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# TACKLING THE CHALLENGES OF SCHOOL DIGITALIZATION

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# DIGITAL EDUCATION

## CURRENT SITUATION

- Almost EVERY job today requires digital skills
- Competition between specialists is no longer national, but between regions of the world
- Digital competence is the key to professional success and essential for a future-proof economy





# LET'S GET A MOVE ON!

## CHALLENGES OF TODAY

- On the road to the digital age, a significant proportion of young people have been left behind
- Digitalization takes place largely outside of school
- Responsible use of media is not being taught at the workplace





# DIGITAL EDUCATION

## WHAT CHILDREN HAVE TO LEARN

### Lower school:

- > Working with digital devices
- > Learning Internet research





# DIGITAL EDUCATION

## WHAT CHILDREN HAVE TO LEARN

### Middle school:

- › Digital communication and collaborative learning
- › Structured presentations
- › Critical use of digital media
- › Identifying good and less reliable sources





# DIGITAL EDUCATION

## WHAT CHILDREN HAVE TO LEARN

### Upper school:

- > Preparation for university & career
  - How to use applications and opportunities wisely
- > Working with modern presentation techniques





# DIGITAL EDUCATION

## WHAT STUDENTS HAVE TO LEARN

### University:

- › Education and research with modern technologies
- › Practical implementation of theory through tests and studies
- › Networking



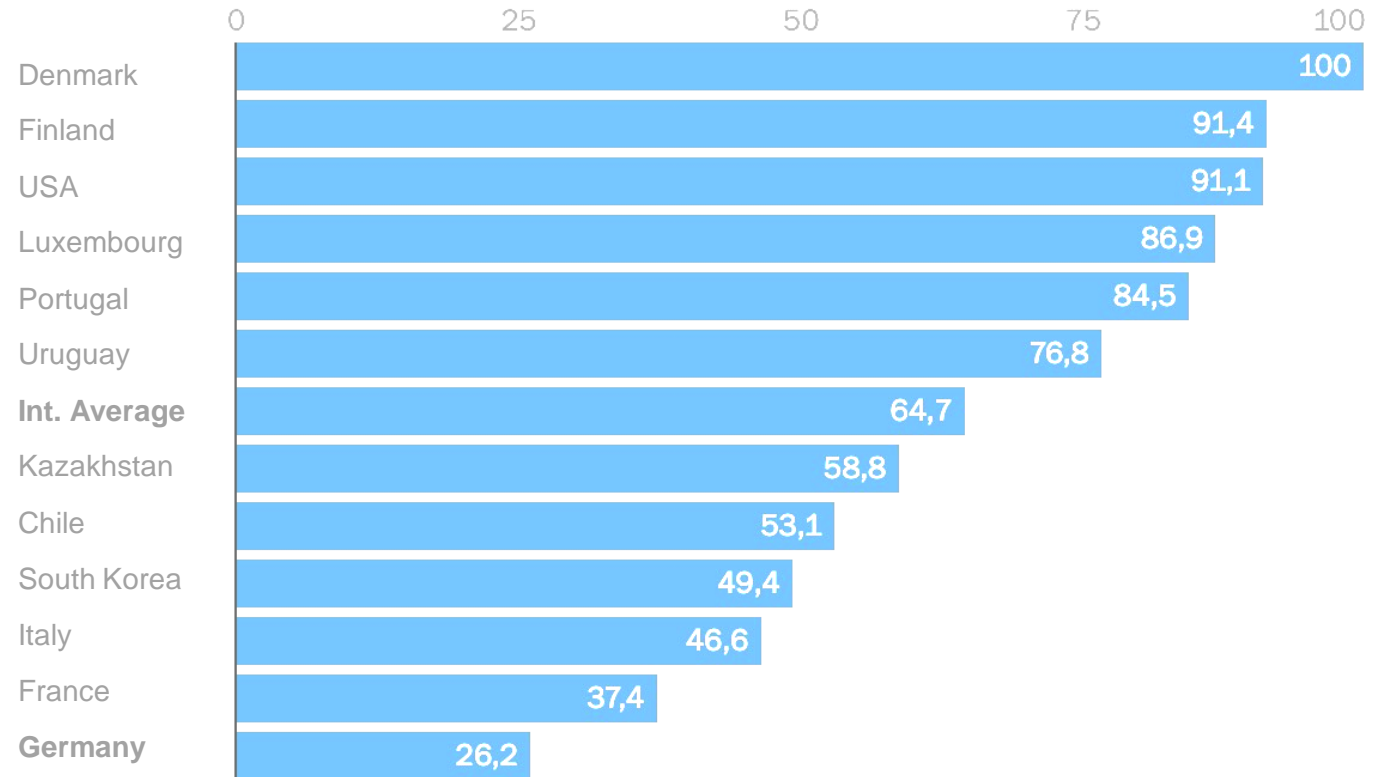


# WI-FI IN SCHOOLS

## PRE-COVID

- > Wi-Fi availability seen as a measurement for digitalization (not WAN access)
- > Wi-Fi access is needed for researching materials and information on the Internet

**Wi-Fi access in schools for teachers and students (in percent)**



Grafik: Tsp/Gitta Pieper-Meyer • Quelle: IEA: International Computer and Information Literacy Study 2018



# HOME-SCHOOLING

## DURING COVID

- › Lack of digitalization, caused slow up-take on home-schooling
- › Educational policies of the past years are clearly recognized
- › Urgent actions are required to avoid long-term issues



Source: Authors' elaboration based on index calculations.



## SUMMARY

### WE HAVE TO CATCH UP!

- Digital education has been neglected; particular in Germany
- Modern teaching to promote professional and social competencies requires digital education
- Specialized IT equipment for establishing digital competence is essential





# DIGITALPAKT SCHULE

## GERMAN EDUCATION IT NETWORK FUNDING (2020-2025)

### Governmental funding

Federal funding	€ 5,000,000,000,-
Operations	€ 500.000.000,-
Mobile devices	€ 500.000.000,-
State funding:	<u>€ 1.100,000,000,-</u>
<b>Total:</b>	<b>€ 7,100,000,000,-</b>

<b>Split</b>	€ 4,200,000,000,- in 2019 – 2021
	€ 2,900,000,000,- in 2021 – 2025

### Divided over

Bundesländer	16
Schools	33.000
Decisionmakers	2.400

→ approx. € 525,00 per pupil



SECURE. NETWORKS.



# OTHER COUNTRIES

## DIGITALIZATION INITIATIVES

### SLOVENIA

- › Country-wide Wireless LAN coverage at primary and secondary schools since 2010
- › Based on Eduroam
- › Uncomplicated internet access - even at remote areas

### LUXEMBOURG

- › Country-wide Every primary, secondary and tertiary school => libraries
- › Based on Eduroam
- › Cost-savings due to standardization

### AUSTRIA

- › 8-point program has been developed
- › Waiting for go-alive



LE GOUVERNEMENT  
DU GRAND-DUCHÉ DE LUXEMBOURG  
Ministère de l'Éducation nationale,  
de l'Enfance et de la Jeunesse  
Centre de gestion informatique  
de l'éducation

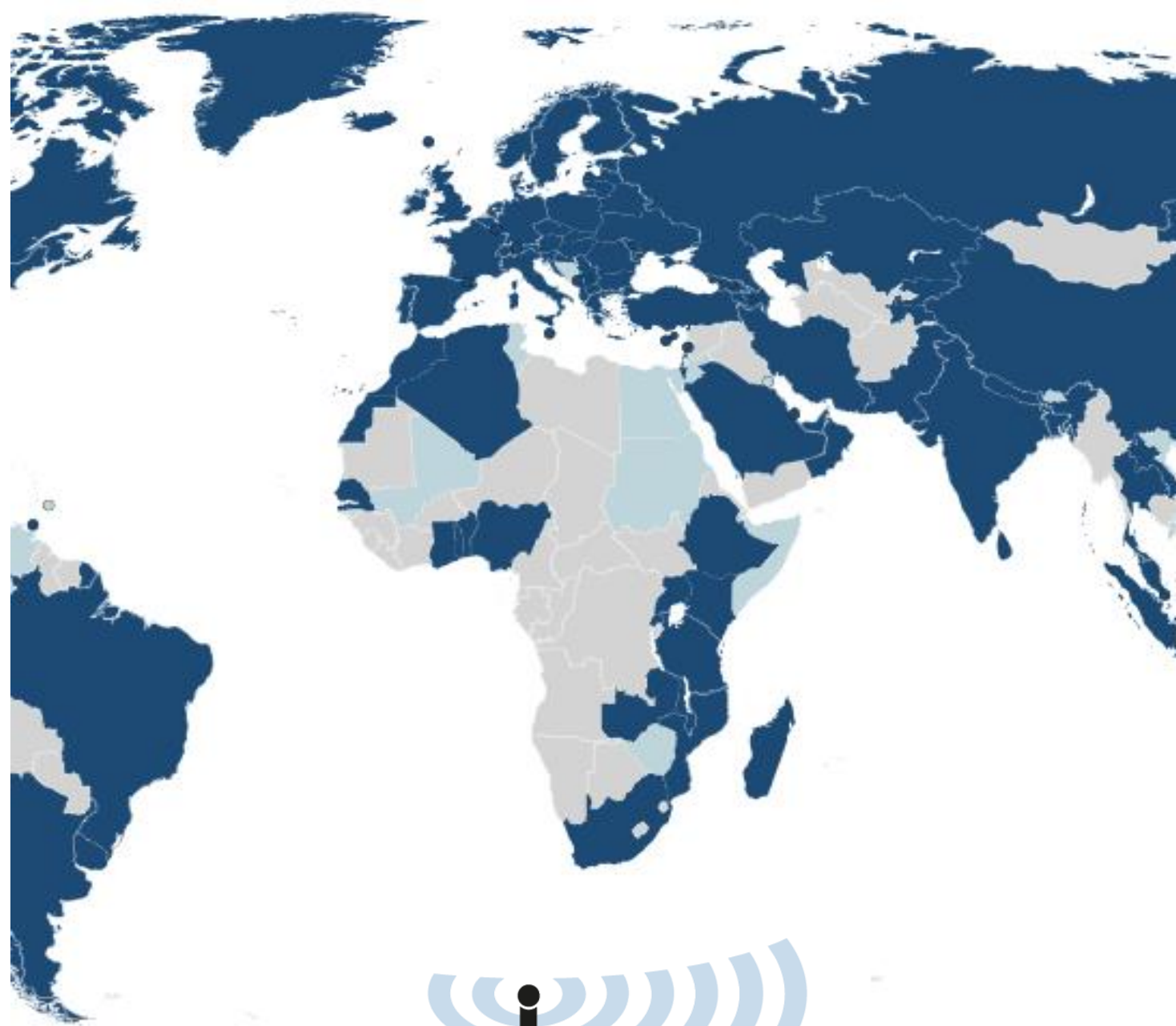




# EDUROAM

## INITIATIVE „EDUCATION ROAMING“

- Location-independent Wi-Fi usage from pupils to student ; teachers and scholars.
- Worldwide presence at educational institutions
- Available since 2002; co-funded by EU
- Governance via GÉANT





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**THANK YOU**  
FOR YOUR TIME

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**JAN BUIS**  
HEAD OF "COMPETENCE CENTER PUBLIC SECTOR"

