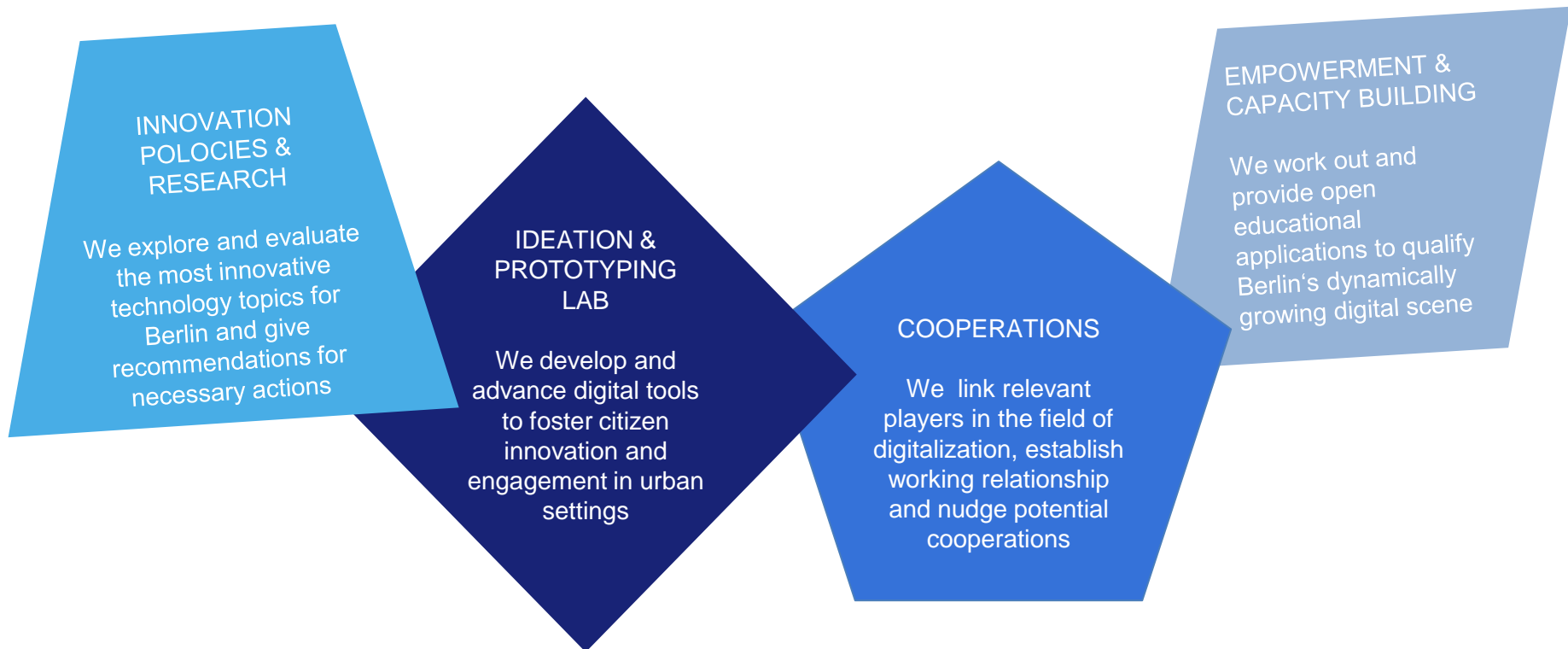


Urban Production – Berlin-Mix 2.0

Anne-Caroline Erbstößer | 12.11.2018

Technologiestiftung Berlin

We are committed to transform new ideas into reality and shift digitalization projects emerging from Berlin's scientific R&D community into action.



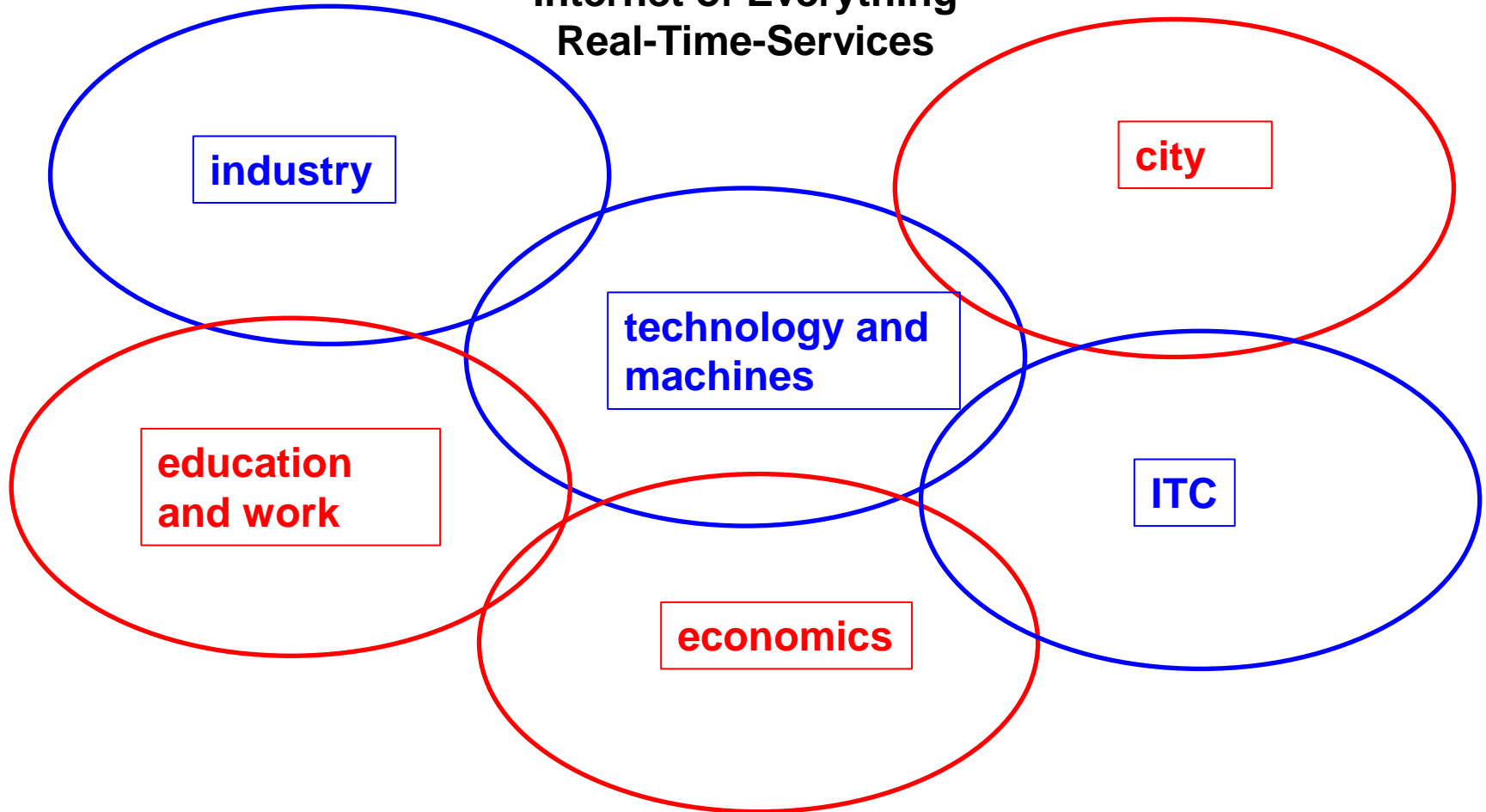
Production in the City- Berlin Mix 2.0



What means Industry 4.0 for the City?

Industry 4.0 in Berlin is more than manufacturing

Digitalization
Internet of Everything
Real-Time-Services



blue: we know a lot from research

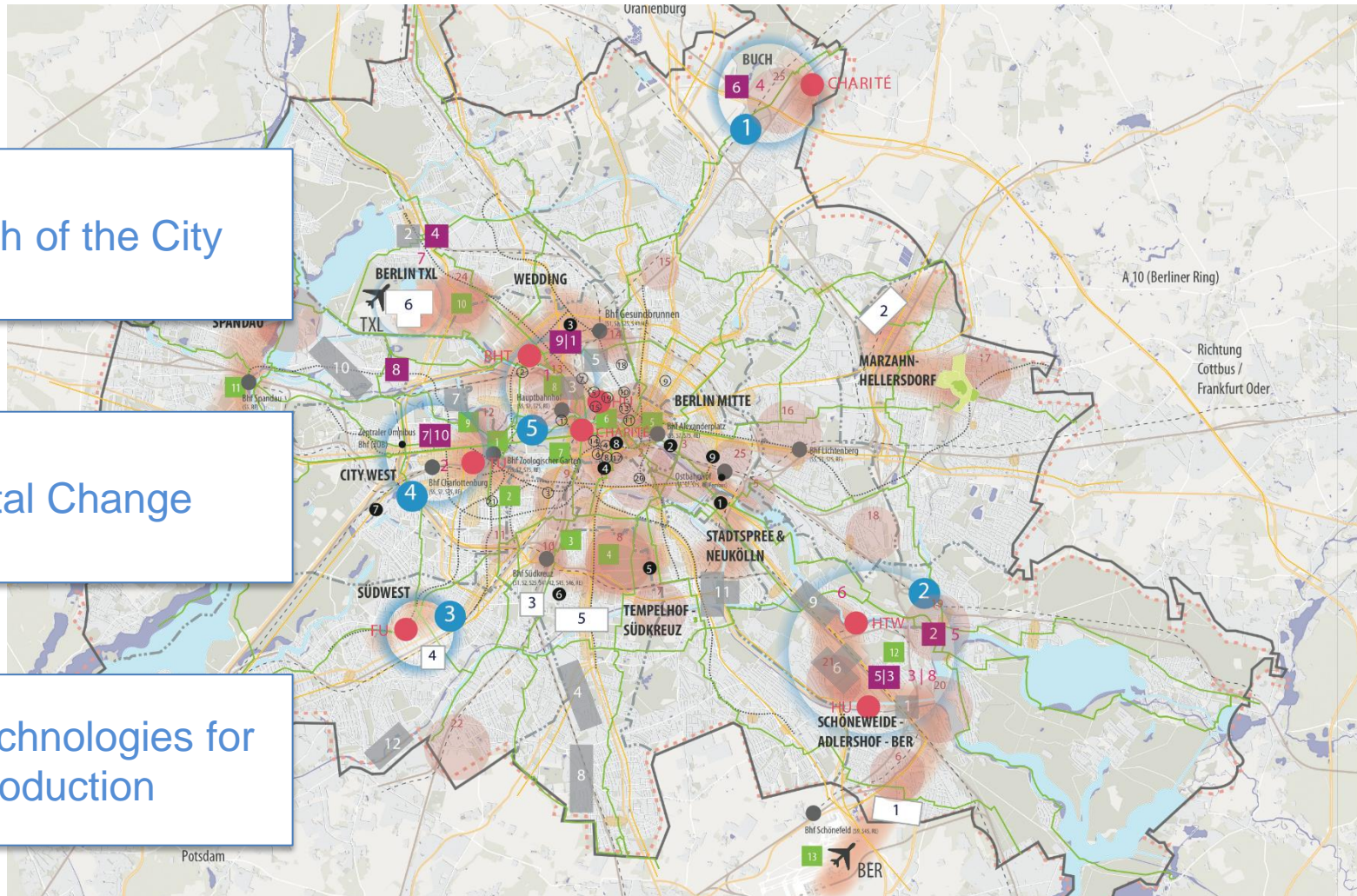
red: we only know a little

What are the drivers of urban production in the **city** ?

Growth of the City

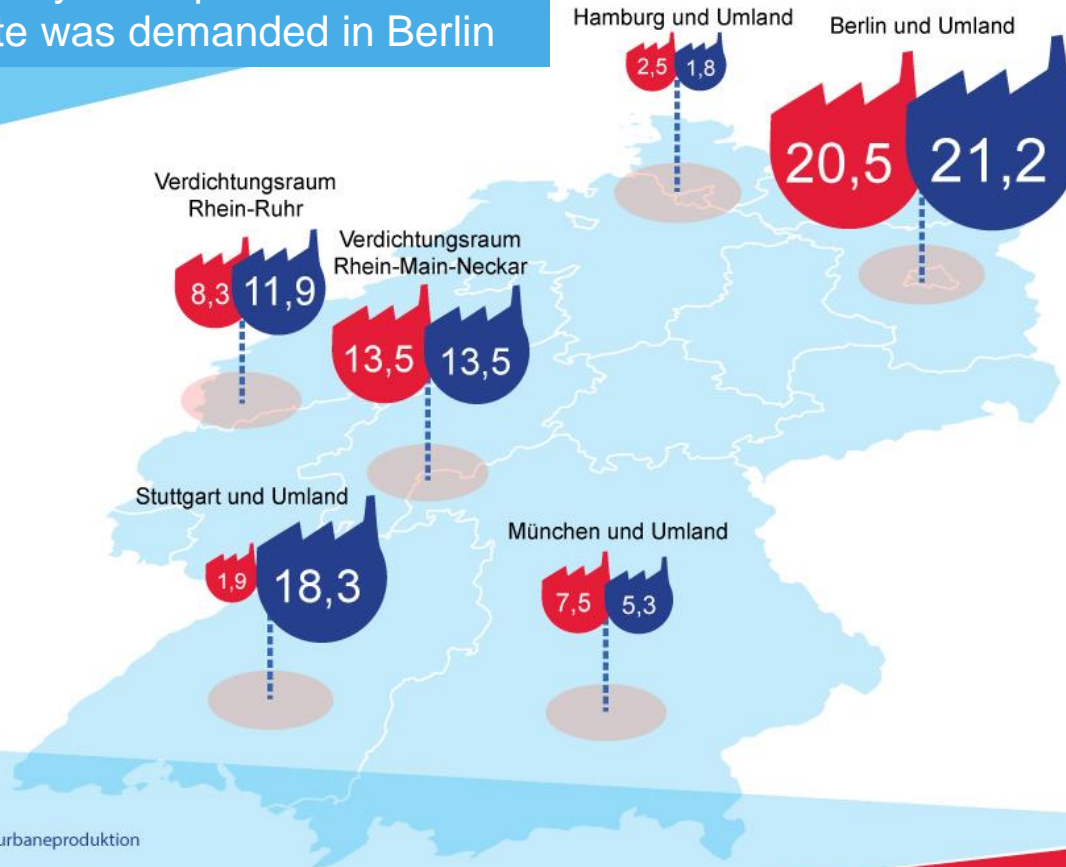
Digital Change

New Technologies for Production



Growing City: Increasing demands for industrial and commercial areas

Germany 2014: Every 5th square meter of industrial real estate was demanded in Berlin



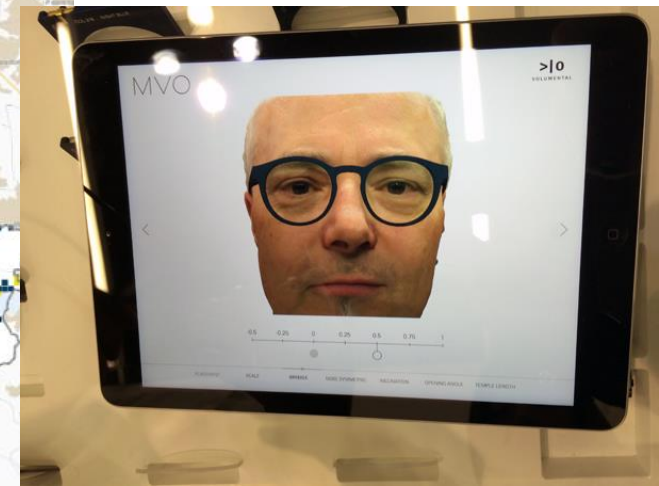
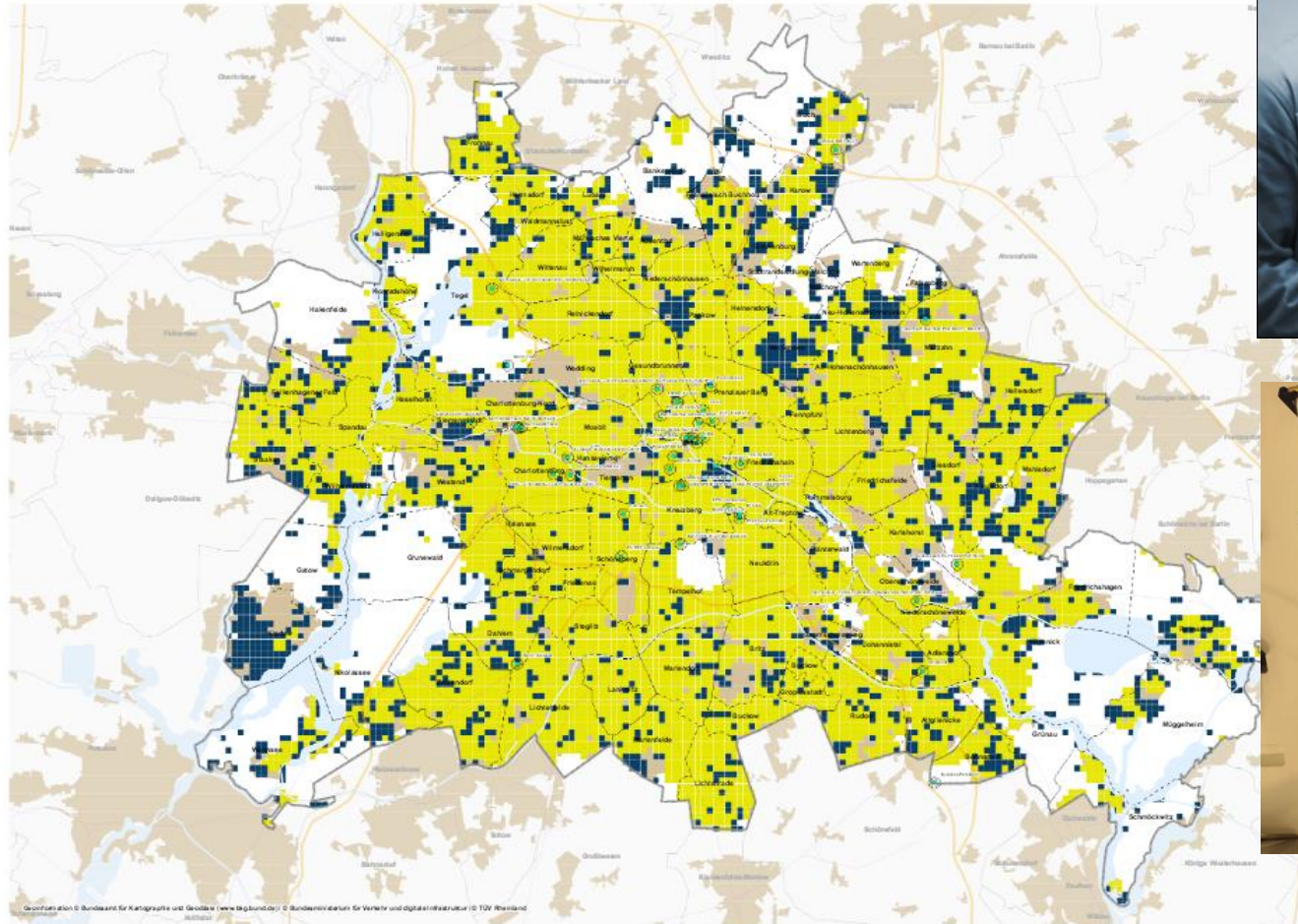
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Urban Production and Digital Change



Bundesministerium
für Verkehr und
digitale Infrastruktur

**Breitbandverfügbarkeit Berlin Gewerbe
≥ 100 Mbit/s alle Technologien**



Industry 4.0: New technologies and new work processes change the needs of factories and their surroundings

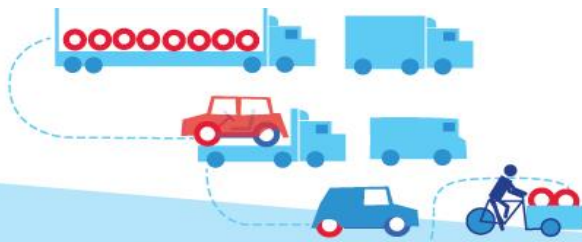


from assembling lines to production cells



digital production needs broadband network

batch size 1 changes logistics



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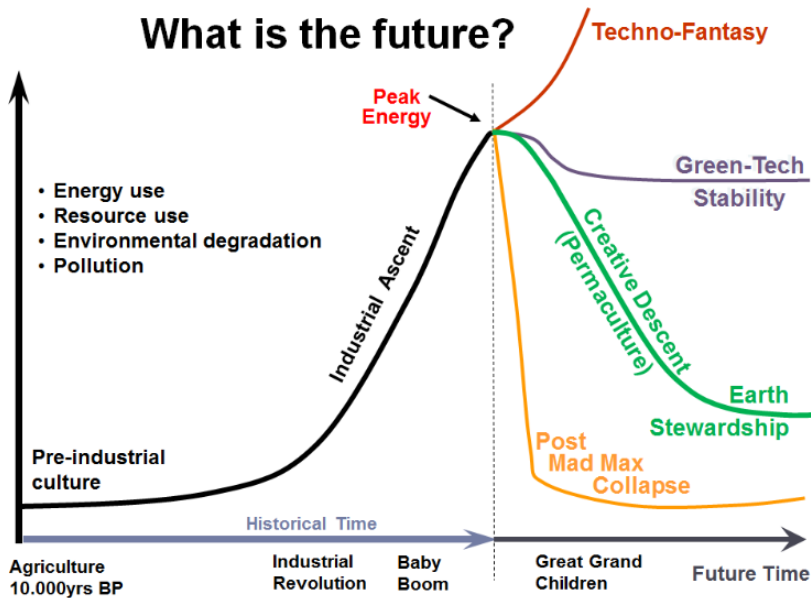
citizen friendly environment gets more important



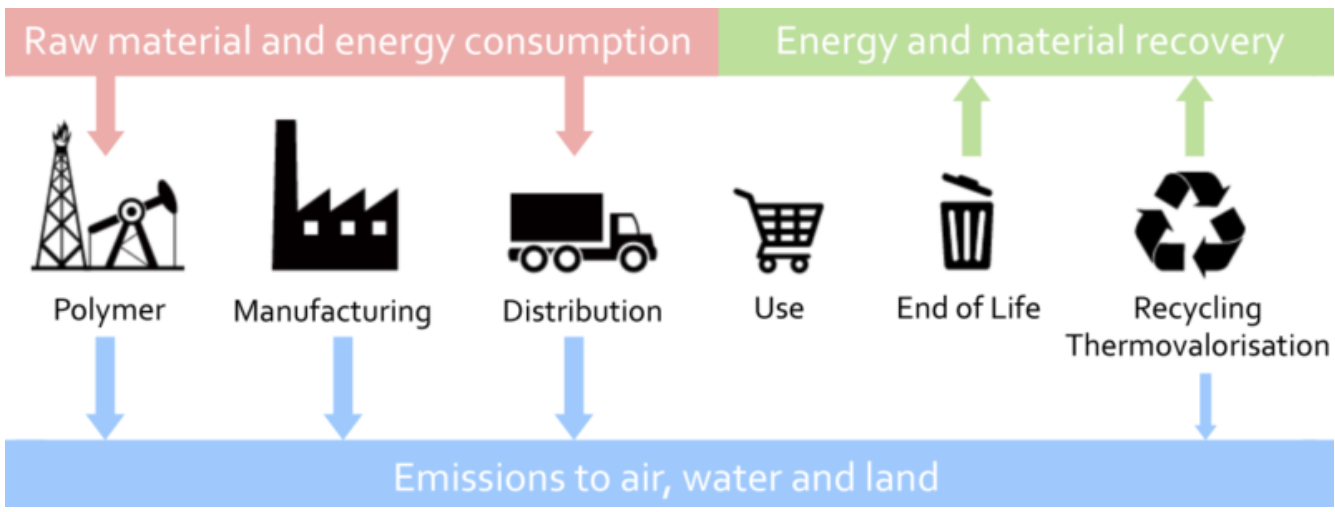
New production technologies change workspaces



Climate Change and Co2 Footprint: Urban Production affects energy consumption, material flow and logistics?!

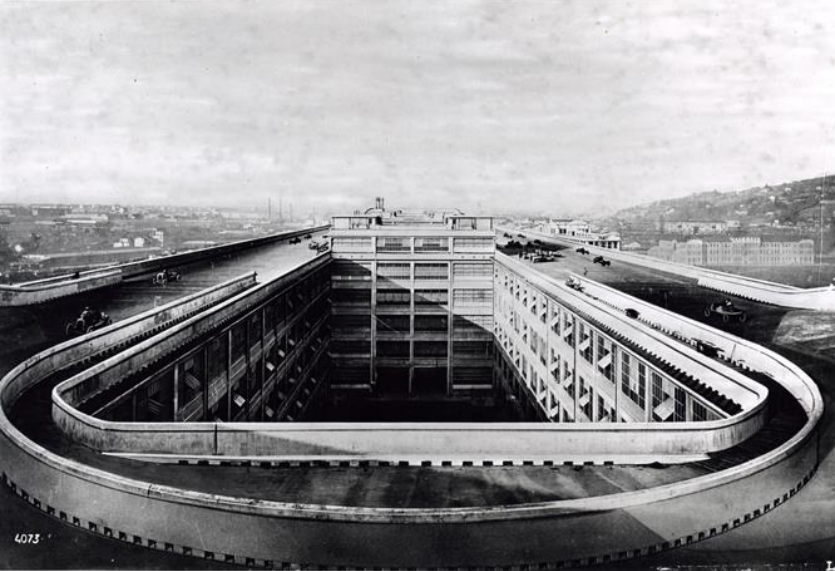


<http://www.taplast.com/wp-content/uploads/2016/07/product-life-cycle-800x300.png>

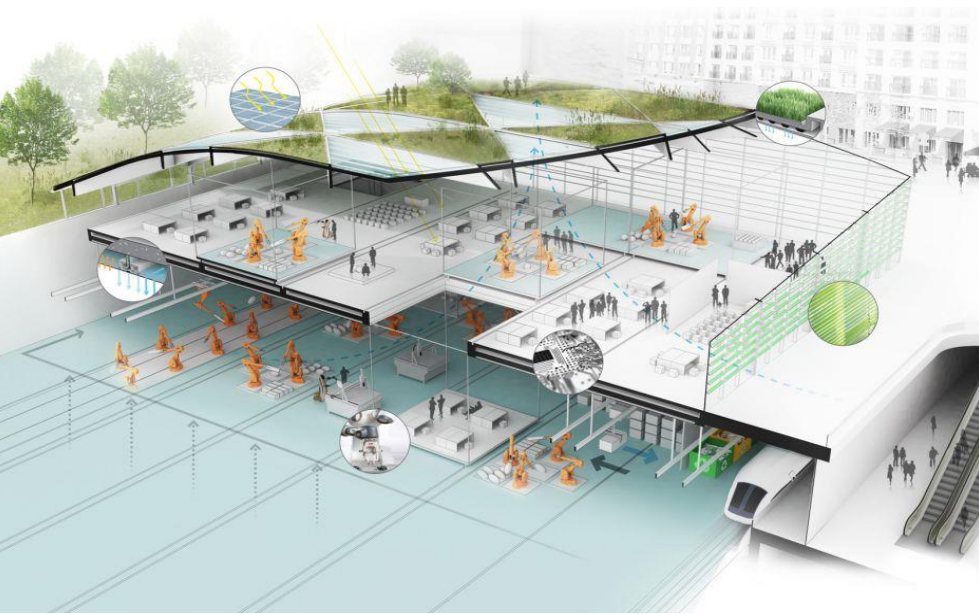


Graham Wood,
Managing Consultant -
Business Transformation

History of Urban-Factory: Save ground and verticalize!



Urban-Factory: The Future



The Urban Factory: What are the trends?

Visions for the Urban Factory of the future

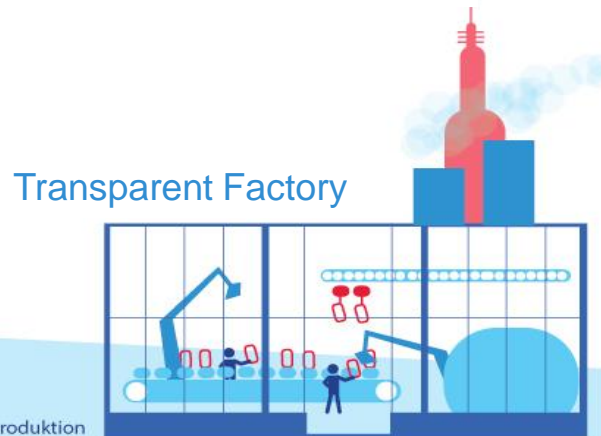
Production in the growing city



Factory on the roof



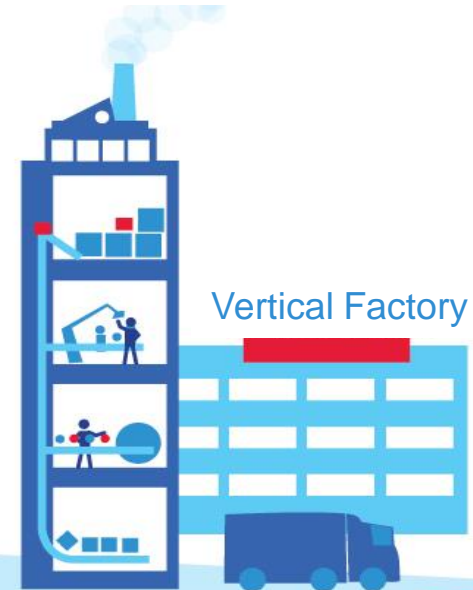
Store front production



Transparent Factory



Temporary production



Vertical Factory

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Location Factors for Urban Production in the City

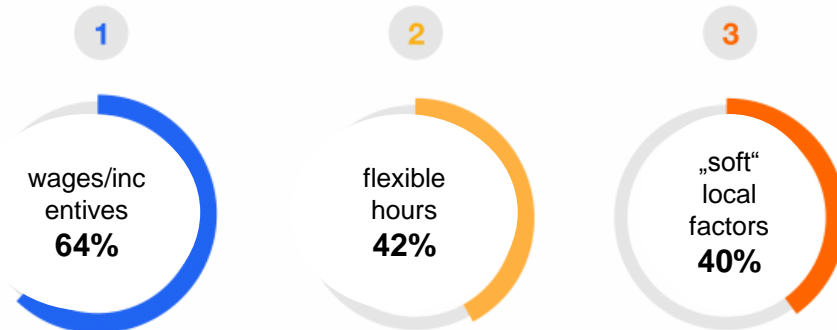
- Infrastructure
- Business Location
- Synergies



Klassische Zustellfahrzeuge werden mittelfristig nicht durch Lieferdrohnen ersetzt werden können.

© Pakelda-Fotomontage

Permanent workers look in a new job for:



Quelle: Indeed Studie durchgeführt von Harris Poll (Basis: Angestellte und Nicht-Angestellte auf Jobsuche, n=1.343)

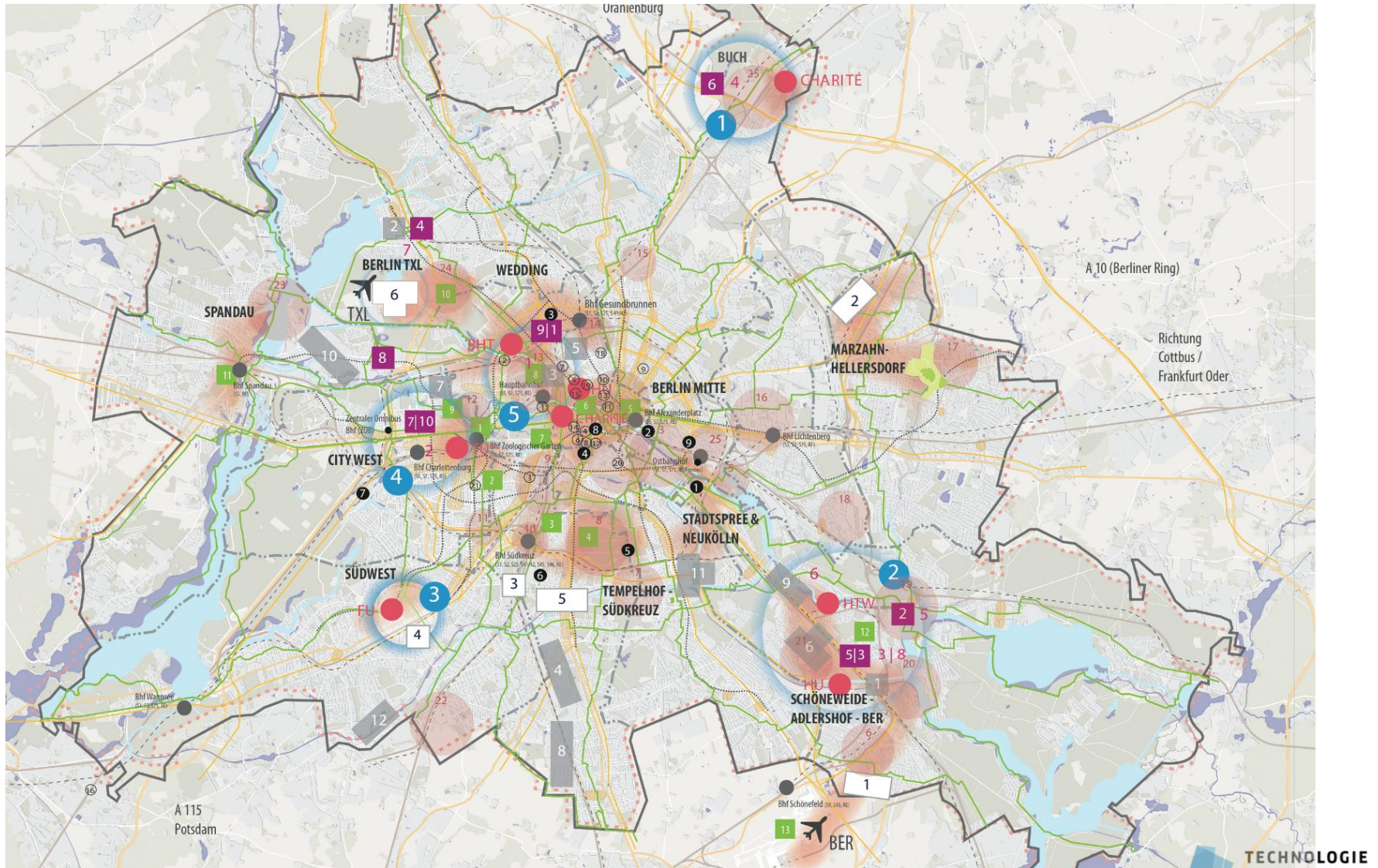
indeed



Mixed Use Aereas now and back then: Urban Production in the Backyard



Urban Development Planning in Berlin



Berlin's Urban Development: Where to go with production in a growing city?



inner city



along the *S-Bahn* ring

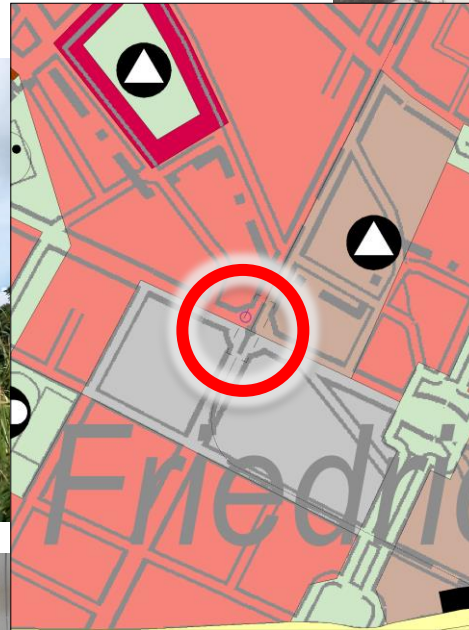


peripheries

Mixed Use Areas in the Heart of Berlin: Gewerbehof (Trading Yard) and Industrial Area and residential use...



FNP (Flächennutzungsplan Berlin), Stand Neubekanntmachung 2015



Geoportal Berlin, Foto: stellart, 12/05/2016



Berlin Mix 2.0: Recommendations

1. Establish a wider form of consensus for urban production in the city and organise local business networks. Involve all stakeholders in the planning process.
1. Land Development Plans, building laws etc.: all planning tools should be fully exploited to support urban production. Provide incentives for city districts for making urban production areas available.
1. Implement the infrastructure needed for industry 4.0 and digital production, in particular fast broadband and new standards (like G5) for all industrial and commercial areas.
1. Support research into the effects of urban production on sustainability, CO2 footprint and resource efficiency , in particular using test and simulation areas ; research the effects of “batch size 1” on logistics and environment.
1. Use new ways of looking at things: eg. plan vertical, plan mixed use areas as noise buffer along main roads and traffic lanes, or support areas with different commercial and industrial use and make them user friendly so people could linger there comfortably.

Thank you for listening

Merci pour votre attention

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