# CORONA CRISIS – A CHANCE FOR DIGITAL TRANSFORMATION?

Prof. Dr. Irene Bertschek

SUERF E-workshop in cooperation with KfW

Session 3: The crisis as a catalyst for structural change

3 March 2021





#### **DIGITALISATION MAKES RESILIENT**

#### Financial Crisis 2008/09

- Effects of the financial and economic crisis less severe in highly digitalised firms.
- Smaller decline of productivity growth
- Higher probability of improving innovation capacity (esp. in the service sector) by introducing process innovations

#### Corona lockdown

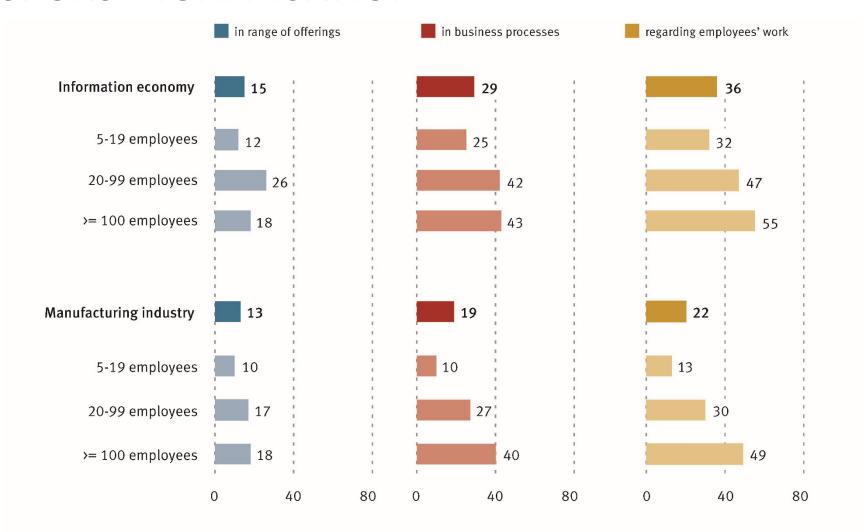
- 73 % of self-employed with very low degree of digitalisation are not able anymore to conduct their businesses.
- Only 28 % of those highly digitalised are affected similarly.
- One in three self-employed increased their degree of digitalisation.

Source: Bertschek et al. (2019)

Source: Bertschek and Erdsiek (2020)



# **CRISIS SPURS DIGITALISATION**

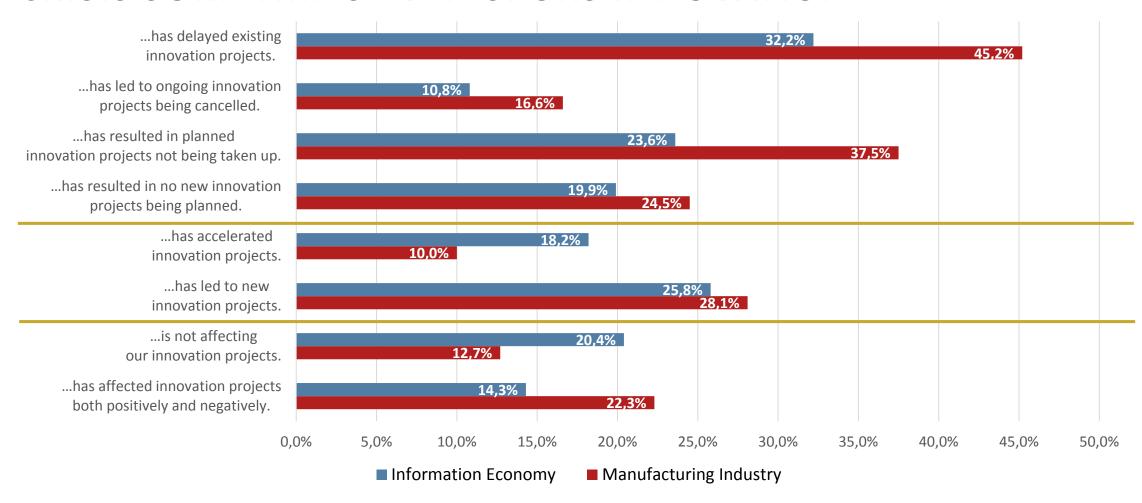


Reading aid: 12 per cent of companies with 5 to 19 employees in the information economy increased their range of offerings as a result of the COVID-19 crisis.

Source: ZEW Business Survey in the Information Economy, 2020



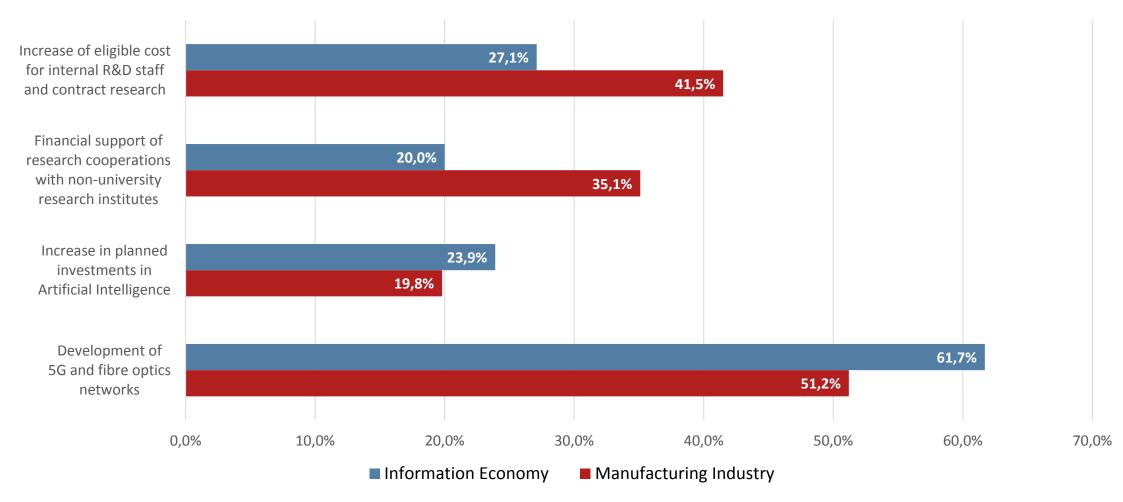
## CRISIS SOMETIMES EVEN SPURS INNOVATION



Sector-specific extrapolation on the question "What impact does the COVID-19 pandemic have on your company's innovation activities? The COVID-19 pandemic..." Example: In 24 per cent of the companies in the information economy, planned innovation projects have not been taken up. Source: ZEW Business Survey in the Information Economy 2020, EFI Report 2021.



# COMPANIES WELCOME EFFECT OF STIMULI ON INNOVATION



Sector-specific extrapolation on the question "From which of the following measures from the 'Zukunftspaket' would your company's innovation activity benefit?" Example: The innovation activity of 62 percent of companies in the information economy would benefit from the development of 5G and glass fibre networks. Source: ZEW Business Survey in the Information Economy 2020, EFI Report 2021



### POLICY MEASURES AND STRUCTURAL CHANGE

To use the crisis as a catalyst for the transition to new technologies and structural change, further economic stimulus programmes and measures should be designed with the greatest possible focus on Research & Innovation.

- "Zukunftspaket" (future package): investment in digital infrastructure & future technologies e.g. Al, Hydrogen technology, Quantum technology
- "Zukunftsfonds" (funds for the future): improve provision of venture & growth capital
- Data Strategy: improve provision and usage of data



speedy and consequent implementation!



#### REFERENCES

- Bertschek, Irene, Michael Polder and Patrick Schulte (2019), ICT and Resilience in Times of Crisis: Evidence from Cross-Country Micro Moments Data, Economics of Innovation and New Technology Volume 28, Issue 8, 759-774. <u>Download</u>
- Bertschek, Irene and Daniel Erdsiek (2020), Soloselbstständigkeit in der Corona-Krise, ZEW expert brief No. 20-08, Mannheim. <u>Download</u> (in German)
- Commission of Experts for Research and Innovation (EFI) (eds.) (2021), Report on Research, Innovation and Technological Performance in Germany 2021, EFI, Berlin.
   <u>Download</u> (in German), English Summary <u>Download</u>
- ZEW (2020), ZEW Business Survey in the Information Economy, Nov 2020,
   Mannheim. <u>Download</u> (in German), English Press Release <u>Link</u>