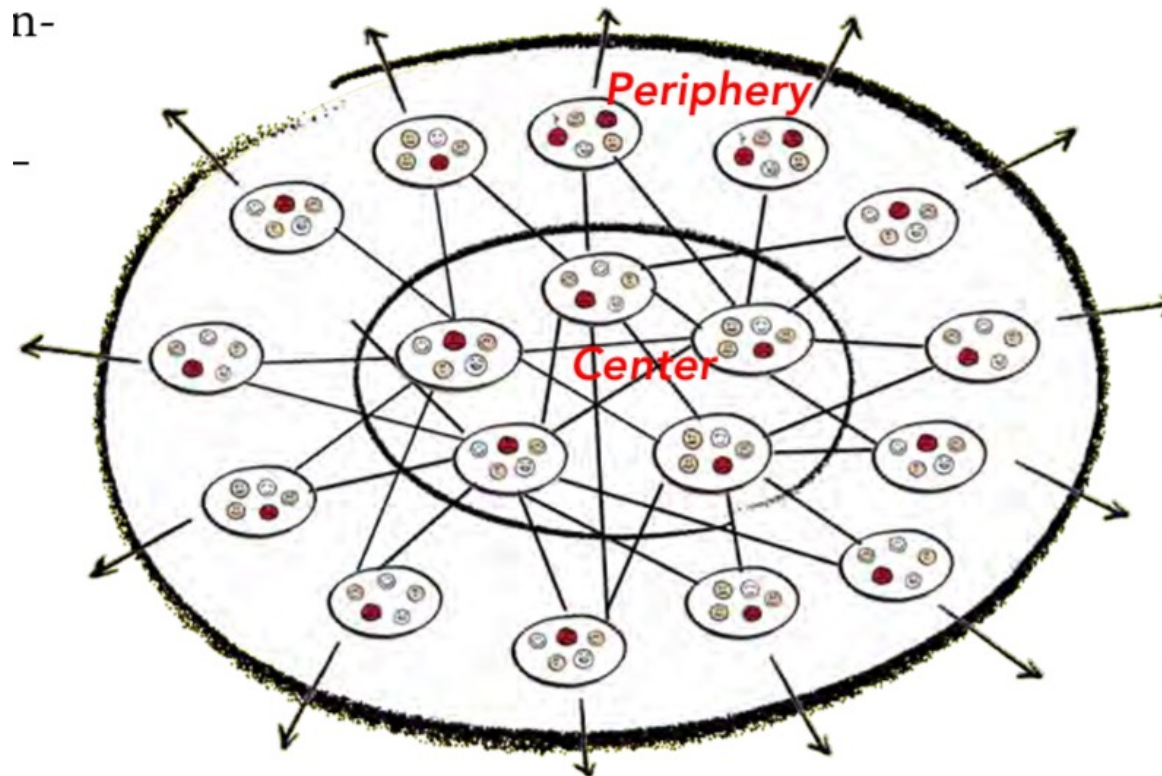
3. HOW: Direction of solutions

I. Innovations from the frontlines of Ukraine



In oorlogstijd worden vitale innovaties uitgetest, is kwestie van leven of dood. De-colonize. Ukraine heeft sinds 8 jaar, na Maidan-square snipers 2014, heel veel hightech in elkaar gezet voor komende strijd aan het front. They digitized the war. Remote operation Drones, UAV's

Belangrijk is hun **Battlefield Information Sharing**: Decentrale initiatieven en autoriteit maar met Collective Intelligence: Gedeelde visie en missie. Verbonden. VALUE CREATION Delta system [1] Gevoed RT door waarnemingen vanuit vele bronnen, maar ook weer teruggevoerd als overzicht naar alle bijdragers. Incentive !! Co-Creatie. Experience tested and fed to others. Lerende Netwerk-organisatie !! Zie ook <https://betacodex.org/>. Concern for people



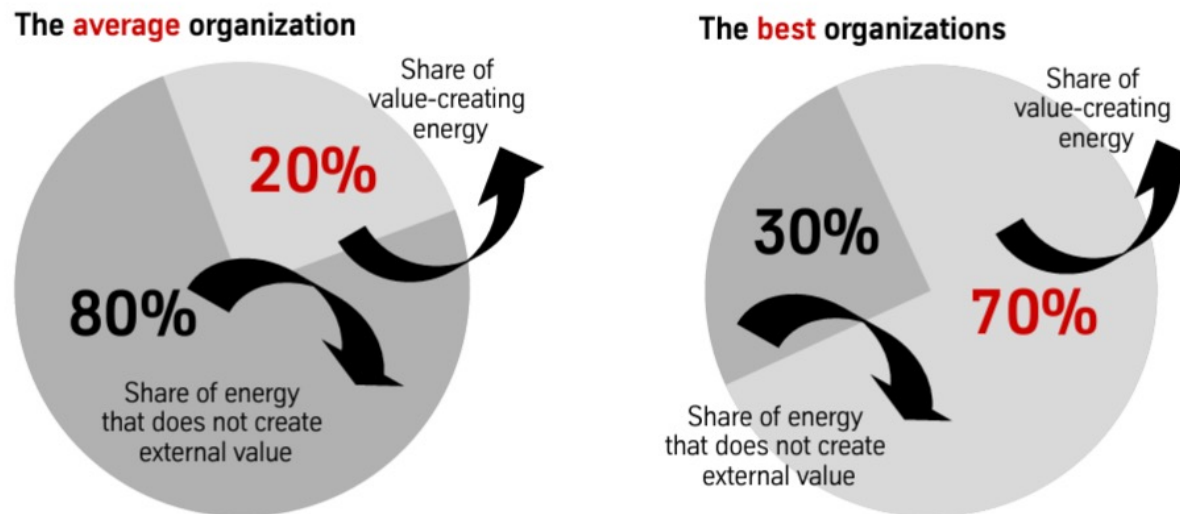
Delta system, see [1]. Digitized war.
 Decentral authority & Collective Intelligence
 Management ??? Only for certain tasks (strategy)

Diversity (multidisciplinary) Skilled people teams
 Cooperating Self steering, co-creating
 Connected tablets and smartphones
 Starlink , Wifi and optic fiber links

Top down → bottom up? Intern /Extern
 Small teams. Fast reactions, learning, creative

HOW Direction of Solutions II : The BetaCodex structure approach

Organizations today are grossly ineffective. Because most of us have flawed ideas about what actually makes them tick

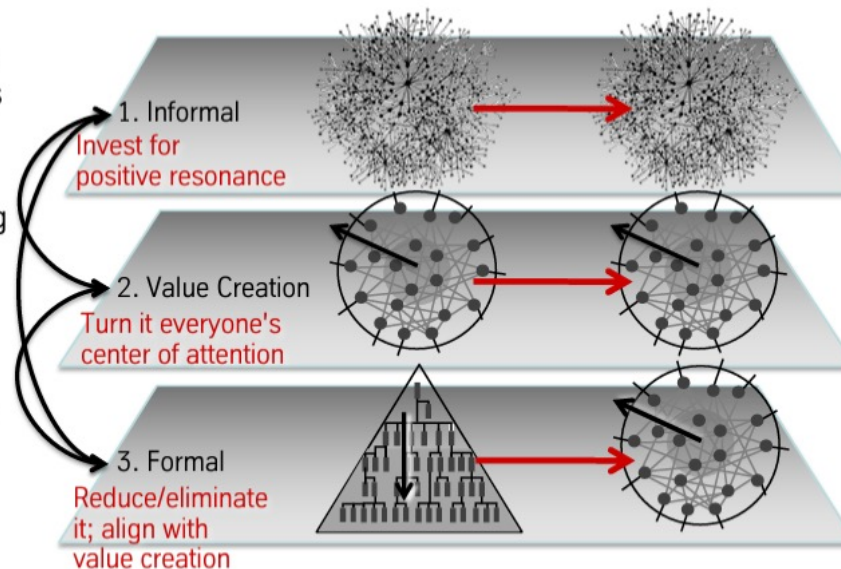


Organizations work through structures. And every organization has three of those. Not one. The problem: Hardly anyone in business is aware of that - and that's why so much investment into effectiveness and change simply misses the point. Let's consider why this is urgent.

What “organizational transformation” is. And what it means.

Organizational transformation intended to produce higher organizational and individual success, effectiveness, and happiness, should consequently focus on the following guiding principles:

- 1. Eliminate Formal Structure**, as much as possible, by fully aligning it with value creation and by allowing it only for external compliance. Make the work independent of formal structure.
- 2. Focus all organizational energy (e.g. with regards to learning and mastery) on the first two structures** - *not* on formal structure, which is trivial. Approach Informal and Value Creation Structures with a systemic mindset.
- 3. Support the positive effects of Informal Structure** through high levels of transparency, investment in self-awareness of teams, radical decentralization of decision-making towards the periphery, and also through bonding rituals, and strong, shared values and principles.



Focus on VALUE
CREATION in
Small teams.

Management less
Important
NON-TAYLOR
Industrial thinking

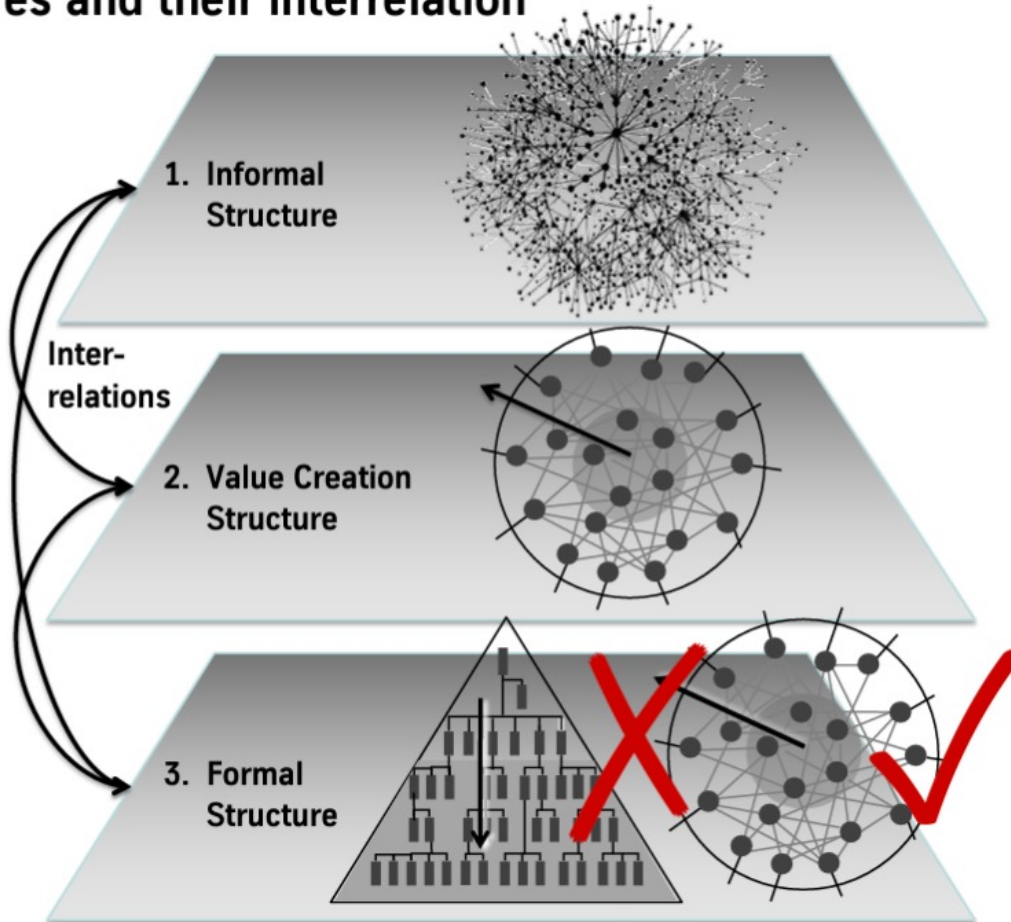
Treat each person as
valuable and respect!

Putting it all together.

The three structures and their interrelation

The three structures of an organization strongly influence each other.

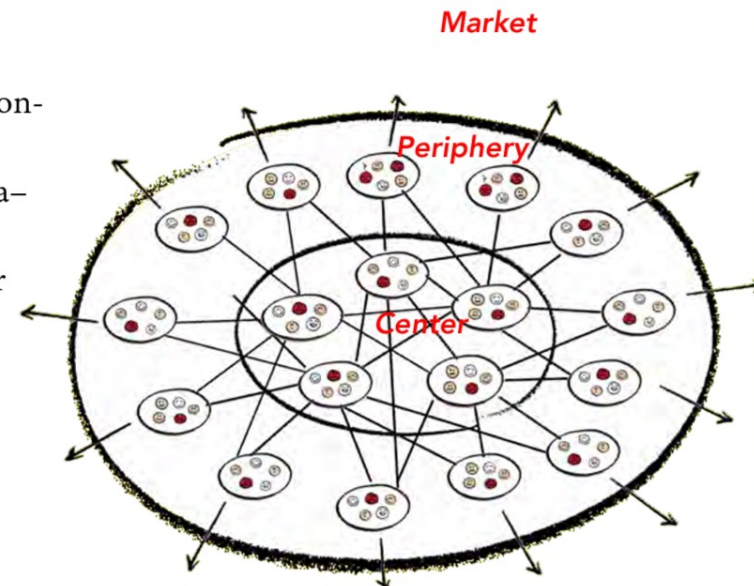
Remember:
Value creation only occurs through the 2nd structure, whereas the 1st is a natural collateral of social interaction and bonding. The 3rd serves only for external compliance, while it can easily get in the way of value creation, due to disempowerment of an organization's people.



Different than other organizational design approaches discussed currently, Cell Structure Design is based on the crucial insight that **decentralization is paramount, and in fact inevitable, in complexity**. While Cell Structure Design is rather new (it was published in 2021 by Red42 as an open source social technology), the insight that decentralization of decision-making should be the cornerstone of coherent self-organization, market-orientation and organizational democracy, is not. The idea of decentralization shines through in the work of early pioneers of organizational theory like Mary P. Follett, as early as in the 1920s/30s (as explored in our white paper No. 18), and it can be found in the work of Kurt Lewin (1930s/40s), W. Edwards Deming (1950s to 1990s) and Peter Drucker (1060s to 2000s), among others. See overview in our white paper No. 14.

Notably, the Socio-Technical Systems movement around Merrelyn Emery, Fred Emery and Eric Trist of the Tavistock Institute, added a lot to the deeper understanding of decentralized organizational design. Starting in 1998, the Beyond Budgeting Round Table added further depth to the approach, thanks to its case-study research on firms like Handelsbanken.

In our work at the BetaCodex Network, several white papers are a testament to our own research and advances around the matter of decentralization. First came Turn your company outside-in! from 2008, then papers on Org Physics and Organize for Complexity (from 2011 and 2012, respectively). The year 2021 finally saw the publication of Cell Structure Design as an open source social technology, available to all. For additional information, visit cellstructuredesign.com.



See [2]
(Open source)

Transparent
Information
Sharing !!

With
computer
Networks

Pattern
Extraction
From large
Datasets:
AI
(Available
for all)

Synergy

Syntheocracy

4. WHO

STEM : professionals in Science (+Biology) , Technology, Engineering and Math

Healthcare, STEM, and builder roles could grow, while demand for office support and customer service roles could decline.

Estimated future US job growth by occupational category
Midpoint automation scenario,¹ with generative AI acceleration

■ Resilient and growing occupations² ■ Stalled but rising occupations³ ■ Hit and declining occupations⁴

Occupational category	Net change in labor demand, 2022–30, %	Employment, 2022, million
Health professionals	30	6.5
Health aides, technicians, and wellness	30	11.6
STEM professionals	23	7.9
Builders	12	7.0
Managers	11	9.7
Creatives and arts management	11	2.2
Property maintenance	10	4.6
Transportation services	9	5.6
Mechanical installation and repair	7	6.6
Business and legal professionals	7	16.0
Community services	7	6.8
Education and workforce training	3	9.9
Agriculture	2	2.1
Production work	-1	13.3
Food services	-2	13.7
Customer service and sales	-13	14.7
Office support	-18	20.1

¹Midpoint automation adoption is the average of early and late automation adoption scenarios as referenced in *The economic potential of generative AI: The next productivity frontier*, McKinsey & Company, June 2023.

²Resilient during the pandemic, 2019–22, and expected to grow between 2022 and 2030.

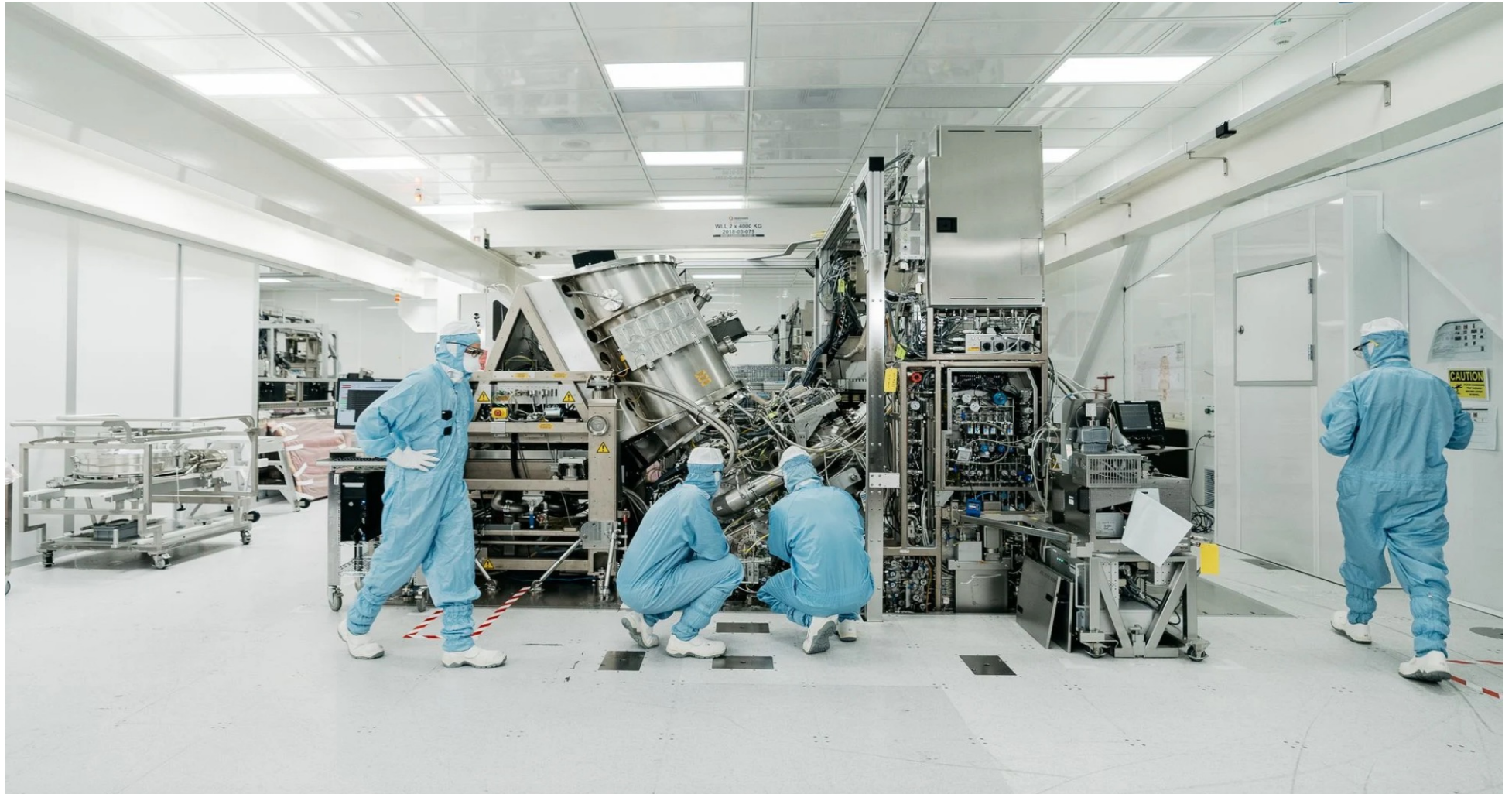
³Stalled during the pandemic, 2019–22, and expected to rise between 2022 and 2030.

⁴Hit during the pandemic, 2019–22, and continuing to decline between 2022 and 2030.

Source: O*NET; US Bureau of Labor Statistics; Current Population Survey, US Census Bureau; McKinsey Global Institute analysis

WHO Examples of recent successes of such approach in NL: (NERD NESTS)

- * HCC, ISOC.NL Computer game makers, high number of Datacenters
- WiFi, Bluetooth, BGP books, LOFAR, Long baseline astronomy, Booking.com
- De wereldwijde **ASML** waardeketen technologie, botst op handelsoorlogen met nationale fragmentatie. (bijv. exportbeperking gallium en germanium)
- SURFnet, AMS-IX, NDIX, Stratix, NOB image processing, TomTom
- NL Army TITAAN → het bestuursmodel van de **Ukraine** military operations Delta, Buurtzorg
- Gridsz, GPUs, Data Centra in NL, 100 Gbps Fiber Optic infrastructure, COCON,
- Eduroam wereldwijd, GovRoam, PubliRoam Bits of Freedom
- **NOW**: Digitalisation. Education →> Regeneration of Nature



ASML = Advanced Semiconductor Materials Lithography Value Chain of the best contributors!!

5. Advice to Pirates in Europe



- To really make improvements we should present and explain a new mindset (post-industrial !!, dump aged assumptions).
- De PPN knows HOW and WHO : young professionals with creativity and very special skills who can work in well connected teams and blossom by appreciation of their peers. Together they can build a better Civil Society.
- The PPN should be the party of the Digerati, who will do organisational transformation for value creation.

My TK2023 Election slogan for ‘Piratenpartij NL+ Groenen’:

**It helps if you vote for somebody who
knows how things work!**

Much to learn from nature:

This is what a tree showed
After it was struck by lightning
Paths for food/energy and info





We should be humble: each of us is one of the trillion AI connected braincells of GAIA's Global Brain

Articles which give background to this lecture

[1] <https://warontherocks.com/2023/08/open-source-technology-and-public-private-innovation-are-the-key-to-ukraines-strategic-resilience/>

[2] <https://issuu.com/nielspflaeging./docs/betacodex-organiseervoorcomplexiteit>
De andere white papers 1 t/m 19 zijn engelstalig en te vinden bij:
<https://betacodex.org/white-papers/>

For further reading 1

- Jaap van Till, Chapter 3 in “Handbook of Research on Software Quality Innovation in Interactive Systems”, Editor: Cipolla-Ficarra, Francisco Vicente; IGI Global, 2021.
- George Monbiot, “Regenesis” - Feeding the World without devouring the planet - ; Alan Lane; 2022.
- Joshua Cooper Ramo, “The Seventh Sense” – Power, Fortune and Survival in the Age of Networks”; Little, Brown and Company; 2016.
- Jeff Hawkins, “A Thousand Brains” - A new theory of intelligence-, Basic Books, 2021
- Sibylle Berg, “Grime” - A Novel - ; St.Martin’s Griffin, 2022
- Philip Blom, “De Onderwerping” - Een geschiedenis van de verhouding van de mens tot de Natuur- ; Carl Hanser Verlag Gmbh, 2022
- Peter Russell, “The Global Brain” - The Awakening Earth in a new Century- ; 2007

Futher reading/ viewing -2

* David Weinberger “Everyday Chaos”

- Kate Raworth “Doughnut Economics” –Seven Ways to Think like a 21st-Century Economist, 2017
- Carlota Perez “Technological Revolutions and Financial Capital” - The Dynamics of Bubbles and Golden Ages- ; 2003.
- Peter Corning “Synergistic Selection” –How Cooperation Has Shaped Evolution and the Rise of Humankind- ; 2018.
- S. Frederick Starr “Lost Enlightenment- Central Asia’s Golden Age, from the Arab Conquest to Tamerlane-”, 2013.
- Boulton, Allen and Bowman “Embracing Complexity” –Strategic Perspectives for an Age of Turbulence- ; 2015.
- Peter Csermely “Weak Links”-The Universal Key to the Stability of Networks and Complex Systems- ; 2006.
- Albert-Laszlo Barabasi “Network Science”; 2016. Readable online at <http://networksciencebook.com>
- Jochai Benkler “The Wealth of Networks”; 2006.
- Eliyahu M. Goldratt “The Goal”- Introduction to the Theory of Constraints (Graphic Novel) ~ Liebig Law of bottlenecks.
- Film: “The Seeds of Vandana Shiva”, see Youtube. Twitter: @drVandanaShiva and other subsoil initiatives.
- Films about Fungi networks, connected woods, etc
- Peter Russell “The Global Brain”-Speculations on the Evolutionary Leap to Planetary Consciousness- 2007
- Philipp Blom “Die Unterwerfung” –Anfang und Ende der menschlichen Herrschaft über die Natur – 2022, in Ger, IT, NL
- Dirk Helbing and Jeroen van den Hoven “Beyond Smart Cities, 2019.
- Niels Pflaeging Creating Value: see redforty2.com and #betacodex (cell structure design); 2023.

* The AVATAR films

- Jaap van Till, blogs: TheConnectivist.wordpress.com

Zie: <https://theconnectivist.wordpress.com/2023/01/11/the-vantill-transition>

- My two recent lectures for KIVI = The Royal Institute of Engineers, The Netherlands. (In the Dutch language)

Both can be found on my Blogpage TheConnectivist and then viewed on Youtube

<https://theconnectivist.wordpress.com/2023/01/22/my-lecture-for-the-nl-royal-institute-of-engineers-kivi/>

<https://theconnectivist.wordpress.com/2023/07/09/op-donderdagmiddag-6-juli-2023-gaf-ik-een-inspiratielezing-in-den-haag/>