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country report

Country Office Romania,



Romania: A "hidden champion" of digitalisation?

What does ChatGPT know and what do we know? A conversation with Artificial Intelligence about digitalisation in Romania.

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Romania is a "hidden champion" when it comes to digitalisation, at least that's what we often hear. In a dialogue with the artificial intelligence-based chat bot "ChatGPT" from Open AI, we go through some factors that help to assess the degree of digitalisation in Romania. In doing so, we compare what ChatGPT knows on the topic with what we know in the Romania foreign office. Let's see if we can still keep up.

Hello, Chat GPT! What do you know about digitalisation in Romania?

Chat GPT: "Digitalisation in Romania has made rapid progress in recent years and is well on its way to becoming a major player in the digital economy. The country has a well-educated workforce with a strong tech background and a growing start-up scene. The government is also supporting digitalisation through various initiatives and investments in infrastructure and broadband internet expansion. In addition, the COVID-19 pandemic has highlighted the importance of online working and learning in Romania."

We say: The trend is true, but only partially. The well-educated workforce with a strong technical background is - in relation to the number of inhabitants - very little and is always criticised by the EU Commission in precise measurements (e.g. the Digital Economy and Society Index - [DESI](#)). Romania ranks last in the EU with an index of 30.6 (average at 52.3) due to, among other things, "a very low level of basic digital skills compared to the EU average."

Does Romania have an efficient and accessible broadband infrastructure?

Chat GPT: "Yes, Romania has an increasingly powerful and accessible broadband

infrastructure. In recent years, the country has invested in expanding its broadband networks and there is a growing number of providers offering broadband services in different parts of the country. However, there are still challenges, especially in rural areas, in providing fast and reliable broadband internet to all citizens. However, the government has launched various initiatives to improve the broadband infrastructure and promote digitisation in the country."

We say: That's right. Romania performs comparatively well in connectivity among EU members. Indeed, this is the (only) key area of the DESI index where Romania performs best: 57% of households have a fixed broadband connection (at least 100 Mbps) and the very high capacity network coverage of 87% exceeds the EU average. In view of the goal of the "Digital Decade" and the 100% coverage of all households with gigabit networks by 2030 undertaken there, this is a very good basis.

How strongly do the population and businesses adopt new technological developments?

Chat GPT: "In Romania, technology adoption among the population and businesses is on the rise. The proliferation of smartphones and computers has helped more and more people

gain access to digital technologies. There is a growing number of start-ups and tech companies in the country developing and adopting new technologies. Digitisation is also being promoted in the public sector, especially in the area of public services and administrative processes. However, there are still challenges, especially in technology adoption in rural areas and among older populations. However, the government has launched initiatives to promote technology adoption through training and education. Overall, it can be said that technology adoption in Romania is growing, but there is still potential for further improvement."

We say: Unfortunately, only a half-truth or rather a myth. Let's take them one by one: 1) Yes, through smartphones and computers more and more people have access to digital technologies, but this is not a Romanian peculiarity, it is generally valid. 2) As already mentioned in answer No. 1, the majority of citizens have "a low level of basic digital skills". Moreover, the percentages of SMEs with a minimum level of digital intensity (22%) and the percentage of enterprises exchanging information electronically (17%) are the lowest in the EU. So, "on the rise" cannot be stated unfortunately.

Does Romania have open and supportive regulations and legislation that can facilitate the use and development of technology?

Chat GPT: "Romania has regulations and legislations to support the use and development of technology. There are regulations that govern the protection of data and privacy, as well as legislations that aim to promote competition in the technology industry. However, the government has also passed legislation that regulates the use of technology in certain areas, such as surveillance technologies. Overall, it can be said that there is a certain level of support for the use and development of technology in Romania, but there can also be challenges, especially with the introduction of new technologies or with regulations that restrict the use of certain technologies."

We say: True. On paper, most of the legal frameworks and basic requirements have been met (e.g. [e-government public policy](#)). However, implementation is faltering or progressing very

slowly. There is also at least some concern among IT experts and data protection organisations about the legislation on the (government) cloud, where the government has contracted the Romanian intelligence agencies SRI and STS to technically elaborate the procurements and set up the IT infrastructure for Romania's largest digitisation project.

Does Romania have a well-educated workforce with a technical background to drive further digital innovation?

Chat GPT: "Yes, Romania has a well-educated workforce with a technical background. The country has a strong tradition in areas such as engineering and IT, and there is a growing number of universities and colleges offering quality education in these fields. There is a growing community of tech talent and start-ups in the country working to develop new technologies and innovations. However, the government has also launched initiatives to improve the skills and capabilities of the workforce in the field of digitalisation, especially through training and educational programmes. Overall, it can be said that Romania has a well-educated workforce with a technical background that can drive further digital innovation, but there are still challenges in nurturing and attracting talent, especially in areas with high skill needs."

We say: yes, and no. The broad trend is correctly identified, but in detail the demand for labour is not being met. According to the employers' association [ANIS](#), the sector has grown exponentially in the last five years: almost three times faster (+17 %) than the national economy (+6 %). The IT&C industry's share amounted to a volume of 13.6 billion euros, about 6.2 % of Romania's GDP. Accordingly, the demand for specialists also increased rapidly. There is a significant shortage of specialists - estimated by ANIS at more than 10,000 specialists annually. So far, the Romanian government has done very little to combat this shortage of skilled workers. The sector is therefore increasingly relying on its own measures (upskilling) to meet the demand.

Is there sufficient private and public investment in digital technology in Romania?

Chat GPT: "In Romania, there is both private and public investment in digital technology. Private companies invest in the development and deployment of technologies to improve or expand their business, while the government invests in specific areas that are important for the progress of digitalisation, such as infrastructure and education. However, the government has also launched initiatives to encourage private investment in digitisation by providing tax breaks or financing opportunities for tech companies. Overall, it can be said that there is both private and public investment in digital technology in Romania, but there are still challenges in attracting investment, especially for smaller and medium-sized tech companies."

We say: Investments - especially private ones - are plentiful. Many IT companies announce that they want to expand their capacities. However, the shortage of skilled workers will hamper this. The public sector is also trying to support investments (e.g. tax breaks for the IT sector and good prospects for future investments for digitalisation from the EU Resilience Fund); however, the measures are currently insufficient.

Is there a strong start-up scene and a high level of innovation in Romania?

Chat GPT: "Yes, Romania has a growing start-up scene and a high level of innovation. The country is known for its strong technological capabilities and has a large number of well-educated workers working on the development of new technologies and innovations. In recent years, Romania has

become a major centre for IT and technology start-ups, and there is a growing community of entrepreneurs and tech talent working to create new and innovative business opportunities. The government has also launched initiatives to support the creation of start-ups and the promotion of innovation. Overall, it can be said that there is a strong start-up scene and a high level of innovation in Romania, but there are still challenges in promoting and developing this community, especially in funding and scaling start-ups."

We say: Apart from the "large number of well-educated workers", we fully agree. In terms of the IT start-up scene, Romania is truly a champion. New solutions and innovations in areas such as AI, automation, machine learning, etc. are constantly being developed in Romania. With tech companies like UiPath, Druid or Fintech OS, strong talent is present. Almost astonishing given the lack of stimulus from the public sector, skills shortages and a generally rather unpredictable business environment in Romania.

Thank you, Chat GPT!

Chat GPT: "You're welcome! If you have any further questions, I am at your disposal."

We say: Chat GPT knows a lot about digitalisation in Romania, but we lack the "being able to read between the lines" and offering evaluative weightings. But that's what we are here for. And we are always happy to be enriched by artificial intelligence.

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