

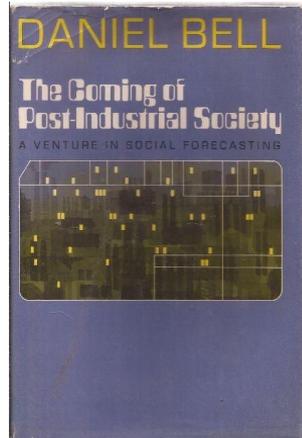
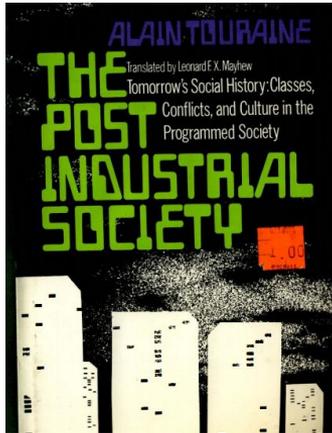
Urban transformations of the post-industrial era

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Many assume that the post-industrial age is already ongoing.

"The Coming of Post-Industrial Society" by Daniel Bell was first published in 1973.



The Post-Industrial Society: A Comparative Schema			
MODES	 PRE-INDUSTRIAL	 INDUSTRIAL	 POST-INDUSTRIAL
MODE OF PRODUCTION	Extractive	Fabrication	Processing; Recycling
ECONOMIC SECTOR	Primary Agriculture Mining Fishing Timber Oil and Gas	Secondary Goods-Producing Manufacturing Durables Non-durables Heavy Construction	Services Tertiary Transportation Utilities Quaternary Trade Finance Insurance Real Estate Quinary Health Research Education Government Recreation
TRANSFORMING RESOURCE	Natural Power Wind, Water, Draft animals, Human muscle	Created Energy Electricity—oil, gas, coal Nuclear power	Information ¹ Computer and data-transmission systems
STRATEGIC RESOURCE	Raw Materials	Financial Capital	Knowledge ²
TECHNOLOGY	Craft	Machine Technology	Intellectual Technology
SKILL BASE	Artisan, Manual worker, Farmer	Engineer, Semi-skilled worker	Scientist, Technical and Professional occupations
METHODOLOGY	Common Sense, Trial and error, Experience	Empiricism, Experimentation	Abstract Theory: models, simulations, decision theory, systems analysis
TIME PERSPECTIVE	Orientation to the past	Ad hoc adaptiveness, experimentation	Future orientation: forecasting and planning
DESIGN	Game Against Nature	Game Against Fabricated Nature	Game Between Persons
AXIAL PRINCIPLE	Traditionalism	Economic Growth	Codification of Theoretical Knowledge

We at Demos Helsinki think it has hardly started.

Post-industrial transformation: now!

Why now?

- The new feedback loops between people and physical assets are being created in the next 10-15.
- This will change how our urban habitat globally is governed, owned, financed and built.

Why cities are relevant for the post-industrial transformation?

- Cities are where new eras have historically created, from agricultural to manufacturing to industrial, cities have been the engine for changing eras that enable the change.

How cities can be leveraged in the postindustrial transformation?

- New economic models for cities (new urban crisis).
- Re-organisation of physical assets and services
- Cities as democratic engines.



WHY CITIES DRIVE GROWTH?

ACCUMULATION OF HUMAN RESOURCE IS THE **PRIMARY DRIVER** OF ECONOMIC DEVELOPMENT

LUCAS 1988

DOUBLING THE SIZE OF A CITY LEAD TO AN INCREASE OF PRODUCTIVITY BY **3% - 8%**

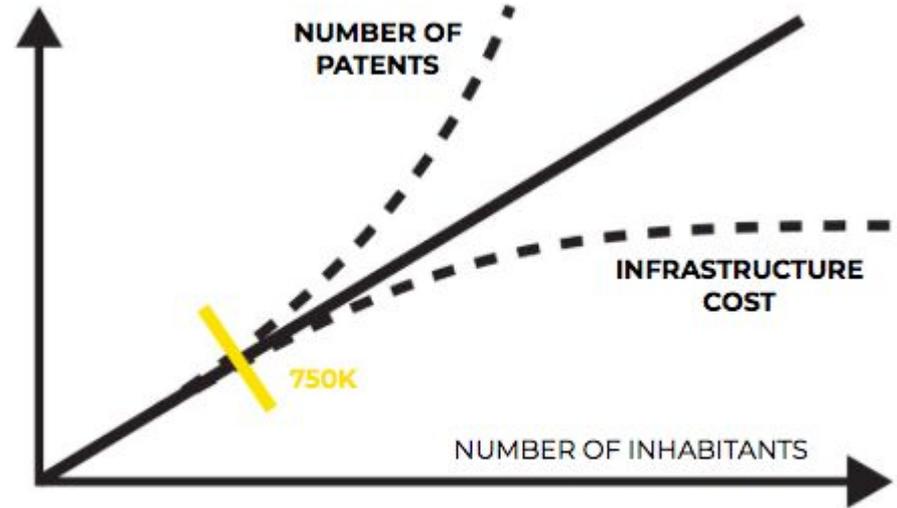
Rosenthal & Strange 2004

% OF URBAN POPULATION LIVING IN CITIES ABOVE **750K** INHABITANTS BENEFICIAL FOR NATIONAL GROWTH

Bruehlhart & Sbergami 2009; Castells-Quintana & Royuela 2014

AFTER A CERTAIN **SIZE** PATENT PRODUCTION GROWS SUPERLINEARLY AND INFRASTRUCTURE GROWTH SUBLINERALLY

Bettencourt et al 2012

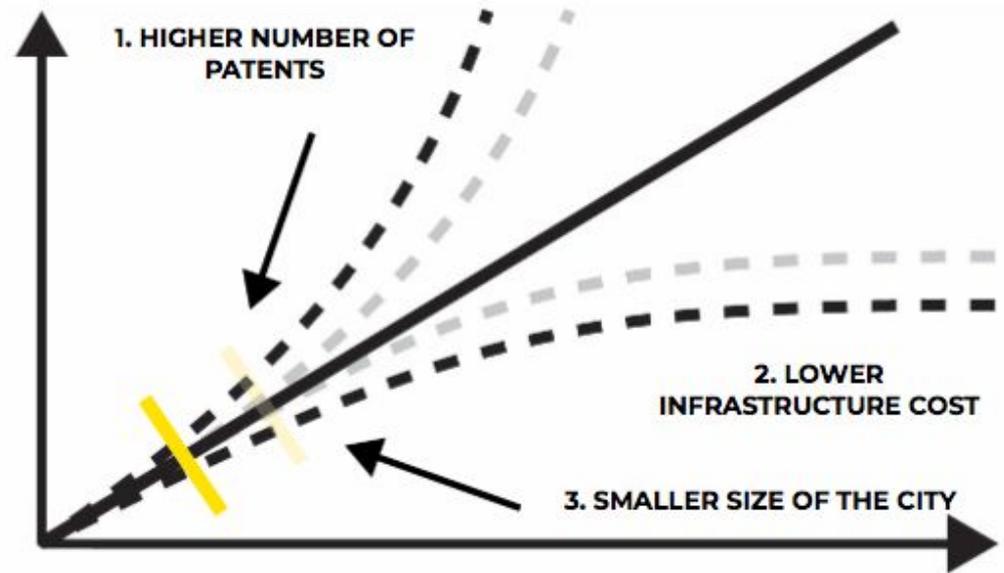


IN CITIES OF CERTAIN SIZE THERE IS MORE IDEAS FOR EVERY EURO OF INVESTMENT INTO PHYSICAL ENVIRONMENT.

THE **NEW** URBAN DECOUPLING

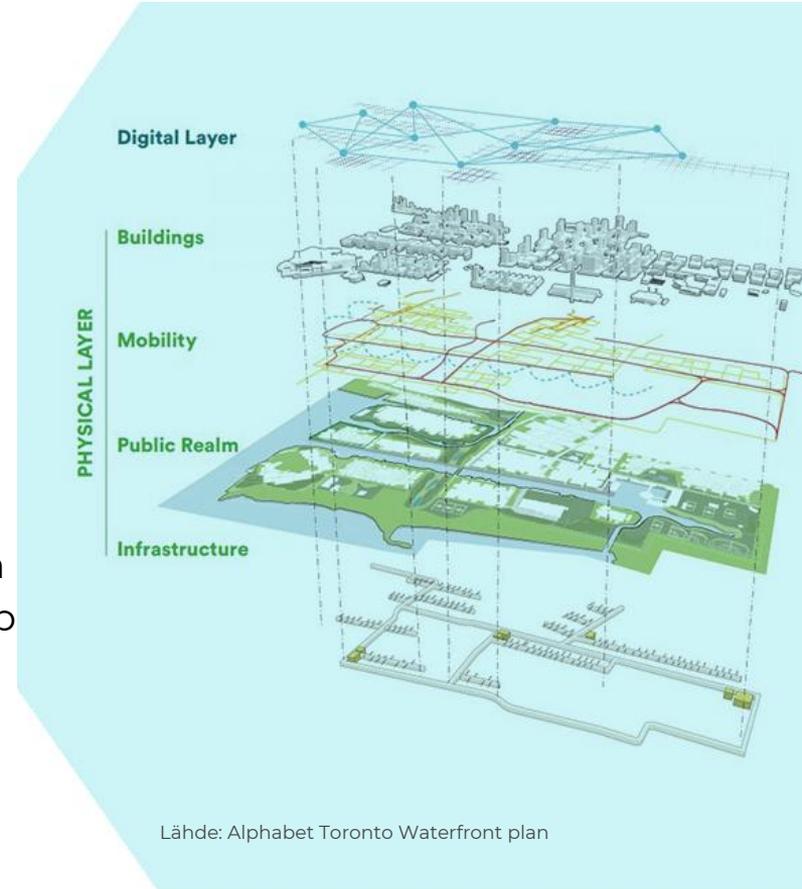
ADDING **THE DIGITAL LAYER**
ALLOWS US TO DECOUPLE EVEN
FURTHER, PUSHING THE IDEAS
PER INFRASTRUCTURE COST
LOWER

1. HIGHER NUMBER OF IDEAS
2. LOWER INFRASTRUCTURE COST
3. POSSIBLE ALSO IN NETWORK CITIES



Research interests

- Seeing the big picture of the technological-economic change influencing cities
- Developing the building blocks of the future
 - new ways to harness human capital in cities
 - new forms of ownership, platform economy and “x-as-a-service”
 - new forms of work and value creation
 - new mobilities, logistics, innovations in on-demand and last-meter services
 - new energy systems and dispersed production
 - new space usage: co-working, co-living, pop-up and radical flexibility
 - new universalism, communities & urban commons



Why Demos Helsinki?

Demos Helsinki is a leading independent Nordic think tank. Founded in 2005, we currently employ over 40 researchers and consultants. The mission of Demos Helsinki is to help build a sustainable and democratic society as we are moving away from industrial era institutions and operational models. Our partners include large corporations, leading financial institutions, progressive governments and public institutions alongside world-class universities.

Demos Helsinki is specialized in ensuring that public and private actors remain relevant in a post-industrial era. Specifically, we have been able to:

1. **Assist companies and governments** in creating new strategies, business models, services and partnerships, which ensure their positions in societal transformation.
2. **Create new coalitions** between private and public institutions based on aligned future interests, that are carried out through concrete experiments.
3. **Engaging a wide range of stakeholders** in identifying the societal benefits of future business opportunities for companies.



Some of our recent partners

Thank you!

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