

# Seminar Nasional DPPM UII

## Peningkatan Produktivitas dan Efektivitas Berbasis Teknologi Informasi Menuju Era Post Covid-19

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# Profile

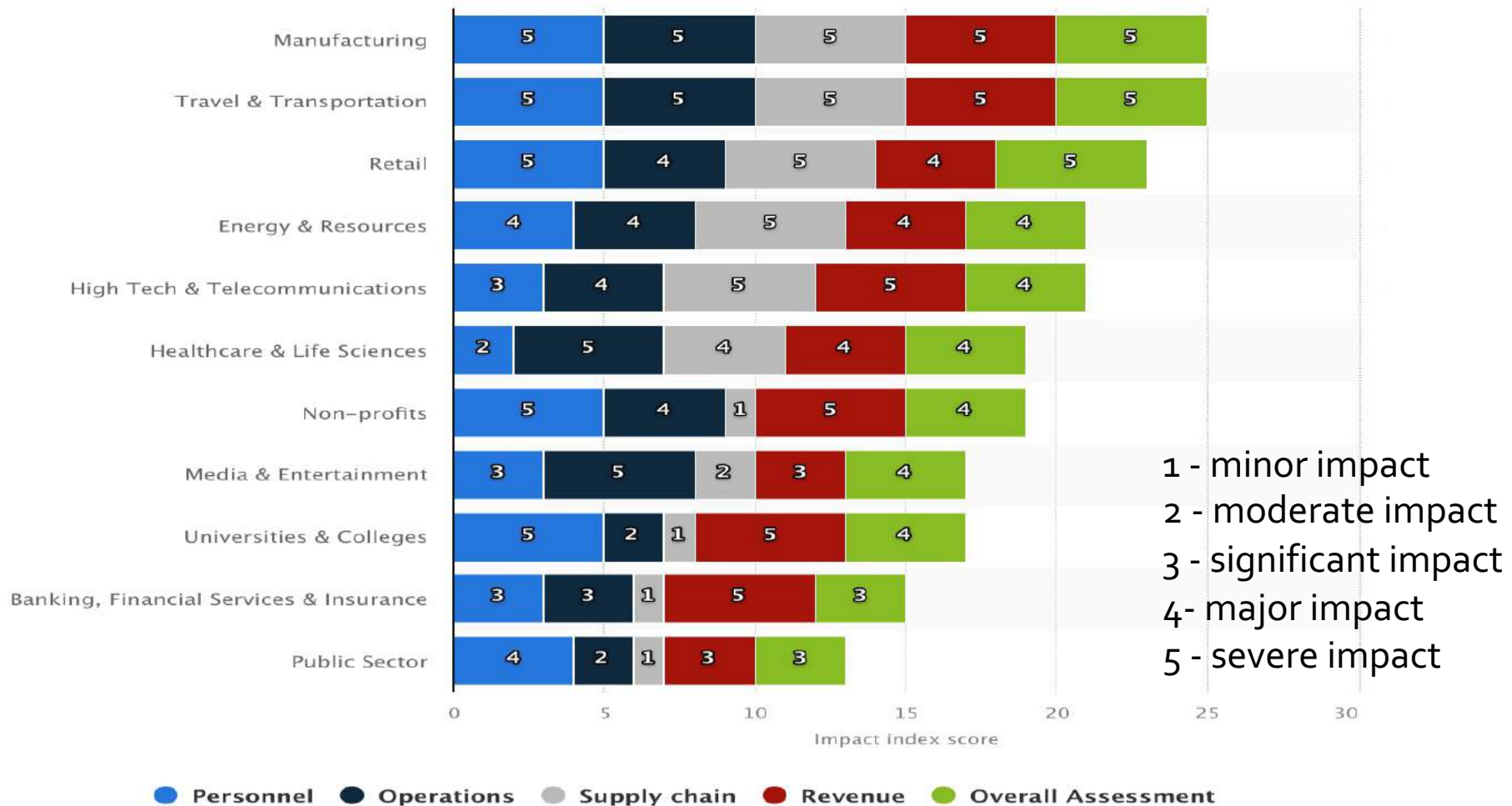


## Yudi Prayudi

Director of Center for Digital Forensics Studies  
UII Yogyakarta

- Dr From UGM With Dissertation about Digital Evidence Cabinets
- Senior Lecture at Department of Informatics UII Yogyakarta
- Head of Digital Forensic Postgraduate Program at UII Yogyakarta
- CHFI , Encase, Oxygen, Belkasoft
- Hacker In The Box (2012), Hacker Halted (2012)
- Author more than 30 Paper for International Journal and Conference
- Expert witnesses in various legal cases
- Speakers at Many National Conferences about Security and Digital Forensics

# Dampak Pada Berbagai Sektor



# Dampak Covid 19 Terhadap IT

- Around **35-38%** of tech organizations are likely to improve or enhance their IT operations and infrastructure due to the COVID-19 outbreak.
- The leading companies of the sectors have reported an average of **5-10%** increase in IT expenditures only because of the COVID-19 pandemic.
- The **Cloud Software** and **Digital Platforms** have comparatively witnessed the fastest business expansion in 2020 when everyone was working from home.
- Zoom alone experienced year-on-year growth of around **340-345%** in the year 2020



# IT Spending Time

Since the COVID-19 outbreak, consumers report spending MORE time with media as follows:

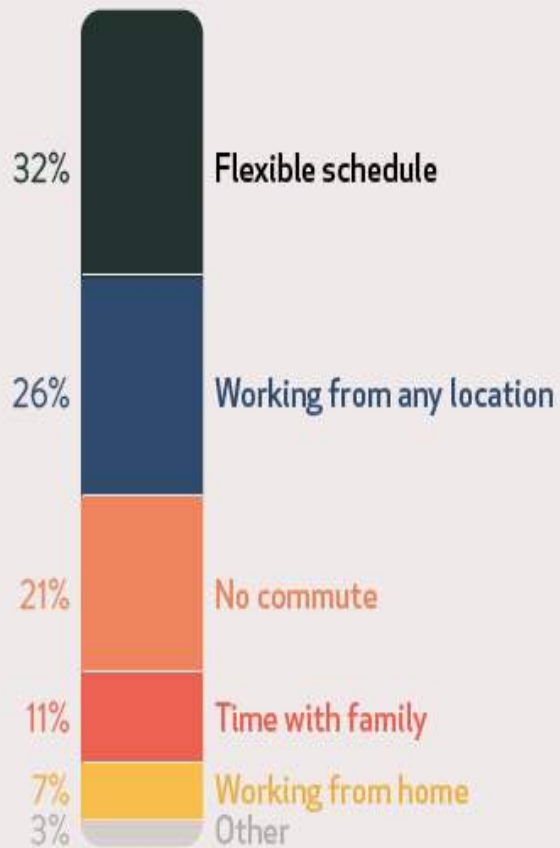


# IT Used for Covid 19



# Remote Workers - WfH

## TOP BENEFITS OF REMOTE WORKING

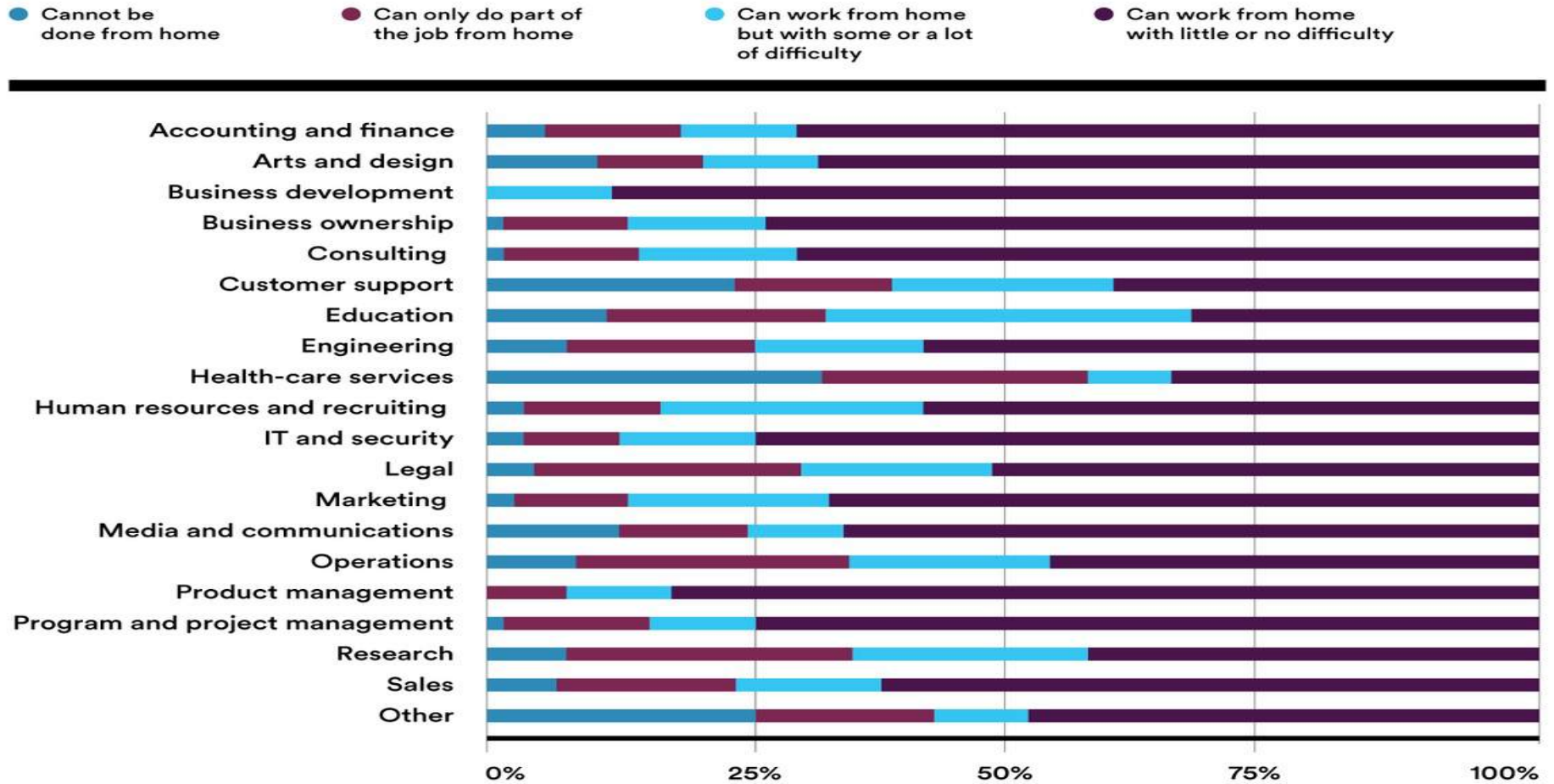


Source: Buffer - State of Remote Report



# Suitability Job

## Suitability of job for remote work by industry

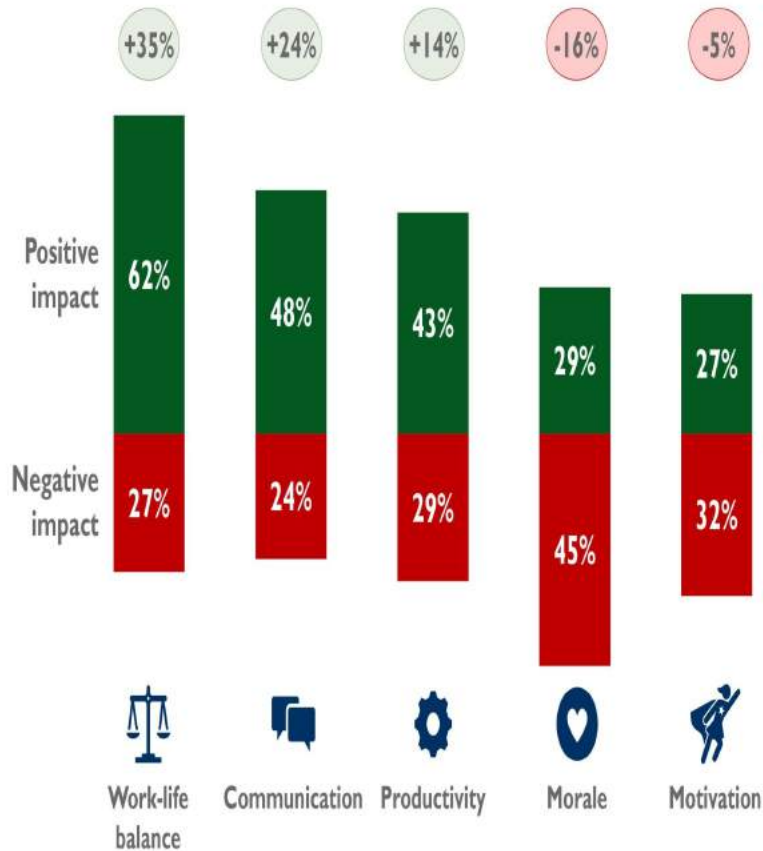


Source: Slack survey of knowledge workers, conducted March 23-27 (n=2,877)



# Tantangan Remote Workers

## Impact of remote working on company



## TOP STRUGGLES OF REMOTE WORKERS



# The Impact of Covid-19 on Technology in General

This slide covers information about the impact of coronavirus on technology sector. Key impacts include projects are paused, declining demand for new projects, digital divide widens, growth in various technologies.



## Ongoing Projects are Paused

Due to general decline in technology budgets (around 4% drop) as many projects are put on hold or slowed down

There are two exceptions of projects that do not get paused:

- › Highly strategic initiatives
- › Projects involving technologies that are directly linked to COVID-19

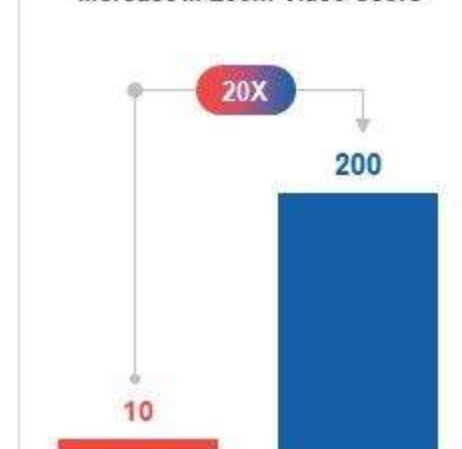


## Some Enterprise Technologies Take Off

Following technologies has positive impact

- › **Work-from-home infrastructure** (e.g., laptops, screens, connectivity, etc.)
- › **Collaboration tools** (e.g., video conferencing, team chat, project planning, etc.)
- › **Virtualization infrastructure** (e.g., remote desktops)
- › **Other Technologies** i.e. VPN networking, Mobile devices, Security, Desktop support

## 20 Times Increase in Zoom Video Users



## The Digital Divide Widens

IoT Analytics has seen two extreme reactions of different companies during the current crisis

- › The firms laid off their entire team as cost-cutting measures
- › Firm cut costs elsewhere and ensured their digital initiatives would continue uninterrupted



## Declining Demand for New Projects/Devices/ Services

The sales pipelines for firms around the world are drying up as companies become more cautious about procuring new services, starting new projects or buying IoT hardware

IOT analytics companies highlighted following issued:

- › Drop in new projects advertisements
- › Decline in website traffic and conversion rate
- › Sales Decline



# Dampak Post Covid

## POST-COVID GROWTH OPPORTUNITY MATRIX, GLOBAL, 2020

### CONNECTED WORK



*Remote Working*



*Virtual Collaboration*



*Hybridized Pools (e.g., Microworkers)*

### "LIGHTS-OUT" OPERATIONS



*Remote Monitoring*



*Digital-Twins*



*B2B/C eCommerce*

### GEO-POLITICAL BALANCE



*Political Polarization*



*Economic Polarization*



*Climate Risks*

### CONNECTED LIVING



*Smart Homes*



*Virtual Tours; Entertainment*



*Virtual Learning*

### TECHNOLOGICAL ADVANCES



*Cybersecurity*



*AI and Robotics*



*Simulation and Modeling*

### SUPPLY CHAIN OPTIMIZATION



*Autonomous (e.g., drones)*



*On-demand Delivery*



*Demand Planning*

### HUMAN AUGMENTATION



*Trans-humanism*



*Basic Income*



*Behavioral Analytics*

### SMART CITIES



*Crowd Analytics*



*Open Data Dashboards*



*Online City Services*

### DIGITAL HEALTH




*Telehealth*




*Novel Diagnostics*



*Robotic Care*

 Short-term impact (Present- 3 years)

 Long-term impact (3-5 years)

# Post Covid

## Gartner 9 Future of Work Trends Post-COVID-19

- 1** More employees working remotely
- 2** Increased use of employee data
- 3** Greater role of the employer as a social safety net
- 4** Wider use of contingent workers
- 5** Critical skills are no longer synonymous with roles
- 6** Some find work more humanizing in the crisis; others find it dehumanizing
- 7** Crisis response distinguishes top-tier employer brands
- 8** Organizations prioritize resilience as much as efficiency
- 9** Crisis adds to organizational complexity, straining design, culture and value proposition

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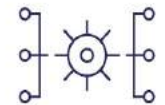
## COVID-19 is pushing companies



to scale  
remote work



to accelerate  
digitalization



to accelerate  
automation



Source: Future of Jobs Report 2020, World Economic Forum.

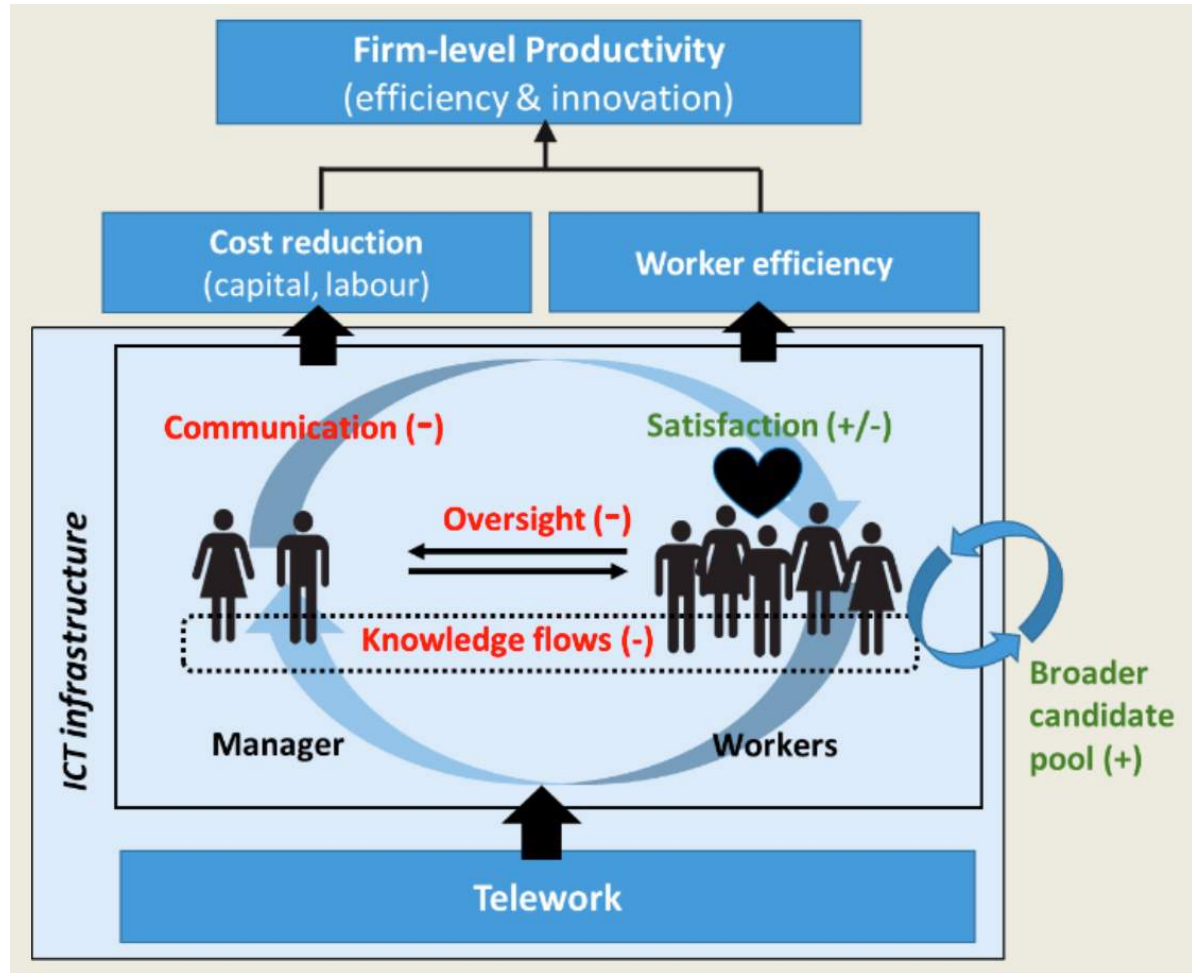
# Telework

Working from home or teleworking during the pandemic has ushered in a new era of productivity, inclusiveness and connectedness.

32% of organizations are replacing full-time employees with contingent workers as a cost-saving measure "



shutterstock.com · 1695249988



# Telework and Productivity

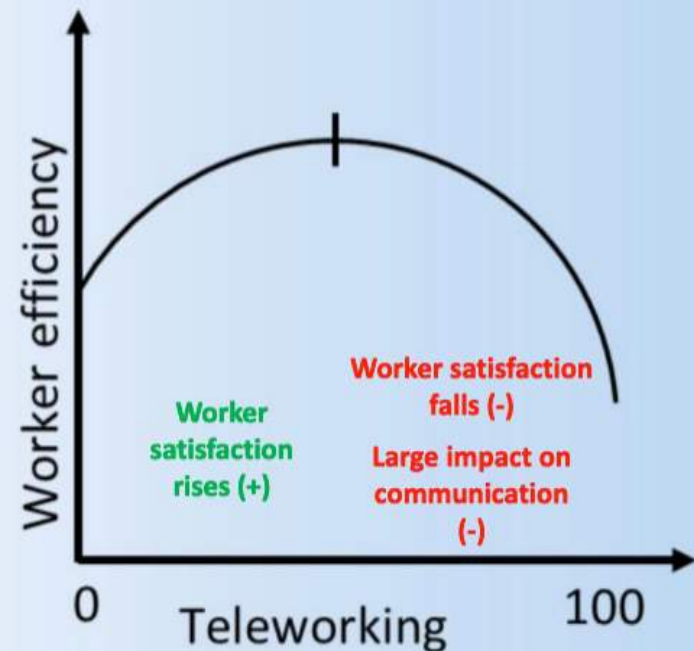


## How does telework affect productivity?

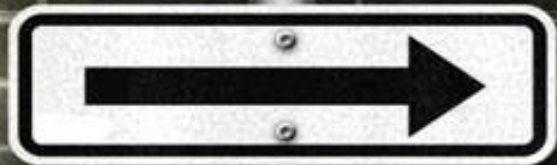
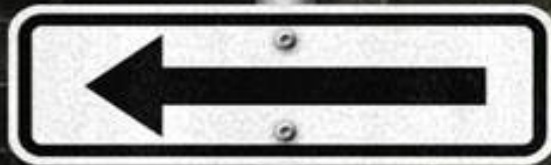
### Main insights from the framework

1. Overall impact is a priori ambiguous
2. Worker satisfaction is key
3. **Worker-level** efficiency depends on telework intensity
4. **Firm-level** efficiency additionally depends on coordination
5. In the **long-term**, impact on knowledge sharing is crucial

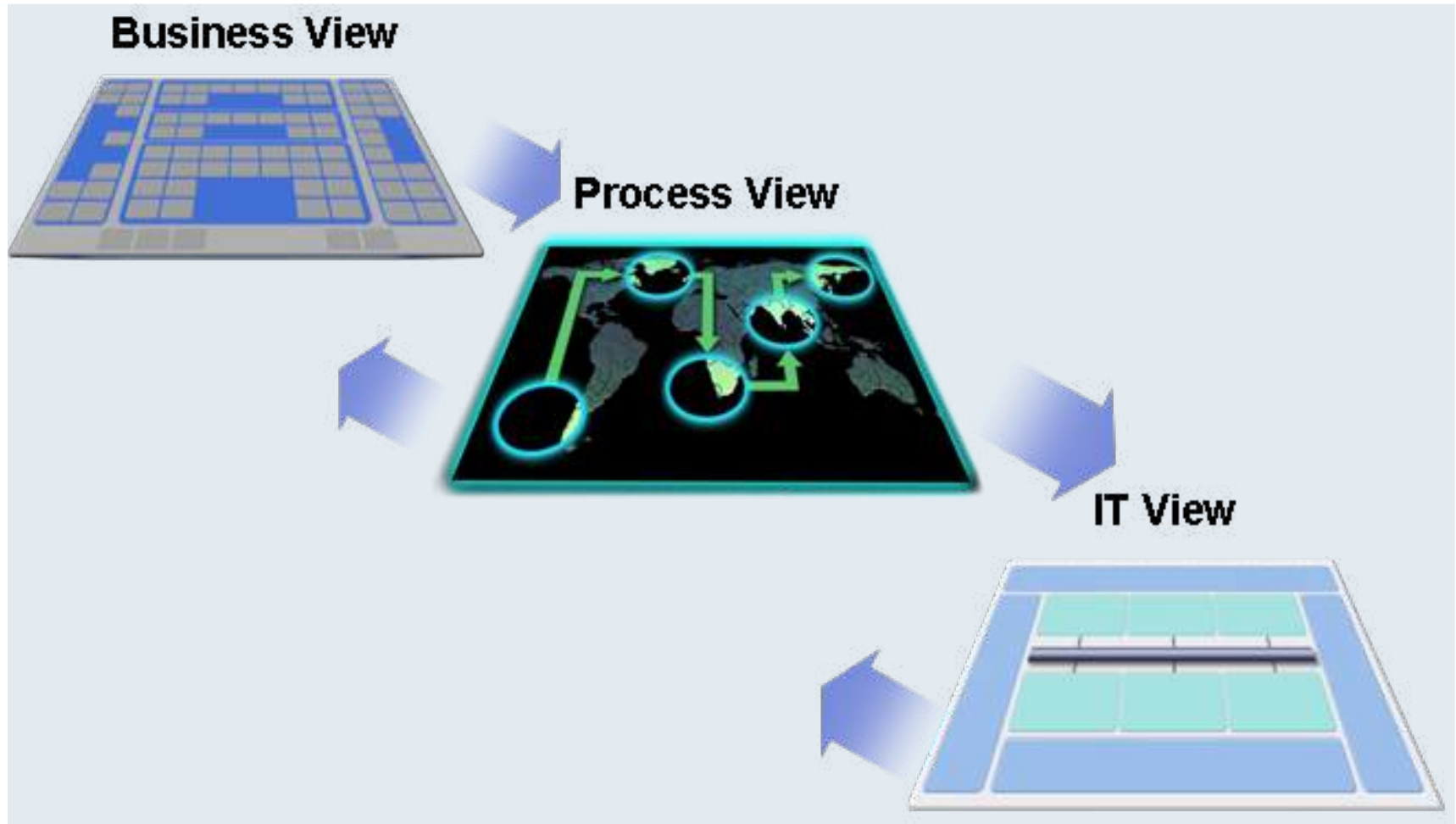
### Efficiency and telework *at the worker-level*



# New Normal



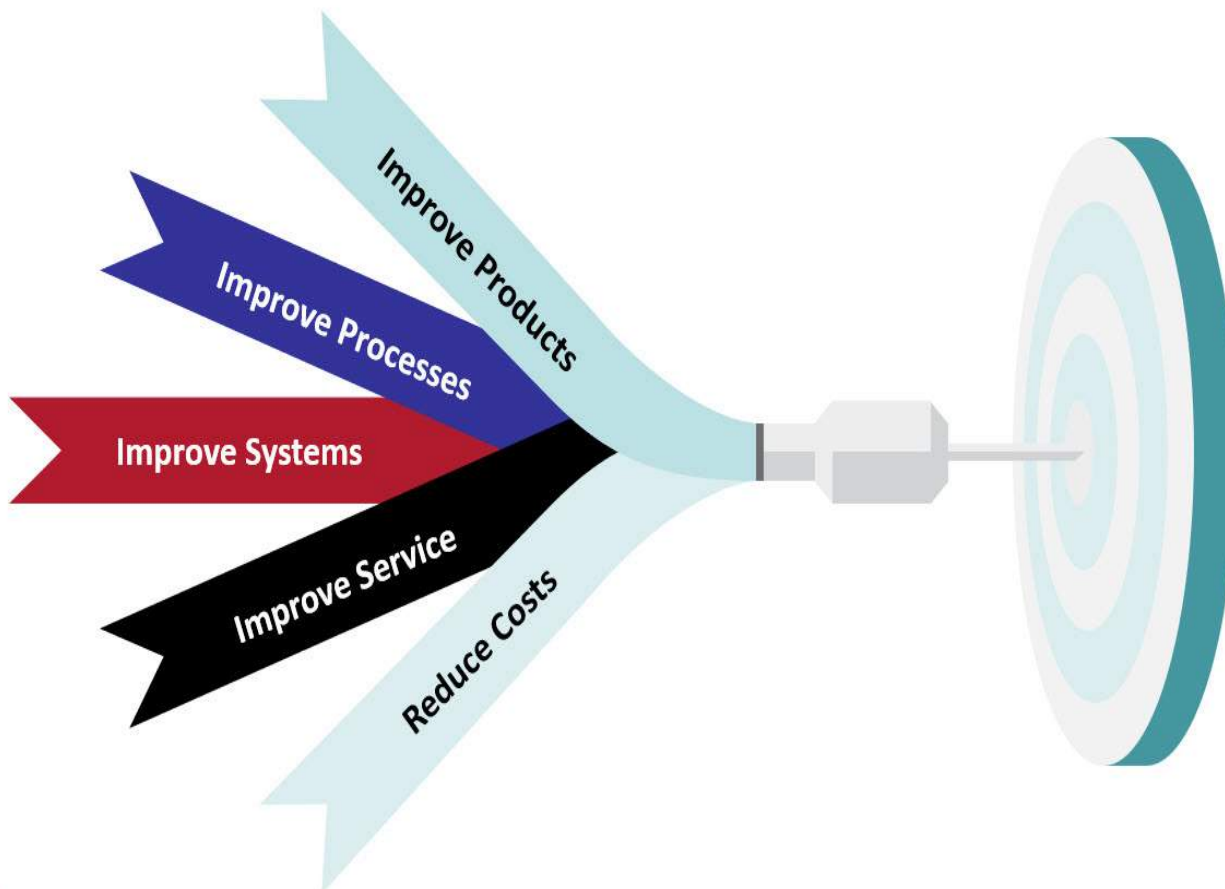
# Re-Design IT





# Post Covid as A Trigger for Improvement

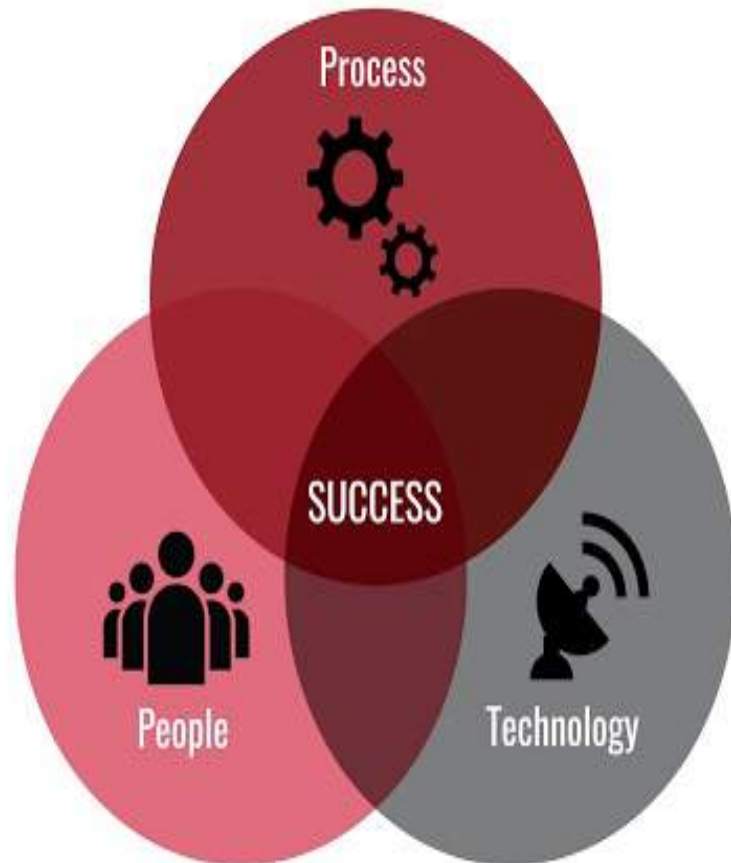
## Continuous Improvement



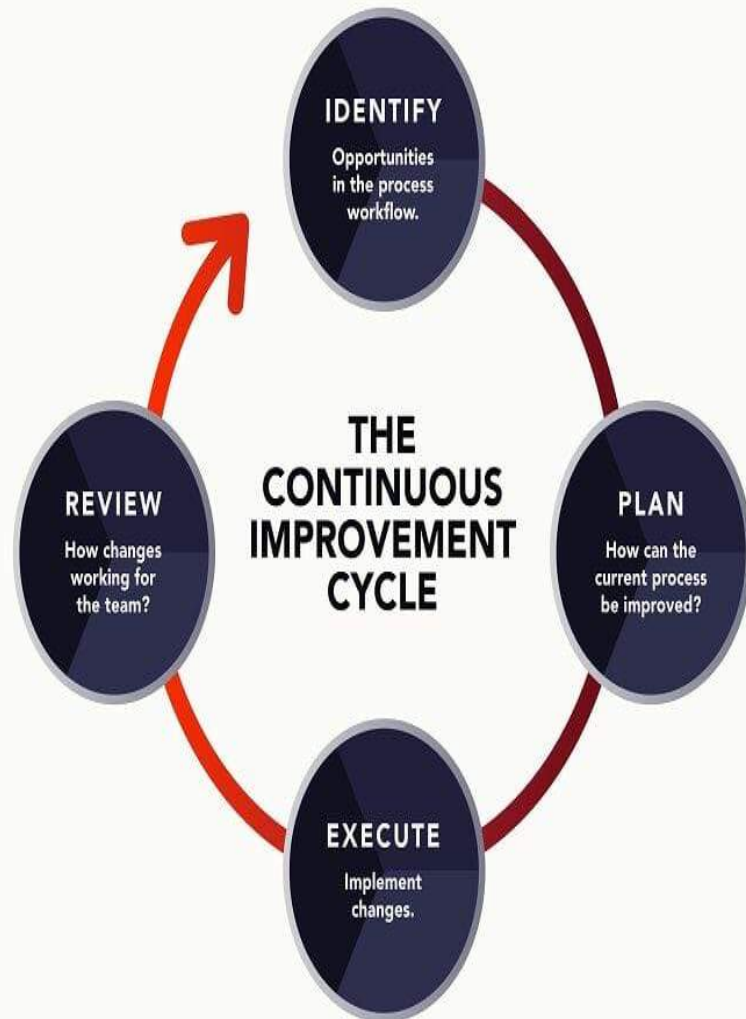
### Increase Customer Satisfaction

The ultimate goal of continuous improvement is increasing customer satisfaction

# People-Process-Technology

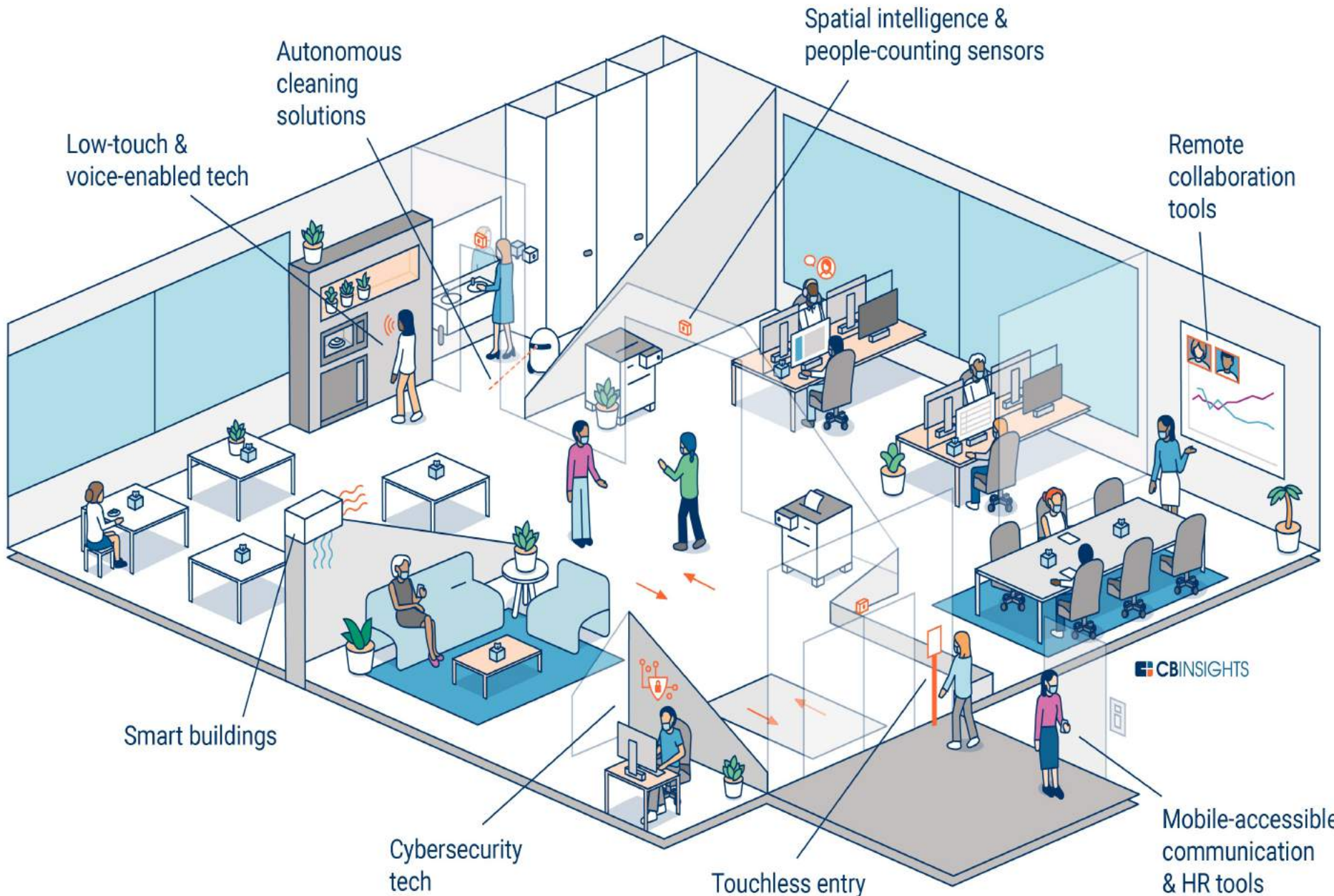


# Pendekatan



# Four Dimensions of Service Management





Low-touch & voice-enabled tech

Autonomous cleaning solutions

Spatial intelligence & people-counting sensors

Remote collaboration tools

Smart buildings

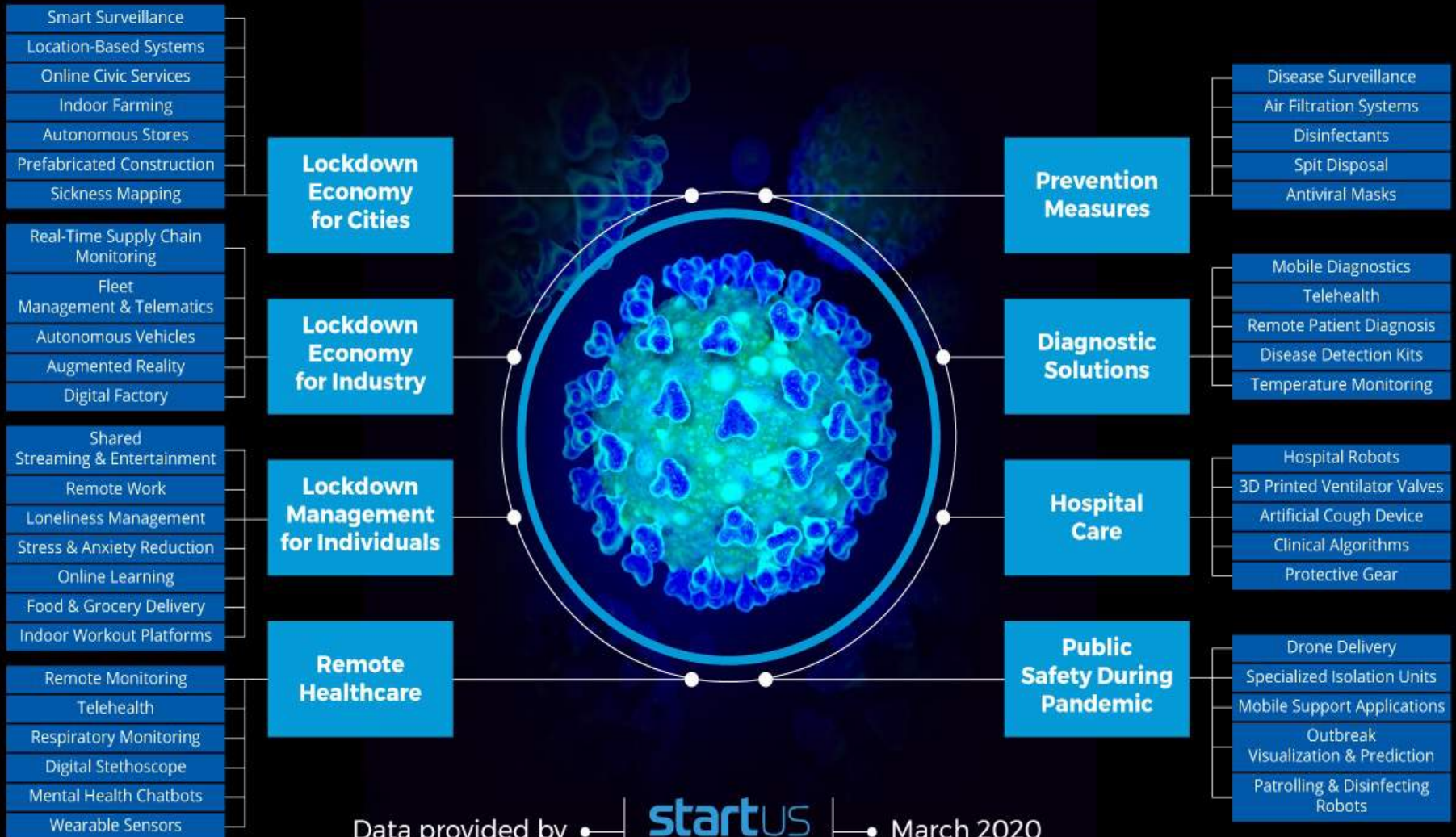
Cybersecurity tech

Touchless entry

Mobile-accessible communication & HR tools

CBINSIGHTS

# 8 Ways Emerging Technologies Tackle The Coronavirus Pandemic



Data provided by



March 2020

# Keeping each other safe and connected is everyone's responsibility

If keeping your grandparents  
safe means you can't visit them  
in person ...



... talk to them every day so they  
don't feel alone.



## Physical distancing is not social isolation

# High Tech High Touch

“Technology, if used right, can improve fine service. A good balance of high tech versus high touch is key.”

- Barak Hirschowitz



The more high technology around us, the more the need for human touch...HighTech/High Touch. The principle symbolizes the need for balance between our physical and spiritual reality.

— John Naisbitt —



# Thank You

## GREVZN XNFVU

<http://www.decode.org/?q=GREVZN+XNFVU+>



<http://forensics.uii.ac.id>