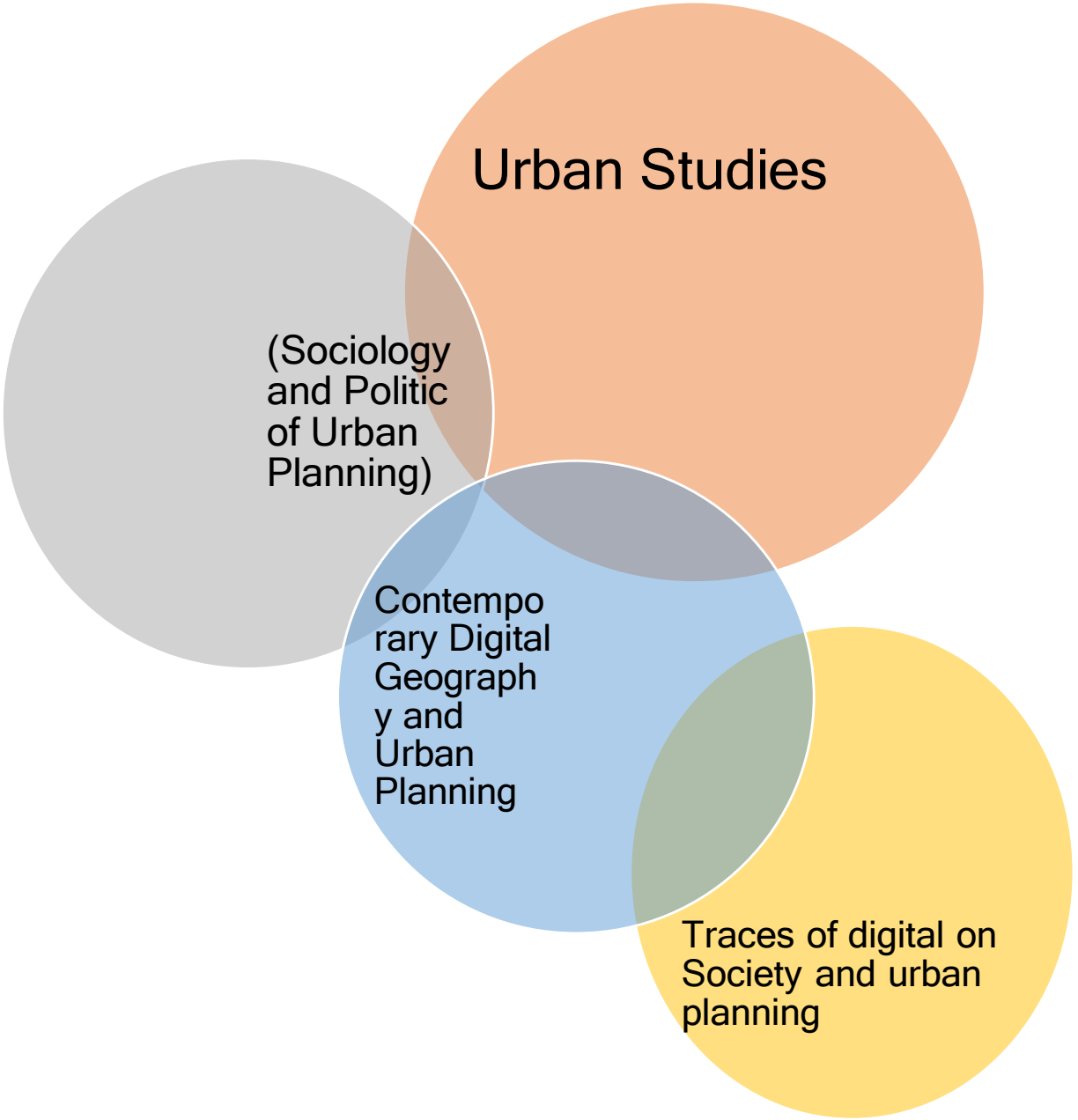
Smart Society

Diskursus Era Post Growth ataukah transisi absolut?

Yasser Wahyuddin

Academic discipline



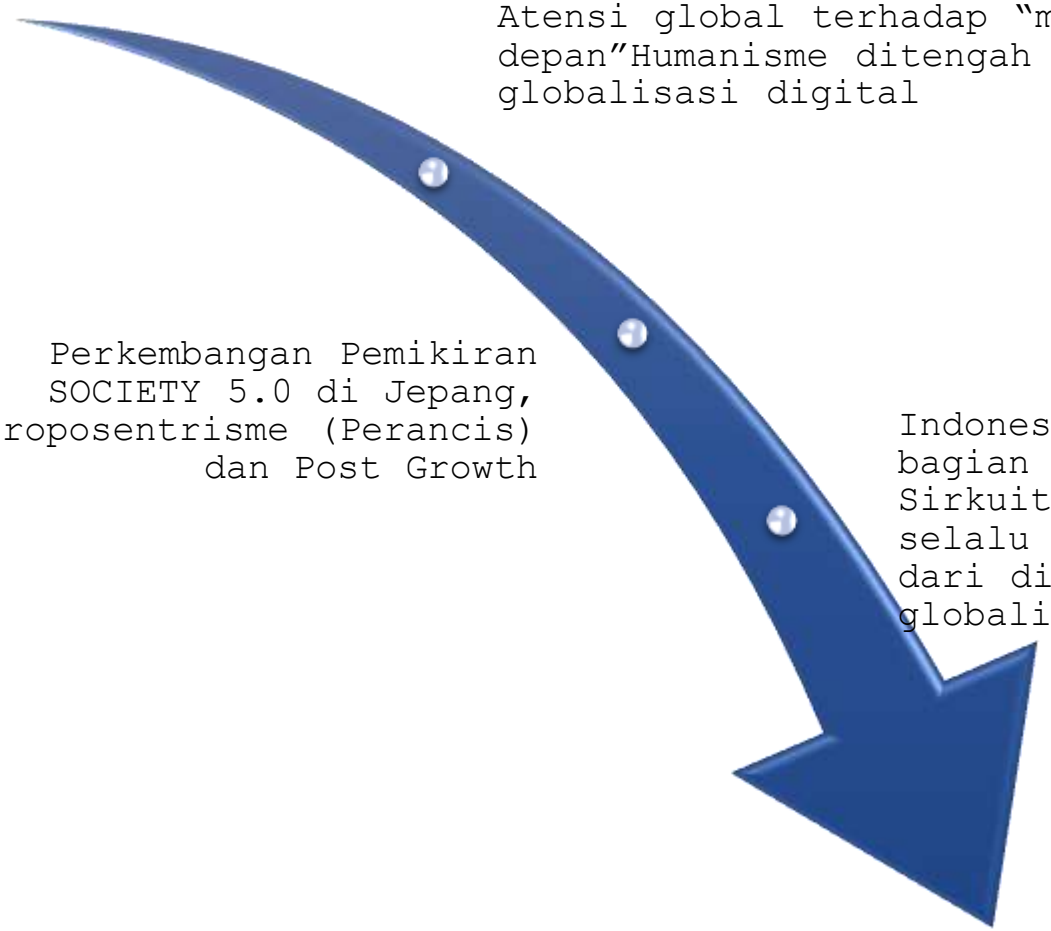
Latar Belakang

Fenomena Digitalisasi, Smart city, Industry 4.0, Society 5.0, Perkembangan Aritficial Intelligence

Atensi global terhadap "masa depan"Humanisme ditengah Tekanan globalisasi digital

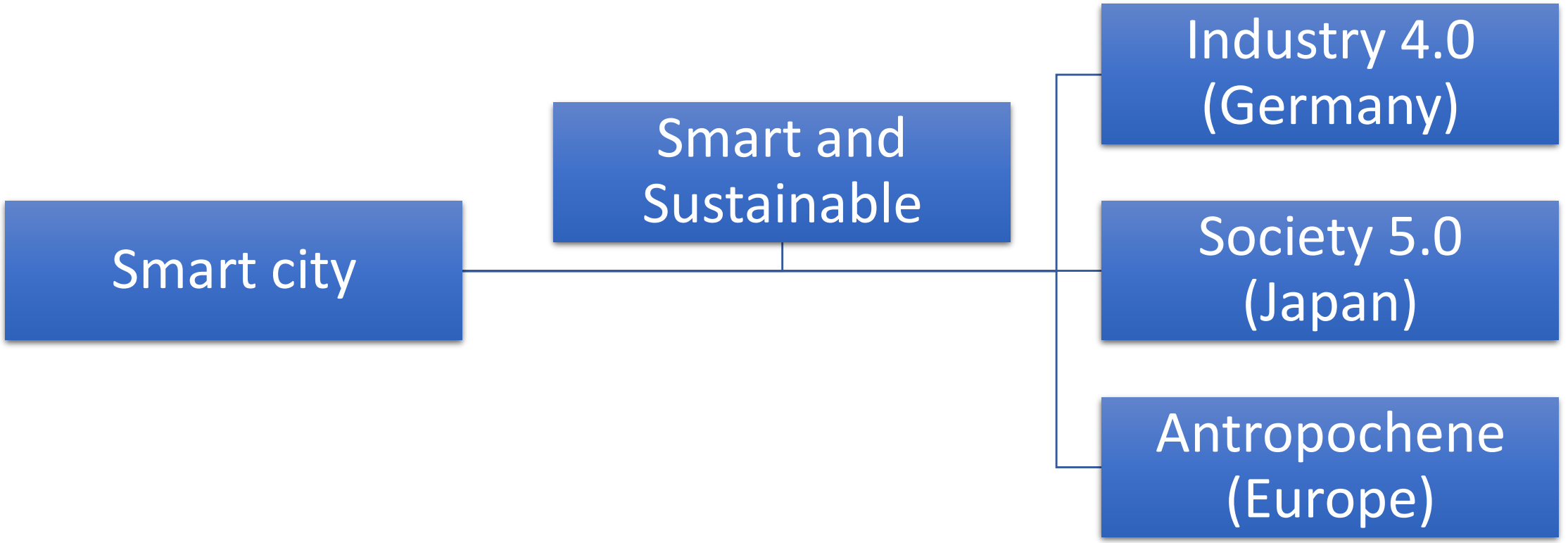
Perkembangan Pemikiran SOCIETY 5.0 di Jepang, Antroposentrisme (Perancis) dan Post Growth

Indonesia sebagai bagian dari Hub-Sirkuit Global akan selalu menjadi bagian dari dinamika globalisasi



Perlu adanya pendadaran terhadap dinamika yang berkembang oleh civitas akademik

General framework



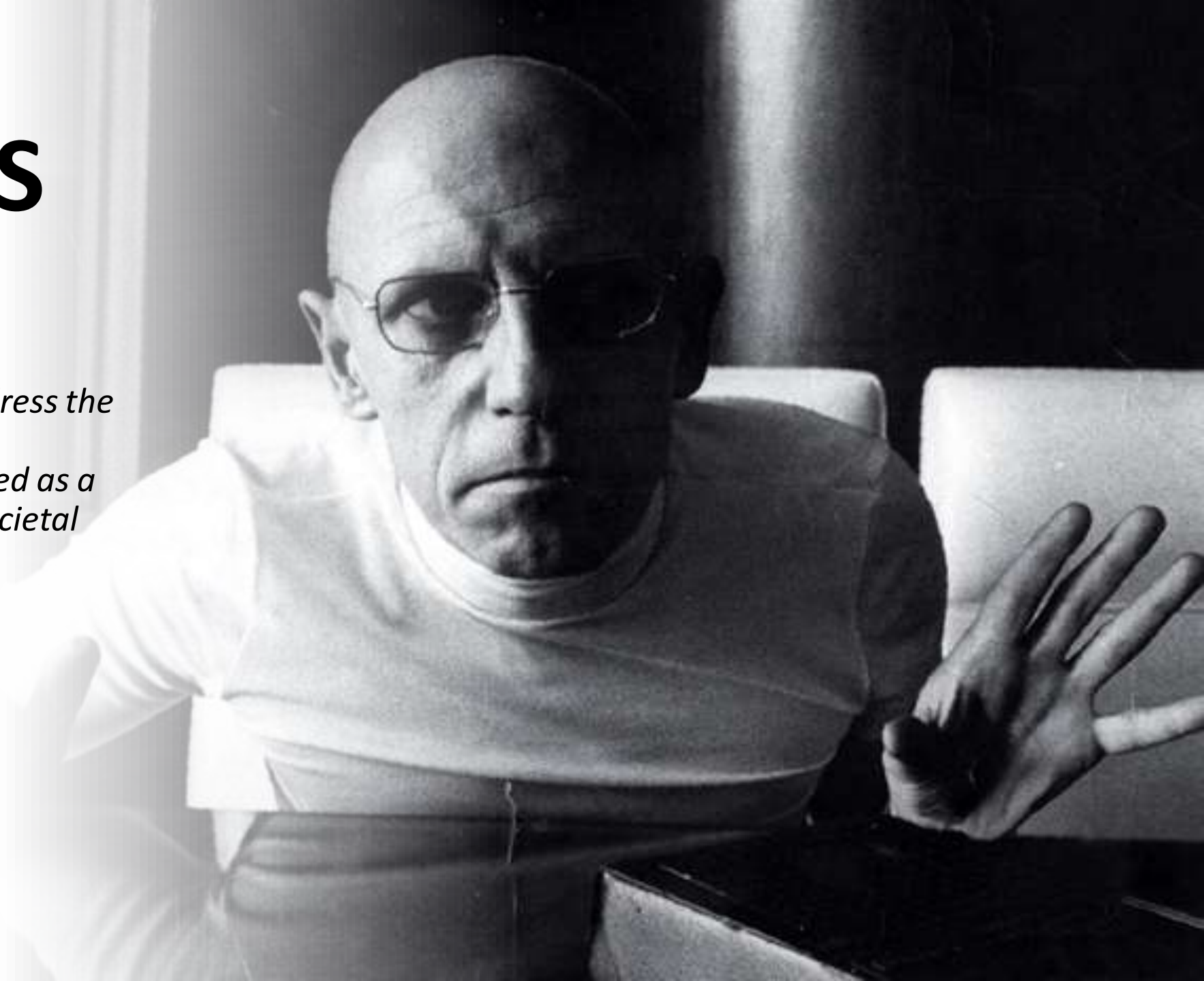
Scientific Paradigm " Thomas Kuhn"

A paradigm is ***a set of assumptions and perceptual orientations shared by members of a research community****. Paradigms determine how members of research communities view both the phenomena their particular community studies and the research methods that should be employed to study those phenomena.*

HOW SCIENCE EVOLVES

DISKURSUS

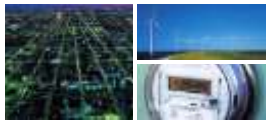
Foucault's theories primarily address the relationship between power and knowledge, and how they are used as a form of social control through societal institutions



Smart City : Dari Tech Studies Ke Urban Studies

IBM – 2000s

Smarter Traffic
Cities are struggling with traffic today—and it's about to get much worse, as the planet urbanizes. By 2010, 59 metropolitan areas will have populations above 5 million. Smart traffic systems encompass tolling, embedded sensors and large-scale simulations to predict traffic flows. Stockholm has seen 20 percent less traffic, 12 percent lower emissions and 40,000 additional users of public transport a day.



Smarter Grids
With businesses and societies facing often-volatile energy supplies and costs, as well as growing environmental concerns, a smart grid can save electricity and money and protect the planet, by linking smart meters in the home with instrumented power lines and plants. And it even paves the way to integrate renewable sources like wind and solar. IBM today is leading seven of the world's top ten automated meter management projects.

Smarter Healthcare
Our healthcare system isn't a "system" at all. It can't link from diagnosis, to drug discovery, to providers, insurers, employers and patients. But smart healthcare can lower costs, reduce errors and empower patients. One hospital is applying analytics to speed childhood cancer research and improve patient outcomes—while lowering the cost of data acquisition by 75 percent.

Smarter Food
In a world where 820 million people are undernourished, it is a tragedy that grocers and consumers throw away $48 billion worth of food each year in the U.S. alone. Inefficiencies and quality issues plague the global food supply chain. But with new technologies to trace food from the farm to the market shelf, and more intelligent solutions to track supply and demand, a healthier future is in store.

Smarter Money
The world's financial institutions could spread risk. But the world's financial infrastructure couldn't manage risk, in a world where money moves with the speed of ones and zeroes. However, smart money systems are at hand. Intraday settlement risk for more than $2 trillion in daily currency exchange has been effectively eliminated. Smart systems can enable a safer and more transparent global economy.

Smarter Telecommunications
Two billion people will soon be online—along with a trillion intelligent phones, cameras, cars, appliances, packages, power lines, roadways and more. By 2012, video will account for nearly 90 percent of consumer IP traffic. To handle this vast data stream, we'll need a smart global network. Fortunately, next-generation digital platforms are already enabling telecom providers to deliver new services, and helping billions of people join the global economy.

Smarter Oil
As we move toward a renewable energy future, we need smarter oil and gas fields today. We can only extract a third of the oil in an existing reserve—but that's changing, thanks to 3-D models of reservoirs, to help decide where to drill; and sensors embedded across an entire field, to optimize well performance and protect the environment.

Kerangka Industrial
(Tidak Ada Dimensi Manusia, Hanya Teknologi)

Rio de Janeiro – 2010s

1st Smart Cities
(Tidak Ada Dimensi Manusia, Hanya Teknologi)

Rio de Janeiro – 2010s

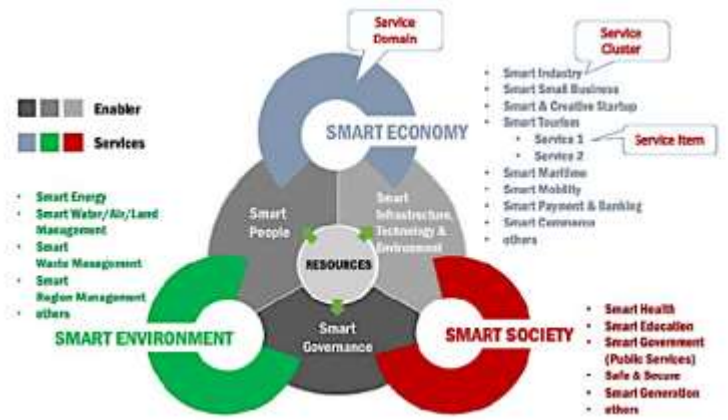
Prototype Smart Cities (Build From Zero)
(Teknologi dan Ruang Hijau, Masih Fisik Tanpa Dimensi Manusia)

Awal Kerangka Antroposentris
(Harus Ada Dimensi Manusia)

Kritik Urban Studies – 2015s

United Nation Development Programme
(Harus Ada Dimensi Manusia)

Benchmark Indonesia Terhadap Trend Global – 2015 s.d



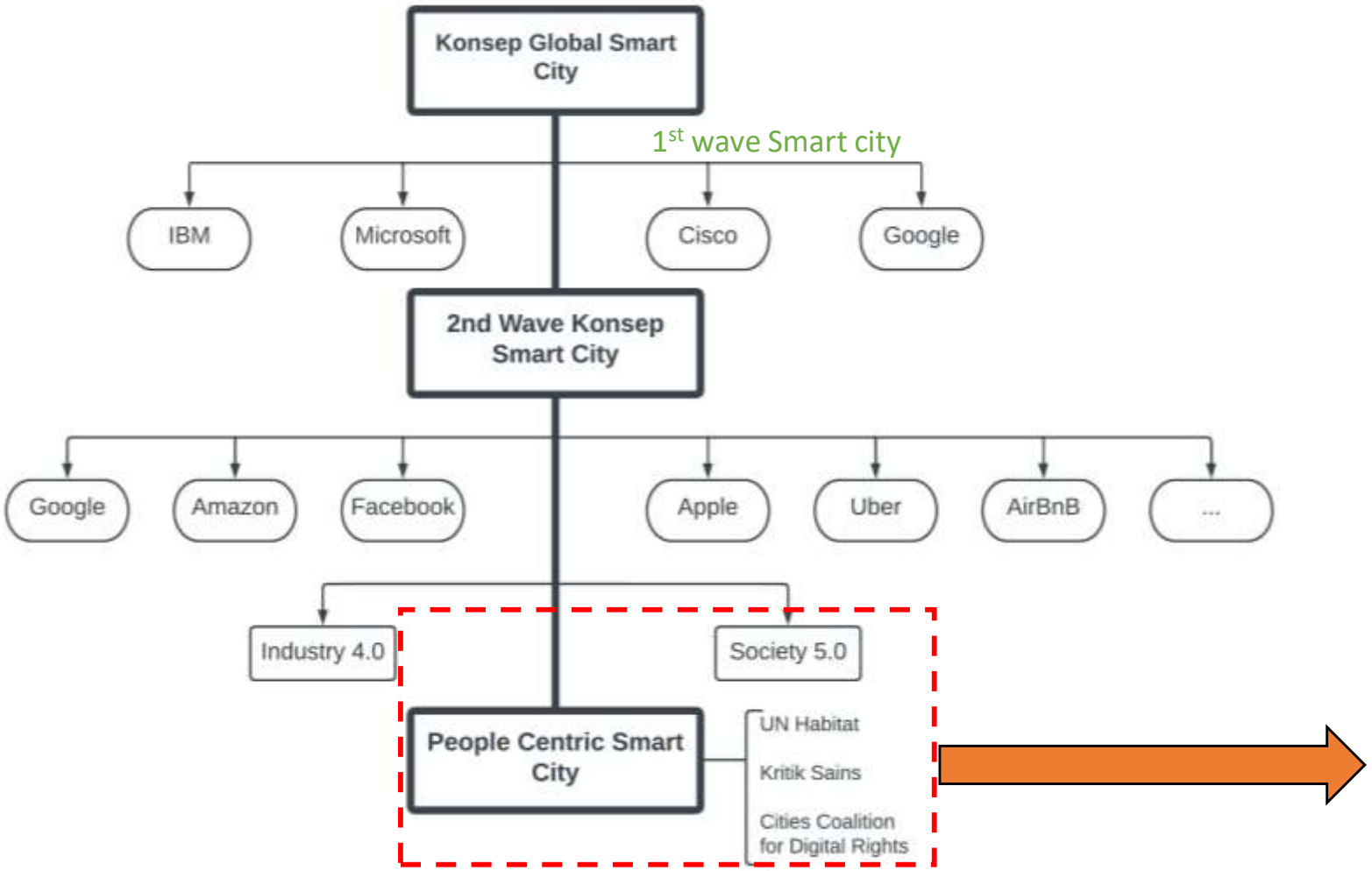
PUPR & BAPPENAS Melakukan Ratifikasi Terhadap Fokus dan Trend Global

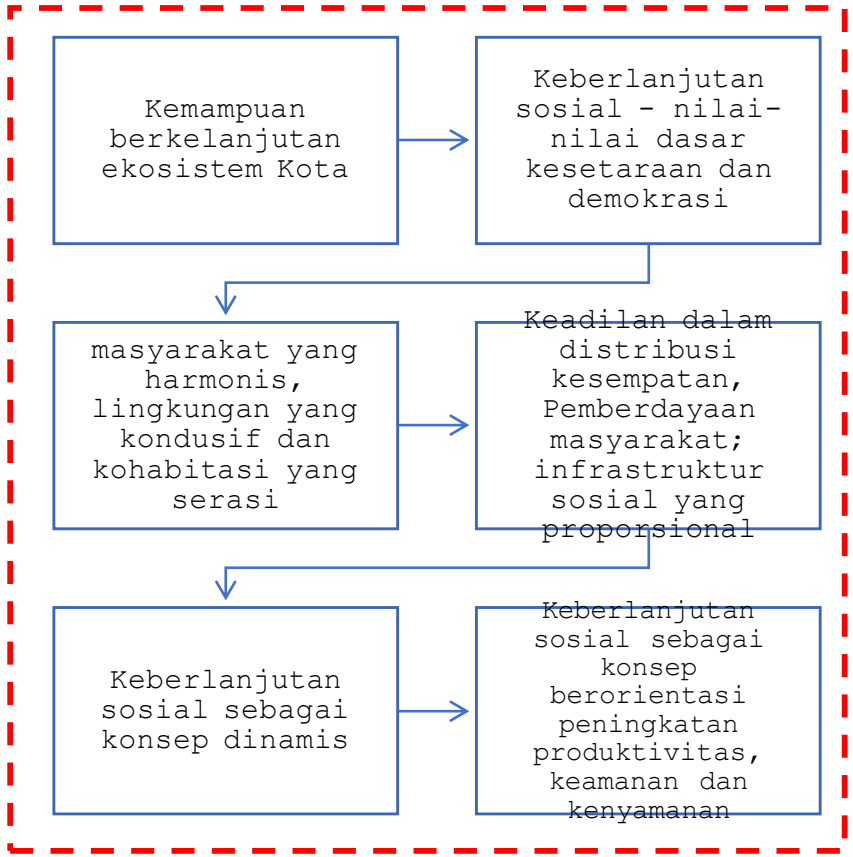
Program Smart City Tidak Boleh Berhenti Pada Dimensi Teknis Tetapi Sampai PEOPLE-CENTRIS

Smart City : Dari Tech Studies Ke Urban Studies

THE SECOND WAVE

DINAMIKA GLOBAL SMART CITY





Sejak dicetuskan di awal 2000 an, saat ini elaborasi konsep Smart city telah keluar dari kerangka korporatis – Technology based (IBM, CISCO, Microsoft) menuju konsep Antropocentris (people centric) – salah satunya melalui Gerakan Cities For Digital Rights.

- *Akulturasi Smart City adalah proses implementasi konsep Smart City*
- *Secara umum akulturasi Smart City di K/L di Indonesia masih mengacu pada kerangka IBM, Microsoft maupun Huawei (Leader Smart City Asia)*

THE RISE OF SOCIETY 5.0 as a new ultimate goal?

Bagaimana entitas akademik harus merangkul perubahan yang cepat dalam hal konseptual dan kontekstual?

French Anthropocene Manifesto 2021

Pr. Michel Lussault Mendirikan Antropochène Lyon Urban School melalui support Pemerintah Perancis dalam ***merencanakan Society Antropochène***

The Integrative Anthropocene Concept *sensu lato*

Consequential Metalevel

The Responsible Anthropocene

Social Sciences, Cultural Studies, Philosophy, Psychology, Pedagogics, Political Studies, International Law, History, Anthropology, Archaeology, Future Studies, Literature & Language, Gender Studies, etc.

Responsibilities, Justice, Ethics, Future Pathways
Education, Communication, Training, Economy, Politics, Civil Society, Cultures etc.

Analytical Levels

with important contributions by Ecology Anthropology Archaeology History, etc.

The Anthropocene Earth System

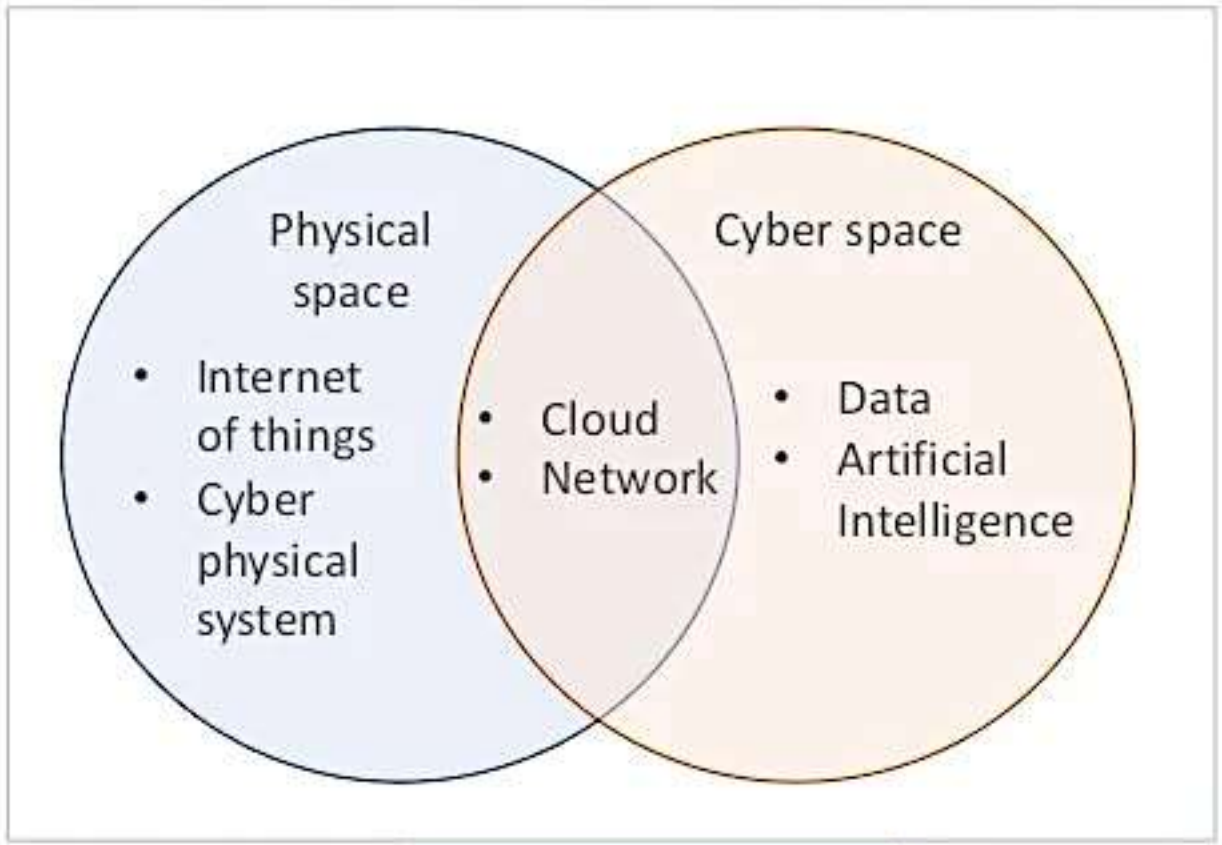
Earth System Sciences: Human influence on all natural spheres, creation of a neonature, etc.

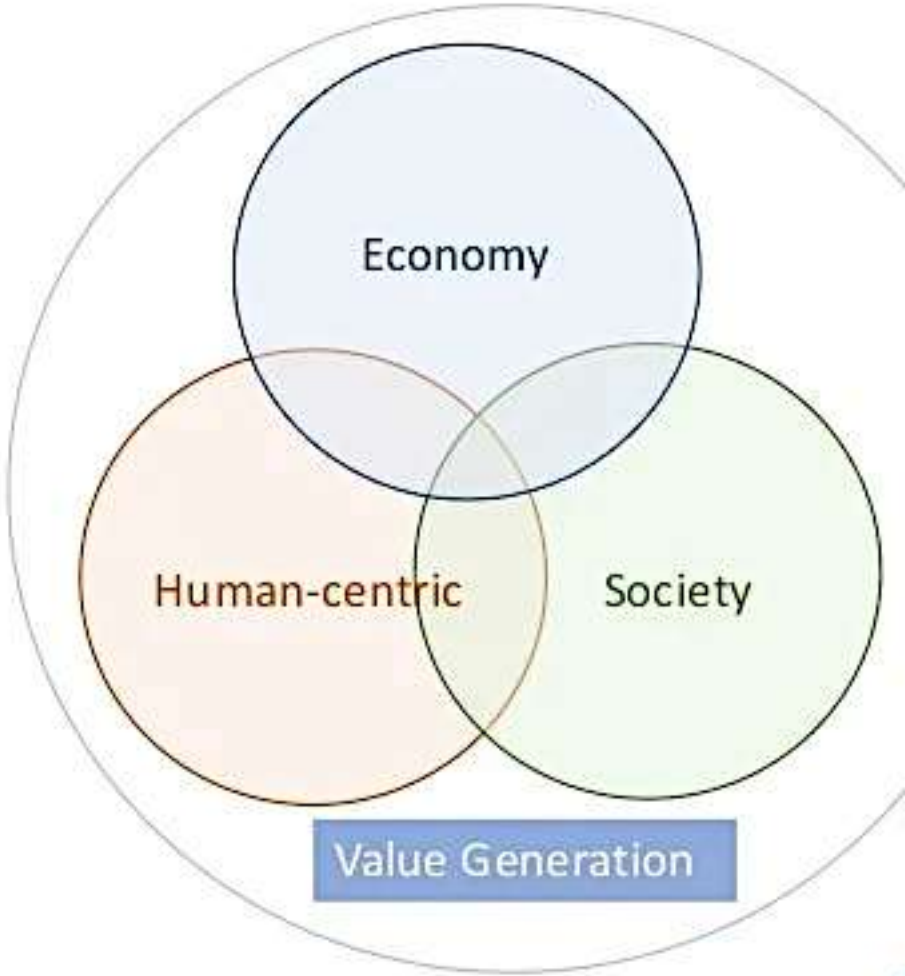
The Anthropocene Epoch

Geology/Palaeontology /Stratigraphy/ Geography, Soil Sciences:
Technosphere: globally distributed technofossils and geosignals, non-natural sedimentary processes
-> Manifestation in Earth history

Enabling Technologies dan Value Generation

Balancing economic advance and resolution of social problems





Society 5.0 Value Generation

Balancing economic advancement with the resolution of social problem by incorporating new technologies

Economic Advancement

- The demand for digitally savvy workforce is increasing
- The demand for foodstuff is increasing
- The demand for energy is increasing
- Mobility is increasing

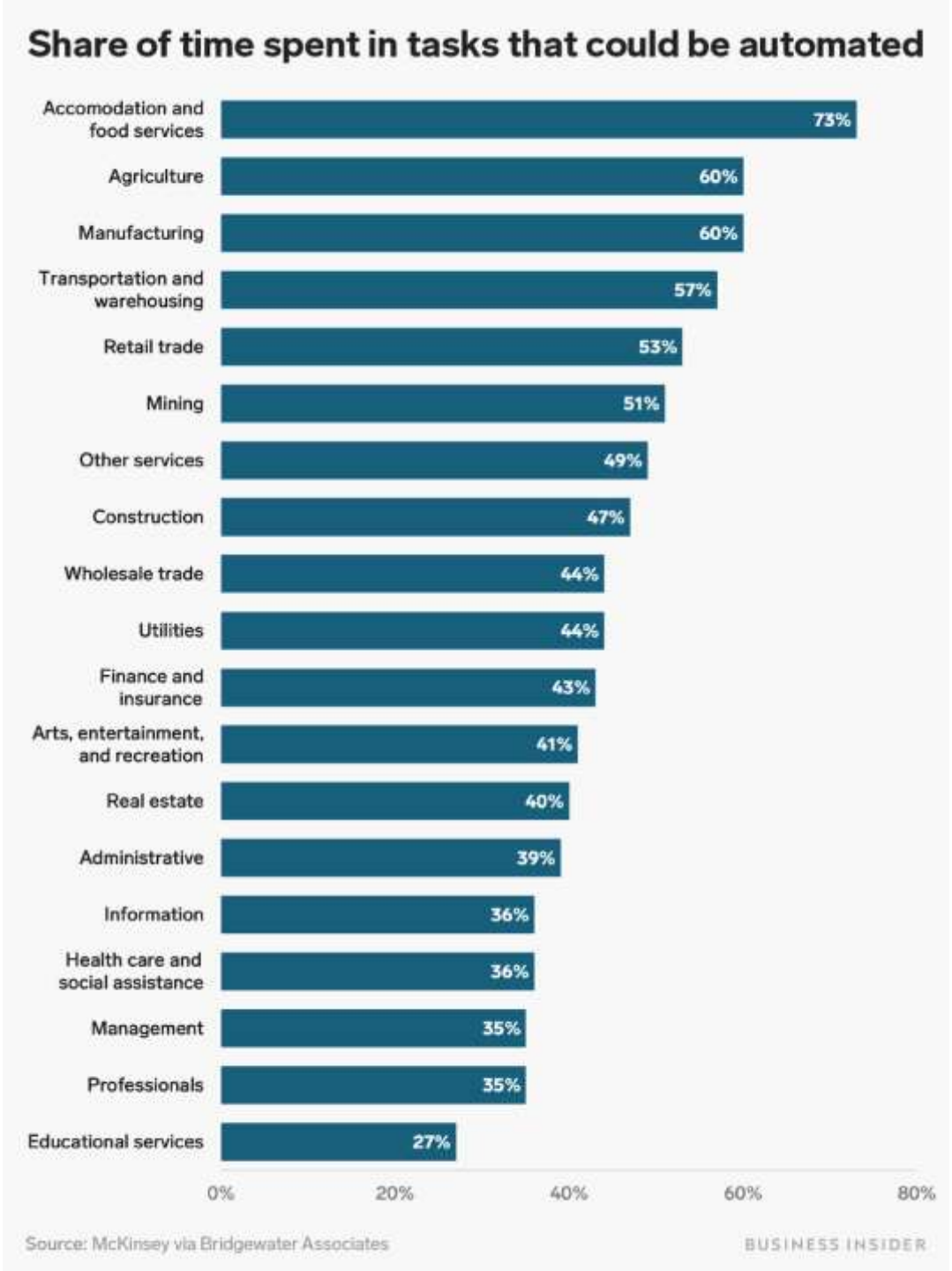
Resolution of social problems

- Employment and sector shift, disrupted education
- Increased agriculture production and reduced loss of foodstuffs
- Reduction of green house gas emission
- Traffic jam and pandemic

Incorporating new technologies such as big data, IoT, robotics, AI in industries and social activities without disparity

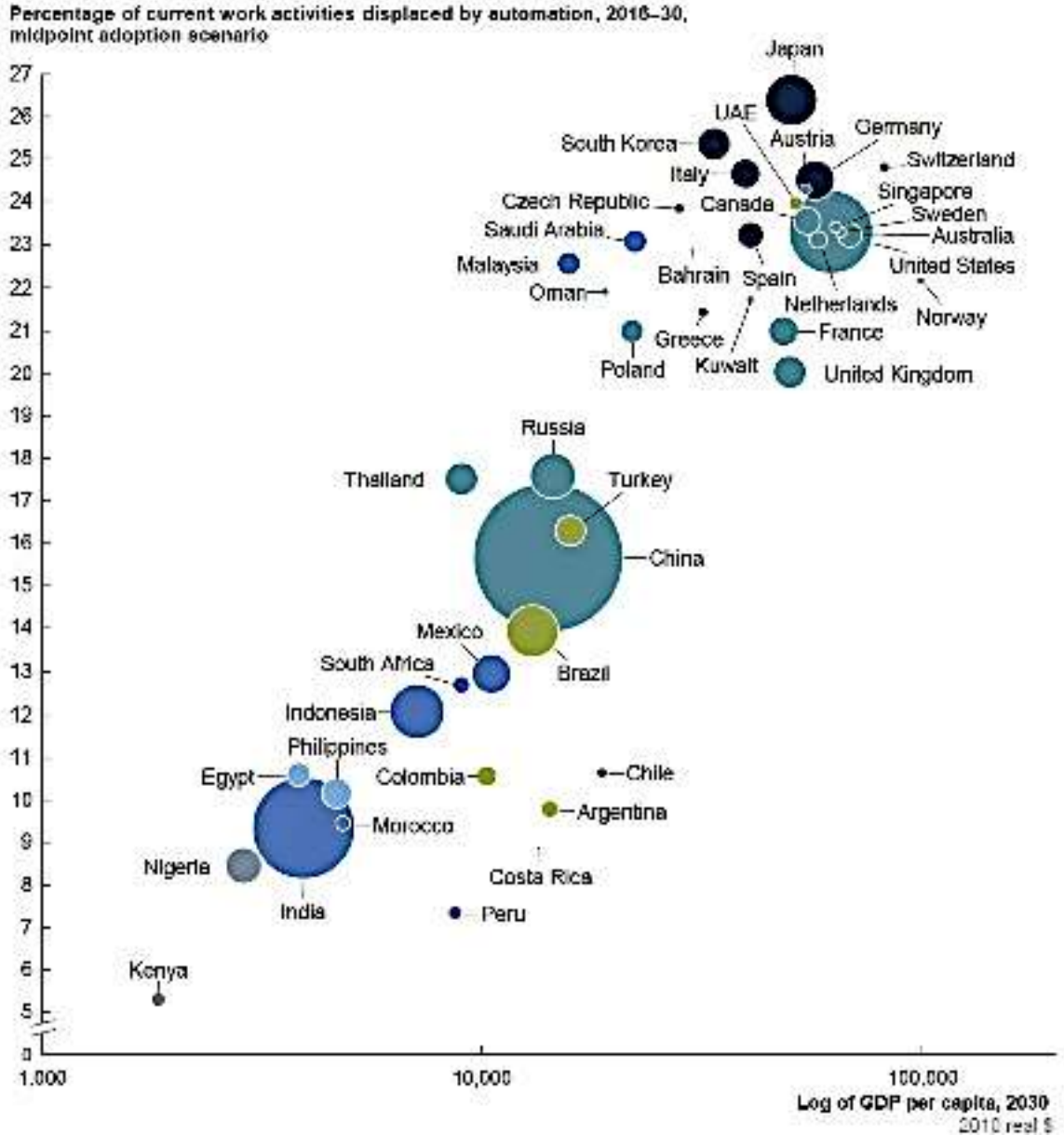
to balance economic advancement with the resolution of social problems

Does Technology make workforce redundant???



Percentage of Work Activities Displaced by Automation

Based on countries GDP per capita



- Employment and sector shift
- Job that 40% repetitive, can be automated
- Re-educate current workforce
- Disrupted education

3 Jobs Lost to Automation Statistics You Must Know

FinancesOnline
REVIEWS FOR BUSINESS

1 The Reality of Jobs Lost to Automation at a Glance

Sources: McKinsey & Company, PwC

85 MILLION
jobs to be displaced due to automation by 2025

39 MILLION
Americans who could lose their jobs due to automation by 2030

2,000
work activities across 800 professions that could be automated

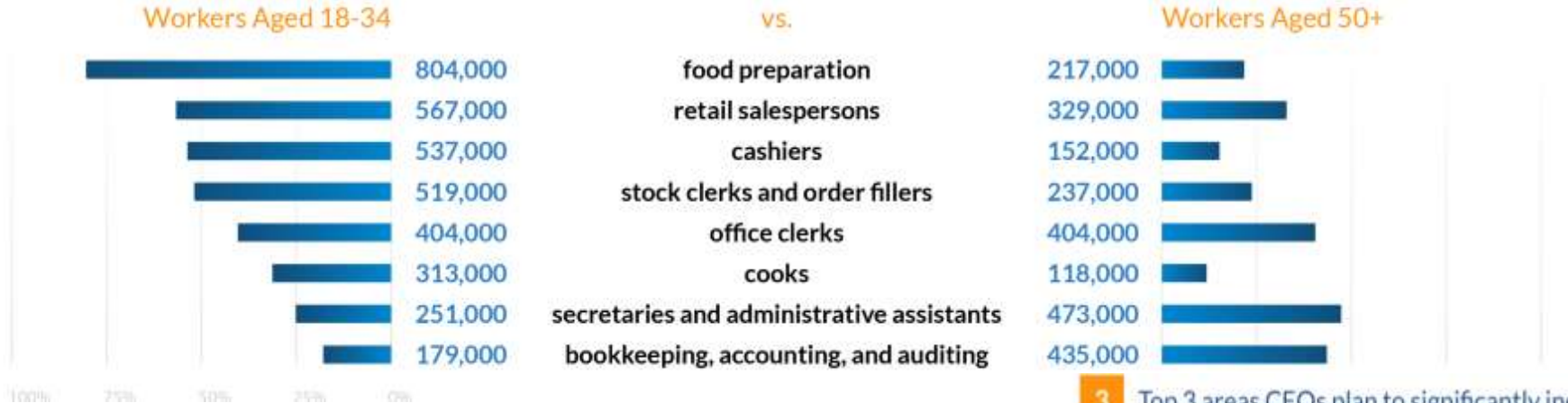
81%
work tasks that could be automated by existing automation tech

50%
hours spent on work-related tasks that could be automated by 2030

43%
employers set on cutting down their workforce to make way for technology integraton

2 Number of Jobs Potentially Lost to Automation (By Age Group)

Source: McKinsey Global Institute



3 Top 3 areas CEOs plan to significantly increase their long-term investments

Pr. John Barry
Queen's University Belfast

Green Political Economy

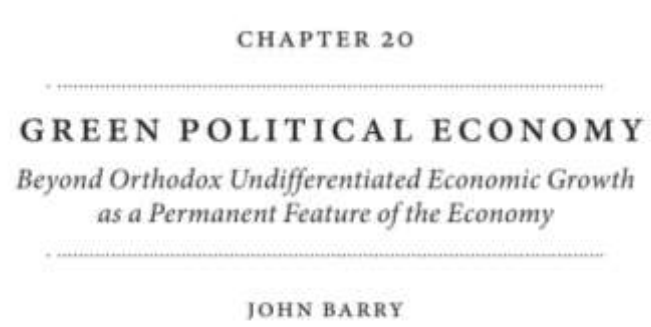
Post-growth political economy

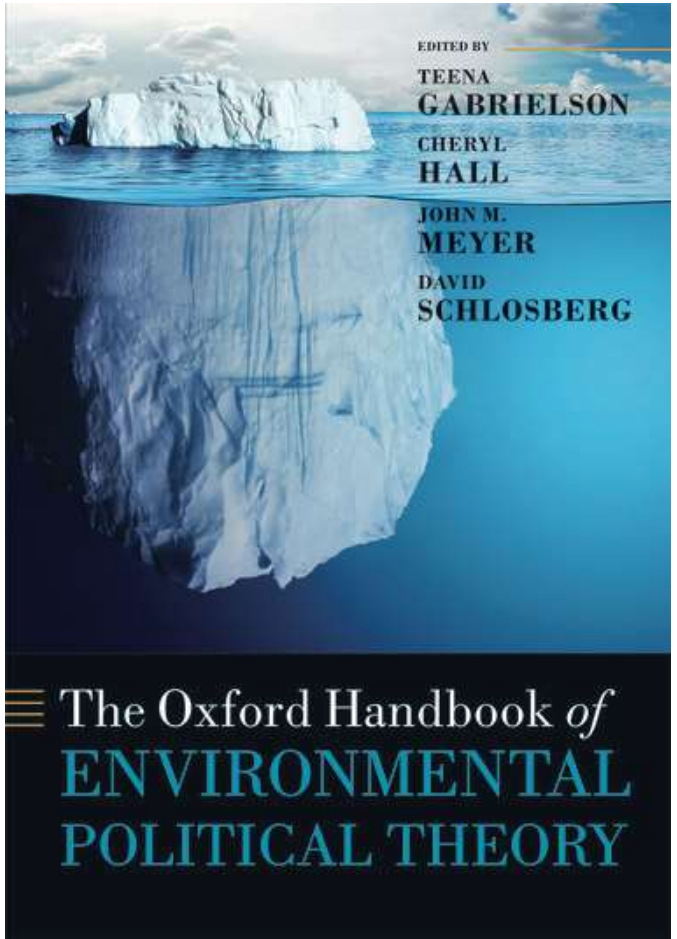
Beyond 'orthodox, undifferentiated economic growth as a permanent feature of the economy' (Barry, 2016: 310)

Beyond growth & GDP measurements/understandings of the economy

For 4 principal reasons

- Ecological sustainability;
- Socio-economic equality;
- Human flourishing;
- Democratisation (including production).





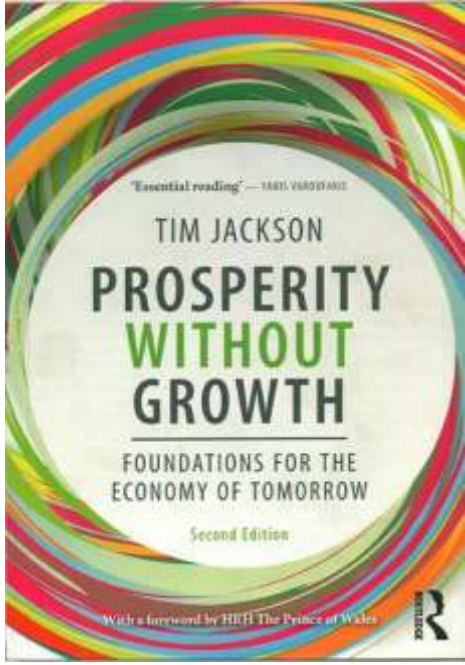
The context: ‘Growthmania’ & systemic risk

“Allegiance to growth was the single most dominant feature of an economic and political system that lead the world to the brink of economic disaster. The growth imperative has shaped the architecture of the modern economy.

It motivated the freedom granted to the financial sector. It drove the loosening of regulations, the proliferation of unmanageable and unstable financial derivatives, and the massive expansion in both public debt and private credit in the decades preceding and during the crisis.”

“(extremely) dangerous climate change can only be avoided if economic growth is exchanged, at least temporarily, for a period of planned austerity within Annex 1 nations [developed] and a rapid transition away from fossil-fuelled development within non-Annex 1 nations”

(Anderson and Bows, 2011: 41)



Tim Jackson, 2017, p. 37

PHILOSOPHICAL TRANSACTIONS OF THE ROYAL SOCIETY A

Phil. Trans. R. Soc. A (2011) **369**, 20–44
doi:10.1098/rsta.2010.0290

Beyond ‘dangerous’ climate change: emission scenarios for a new world

BY KEVIN ANDERSON[1,3] AND ALICE BOWS[2,*]

[1] *Tyndall Centre for Climate Change Research, School of Mechanical, Aerospace and Civil Engineering, and* [2] *Sustainable Consumption Institute, School of Earth, Atmospheric and Environmental Sciences, University of Manchester, PO Box 88, Manchester M60 1QD, UK*
[3] *School of Environmental Sciences and School of Development, University of East Anglia, Norwich NR4 7JT, UK*

Why are Greens Critical of Growth?

Sustainability reasons – ecological degradation, biodiversity loss, climate change, energy and resource depletion and rising pollution;

Equality reasons – economic growth under capitalism *manages and reproduces* inequality, it does not eradicate it;

Human flourishing reasons – beyond a threshold, economic growth does not add to, and can reduce, human flourishing;

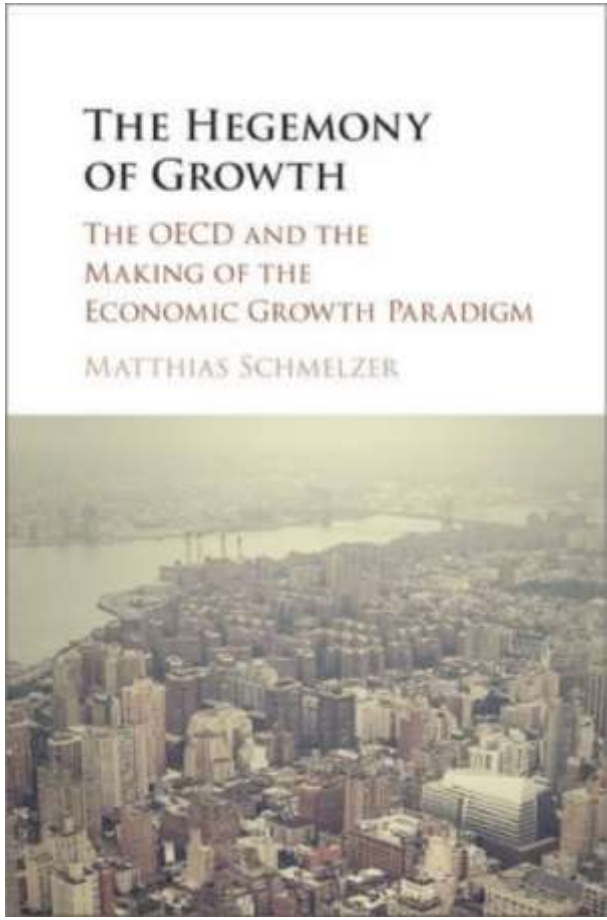
Democratic reasons – increasing growth, productivity, output reduces a) opportunities for democratising production, and b)depoliticises social relations and reduces democratic citizenship.

The politics and origins of economic growth...and capitalism and class conflict

“The pursuit of economic growth is not a self-evident goal of industrialised countries' policies, but rather the result of a very specific ensemble of discourses, economic theory,, and statistical standards that came to dominate policy-making in industrialised countries under certain social and historical conditions in the second half of the twentieth century" (Schmelzer, 2016: 10).

Monetary measured growth - GDP measured economic growth is unlimited (i.e. ecologically detached & socially disembedded)

Growth needed to solve all/most societal problems and GDP growth is equated with societal progress, prosperity, development, modernity etc.



Economic Growth: What Are We Measuring?

- GDP: Total expenditure on all goods and services produced within a country

- Adds to GDP:



- Also adds to GDP:



- Not included in GDP:



Critics on Growth…..

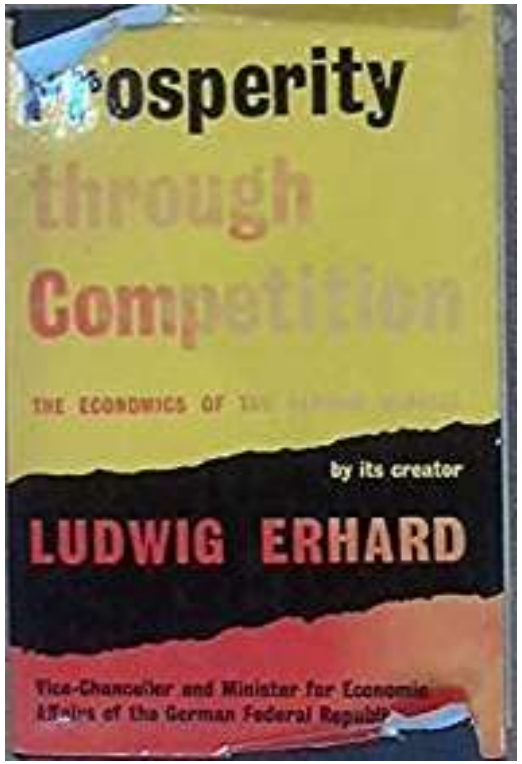
"The problem is unemployment; only growth can create the jobs. Schools and hospitals are underfunded; the answer is faster growth. We can't afford to protect the environment; the solution is more growth. Poverty is entrenched; growth will rescue the poor. Income distribution is unequal; the answer is more growth.

If the answer to the problem is always more growth then who dares ask the question: what if the problems are caused by economic growth? "

(Clive Hamilton, 1998: 26; emphasis added).

Well…greens and heterodox green political economists do….

Economic growth as a substitute for equality and a legitimating ideology for inequality



Critics on Growth…..

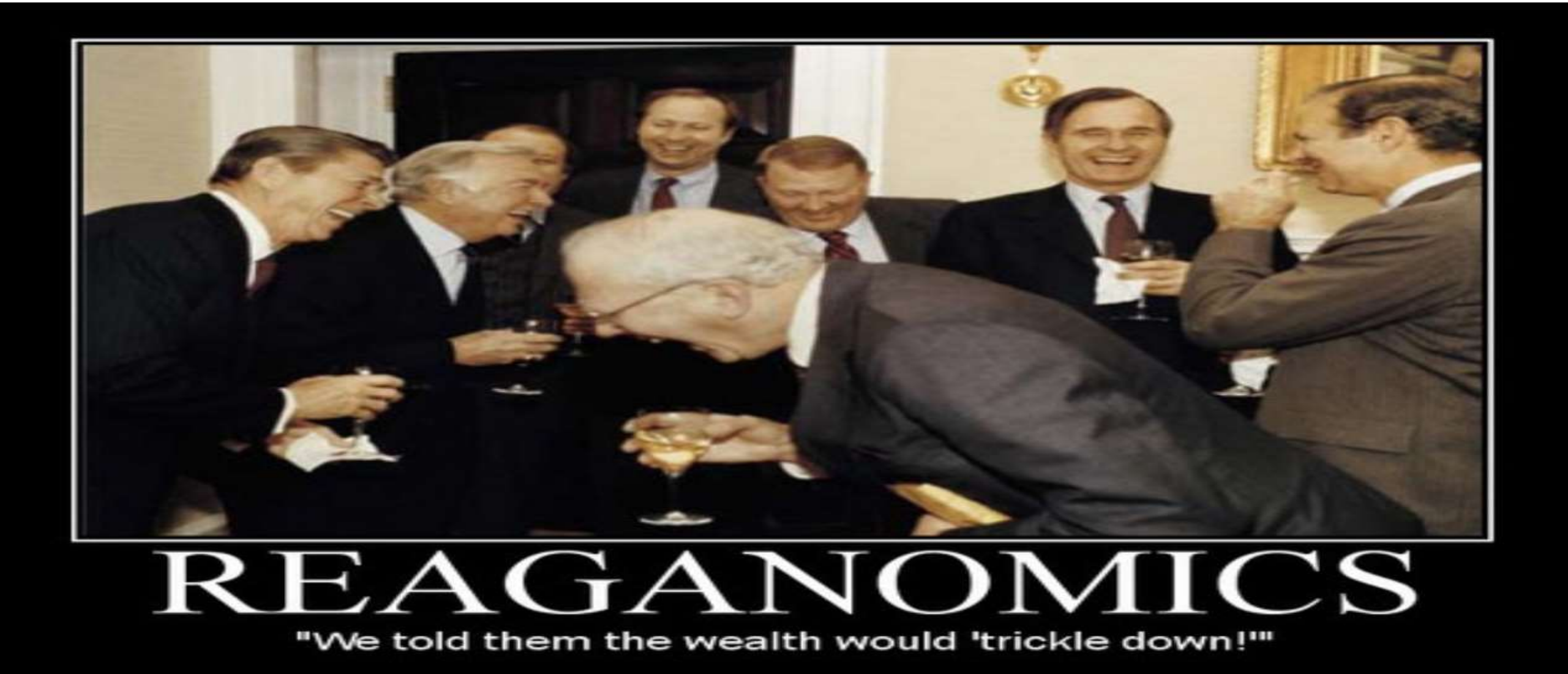
West German Finance minister, Ludwig Erhard (1958) Economic growth avoided the politically difficult ('quarrelsome' 'squabbling') task of distribution.

"to increase prosperity by expansion than to try for a different distribution of then national income by pointless quarrelling…This measure of the undisputed success of the policy demonstrates how much more sensible it is to concentrate all available energies on increasing the nation's wealth rather than to squabble over the distribution of this wealth, and thus be side-tracked from the fruitful path of increasing gross national product. It is considerably easier to allow everyone a larger slide out of a bigger cake than to gain anything by discussing the division of a smaller cake" (Erhard, 1958: 3-4; emphasis added)

"growth becomes a vital issue because of the lack of an adequate (or indeed any) distributional theory within mainstream economics…In practice, economic growth has acted to deflect questions of redistribution" (Mulberg, 1995: 147).

"We are addicted to growth because we are addicted to large inequalities in income and wealth. What about the poor? Let them eat growth! Better yet, let them feed on the hope of eating growth in the future!" (Herman Daly, 1991: 24).

Economic growth, inequality and ‘trickle down’ economics….

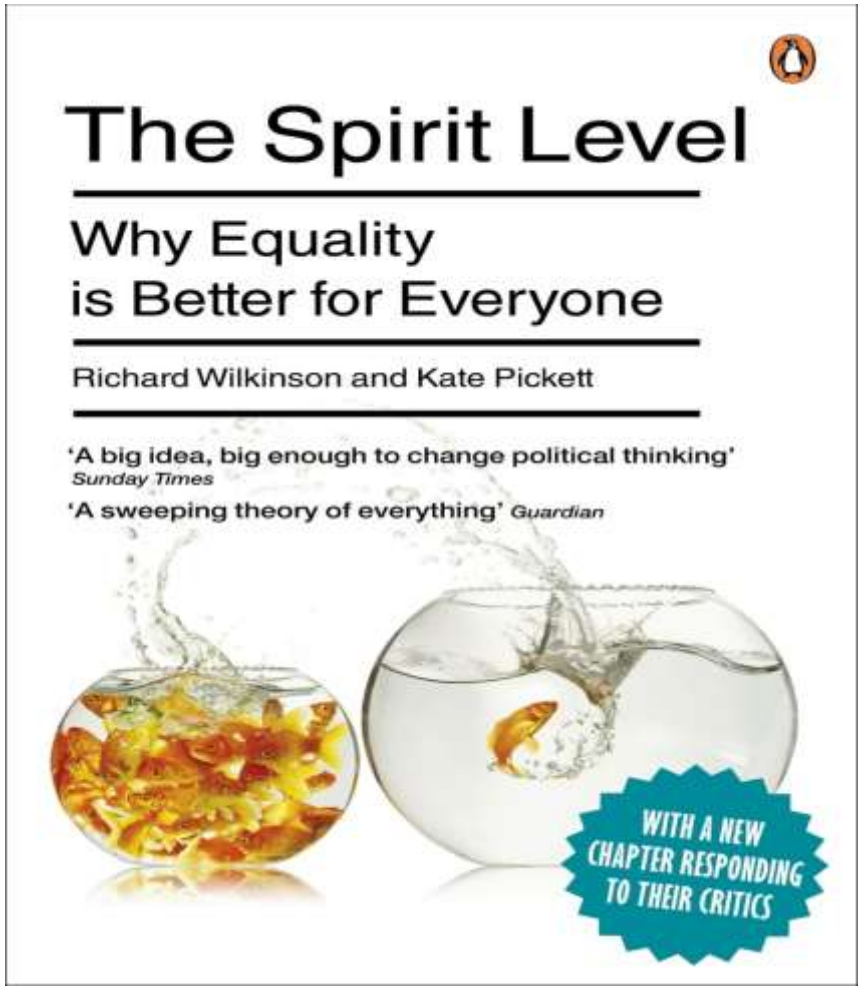


Inequality, insecurity and consumerism, status competition

Socio-economic inequality as driver of consumerism via status competition;

Psychological and political economic significance of shame and status;

Because inequality increases status competition, it also increases consumerism. People in more unequal societies work longer hours because money seems even more important.



From Economic Growth and Consumption to Economic Security

"People in countries that provide citizens with a high level of economic security have a higher level of happiness on average, as measured by surveys of national levels of life-satisfaction and happiness…*The most important determinant of national happiness is not income level* – there is a positive association, but rising income seems to have little effect as wealthy countries grow more wealthier.

Rather the key factor is the extent of income security, measured in terms of income protection and a low degree of income inequality."

(Emphasis added)

International Labor Organisation, (2004), *Security for a Better World* Replacing economic growth with 'economic security'

Post-growth macro-economics: reorganising the composition of the economy

- GDP does not differentiate between defensive and non-defensive consumption and production , positive and negative economic activity in terms of human flourishing (human freedom, creativity), sustainability, or equality
- Within an overall sustainable economy, which economic sectors and activities do we want to grow and which to shrink?
- A ‘post-growth’ economy – consistent with growth in some sectors, so long as it does not transgress the thresholds set by the four criteria above
- Issue is which sectors of the economy, economic activity, practices etc. could or should grow and which should decline or plateau out?
    - Example of ‘divestment from fossil fuels’ movement and deliberate 'retiring’ of carbon economic sectors – from extraction to distribution, refining and end use;
    - Framed within a ‘just transition’ – any transition away from unsustainability, towards a low carbon, green economy cannot increase inequalities.

Post-growth political economy

- A new development model, new way of thinking about the economy and economics;
- Sharing and public services, infrastructural investment as important as personal disposal income and consumption;
- Meaningful free time (***not*** unchosen unemployment) within context of economic security and sufficiency;
- Shift from exclusive focus on the formal/cash economy (conventional public and private) to social/informal/convivial economy
- Separation of ‘work’ from ‘employment’ and focus on internal goods of work and employment i.e. beyond productive efficiency
- Replace economic growth with ‘economic security’ (or equivalent)

Work, productivism, democracy and post-growth

- There is no reason that work should be viewed as ‘disutility’ (as it is in neoclassical/capitalist economics)
- That requires to be viewed instrumentally and rewarded only with wages;
  - And/or that requires to be automated (another story….);
  - And that is primarily oriented towards improving efficiency, productivity and ‘productivism’ i.e. economic growth based around lowering wages, reducing employment, replacing workers with technology, outsourcing etc.,
- Viewing work as having utility directly (internal goods) challenges ‘productivism’ (and associated non-democratic workplace organisation) and thus economic growth;;
- From a green and ecological sustainability point of view, democratising work - which may reduce productivity - is, *ceteris paribus*, a positive policy option (reduces negative impacts of economic activity and could increase democratic decision-making as well as expand individual autonomy and creativity within the productive sphere).

Alternative hedonism: its pleasure ….just not as we know it

Pleasure can be attained not just by working for or getting into debt and then purchasing commodities.

But also by finding time for those ‘simple things’ in life that are free or at least inexpensive –time with family and friends, time to swim in the ocean or read, time to be creative, to make love, to sit and think...or just to sit.

In other words, alternative hedonism does not see material simplicity of life as impoverishing, but rather the opposite.

But key to this is economic security for all, and need to move to a post-growth political economy

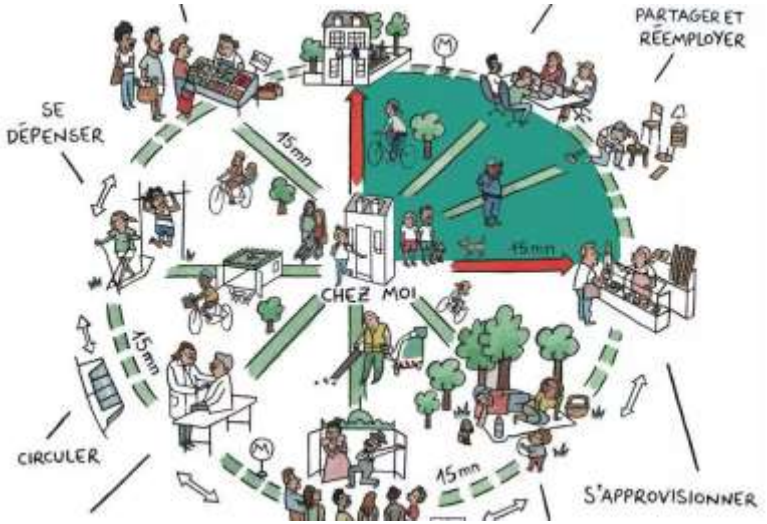
The rise of Anthropocene

Challenge and opportunity for the 21st century – how to improve the ecological efficiency of human flourishing NOT the ecological efficiency of orthodox economic growth

A green political economy for the Anthropocene

Partial implementation of Post-Growth in new green transportation system

Paris 15 Minute city (*Urban Renewal - Revitalization*)

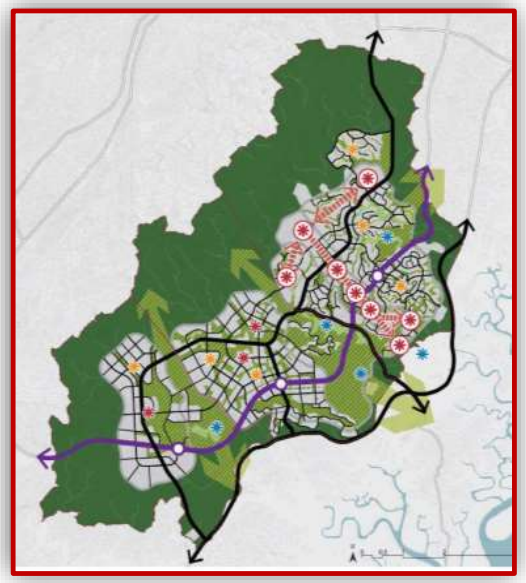


- Diskursus kampanye walikota terpilih Anne Hidalgo
- Konsepsi Green dan ecology sebagai pemahaman dasar
- Budaya berjalan kaki yang telah terbangun
- Landscape, topografi datar dan estetika kota
- Plaza, street furniture, Shopping street, street restaurant
- Kepadatan 20.500 jiwa/km2

Singapore 20 Minute city (*Urban Renewal - Revitalization*)

- Sarana Transportasi umum yang lebih mapan
- Konsepsi Green dan ecology sebagai pemahaman dasar
- Budaya berjalan kaki yang telah terbangun
- Kepadatan 8358 jiwa/Km2
- Variasi Mikromobilitas yang telah berkembang

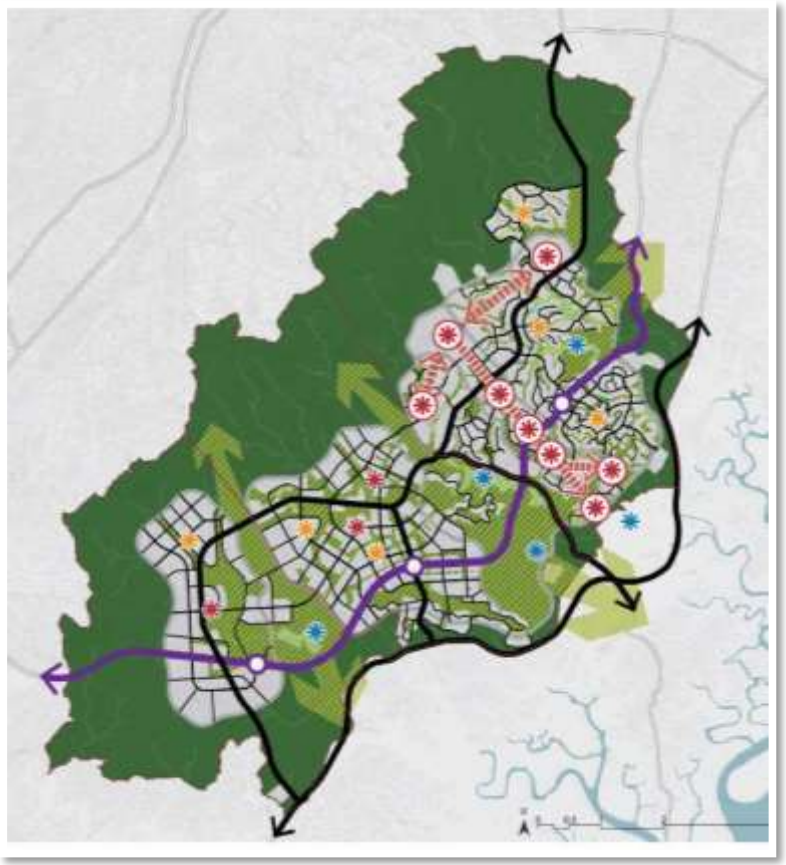
KIPP-IKN 10 Minute city (*NEW Urban Development*)



- Konsep Hexagonal
- 10 menit pencapain ke fasum/fasos dan simpul transit
- Kemudahan akses untuk mendukung resiliensi (Lesson learnt Covid19)
- Distribusi merata perkantoran, hunian, perdagangan dan ruang hijau

Integrasi Post-Growth
Lesson Learned IKN 10 Minute city (New urban development)

KIPP-IKN 10 Minute city



- Diperlukan komitmen pemadatan aktivitas melalui konsep Mix-used dan Compact city
- Pendetailan lebih lanjut terhadap ketersediaan layanan dasar dalam radius 10 menit
- Implementasi Sarana dan Prasarana Urban Mikromobilitas untuk menunjang pejalan kaki
- Fokus pada capain **SMART SOCIETY – perubahan budaya**

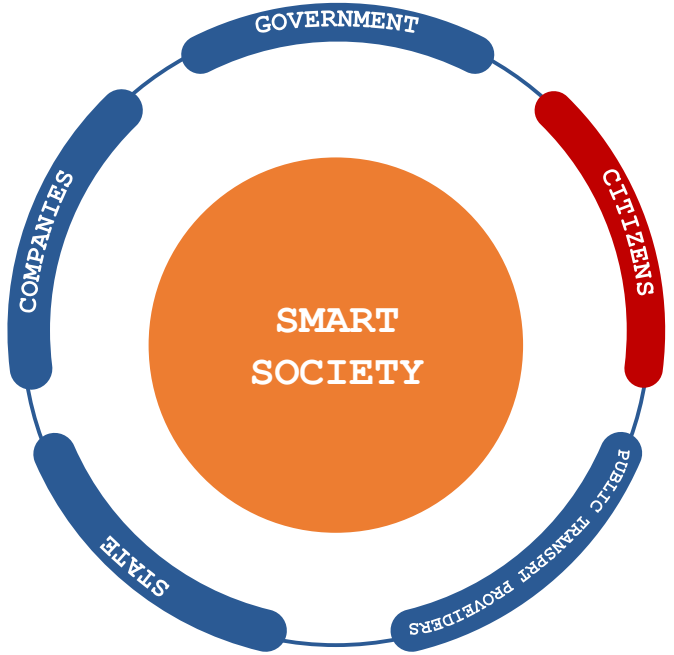
Perangkat mikromobilitas adalah moda rendah emisi, kecepatan rendah (<48 km/jam), dan telah diimplementasikan di kota-kota dengan TOP Smart City Index berkonsep skala humanis dan ***aksentuasi terhadap aproksimasi layanan harian.***

SOCIETY 5.0 by concept mengerucut pada peningkatan PRDUKTIVITAS, SAFETY dan RESILIENCE

VISI KOTA CERDAS versi RICK ROBINSON

GOALS	Wealth	Health	Opportunity	Safety
	Independence	Choice	Sustainability	Others…?
PEOPLE	Citizens	Employees	Innovators	Visitors
ECO - SYSTEM	Council	Charities	Family & Social	Employers
	Emergency Service	Not fo Profits	Cultural & Religious	Retailers
	School	Social Enterprises	Neighboourhoods	SMEs
	Others…?	Others…?	Others…?	Others…?
SOFT INFRASTRUCTURE	Leadership and Governance			
	Innovation Forums			
	Networks and Community Organisations			
CITY SYSTEMS	Transport Service	health	Culture	Economy
	City Admin	Utilities	Social Care	Public Safety
	Education	Others…?		
HARD INFRASTRUCTURE	Information and Communication Technology			
	Transport and Utilities Network			
	Spaces and Buildings			

STAKEHOLDER / AKTOR TERKAIT

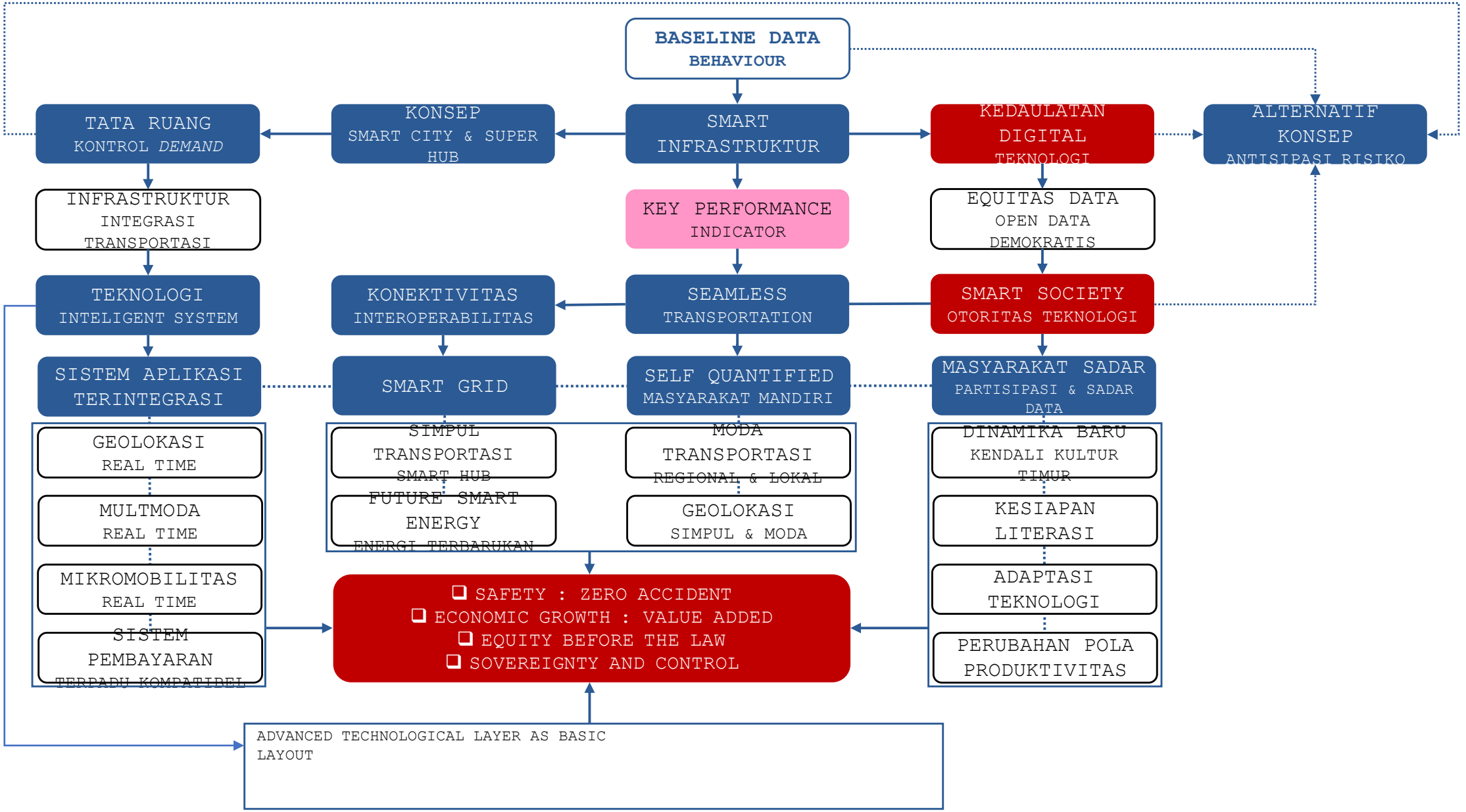


STRATEGIC OUTCOME

1. Mempersiapkan Attitude dan Partisipasi Masyarakat
2. Aware Terhadap Faktor Safety
3. Kedaulatan Data /

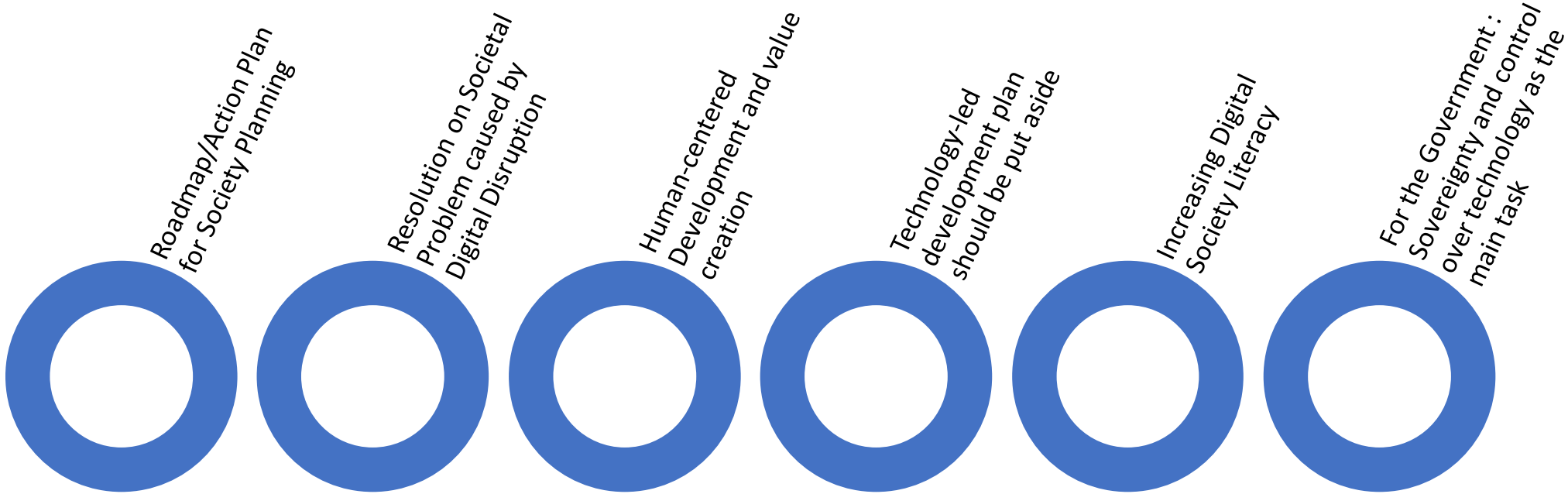
* Elemen Yang Masih Lemah di Indonesia

Framework Tata Kelola Smart Society



Future discussion

Bagaimana sistem pendidikan menjadi HUB "Smart society" ???



UIN MAS SAID SMART SOCIETY RESEARCH CENTER??????

TERIMA KASIH