

## VET and Digital Age: The role of VET in reducing the digital skill gap on the labor market

**Prof. Dr. Dolores Sanchez Bengoa**  
University of Applied Management Studies, Mannheim  
[dolores.sanchez-bengoa@hdwm.org](mailto:dolores.sanchez-bengoa@hdwm.org)

- Our environment – new demands
- German companies' point of view
- VET contribution to digital era



## Our world



HOCHSCHULE DER WIRTSCHAFT  
FÜR MANAGEMENT  
UNIVERSITY OF APPLIED  
MANAGEMENT STUDIES



# DEVOPS Personal attributes/skills valued by German employers

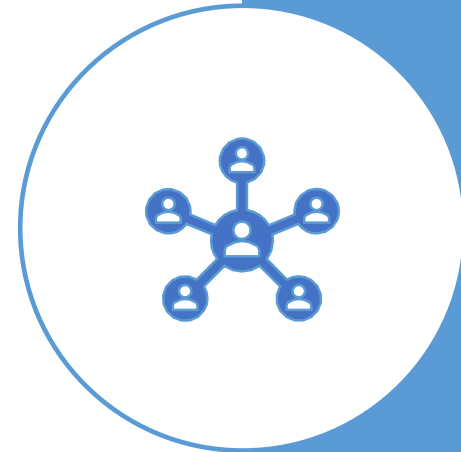
DEVOPS COMPETENCES FOR SMART CITIES

- **General skills:** planning and organizational skills, time management, teamwork, verbal and written communication skills, creativity, intercultural skills, knowledge sharing skills
- **Specific attributes:** job-related e.g. technical knowledge; good working procedures e.g. healthy, safety and security; work attitudes, doing orientated
- **Attitudes/Values:** being determined, independent, integrity, trustworthy, tolerance, problem solving, leadership, confidence, self-motivation



## Unesco definition

- Digital skills are defined as a range of abilities to use digital devices, communication applications, and networks to access and manage information
- Digital skills have moved from 'optional' to 'critical' and need to be complemented with transversal 'soft skills' such as the ability to communicate effectively in both online and offline mediums.
- Digital skills are affecting many of the previous demanding skills



# DEVOPS Digital skills category

DEVOPS COMPETENCES FOR SMART CITIES

- **Basic skills** cover hardware (using a keyboard and operating touch-screen technology), software (word processing, managing files on laptops or basic online operations (email, search, or completing an online form)).
- **Intermediate skills** are effectively job-ready skills: e.g. data skills feature, generating demand for skills needed to produce, analyse, interpret, and visualize large amounts of data.
- **Advanced skills** are needed by specialists in ICT professions e.g. computer programming and network management. Globally, there will be tens of millions of jobs requiring advanced digital skills in the coming years. These include artificial intelligence (AI), big data, coding, cybersecurity, Internet of Things (IoT), and mobile app development

[https://www.cedefop.europa.eu/files/esj\\_insight\\_9\\_digital\\_skills\\_final.pdf](https://www.cedefop.europa.eu/files/esj_insight_9_digital_skills_final.pdf) [//www.itu.int/en/ITU-D/Digital-Inclusion/Documents/ITU%20Digital%20Skills%20Toolkit.pdf](https://www.itu.int/en/ITU-D/Digital-Inclusion/Documents/ITU%20Digital%20Skills%20Toolkit.pdf);

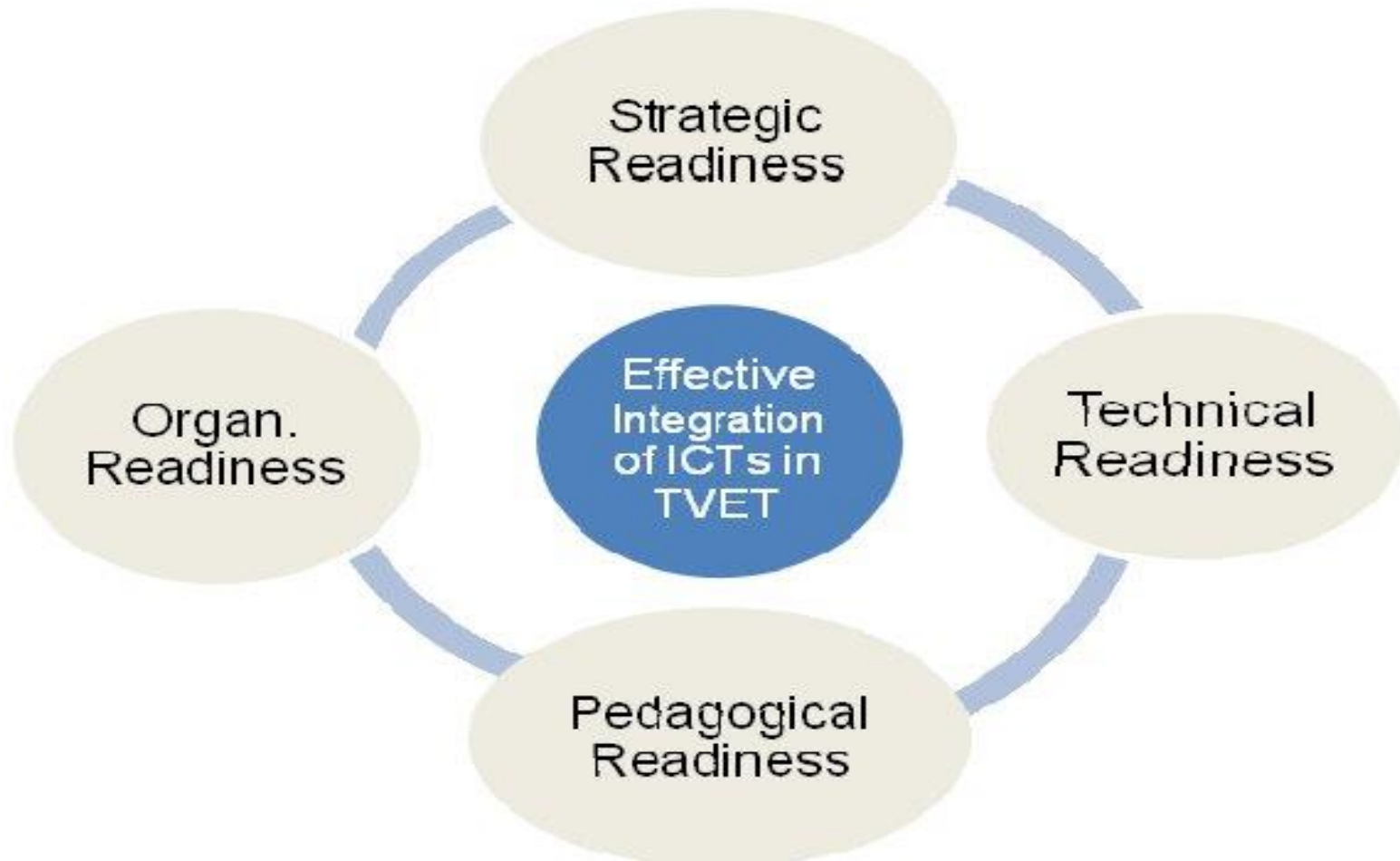


# DEVOPS Vet and the Digital edge

DEVOPS COMPETENCES FOR SMART CITIES

- VET contributes by providing faster (compared with postgraduates studies) new digital skills
- VET is more cost effective when preparing qualifications for the work place.
- Sustainable VET: uses digital skills links with the environment and the difficulties we are facing now: repair rather than replace
- VET is more practice orientated. Due to its close connection with industry keeps updated on the industries' demands
- VET is key to sustain economy growth, competitiveness, innovation and for social inclusion digital education for all
- VET students (mobility and promotional pathways)
- VET creates persons and not just jobs : change mentality
- Digital Transformation offers VET the opportunity to be more Innovative in teaching methodologies making VET more attractive and more efficient.
- Digital technologies offer new ways for teaching and learning (e.g. simulation tools) and a better connection between school-based and work-based learning (better learning outcomes) [www.ETF.europa.eu](http://www.ETF.europa.eu)







The challenges and demands of our environment calls for a continuous holistic development in terms of a combination of technical/digital and transversal skills and competences.

The close cooperation of education, industry and governments is the cornerstone for success.



Thank you very much  
for your attention



- Babawuro Shu`aibu  
[https://www.researchgate.net/publication/256423174\\_Effective\\_integration\\_of\\_information\\_and\\_communication\\_technologies ICTs\\_in\\_technical\\_and\\_vocational\\_education\\_and\\_training\\_TVET\\_toward\\_knowledge\\_management\\_in\\_the\\_changing\\_world\\_of\\_work/figures?lo=](https://www.researchgate.net/publication/256423174_Effective_integration_of_information_and_communication_technologies ICTs_in_technical_and_vocational_education_and_training_TVET_toward_knowledge_management_in_the_changing_world_of_work/figures?lo=)
- [https://www.cedefop.europa.eu/files/esj\\_insight\\_9\\_digital\\_skills\\_final.pdf](https://www.cedefop.europa.eu/files/esj_insight_9_digital_skills_final.pdf)
- [www.ETF.europa.eu](http://www.ETF.europa.eu)
- <https://en.unesco.org/news/digital-skills-critical-jobs-and-social-inclusion>

