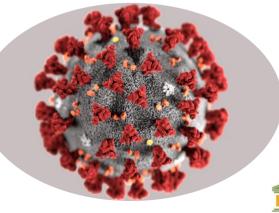
What are the medium to long term implications of Covid-19 on universities' research, innovation programmes and engagement with society, defining a roadmap forward.

Dr. Martin C.Th. Scholten 22 October 2020

WUR-Id after the curve





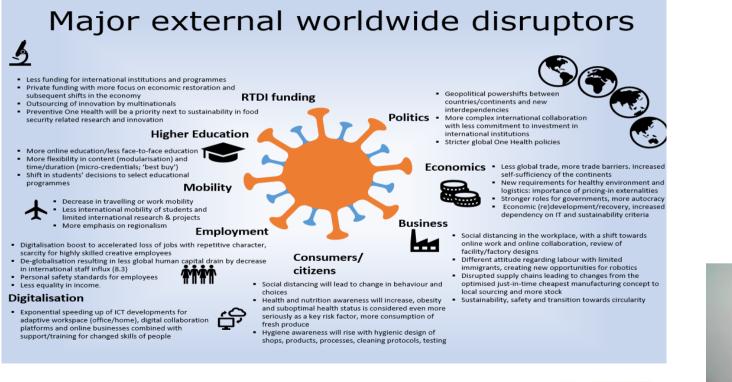








A pandemic like Covid-19 is a major disruptor



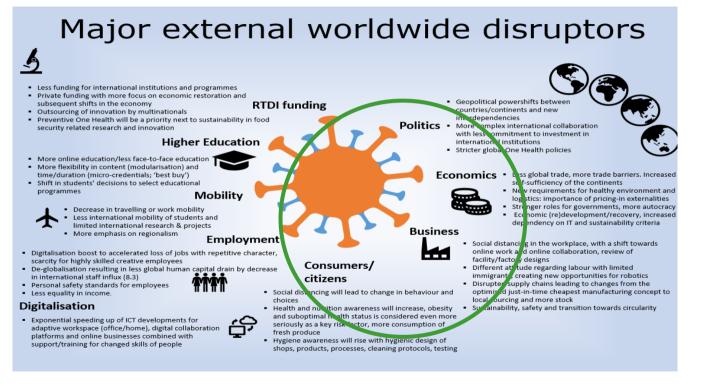








A: disrupting the outer world around science



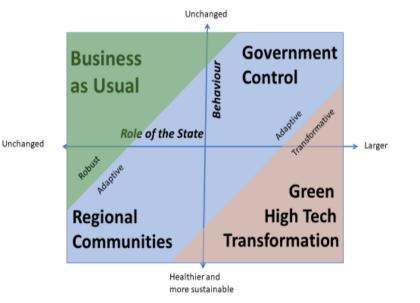








Implications for European food system scenario's



Business recovery in a free global market	Preventive governmental control
Shift towards regional business models	<i>Flipping the switch towards a radical transition by policies</i>











A: disrupting the inner world around science











Implications for Higher Education

- More online education, less face-to-face education.
- More competition for online education.



- More flexibility in content (modularisation) and time/duration (micro-credentials; 'best buy').
- Decrease in international student (and staff) influx: will take at least five years to recover.
- Shift in students' decisions on study programmes and location: to select educational programmes towards those with expected better job security with a blended mix of universities..
- More emphasis on lifelong learning and professional development.











Implications for Research

- Reduction of public budget for universities and research institutes compensate for expenses related to Covid-19 recovery.
- Stronger focus on scientific support to policies and society (mission-driven), instead of curiosity-driven and industry-driven science
- European funding will shift towards more focus on preparedness, IT and a self-sufficient and less geopolitically complex European economy
- Less funding for multilateral institutions and programmes due to lower donorship and fewer charities.
- Lower (co)funding from private parties.











Implications for Innovation

- Lower budgets for talent programmes, start ups, scale ups
- Outsourcing of innovation by medium-size multinationals.
- More need for value creation, bringing direct benefits to society and private companies.
- Private funding with more focus on economic restoration, speed to market of new innovations and subsequent shifts in the economy.



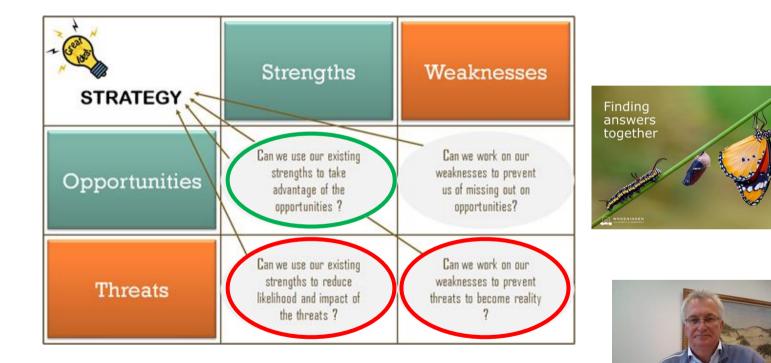








Dealing with the consequences



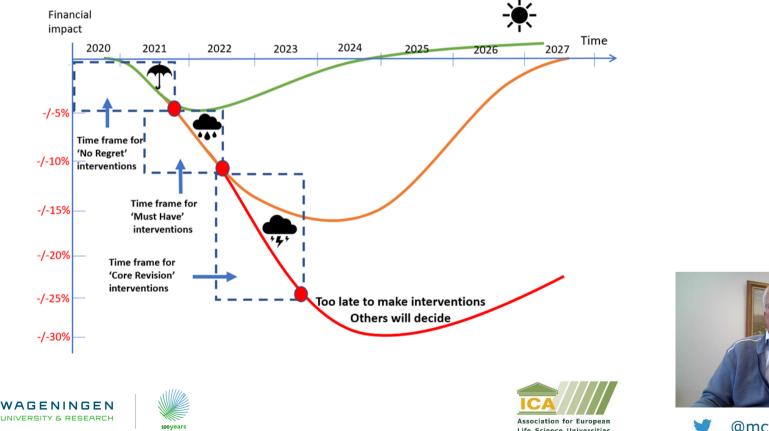








Covid-19 Aftermath: forecast and interventions



Life Science Universities

The intervention strategy of WUR







Strengthen our USP: we have what it takes; strengthen our unique qualities and brand

Redirect priorities: In Education, Research and Value Creation

Recalibrate enablers: flexible work, campus, support, focus internal organisation

Find answers together: within WUR and with others

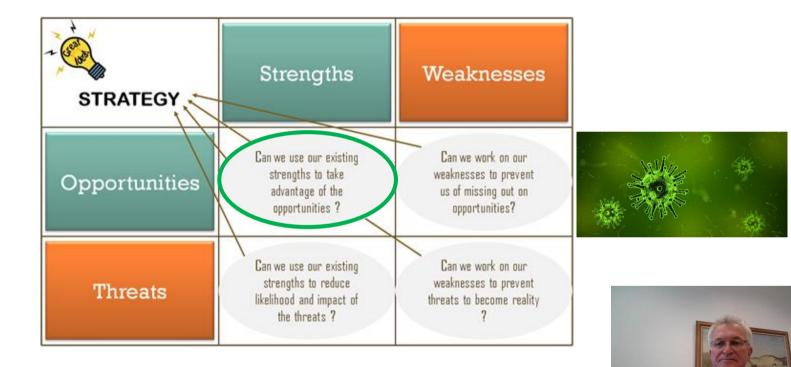
Act timely and decisively







Dealing with the consequences











Emerging priorities

- ✓ Pandemic emergency preparedness & intervention
- ✓ Preventive health and lifestyle of consumers
- ✓ Food: hygiene, quality and authenticity
- ✓ Agri: resilience with more regionality of supply chains
- ✓ Climate-smart land use fostering biodiversity
- ✓ FAIR data-driven solutions with artificial intelligence













Disease X-next: Preparedness & Intervention

ZEPI: Zoonotic Emergency, Preparedness & Intervention

Early Prediction

- · Wildlife as zoonotic reservoirs and dispersing agents
- · Zoonotic transmission and propagation in society

Preventive Intervention

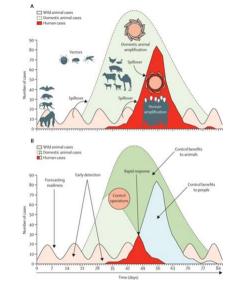
- Contingency planning
- Vaccin development
- Public health care

Responsive Detection

- · Early hazard identification
- Real-time monitoring
- · FAIR sharing of complex data











Interdisciplinary & international connectivity needed

ZEPI: Zoonotic Emergency, Preparedness & Intervention

Contingency planning Risk indication Early warning **Early Prediction** Recommendations Global mapping of potential hotpots for emergence of zoonoses Global monitoring of presence, transition and dispersal of zoonoses Information overview Geographical modelling to forecast zoonotic infections Preventive Intervention **Exchange agreements** Sound and interconnected contingency plans Backend Platforms for rapid vaccine development Capacity building for preparedness to intervene Data descriptors **Responsive Detection** Data collections National infrastructures for data collection Tools for smart virome sequencing Toolbox for validated Point of Care Tests (PoCT) Data requirements Integrated pandemic risk assessment models

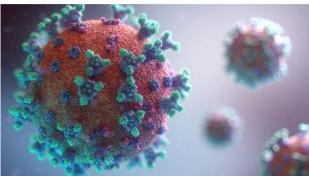












For the Covid Aftermath









