DIGITAL LEARNING HUB – Executive summary

The *Digital Learning Hub (DLH)* is a **new training facility** that is specialized in professional trainings in various fields of **computer science and technologies**.

OUR MISSION

Launched in May 2022, the DLH is an initiative of the *Ministry of National Education, Children and Youth*, and was created to contribute to the government's mission to reduce the digital skills gap in Luxembourg (and the Greater Region). In this context, the DLH has **two objectives**: to further expedite the **digital transformation** of the country by way of (continuing) education and to help fill the **severe need** for **skilled IT-trained professionals** on the job market. As such, the DLH is embedded in the *Department of Adult Education* (Service de la Formation des Adultes).

Generally speaking, the DLH targets three types of audiences: a) professionals wanting to **improve their skills in IT**, b) job seekers considering a **professional reorientation** into IT, and c) young people who are looking for an **alternative teaching** to acquire digital competences.

OUR LOCATION

The DLH is located in the *Terres Rouges Building* in Belval in the city of Esch/Alzette, right next to the University of Luxembourg. Thanks to institutions like Luxinnovation, the Luxembourg Learning Center, Technoport and many research labs, Belval is positively growing as the **capital of education and sciences** and the DLH is ideally positioned in the heart of it, thus claiming a role as an **effective contributor**. It also takes advantage of Belval's easy **accessibility**. Indeed, the region is directly connected to **major highways** and is optimally connected thanks to an abundance in **public transportation**.

OUR INFRASTRUCTURE

Split across several floors, the DLH optimized its infrastructure in order to ensure the **best environment for learning** and, with this goal in mind, put in place only **high-quality equipment.** The training rooms are geared with the typical classroom material as well as **state-of-the-art computers** ready to use. The fully virtualized IT infrastructure allows for the replication of any software and the use of all imaginable simulations in a safe environment. In addition, special rooms include a networking lab and a FabLab for **creative outlet**. Another feature of the DLH is the *Open Space* made up of mobile tables and chairs of different sizes and heights as well as comfortable couches and armchairs to allow for **uninhibited creative flow and flexibility** during trainings, particularly those that require a dynamic atmosphere such as **design thinking** courses.

OUR TRAININGS

The trainings within the DLH come in **various types** of format: individual short courses, learning tracks and, thanks to **42**, a full curriculum. **Individual short courses** are tailored to impart **a precise skill** in a relatively short period of time (4h – 30h max.). The reasoning being that some IT skills can be acquired in just a few hours; a beginner level in programming or on GDPR can be achieved in just a few hours, for example. In addition, because our target audience is mainly professionals, we want to make sure

they can attend our courses while also being able to **keep up with their tasks** at work without too many hindrances.

A **learning track** is a set of different courses that make up a comprehensive and well-rounded program, which in turn culminates into a specific **skillset**. For example, a person who wishes to become a software developer can register for our "Java Programming Fundamentals" learning track and follow all the specific courses. Upon successful completion of the track, that person will have acquired the fundamentals putting them on a trajectory towards becoming a junior software developer. Naturally, the courses within the learning tracks can be pursued individually as well.

42 Luxembourg

42 is a coding school that originated in Paris in 2013 and, as of writing this, has over **40 campuses** worldwide. The **Luxembourg campus** shares its residence with the DLH and is currently the only **full curriculum** counted as part of the trainings offer. 42 specializes in educating the next generation of software developers. Through its unorthodox pedagogy led by the principles of **gamification**, **project-work** and **peer-to-peer learning**, participants learn to code on a practical level, rather than theoretical. At the same time, following the program also teaches them the necessary techniques for **self-sufficiency** and **self-teaching** ("learn to learn") as well as **teamwork**, thus developing **technical skills** alongside the **soft ones** to match the **expectations** of the labor market. Divided into **two parts**, the training program starts with the **common core** where learners acquire the **fundamentals in programming** and they take around **18 months** on average to complete. Building on these skills, they can choose to continue to the second part, the **specialization**, where they'll progress into the **field of their choosing**, such as web development, cybersecurity or AI.

OUR PEDAGOGY

The DLH is characterized by an **alternative way of pedagogy** as well as by the **particularity of the trainings**. It has a strong **human-first** approach, which is why the trainings take place **on-site**. That way, informal exchange among learners can be fostered, which is an important part of the full DLH experience. The number of participants is **limited** to allow for personalized learning and **more effective coaching**. Moreover, the specific pedagogical approach through **projects and peer or group learning** encourages **creativity**, a sense of **responsibility** and a taste for **entrepreneurship**.

The DLH is especially proud of not only the **number and quality** of the trainings offered, but also of their distinguishing aspects: they are **accessible and affordable**. The trainings within the DLH are **open to anyone**, resident or not, of adult age and they are **low-cost**. Whether one is a beginner wishing to acquire the basics in order to gain a first footing in the IT world or an expert looking to upgrade their specialty/ies, everyone is welcome. Neither **special entry requirements** nor any **preliminary qualifications** or **degrees** are required. While all trainings are open to everyone without restrictions, the trainings of intermediate and advanced level usually do require some **previous knowledge** in order to register and successfully follow the program.

OUR PARTNERS

The DLH offers trainings in the fields of **Coding**, **Design Thinking**, **Blockchain**, **Cybersecurity**, **Data & AI**, **IT Administration & Cloud** and **Governance**. Moreover, this list is **non-exhaustive** as we are working on gradually adding **new fields** that are relevant in the IT world.

To help with the curation and elaboration of our trainings, the DLH is in constant dialogue with the **industry** and resorts to a great number of **external partners**. This also means that they are subject to a continuous process of **validation** by those industrial partners and in conjunction with the national employment agency (*Agence pour le développement de l'emploi* or ADEM). All our trainings are held by coaches who are not only highly qualified in their field of expertise but are also **certified instructors** with experience in teaching.

Please find below a brief overview of some of our privileged partners:

ADEM:

Agence pour le développement de l'emploi (ADEM) is the national employment agency and the main actor in recruitment in the country. Therefore, the DLH has established a partnership with ADEM to ensure that the trainings offered correspond to the current **job market's demands**. In addition, the DLH has direct access to a pool of potential professionals in need of training in IT. In close collaboration with ADEM, the DLH hosts the **ICT Start program**, a training program that allows **non-technical individuals** to discover the field of IT. This **discovery program** is specifically designed for registered job seekers to **retrain and prepare** them for a career in information technology. The goal is to orient them towards **complete training** in different areas of computer science, for example development in Java or Python, or cybersecurity.

D-School:

Is a model from Stanford University that allows heterogeneous groups of people to learn how to design solutions to complex problems. Design Thinking trainings are offered in close collaboration with the D-School of the Hasso-Plattner-Institut (HPI) in Potsdam.

Luxembourg Blockchain Lab:

Is the initiative of Infrachain, LHoFT, LIST, SnT and Lëtzblock to spur up the Luxembourg blockchain ecosystem. Together with the Luxembourg Blockchain Lab, the trainings are provided with the aim to help find the right resources, to further knowledge on blockchain and to develop projects in collaboration with the industry.

Luxembourg House of Cybersecurity:

Is the agency that contributes to the reliability of the Luxembourg economy by providing expertise and extensive cybersecurity solutions to businesses. In this context, both our mission is to foster general awareness as well as to offer highly specialized trainings.