

Creation of opportunities in new markets in Cybersecurity and Privacy

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Cluj-Napoca - Profile:

- Romania's IT growth pole.
- Home for 12 universities out of which 4 are ranked in Top 12 Romanian universities;
- Around 100.000 students/young people representing $\frac{1}{4}$ of our entire population.
- Cluj-Napoca is the Romanian Capital of Clusters: IT, energy, agriculture etc.;
- 15 research institutes; most active civic life in the country; multicultural community.



Cluj-Napoca - Profile:

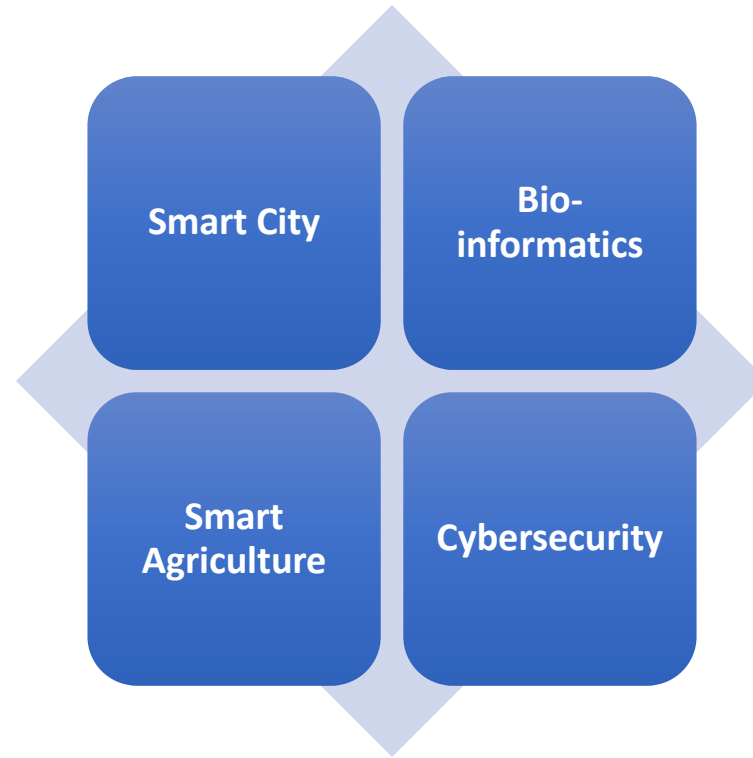
- **The economic engines of Cluj-Napoca:** education, IT&C, energy industry, business support services, specialized medical services, cultural & creative industries.
- Cluj-Napoca has managed the transition from a predominantly manufacturing city to a city with **a strong and balanced economic mix**. An economic growth pole with high diversity is often a sign of economic maturity.
- According to the assessment of World Bank experts, the GDP/capita in Cluj-Napoca, adjusted to the purchasing power was, in 2016, within the European average of 26,000 euros.
- Over the years, the **IT sector** has grown continuously in Cluj-Napoca, attracting skilled people from all over Romania. More than **15,000 people work in the local IT sector; 1,200 IT businesses in the city**.

About Cluj IT Cluster

- Innovation based value chain along the IT industry, formally established in October 2012
- Cooperation-based ecosystem based on the quadruple helix model
- Innovative approach to business consolidation that puts together local, regional, national and international stakeholders
- Largest IT cluster organization in the country with
 - 40+ companies – start-ups, SMEs and large companies (including multinationals)
 - 3500+ employees – approx. 1/4 of the local industry
 - 6 Public Universities + 1 Research institute
 - 10 Public Institutions and Catalyst Organizations
- Silver labelled cluster organization, member of the European Digital SMEs Alliance, founding member of the Balkan and Black Sea ICT Network



Areas of (Smart) Specialization for the IT industry in Cluj



Based on:

- Intellectual property
- Research based innovation and technological transfer
- Education and training

Why Cybersecurity

- **Global context:**

- Data is the new gold (has been for the last 10 years)
- Emerging technologies that can be abused (cloud, mobile communications, blockchain, artificial intelligence)
- Increasing incidents of hacking, identity theft, attack on infrastructure, organized crime (from selling illegal items to terrorism)

- **European and national context**

- New policies and legal frameworks with impact on how business and individuals relate to cybersecurity
- Push and pull forces; push force - policies and instruments to support digitization; pull force – regulation and overregulation
- Technical critical challenges (i.e. blockchain, artificial intelligence)
- Limited knowledge available to comply with these new legal and technical environments

Cybersecurity in Cluj

- **Endowments:**

- Advanced technological skills and infrastructure
- Interdisciplinary knowledge area within (geographical) reach
- Incipient local initiatives which leverage on these endowments: research, startups, spinoffs, joint ventures

- **How do we act**

- Establishment of a **Digital Innovation Hub**
 - Performance of economy and society is largely based nowadays on technological availability and adoption
 - New regional partnership initiative to position Cluj-Napoca as the main digital service provider for the the North-West Region of Romania - **Transilvania iHub 4.0** selected among 30 relevant such initiative by the European Commission to receive technical assistance (training and consultancy)
 - Plans to significantly contribute to the process of digitization across industries / sectors, including security and cybersecurity services
- **Advanced research and technological transfer**
 - Create a platform for collaboration among universities, research centers and companies

Q&A

Thank you for your attention!

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