



ELIXIRION, a Marie Skłodowska-Curie HORIZON-TMA-MSCA-DOCTORAL NETWORK project (PROPOSAL # 101120135), offers one (1) PhD position in Poland.

**Host institution:** [ORANGE POLSKA SPOLKA AKCYJNA, Poland](#)

The project will work towards the first fully-integrated, inter- and multi-disciplinary, highly-innovative training and research network that will set the foundations of the emerging Healthcare 4.0 paradigm by leveraging 6G technologies targeting to: i) provide all citizens/patients with a wide range of services of different requirements, such as ultra-low latency for latency-critical applications, high speed for data hungry services and ubiquitous secure access to healthcare resources, anytime, anywhere, respecting all privacy aspects, and ii) ensure a secure, efficient, and profitable healthcare ecosystem to all involved stakeholders, while creating a sustainable open market easing access to new players.

### **Job description**

**Project Title:** AI-enabled End-to-End (E2E) slicing and zero-touch orchestration targeting at energy/cost efficiency optimization towards Healthcare 4.0.

### **Doctoral Candidate's (DC) role**

The DC will advance the SoA by developing Artificial Intelligence (AI)-driven algorithms to support automated orchestration for continuous lifecycle operations of E2E network slices towards Healthcare 4.0 targeting at 50% higher cost/energy efficiency than State of the Art (SoA). The algorithms will choose the optimum split of the network service chain across different domains, including private networks, represented by their respective brokers as well as the allocation of communication, computational and storage resources supporting a massive number of devices. The continuous process of the dynamic E2E network slice template implementation design will exploit iterative, game theory-based negotiations with brokers to achieve the optimal trade-off between the challenging Healthcare 4.0 service requirements and cost/energy efficiency criteria varying over time. Finally, comprehensive business models will be developed to showcase the investment opportunities to the involved stakeholders.

## **Eligibility criteria**

Candidate must meet the following criteria:

- 1) be of any nationality, but not having resided or carried out his/her main activity in Poland for more than 1 year in the past 3 years;
- 2) has not yet been awarded a PhD degree, and
- 3) if selected, DC should be enrolled in a Ph.D. program.

## **Selection process**

Applicants are expected to complete the online application form [ELIXIRION Online register](https://elixirion-mc.eu) (elixirion-mc.eu), along with a motivation letter, full CV, degrees, referees' contact details (up to 3), language certificates, and any other relevant documents not later than **30/06/2024**.

Find more information about the position [here](#).

**Early application is highly encouraged, as the applications will be processed upon reception.**