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VET4GREEN
Developing Capacities in the Area of VET for Green Energy Transition in Sub-Saharan Africa

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Competencies in green Energy sector

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Agenda:

Agenda Day 1

10:00 – 10:30 Introduction - The characteristics and essence of competencies in the green energy sector
10:30 – 11:00 Technical competencies in green energy sector
11:00 – 11:30 Managerial competencies in green energy sector
11:30 – 11:45 Break
11:45 – 12:45 Workshop – decion's making matrix in green energy sector
12:45 – 13:00 Break
13:00 – 14:00 Ecological awareness and sustainable development compatencies

Agenda Day 2

10:00 – 10:30 The importance of IT/ICT technology in the green energy sector
10:30 – 11:00 Low -code platforms and it's characteristics
11:00 – 11:30 No -code platforms and it's characteristics
11:30 – 11:45 Break
11:45 – 12:30 Workshop – playing programmer with free versions of programs
12:30 – 13:00 Possibilities of using Artificial Intelligence in green energy sector
13:00 – 13:15 Break
13:00 – 14:00 Case studies of the use of ICT tools in the green energy sector

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What competencies is?

A combination of a person's education, knowledge and experience that he or she can successfully use in a given job position.

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How can we develop our competences towards the green energy sector?

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What competences should employees in the green energy sector have?

- Technical
- Social
- Conceptual

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Technical competencies

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1. Knowledge and skills related to the production of electricity from renewable energy sources
2. Automation in the green energy sector
3. Related to programming and data analysis

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Social competencies

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- Ability to work in a group
- Ability to communicate
- Business skills

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Business skills

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- Concerning company management in the sector
- Entrepreneurship and creating innovations
- Analyzing the market and building a strong company position

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Company management in the green energy sector

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Entrepreneurship and innovation

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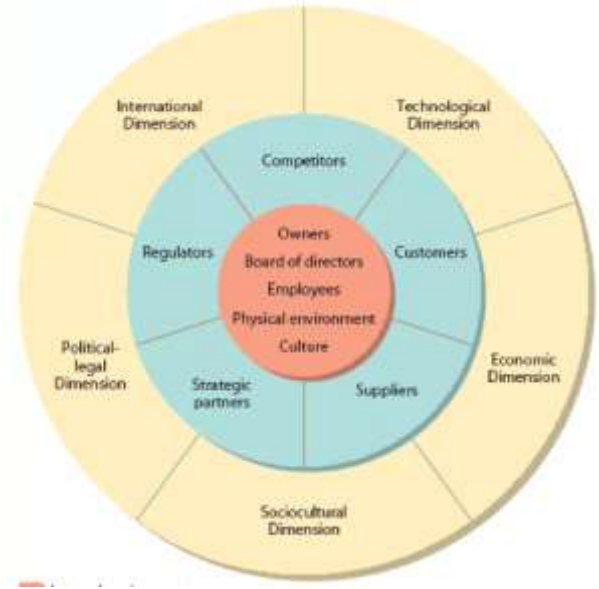
Market analysis and building market position



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Exercise – decision matrix

$$\begin{array}{c} \\ 1 \\ 2 \\ 3 \\ \vdots \\ m \end{array} \begin{array}{c} \begin{array}{cccc} 1 & 2 & \dots & n \end{array} \\ \begin{bmatrix} a_{11} & a_{12} & \dots & a_{1n} \\ a_{21} & a_{22} & \dots & a_{2n} \\ a_{31} & a_{32} & \dots & a_{3n} \\ \vdots & \vdots & \vdots & \vdots \\ a_{m1} & a_{m2} & \dots & a_{mn} \end{bmatrix} \end{array}$$

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Ecological awareness - what is it and how to build it?

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Test - ecological awareness and sustainable development

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Competencies grid

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Company name	Types of competencies								
Organizational unit	Knowledge of renewable energy technology	Programming and data analysis skills	Knowledge in the field of automation of the energy industry	Energy company management skills	Leadership in energy industry teams	Interpersonal competences and cooperation with stakeholders	Project management skills	Environmental awareness	Sustainability knowledge
Worker 1	◔	◑	◑	○	○	○	○	◔	●
Worker 2	○	○	○	◔	●	◔	●	◑	●
Worker 3	◕	◔	◑	◑	◕	●	◑	●	◕
Worker 4	○	○	○	◑	●	○	●	◕	◑
Worker 5	◑	◕	◕	◔	◕	●	◑	●	◕
Worker 6	○	◔	●	◑	●	◔	●	◑	●
Worker 7	◔	◕	●	◕	○	●	●	●	◕
Worker 8	◑	◔	○	●	◑	●	◔	◑	●
Worker 9	○	◕	◔	◑	●	◕	●	◕	◑
Worker 10	◔	◑	○	◕	◔	◕	○	◑	◕

Legenda

- ○ The employee has no competencies
- ◔ The employee has low competencies
- ◑ The employee has average competencies
- ◕ The employee has high competencies
- ● The employee has bery high competencies

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The importance of IT/ICT technology in the green energy sector

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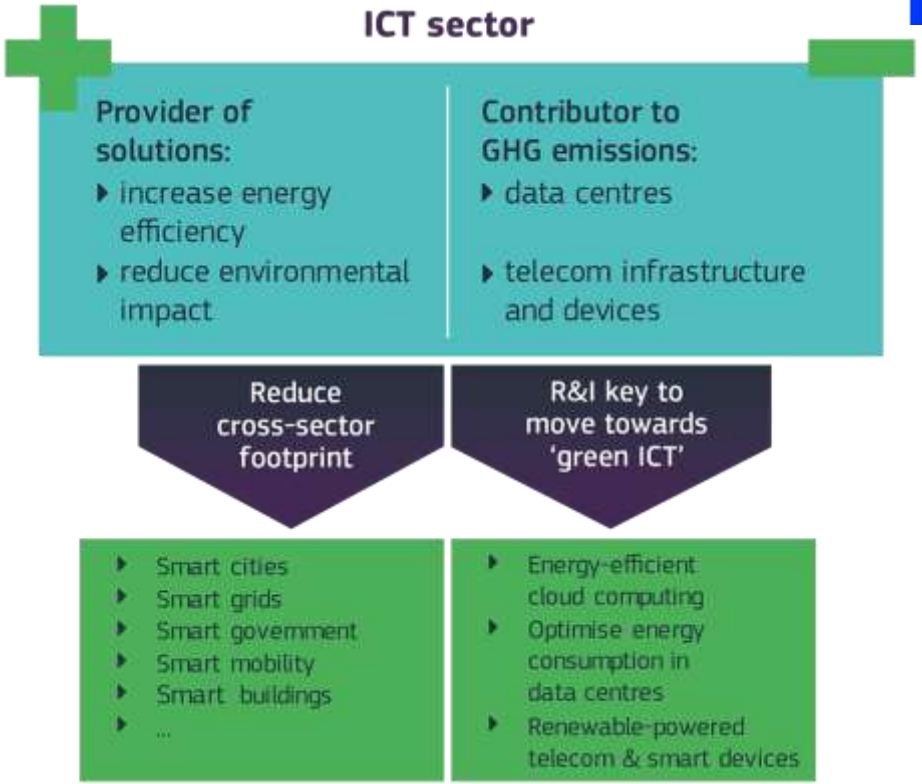

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Low -code platforms and it's characteristics

mendix

outsystems

Microsoft PowerApps

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Website: https://www.mendix.com/platform/

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Website: https://www.outsystems.com/

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Microsoft PowerApps

Website: https://www.microsoft.com/power-platform/products/power-apps

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No-code platforms

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bubble

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.bubble

Website: https://bubble.io/

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Website: https://carrd.co/

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Website: https://webflow.com/

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Mobile applications used in the green energy sector

In PVs

In Wind Turbines: **- digital wind farm (General Electric)**

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Possible Future Strands of Research on AI for Sustainability in Energy Sector

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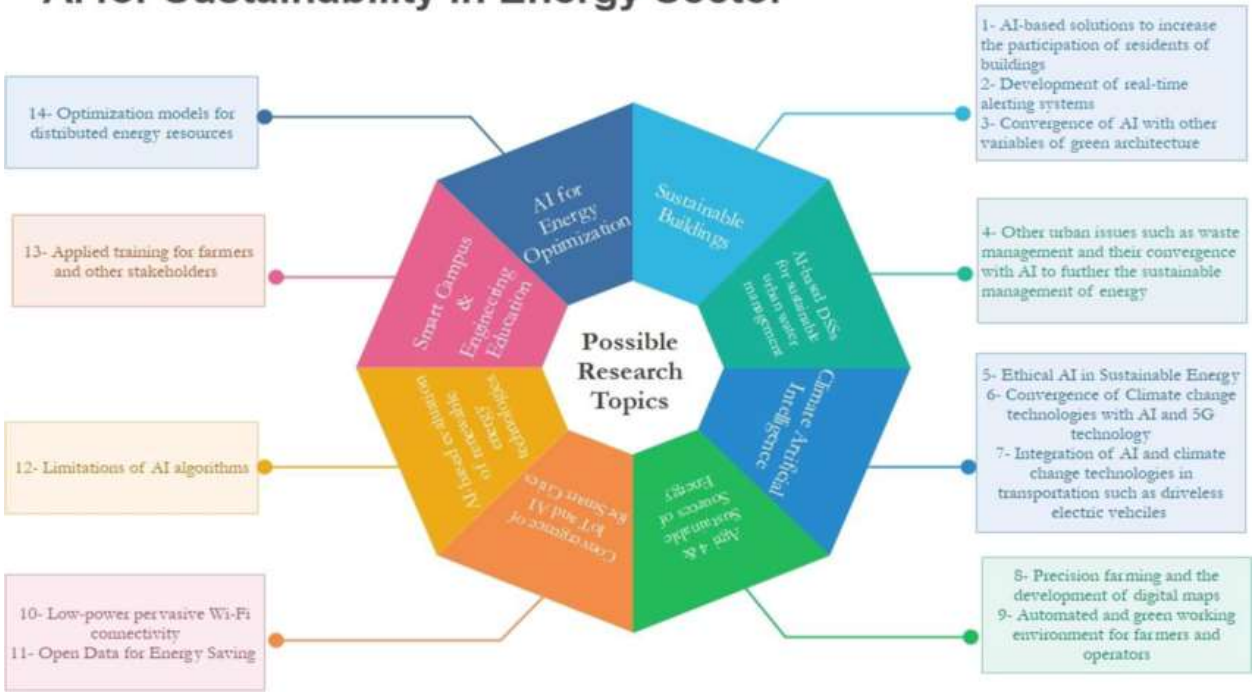

Saheb, Tahereh, Mohamad Dehghani, and Tayebeh Saheb. "Artificial intelligence for sustainable energy: A contextual topic modeling and content analysis." *Sustainable Computing: Informatics and Systems* 35 (2022): 100699.

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Investment profitability calculator for photovoltaic panels

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