CHAMBER OF COMMERCE LUXEMBOURG

POWERING BUSINESS

LUX AI HUB

30 recommendations to turn Luxembourg into an AI hub

May 2025

LUX AI HUB

Turning Luxembourg into an AI Hub: Attract, train, innovate and stand out internationally!

May 2025

CHAMBER OF COMMERCE LUXEMBOURG

POWERING BUSINESS

Table of contents

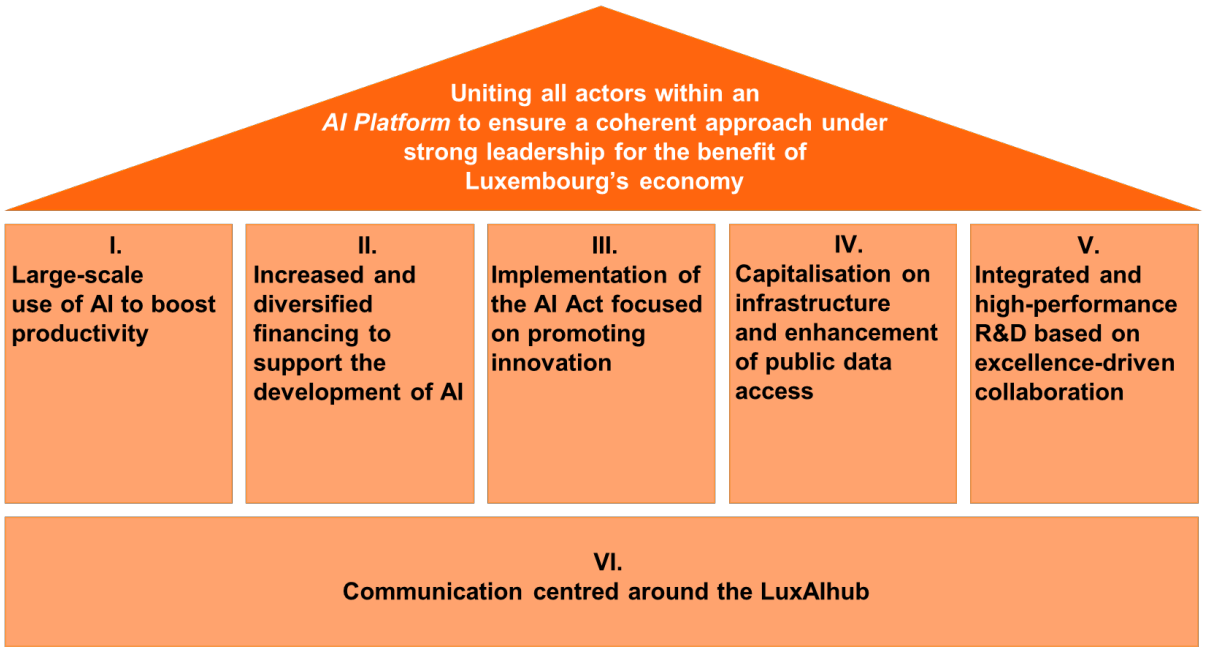
Executive summary

Artificial intelligence (AI) is a major technological development that is bringing about a profound transformation of the global economy – at an unprecedented rate. It opens up **unparallelled prospects for productivity gains** in both industry and services, and is redefining value chains. *The Economic Opportunity of AI in Luxembourg,* a report published in 2024 and commissioned by Google from Implement Consulting Group, estimates that a widespread integration of generative AI could create EUR 6 to 8 billion in additional GDP between 2028 and 2034 (compared with 2022) – an increase of 9% per year.

Besides its economic impact, AI has become a **strategic lever for digital sovereignty**. In an uncertain geopolitical environment in which the old alliances are being called into question, it has become essential for countries to gain control over their technologies, their infrastructures and their use. In this regard, the European Union (EU) is lagging behind the American and Chinese giants. Nevertheless, recent initiatives – particularly the *InvestAI* programme and the *AI Continent Action Plan* – demonstrate an awareness of the importance of the technological and strategic challenges.

In this context of global realignment and European resurgence, **Luxembourg must assert high aspirations**. It is essential to act without delay to fully seize the opportunities of AI. Delaying commitment means risking becoming a follower, reliant on progress made elsewhere and missing the chance to reap lasting benefits. Luxembourg's new national AI strategy, which will be unveiled in May 2025, represents a major opportunity to **set clear and ambitious goals for the development of AI in Luxembourg** and the creation of **a leading technology and innovation hub: the LuxAIhub**. Against this background, this report presents 30 recommendations, structured around 1 prerequisite and 6 strategic orientations (see Illustration 1 below).

Illustration 1: Turning Luxembourg into an AI Hub



An essential prerequisite for the success of this ambition is to implement **regular dialogue at all levels between actors in the public and private sectors**. It is essential to integrate these stakeholders within a coherent ecosystem in order to coordinate the different initiatives, avoid redundancy and build synergies. With this in mind, this report recommends the **creation of an *AI Platform*, a regular discussion forum on AI that brings together actors from the public and private sectors**, ensuring the coordination of nationwide actions and the systematic evaluation of policies implemented as part of the national AI strategy. This platform would foster the emergence of a strong collective momentum focusing on AI.

AI currently holds significant promise as a **powerful driver of productivity**. To make that a reality, it is imperative that it is **adopted rapidly and on a large scale**. First and foremost, the adoption of AI must be accelerated in the financial sector and public administration. This goes hand in hand with bold ambitions regarding training. In addition to integrating AI into school and higher education curricula, upskilling and reskilling training must **move from theory to practice** to deliver real productivity gains.

AI cannot grow in Luxembourg unless there is sizeable funding accessible to business. **Sources of financing must be developed and diversified** (private equity and venture capital funds, private investment, public-private co-financing) to prevent promising startups from leaving Luxembourg due to a lack of timely and tailored financing. Specific measures must also be introduced to **attract and retain foreign talent** – vital to rolling out AI – such as introducing an employee share ownership scheme designed for startups.

Efforts must also be focused on regulations. The **transposition of the EU AI Act into national law presents an opportunity to promote innovation.** To achieve this, specific measures are needed that go beyond the provisions of the AI Act. Concerning regulatory sandboxes, for example, there must be the ambition to **make Luxembourg a real testing**

hub: an entry point for third-country companies wishing to enter the EU market and test the compliance of their AI products. Moreover, with its solid legal expertise, Luxembourg is well-positioned to establish itself as an *AI Legal Hub*.

Luxembourg has significant potential and must **fully capitalise on its existing computing and data infrastructure whilst continuing its long-term investments.** The country currently has Tier IV data centres, the Meluxina supercomputer (which will be complemented by a new supercomputer optimised for AI, called Meluxina-AI, in 2026) and sovereign clouds. Thanks to this sovereign and highly secure infrastructure, Luxembourg has a solid base to position itself as European *Private AI* hub. Moreover, it is essential to facilitate access to this infrastructure for startups and SMEs seeking to develop sovereign AI models, to support the local – European – production of AI solutions. The development of AI also requires **better access to public data**, an essential resource for enabling companies to train their models. Lastly, the rollout of AI relies on the availability of **decarbonised and secure electricity at a competitive price**.

Integrated research, focusing on the creation of tangible economic value (the creation of spin-offs), and **talent retention** are vital for the enduring development of AI. To achieve this, it is crucial to set up a coherent ecosystem uniting researchers, businesses of all sizes and the public authorities. In this regard, the Prime Minister's confirmation, in his State of the Nation address on 13 May 2025, to create a ***Deep Tech Lab*** is welcomed. This laboratory should be attached to an existing structure and take the form of a public-private partnership. Furthermore, it is time to **raise our ambitions for R&D (research and development)** within companies, by building on incentives (especially tax benefits).

Lastly, the government must treat **proactive communication backed by an AI-centred nation branding strategy** as a long-term priority. As with the space sector in the 1980s, the idea is to **actively and systematically promote the country's achievements on the international stage**. In addition to existing prospection activities, which are key to attracting innovative companies, there must be a coordinated support to help these entities understand the national ecosystem. Moreover, Luxembourg must **develop its presence in international AI-dedicated networks** to strengthening its links with its international partners.

In conclusion, the future of AI is being decided today, and Luxembourg holds all the cards to become a major actor in Europe. However, turning this dream into reality requires **swift, decisive, and coordinated action**.

Introduction

Artificial intelligence (AI) is no longer an abstract futuristic concept – it is already rewriting the rules of the economic game. Its potential is immense, its progress rapid, and its impact on the business world is undeniable. For Luxembourg, AI represents a major strategic opportunity to revitalise its declining productivity and consolidate its economic model.

According to *The Economic Opportunity of AI in Luxembourg*, a report published in 2024 and commissioned by Google from Implement Consulting Group, the widespread integration of generative AI could provide an additional EUR 6 to 8 billion of GDP between 2028 and 2034 (compared with 2022) – an increase of 9% per year. Thus, AI is potentially a major transformation driver, one that Luxembourg companies are starting to become aware of. According to the Luxembourg Chamber of Commerce's Economic Barometer for the 2nd half of 2024, 55% of companies surveyed view AI as an emerging technology that will impact their business model, while 63%[1] plan to invest in it in the next three years.

Knowing that the speed of technology adoption is a key factor of competitiveness, **Luxembourg must act immediately** as first mover. If integration is too slow, it risks weakening its economy to the benefit of more agile countries. The stakes are clear: AI must be embraced as a growth driver.

European companies active in the AI sector **need substantial and rapidly available investments** in order to develop. Yet Europe is **falling further and further behind the US and China** in terms of AI funding, partly due to the limited availability of venture capital.[2] In 2023, EU investment in venture capital amounted to around USD 8 billion; this compares with USD 68 billion in the US and USD 15 billion in China. The lack of sufficient and readily available capital in the EU is causing many young European companies – particularly startups – **to seek funding abroad**. About one third of European startups leave the EU to find funding elsewhere, mainly in the US.[3]

In his *Report on the Future of European Competitiveness*, published in September 2024, Mario Draghi argues that Europe can still play a key role in the field of AI. However, this requires an **ambitious approach** and the **mobilisation of resources aligned with the economic and geostrategic stakes of AI**. In response to this appeal, the President of the European Commission announced the *InvestAI* initiative in February 2025, with the aim of mobilising EUR 200 billion of investment in AI, in line with the political priorities of the *Competitiveness Compass*. In addition, the *AI Continent Action Plan*, published on 9 April 2025 by the European Commission, specifies the EU's ambitions on AI. Drawing on the Draghi report and the *InvestAI* initiative, it is organised around five key pillars: IT and data infrastructure, access to data, skills, development and adoption of algorithms, and simplification of the rules through clear and transparent implementation of the AI Act. Central to this action plan is the

[1] Of the 69.7% of companies that believe their business model will be impacted by emerging technologies.
[2] Venture capital is a form of financing in which investors – often specialised companies or investment funds – provide funds to early-stage or fast-growing companies, typically startups, with high growth potential.
[3] It should be emphasised that these statistics date from before the 2024 US presidential election – in other words, prior to Donald Trump's return to the White House.

establishment of at least 13 *AI Factories* by 2026, including one in Luxembourg, and a maximum of 5 *AI GigaFactories*.

Considering this situation, the Plenary Assembly of the Luxembourg Chamber of Commerce identified **AI as a strategic opportunity for Luxembourg** to diversify its economy and increase the productivity of its traditional sectors. Against this background, **a dedicated working group was formed**.

Among the numerous ongoing AI initiatives in the Grand Duchy, particular emphasis should be placed on the transposition of the AI Act, the implementation of the *AI Factory* including the Meluxina-AI supercomputer, the Fit4AI programme, and the SME Packages AI. A new national AI strategy will also be published, along with dedicated data and quantum strategies, all supported by an overarching strategy covering these three areas. In this respect, it is essential to fully leverage the current momentum around AI in Luxembourg by adopting a **coherent approach, built around concrete and targeted actions**. The replication of initiatives must be avoided at all costs, as it makes things complex and opaque for businesses.

This document therefore presents **30 recommendations** drafted by the Luxembourg Chamber of Commerce's AI working group, with the aim of identifying the potential of AI and the resulting opportunities to maximise its economic impact.

These recommendations are structured around **6 strategic orientations, resting on 1 prerequisite** (see Illustration 1).

1 prerequisite: Uniting all actors within an *AI Platform* to ensure a coherent approach under strong leadership for the benefit of Luxembourg's economy.

6 orientations:

I. **Large-scale use of AI to boost productivity.**
II. **Increased and diversified financing to support the development of AI.**
III. **Implementation of the AI Act focused on promoting innovation.**
IV. **Capitalisation on infrastructure and enhancement of public data access.**
V. **Integrated and high-performance R&D based on excellence-driven collaboration.**
VI. **Communication centred around the LuxAIhub.**

This document offers a coherent and ambitious vision to structure the efforts on AI and **turning Luxembourg into an AI hub** aligned with European ambitions.

Current situation

I. Declining productivity

Even though Luxembourg remains one of the most productive countries in Europe in absolute terms, **its productivity has been declining for over a decade**. According to the 2023-2024 Annual Report of Luxembourg's National Productivity Board, labour productivity per hour worked recorded negative annual average growth of -0.2% between 2010 and 2022. This trend has become more pronounced in recent years, and productivity has fallen below its 2019 level. Yet **productivity growth is central to the country's economic and social trajectory**. It determines not only the competitiveness of companies, but also the ability to generate lasting growth and a sustained improvement in citizens' living standards. By making it possible to produce greater value using the same level of resources, or to produce the same value with less resources, productivity creates the space needed to invest in innovation, finance the public infrastructure and guarantee the sustainability of Luxembourg's social model. According to *The Economic Opportunity of AI in Luxembourg*, a report published in 2024 by Implement Consulting Group, 72% of jobs will over time integrate generative AI, resulting in substantial gains in productivity.

II. Persistent concerns regarding AI

All too often, AI is still perceived as a threat. In order to maximise its economic benefits, it is essential to **change the perception of AI** and overcome the fears it generates. To encourage its adoption, it is necessary to improve people's understanding of its advantages. AI may offer great opportunities, but many companies are still hesitant to adopt it; mainly due to a **lack of clarity** on how to effectively integrate it into their processes and concerns about the **security of confidential data**.

To accelerate the adoption of AI, numerous shortcomings that persist must be addressed urgently:

- **Lack of structuring and pooling of information on AI**, making it difficult for businesses – particularly SMEs – to access resources, tools and initiatives.
- **Training programmes still largely focused on theory**, with no practical aspects.
- **Lack of systematic mechanisms for sharing best practices and success factors**, which limits the dissemination of concrete examples and slows down the adoption of AI by businesses.

III. Persistent talent shortage

Luxembourg faces a talent shortage in the information and communication technology (ICT) sector, including AI, and the rapidly growing requirement for digital skills far outstrips the supply available in the labour market. According to the 2025 AI Index Report from Stanford University, Luxembourg stands out with its **strong demand for AI-related skills**, required by 2% of job offers: this places the country second in the world behind Singapore (3.2%). More

than 5,300 ICT vacancies were reported to the Employment Development Agency (ADEM), in 2022, representing **a 31.8% increase compared to 2021**. A significant proportion of these positions were in software development, information systems and data analysis: key skills in the AI field.

A large portion of the talent in the tech sector comes from abroad. This **increased reliance on international labour** poses challenges in terms of attractiveness, integration and retention in the long term. Moreover, despite the efforts made to train the local population in recent years, the majority of employees still have limited knowledge of AI; this reinforces the **gap between market needs and available skills**. This situation highlights a core issue: **the successful adoption of AI strongly depends on the availability of qualified talent.** Without a skilled workforce, infrastructure and investments alone are not enough to exploit the full potential of AI.

IV. Europe and Luxembourg lag behind in AI investment

Europe lags far behind the US and China in terms of investments in AI, partly due to the limited availability of venture capital. In Europe, including Luxembourg, **risk aversion** hampers investments; this is a major obstacle to overcome. Between 2018 and the third quarter of 2023, nearly EUR 32.5 billion was invested in European AI companies; this compares with more than EUR 120 billion in American AI companies. Venture capital plays a key role in the development of the AI ecosystem; a large proportion of innovations emerge from startups, which are more agile than larger structures. Yet, these **young companies struggle to raise funds in Europe**, forcing around a third of them to relocate to the US.

European AI efforts have so far been mainly national, with **coordination at EU level still too limited**. This observation comes at a time when neighbouring countries are stepping up their efforts; for example France, which announced investments of EUR 109 billion at the AI Summit in Paris in February 2025. The recent launch of the European *InvestAI* programme, the *AI Continent Action Plan* and the EU's future *AI Strategy* open up promising prospects. However, European support **often comes too late for young companies** due to cumbersome and complex administrative procedures; this limits its impact at the startup or development phases of a business.

V. Available but underexploited infrastructure

Meluxina is the only supercomputer in Europe that primarily puts High-Performance Computing (HPC) **at the service of businesses**. The other European HPC supercomputers mainly concentrate on research.

Moreover, Luxembourg – along with 12 other European countries and cities – was recently selected to host an ***AI Factory***. Designed to provide European startups, the industry and researchers with the massive computing resources needed to create and scale AI models and systems, the *AI Factories* are paving the way for **new industrial applications of AI**.

This development provides Luxembourg with a **strategic opportunity** to develop an attractive AI ecosystem that supports talent acquisition, the success of startups and SMEs, and multi-sector growth. The AI-optimised supercomputer, Meluxina-AI, which is central to the *AI*

Factory project, will be operated by LuxProvide, which is also in charge of the HPC supercomputers Meluxina and Meluxina-Q (the future quantum computer), which are integrated into the European High Performance Computing Joint Undertaking (EuroHPC). With its supercomputers, Tier IV data centres and sovereign cloud services, Luxembourg will have a **unique technological arsenal it can take full advantage of**.

VI. Window of opportunity for domestic expertise and technological sovereignty

In the past, Luxembourg has often opted for a specialisation – or even niche – strategy. The same goes for AI.

Innovation in AI is currently based to a large extent on cloud infrastructures, an area heavily dominated by US actors offering public cloud services. Nevertheless, a major change is taking place: Alongside the major AI models, **smaller specialised models are emerging in strategic sectors** such as defence, space, finance or healthcare. This diversification opens a window of opportunity for Europe, and hence for Luxembourg. By positioning itself on these targeted, less resource-intensive models, the country can develop its own expertise, strengthen its **technological sovereignty** and make up some of the ground it has lost.

To define these specialisations, it will be essential to take into account:

- **infrastructure** (e.g. Luxembourg's sovereign cloud solutions);
- **traditional sectors** such as the financial centre, where the country has a wealth of **data** that has not yet been fully exploited;
- **skills** available;
- **market size**;
- **choices made in other projects**, such as the *AI Factory* and the new European plans, to ensure an aligned approach.

VII. Fragmented AI R&D and a lack of research commercialisation

AI research is currently fragmented. Several institutions – including universities, public research institutes, technology startups, corporate R&D departments – are working on AI-related issues, but these initiatives are often evolving in parallel **without a common vision or organisational framework**. This fragmentation reduces the collective impact of research efforts and hinders the development of genuine centres of excellence. In the absence of a coherent ecosystem, synergies between the various players are limited and bridges between fundamental research, applied research and industrial transfer remain underdeveloped.

Despite significant investment in innovation, Luxembourg is still struggling to translate its research potential into tangible market impact. **Cooperation between the private sector and the research community is sometimes considered difficult to initiate**, mainly because of an inadequate legislative framework and divergent approaches among stakeholders: on the one hand, academic research that is still too theoretical; on the other hand, companies looking for concrete, rapid solutions. In addition, **bureaucratic hurdles** and **slow decision-making processes** further complicate matters, as they are not aligned with the rapid innovation cycles of AI and disruptive technologies.

VIII. Lack of ambitious communication

Until now, **international recognition** of Luxembourg's role in the field of AI has been limited. In this regard, it must be a strategic priority for the government to **launch a sophisticated AI communication campaign** with the aim of **promoting the country's achievements in this field internationally** and **its intention** to position itself as a **European AI hub**, thereby encouraging the development and deployment of AI technologies.

The **development of the space sector** in Luxembourg is a perfect illustration of the impact of a **visionary strategy**. In the early days, communication and positioning initiatives were based on what were then fragile foundations. Nevertheless, in a period of ten years, the country was able to attract and develop a large number of actors, including startups, thanks to a coherent, ambitious and forward-looking approach.

IX. Fragmentation of AI initiatives

A **comprehensive and coherent approach to AI in Luxembourg** is essential to ensure that the actions undertaken are effective and readable. At present, the multiplication of initiatives, led by different institutional actors (including the Ministry of Finance, the Ministry of the Economy, etc.), creates a **fragmented landscape that is difficult for companies to understand**. It is primarily the business sector that bears the consequences of this lack of transparency and shared vision.

Given the above assessment of the current situation, the Luxembourg Chamber of Commerce's AI working group has identified one prerequisite and six key orientations, each accompanied by recommendations and specific actions aimed at creating the LuxAIhub: an ecosystem capable of attracting, training, innovating as well as creating international visibility.

Prerequisite: Uniting all actors within an *AI Platform* to ensure a coherent approach under strong leadership for the benefit of Luxembourg's economy

A fragmented landscape

At present, AI initiatives remain fragmented and coordination between the various actors involved is minimal or non-existent. This fragmentation hampers the collective effectiveness and clarity of the actions undertaken.

The (non-exhaustive) list below illustrates the number of actors involved and the AI initiatives in Luxembourg that the Chamber of Commerce's AI working group was aware of during its work:

- **Ministry of Finance**: Luxembourg House of Financial Technology (LHoFT) (*AI Experience Center*), public-private partnership planned for EuropIA Luxembourg.
- **Ministry of the Economy**: Luxinnovation, *AI Factory*, SME Packages AI, Fit 4 AI, Digital Innovation Hub, RDI subsidies.
- **Ministry of State**: in charge of the new national AI strategy, National Commission for Data Protection (CNPD), transposition of the AI Act.
- **Ministry of Research and Higher Education**: University of Luxembourg and the Interdisciplinary Centre for Security, Reliability and Trust (SnT), National Research Fund (FNR), Luxembourg Institute of Science and Technology (LIST), the future *Deep Tech Lab* (see Orientation V).
- **Other ministries**: Ministry of Education, Children and Youth (Digital Learning Hub), Ministry for Digitalisation, Department of Foreign Trade and Investment Promotion (nation branding, prospection, see Orientation VI), etc.
- **LuxProvide**: responsible for operating the Meluxina supercomputer and facilitating access to its computing capacity by providing dedicated support for companies' high-performance computing projects.
- **Professional chambers, federations** and **industry associations.**
- **Civil society** organisations,
- etc.

It therefore seems imperative to **establish a shared strategic vision** as well as an **explicit division of roles and responsibilities** among stakeholders.

A coherent AI approach based on a shared vision

The preparation of the new AI strategy is the chance for Luxembourg to showcase its high ambitions in this area. The creation of the *AI Factory* and launch of the EuropIA Luxembourg association are opportunities to take a step beyond the European project and create a truly coherent Luxembourg AI ecosystem that is capable of uniting all the actors involved in AI around a common vision. The aim is to **leverage this momentum and promptly define their coordination and organizational missions** for the ecosystem.

To coordinate the various initiatives of the actors mentioned above, it is proposed to **set up an *AI Platform*** for a renewable five-year period (in line with the 2030 horizon set by the national AI strategy). This Platform would serve as a discussion forum between the private and public sectors, similar to the *Platform for Climate Action and Energy Transition*.

Missions of the AI Platform

- **Serve as a regular discussion forum on AI:** encourage the exchange of views between actors in the public and private sectors. The idea is to establish a regular, multi-level dialogue between representatives of business, research, investors, civil society organisations and other relevant stakeholders.
- **Coordinate national AI initiatives:** avoid duplication, coordinate existing initiatives and integrate them into a coherent ecosystem, share current and future projects and build synergies.
- **Monitor and implement the national AI strategy:** this platform must enable systematic and regular monitoring of the policies implemented under the national strategy. This could be done through an **AI policy evaluation unit**, responsible for issuing opinions on the national AI policies adopted or foreseen. This evaluation unit could usefully be based on the *AI Tech Watch*, *AI Skills Watch* and *AI Adoption Observatory* already planned as part of the *AI Factory*. It would be responsible for proposing new measures (on its own initiative or at the request of the government) and, if necessary, suggesting changes to achieve the stated ambitions more effectively.

Governance of the AI Platform

To guarantee effective and coordinated progress, the *AI Platform* should be placed under the governance of the Prime Minister, represented by a delegate from the Ministry of State. The platform must have an advisory role, via the issuing of opinions on bills of law and *projets de règlements grand-ducaux*.

- The Prime Minister would be **chair of the *AI Platform***. He would provide the *AI Platform* with a permanent secretariat, guaranteeing its continuity and operational efficiency.
- **The members of the *AI Platform*** would be appointed for a fixed term of five years, in line with the 2030 horizon set by the national AI strategy. Active participation by the members from both the public and private sectors would be required as part of a co-creation process for initiatives.

- The *AI Platform* would receive an **annual allocation from the State budget**, providing it with the resources it needs to carry out its tasks.

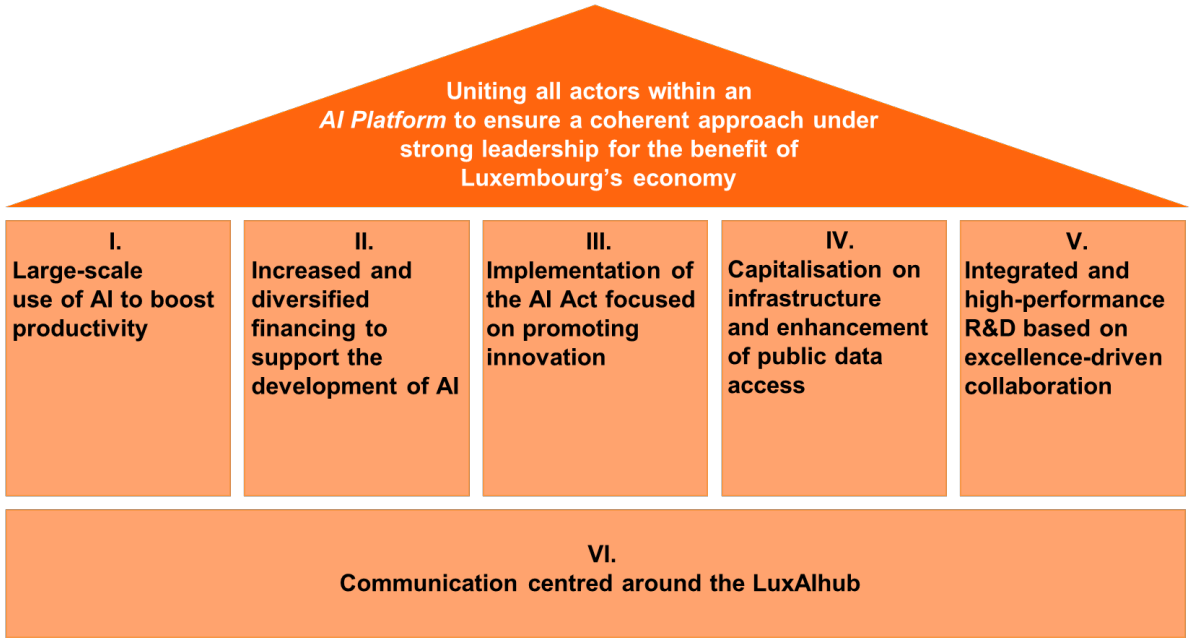
Operation of the AI Platform

Given the importance of AI, it is essential to **set up this platform as soon as possible**, ideally by the end of September 2025. Since certain initiatives such as EuropIA and the *AI Factory* are already being established, it is important to take advantage of this dynamic.

It is recommended that meetings be held **regularly**.

The ***AI Platform*** **is the prerequisite** for the implementation of the recommendations that follow.

Illustration 2: Turning Luxembourg into an AI Hub:



Orientation I: Large-scale use of AI to boost productivity

Strategic recommendation:

guides major long-term decision-making, in line with Luxembourg's vision.

Operational recommendation:

seeks to improve processes or actions in the short or medium term.

Supervise the adoption of AI in the financial sector in order to preserve the industry's competitiveness

The adoption of AI by the financial sector is an essential step in ensuring the lasting competitiveness of this sector. Given the importance of the financial sector to the national economy, significant adoption takes on a strategic dimension. The aim is to encourage and facilitate the partial or full domiciliation in Luxembourg of AI-driven transformation projects by large groups whose decision-making authority is not always based in the Grand Duchy.

To supervise the adoption of AI, an **accelerated awareness-raising campaign for the financial sector** should be launched in a coordinated manner by government departments and private partners, including industry organisations representing the sector. Such a campaign could include hackathons, use case competitions (with award ceremonies) and events dedicated to the financial sector.

List AI initiatives on a dedicated website

Based on the model of the talent portal currently under development, it would be appropriate to create an AI ecosystem website to **pool all the initiatives and actors involved** in this area. It is important that the **person or entity responsible for this website participates in the *AI Platform* discussions** (see prerequisite). This initiative could be part of the *AI Factory*.

This portal would provide simple and comprehensive access to practical information, key actors and available resources. It would direct users to the appropriate contacts according to their needs.

Accelerate the adoption of AI across the entire public administration

As the country's largest purchaser, **the public sector needs to drive innovation through a proactive procurement policy that targets the most effective solutions available.** If **the entire public sector were to adopt AI,** this would allow its full potential to be harnessed. The Luxembourg government could draw inspiration from Singapore[4], which identifies practical use cases from everyday scenarios, set up through partnerships with global AI actors.

Given that the Luxembourg government is lagging behind in the adoption of AI, it could also usefully draw inspiration from other European countries such as Estonia and Finland, which have made AI a strategic priority within their public authorities. An ambitious target should be set: to be among the world's top 5 for AI integration by the public sector. Its small size is a particular strategic advantage, allowing the rapid and agile implementation of new technologies.

Integrate AI into school curricula and higher education programs

It is important to **integrate AI concepts into school curricula** from a very early age to stimulate pupils' interest, strengthen their understanding and encourage responsible use of this technology. The use of AI should be promoted as a pedagogical tool for teachers and pupils, for example through intelligent tutors, personalised analysis of pupils' progress and the generation of tailored educational content. A pilot project between SnT and a Luxembourg high school is currently underway. Besides the added value for pupils and teachers, this kind of initiative is an opportunity to demonstrate Luxembourg's advances in AI and to prove its value.

At the same time, **pupils and students should discover AI professions**. One idea would be to organise immersive and entertaining campaigns inspired by Luxembourg's *Astronaut for a Day* programme. Other formats could, for instance, be *AI Summer Schools* during the summer holidays or *Tech Weeks* throughout the year for young people, organised in collaboration with companies.

For higher education students, one idea would be to **add (optional) AI modules to existing courses** and/or **create new courses dedicated to AI** (in law, for example, see Orientation III).

[4] On this subject, see the *AI Singapore* initiative.

Move from theory to practice to ensure effective productivity gains

Systematically include a proof-of-concept on an internal use case

In addition to generalist training programs, it is advisable to offer training courses that systematically include the **preparation of a proof-of-concept (PoC) based on a specific use case within the company**. This approach would maximise the impact of trainings while paving the way for effective integration of AI into internal processes. To encourage companies to participate, it is proposed to **temporarily increase the State co-financing rate to 60%** for training courses related to an AI PoC.

Set up a practice-based training programme for experienced private-sector managers and professionals

The aim is to introduce a programme of excellence similar to Singapore's *AI Apprenticeship Programme - AIAP®*, created to address the shortage of applied AI skills among professionals as part of the *AI Singapore* initiative[5].

Illustration 1: Structure of Singapore's *AIAP* programme

Co-financed by the State, this programme would target professionals with several years of experience and would **combine training in AI with practical experience** through apprenticeships in practical projects. Thus, participants would be able to apply their theoretical knowledge of AI to real-life problems.

The programme would start off with two to three months of intensive training followed by six to seven months of practical training (apprenticeship) inside a company, during which participants would work on an AI project, supervised and accompanied by AI researchers and experienced professionals. At the end of the programme, participants would receive a certificate (e.g. micro-credentials) and would be able to **apply what they have learned in their own company**.

[5] Launched in May 2017, *AI Singapore* brings together all Singapore-based research institutions as well as the ecosystem of startups and companies specialising in the development of artificial intelligence products, to conduct use-inspired research, enhance knowledge, design tools and develop the talent needed to support Singapore's AI efforts.

Organise public events to share best practices and AI use cases among companies

In addition to practical training, it is important to organise more public events to **promote best practices** and **share AI use cases** put forward by companies that have already adopted this technology.

Promote existing upskilling and reskilling programmes to strengthen workers' AI-related skills

Given the large number of companies that are unaware of the training available in Luxembourg, it is essential to **conduct targeted communication campaigns**. These initiatives are intended to encourage companies to provide more training to their employees, thereby speeding up **skills development at all levels of responsibility**.

Orientation II: Increased and diversified financing to support the development of AI

Attract major firms and front offices of private equity and venture capital funds to increase Luxembourg's market share in the deal flow of startups setting up in Europe

Luxembourg is today a major hub for the back and middle offices of investment funds, while their front offices are often based elsewhere. To strengthen the country's financial ecosystem, it is essential to **attract the front offices of private equity funds**, and more specifically venture capital funds, to Luxembourg. This is of particular importance for increasing Luxembourg's international visibility in the rapidly growing AI and technology startup sector.

It would therefore be appropriate to organise more **roadshows in major financial hubs** such as London, Silicon Valley or Singapore, to **attract investors, large companies, investment funds and talent to Luxembourg, with the aim of establishing it as a hub for AI** and tech in general. These events could combine presentations of Luxembourg's advantages, exclusive meetings and project demonstrations.

Strengthen tax incentives for investment funds targeting technology startups to encourage their establishment in Luxembourg

Tax incentives are a key factor in attracting investment funds to Luxembourg. A **specific tax exemption on capital gains realised** by venture capital funds investing in AI-focused startups could provide additional leverage. However, a **prior study of the specific needs** not covered by existing law is necessary to guarantee the effectiveness and relevance of such a measure.

Luxembourg is attractive for a number of reasons including the **favourable taxation of carried interest**[6] – a key aspect in venture capital and private equity, which is **important to preserve**. One of the measures for attracting investment fund front offices through tax incentives would be to **increase the competitiveness and legal security of this carried interest**.

Facilitate private investments in venture capital and private equity

The *Savings and Investment Union Strategy* (SIU), published on 19 March 2025, aims to give households greater access to capital markets and facilitate financing for businesses - a commendable objective.

[6] Carried interest is a remuneration paid to investment fund managers, particularly in the venture capital and private equity sectors, for their performance in managing a fund. It is a share of the profits generated by the fund (often a percentage) that is allocated to the fund managers, but only if the fund reaches a pre-established profitability threshold, known as the hurdle rate.

Through pension systems

As far as individuals are concerned, Luxembourg has seen very few innovations to promote venture capital since the introduction of the *Société d'Investissement en Capital-Risque* (SICAR) in 2004, most recently amended in 2023 and reserved for well-informed investors. In this regard, it is suggested to **mobilise the second-pillar pension schemes** to **invest in the real economy** via venture capital and private equity.

Through the introduction of investment funds approved by the Luxembourg government

Inspired by the "private investment" aspect of the TIBI[7] initiative in France, the government could direct private investors' savings towards new technologies, including AI, by creating an **approval mechanism to identify high-potential investment funds** based on clearly defined specifications.

Facilitate private investments by introducing a tax reduction to encourage individuals to invest in AI startups

It is proposed to **introduce a tax reduction (Tax Shelter) for cash investments made by individuals** (resident or non-resident) **in startups and scale-ups**. Luxembourg could draw inspiration from the Belgian *Tax Shelter* scheme and the UK *Seed Enterprise Investment Scheme* (SEIS).

The Luxembourg Chamber of Commerce has taken note of the willingness expressed in the "10-Point Action Plan for Startups" to introduce a tax credit for investment in a young innovative company by individual taxpayers. The *Projet de loi portant modification de la loi modifiée du 4 décembre 1967 concernant l'impôt sur le revenue*, which aims to introduce a "*crédit d'impôt start-up*" for individuals investing in young innovative companies, is therefore welcomed. The Luxembourg Chamber of Commerce will analyse this bill in detail over the coming weeks.

Introduce an employee share ownership scheme tailored to startups in order to attract and retain talent and thus enhance Luxembourg's attractiveness as a startup nation

It is vital to put in place an **employee share ownership scheme tailored to startups** in order to attract and retain talent. Similar schemes exist in other countries (France and Austria, for example). Luxembourg lacks a tax framework tailored to startups that offers **legal security** and **ease of implementation**.

The idea of introducing a fiscally favourable employee stock option plan, as outlined in the "10-Point Action Plan for Startups" is welcomed. However, it **must be put into practice swiftly**.

[7] Launched in 2019 and coordinated by the French Treasury, the French TIBI initiative is based on a label for French investment funds investing in innovative technology companies at all stages of development, from startup to growth phase. The funds have to meet very well-defined specifications. Here the French government acts as facilitator to secure this financial commitment (EUR 6 billion in phase one; EUR 7 billion in phase two, launched in 2023).

Strengthen and develop public-private co-financing to support investment in AI

The idea is to **develop public-private co-financing** where the **public sector acts as a complementary investor** and not necessarily the main investor. In this respect, it would also be important to explore the potential role of the *Société Nationale de Crédit et d'Investissement* (SNCI), which has already launched two initiatives, the *Luxembourg For Future Funds 1* and *2*, together with the European Investment Bank (EIB).

There are several additional avenues that could be explored:

Extend the Digital Tech Fund

This would increase the available funds, which are currently insufficient to meet the needs of startups and scale-ups.

Create a European Evergreen[8] fund of funds

Such a fund could rely on the expertise of the European Investment Fund (EIF) and be **managed by the private sector** within a **public-private partnership**.

Set up new venture capital and private equity funds

This could be done by introducing co-investment models, with an initial State participation of around 10% to 20%, in order to attract private funds.

Ensure rapid and ready-to-use financing for startups

Inspiration could be drawn from the model proposed by the ***EIC Accelerator***, which offers three options (grants only, investments only, blended finance). It might be of interest to develop a similar nationwide programme offering **rapid, ready-to-use funding** aimed at **early-stage startups**. This should be based on a **special venture capital fund** (the EIC Accelerator relies on the EIC Fund, the venture capital branch of the EIC).

Increase the tax relief rate for investments directly linked to AI to 25%

The investment tax relief under Article 152bis of the *Loi modifiée du 4 décembre 1967 concernant l'impôt sur le revenu*, has since 1 January 2024 granted a tax relief to companies for their investments relating to digital transformation (and the ecological and energy transition). It would be advisable to **specify the scope of the measure with regards to AI** and, if possible, to **temporarily increase the rate of the tax relief** for AI-related aspects, in order to encourage companies to adopt AI on a massive scale. At present, the maximum tax relief for digital transformation and the ecological and energy transition is 18%. It is suggested to **increase this rate to 25% for investments directly linked to AI for a period of 5 years.**

[8] A fund of funds (FOF) is an investment strategy of holding a portfolio of other investment funds rather than investing directly in stocks, bonds or other securities. A fund of funds invests mainly in the shares of another mutual fund.

Orientation III: Implementation of the AI Act focused on promoting innovation

Create an ecosystem of excellent national competent authorities

Although the AI Act – the European regulation on AI – offers national legislators limited flexibility to adapt its provisions, some leeway does exist in terms of the appointment and functions of the regulators involved. The choice of national competent authorities is, in this respect, a key factor for economic positioning, as these authorities will play a decisive role in the country's attractiveness to companies active in AI.

Opt for clear and simple governance

- While the government's wish to appoint several market surveillance authorities, under the coordination of the CNPD, may be justified in the interests of dividing up tasks on the basis of in-depth knowledge of the market in question, this division should be accompanied by a **common procedural framework** to **prevent divergent or even contradictory decisions** being taken by the multitude of appointed authorities.
- Taking the previous recommendation further, the scope of the **CNPD's coordination responsibilities** should be **more clearly defined** in order to give it a **clear mandate and role, particularly regarding its decision-making authority**.
- The choice to appoint several **notifying authorities**[9] seems less obvious and does not clearly emerge from the explanatory memorandum of the bill in question (Bill 8476). In the interest of administrative simplification, it is proposed to explore the possibility of appointing **a single notifying authority**.

Significantly increase the CNPD's resources and restructure the authority in light of its new tasks

If the government's proposal to designate the CNPD as the default horizontal market surveillance authority and single point of contact responsible for coordinating sectoral market surveillance authorities is accepted, this authority must:

- have **sufficient staff** permanently available, with **in-depth knowledge of AI technologies and the related regulatory framework;**
- incorporate in its future structure **a clear distinction between tasks relating to GDPR and those relating to the AI Act;**
- ensure that the regulatory sandbox enjoys clearly defined **functional independence**, to benefit from an **agile testing environment** and **rapid decision-making**.

[9] Notifying authorities are responsible for establishing and carrying out the procedures necessary for the assessment, designation and notification of conformity assessment bodies and for their monitoring.

Examine the branding of competent authorities at international level

- **Changing the name of the CNPD** to the *Luxembourg Data and AI Authority* could underscore the importance that Luxembourg places on the authority's new missions.
- **Highlighting the preparations already made** by this authority to take on its new tasks, in particular through the *Sandkëscht* pilot project, or by encouraging the members of this authority to take part in major European and international conferences.
- Emphasising the **geographical proximity** with (part of) the **AI Office**, key European point of contact for the coordination of European national authorities appointed under the AI Act[10].

Create a single entry point office within the CNPD

Given the current regulatory complexity and multiplication of regulators under AI and data legislation, it is strongly recommended to develop a **single information platform** providing clear information on the roles and responsibilities of each authority in regard to specific activities. The CNPD could therefore set up a **generative AI** programme, capable of **analysing requests from companies** and directing them to the right contacts at national level, by creating practical frameworks.

Set up attractive regulatory sandboxes

Luxembourg must adopt an **ambitious position on sandboxes** by becoming a **testing hub** that offers companies sandboxes on **attractive terms**. These test environments could thus become a **strategic niche** for Luxembourg, positioning it as an **entry point for third-country companies** wishing to set up in the EU and test the compliance of their AI products. The success of regulatory sandboxes could benefit the entire Luxembourg AI ecosystem[11].

Guarantee testing on attractive terms

The way regulatory sandboxes operate is broadly defined by the AI Act and will be further detailed by the European Commission. However, while creating these test environments, Luxembourg should opt for **even more advantageous** test conditions in order to become a world-recognised pioneer of regulatory sandboxes. These test environments can send **a strong signal that Luxembourg remains a fertile ground for innovation** and a host to cutting-edge technologies. The key characteristics for ensuring that regulatory sandboxes are attractive are as follows:

[10] As provided for in Article 57 of the AI Act: "*National competent authorities shall inform the AI Office and the Board of the establishment of a sandbox, and may ask them for support and guidance. The AI Office shall make publicly available a list of planned and existing sandboxes and keep it up to date in order to encourage more interaction in the AI regulatory sandboxes and cross-border cooperation.*"

[11] In this respect, it is worth highlighting the OECD's recent analysis of the potential of this type of test environment for a country's economy as a whole (including in particular the facilitation of business financing and the speed with which innovative products are brought to market by reducing administrative costs): OECD (2023), "Regulatory sandboxes in artificial intelligence", OECD Digital Economy Papers, No. 356, OECD Publications, Paris, https://doi.org/10.1787/8f80a0e6-en.

- **Low-cost participation**;
- **Close support from the CNPD in the preparation of applications** (drafting of specific sandbox plans);
- **Short test duration** (adhering to the product-to-market timeline as closely as possible);
- **High confidentiality guarantees** for business models and algorithms;
- **Proactive**, multilingual **specialists** with a flexible and collaborative attitude, in-depth knowledge of AI legislation and proven practical experience;
- **A close link between the exit report** (written proof of activities successfully carried out in the sandbox), drawn up at the end of a test, **and the monitoring of the conformity procedure with the AI Act** to make it easier for companies to comply[12].

Take advantage of additional opportunities foreseen in the AI Act

Regulatory sandboxes signal a country's progressive attitude towards innovation and can help to attract venture capital and other types of investment. It is therefore proposed to encourage the creation of **a broader ecosystem of interoperable sandboxes** by exploring the other possibilities offered by the regulation and facilitating:

- **Real-world testing** of high-risk AI systems, supervised within an AI regulatory sandbox, by initiating a collaboration between the CNPD and Meluxina (a possibility offered by the AI Act[13]);
- the establishment of regulatory sandboxes **in collaboration with the competent authorities of other States**, in particular neighbouring countries (possibility offered by the AI Act);
- the introduction of **a regulatory sandbox for the specific needs of the banking sector** by the **CSSF** (possibility provided for in the AI Act, mentioned in Bill 8476[14]).

Position Luxembourg as an *AI Legal Hub*

Introduce a Master's degree in AI law

Just as with space law as well as European banking and finance law, the University of Luxembourg could introduce a Master's in AI Law (this type of Master's is currently available in Paris) by offering students an internship at the CNPD (or another national competent authority), and by inviting members of the AI Office to give lectures.

[12] In this regard, it is laid down in Article 57 of the AI Act that "(...) the exit reports and the written proof provided by the national competent authority shall be taken positively into account by market surveillance authorities and notified bodies, with a view to accelerating conformity assessment procedures to a reasonable extent."
[13] Article 60 of the AI Act.
[14] Projet de loi portant mise en œuvre de certaines dispositions du règlement (UE) 2024/1689 du Parlement européen et du Conseil du 13 juin 2024 établissant des règles harmonisées concernant l'intelligence artificielle et modifiant les règlements (CE) n° 300/2008, (UE) n° 167/2013, (UE) n° 168/2013, (UE) 2018/858, (UE) 2018/1139 et (UE) 2019/2144 et les directives 2014/90/UE, (UE) 2016/797 et (UE) 2020/1828 (règlement sur l'intelligence artificielle) et portant modification de: 1° la loi du 1er août 2018 portant organisation de la Commission nationale pour la protection des données et du régime général sur la protection des données ; 2° la loi modifiée du 23 décembre 1998 portant création d'une commission de surveillance du secteur financier;3° la loi modifiée du 7 décembre 2015 sur le secteur des assurances (hereinafter, "Bill 8476").

Prepare Luxembourg's courts

Thought needs to be given to ways of **ensuring judges** are properly prepared to **handle the specifics of decisions issued by AI systems** which are opaque, complex, highly autonomous and require technical knowledge. This is even more important given the intention to introduce an appeal against a decision of a competent AI authority before the Administrative Court[15].

[15] Article 17 ("recours") of Bill 8476.

Orientation IV: Capitalisation on infrastructure and enhancement of public data access

Strategically define sectors in which Luxembourg can establish its leadership

The four areas selected for the *AI Factory* – **finance, space, the green economy and cybersecurity** – are strategic choices which should be supported at a national level. Beyond these four areas, other key domains relevant for Luxembourg must be taken into account.

At a time when Luxembourg has to define a national economic and industrial **defence** strategy (see *Lux4Defence : 10 recommandations de la Chambre de Commerce pour développer une base industrielle et technologique de défense renforcée au Luxembourg* , published in April 2025), this sector must also be a national priority.

Moreover, **healthcare** also deserves to be one of the key focus areas at the national level. This would make it possible to exploit the enormous potential of AI in this field, while reinforcing **Luxembourg's ambition to become a hub for healthtech**.

Build on existing AI infrastructure to position Luxembourg as a European *Private AI hub*[16]

Luxembourg will have to **take full advantage of the capabilities of the Meluxina AI supercomputer** to design **sovereign AI solutions that are scalable and tailored to the needs of businesses** at national, Benelux and even European level. With its sovereign and secure infrastructures (including sovereign clouds and Tier IV data centres), Luxembourg benefits from a solid foundation to focus on **sectors handling highly sensitive data, such as investment funds and healthcare**. However, it will be vital for the Luxembourg government to continue **investing in computing and data infrastructures** over the long term, while also **securing its supply chain** for strategic components.

Encourage new private investments in AI infrastructure to support the commitment of the public sector

It is vital that **private investments complement public sector initiatives** and that they are in line with the national AI strategy. Several private actors have recently announced investments in AI-related projects, some of which have yet to take shape. One example is the planned Google data centre in Bissen, the details of which are still to be defined. Once planning permission has been granted, the government will be able to enter into a strategic dialogue with the company on the nature of the project. Microsoft has also announced the deployment of its cloud infrastructures in Luxembourg to provide businesses and public

[16] *Private AI* is an AI system designed to operate in a secure, controlled environment, guaranteeing data confidentiality and respecting users' privacy. Unlike public AI models or those accessible via the cloud, Private AI is generally deployed via local servers or secure infrastructures, reducing the risk of data leakage or unauthorised sharing.

organisations with low-latency services, while guaranteeing local, secure data storage. The launch is planned for early 2026.

Investments of this type could have a significant knock-on effect, attracting other important technological and industrial players to Luxembourg. They represent an opportunity in a rapidly changing geopolitical environment that is likely to reshape the global economic balance.

Furthermore, Luxembourg must **fully commit to the rollout of *GigaFactories*** at the European level. The call for expressions of interest launched by the European Commission and EuroHPC – open until June 2025 – is an opportunity for actors from both the private and public sectors, including the government, to contribute to the future development of AI *GigaFactories*.[17]

In this respect, it should be stressed that infrastructure development also depends on the **availability of suitable land** on competitive terms, to host data centres and other strategic infrastructures.[18] It is therefore essential that land-use planning takes these needs into account to encourage the spread of AI, and digital technology in general, while maintaining a balance with other industrial and urban uses.

Leverage Luxembourg's power grid capacity and guarantee competitive electricity prices

Luxembourg has a well-developed electricity grid, with the capacity to support the development of new data centres in the country. This is a strategic asset for strengthening its technological sovereignty.

However, to fully leverage the grid's capacity and enable the deployment of AI infrastructures (such as computing facilities and data centres), it is essential to have **electricity that is decarbonised, secure and supplied at a competitive cost**.

Facilitate the production of sovereign AI models by startups and SMEs in Luxembourg by removing existing barriers

It is crucial to **facilitate easier access to existing infrastructure for startups and SMEs seeking to develop sovereign models**. Even though infrastructure and support services for pre-production are excellent, shortcomings still remain when it comes to upscaling models into full production, particularly for **startups** and **SMEs**. An appropriate range of services would make the Luxembourg ecosystem more attractive compared to international alternatives (particularly hyperscaler programmes).

[17] See press release *Public Consultation on the AI GigaFactories*, 9 April 2025.

[18] This observation was highlighted in FEDIL's position on the update of the national AI strategy. Position: *Une stratégie d'IA pour un Luxembourg compétitif et résilient* , published on 27 February 2025.

Improve access to public data for private entities

The option provided for in Article 8(3) of the **Data Governance Act (DGA)**[19] should be used, as it would allow the creation of a separate, simplified and documented information channel for SMEs and startups to meet their needs and capabilities in terms of requests to reuse public data.

[19] Regulation (EU) 2022/868 of the European Parliament and of the Council of 30 May 2022 on European data governance and amending Regulation (EU) 2018/1724 (Data Governance Act) (Text with EEA relevance). In particular, the DGA aims to increase the amount of data in circulation and make it easier to share, complementing the provision of "open data" (see the *Loi du 29 novembre 2021 sur les données ouvertes et la réutilisation des informations du secteur public*).

Orientation V: Integrated and high-performance R&D based on excellence-driven collaboration

Make the future *Deep Tech Lab* a catalyst for innovation, focusing on an integrated approach to facilitate the transition from research to development and then to commercialisation

Luxembourg needs a **coherent AI research ecosystem**, structured around **close collaboration between the academic community, economic actors and public authorities**. It is vital that those involved in research play an active part in the *AI Platform* (see prerequisite). In his State of the Nation address on 13 May 2025, the Prime Minister confirmed that a *Deep Tech Lab* will be created. The purpose will be twofold: to transform academic excellence into tangible economic value, especially through the **creation of spin-offs** and technology transfer, and to encourage the **retention of talent and skills** in the region. An ecosystem of this kind will not only boost Luxembourg's competitiveness, but also **consolidate the country's digital sovereignty** in the long term. Serving as a pool for cutting-edge skills and research, the *Deep Tech Lab* should serve as launchpad for large-scale national projects in the AI field, particularly the flagships identified in the national AI strategy.

Setting up a ***Deep Tech Lab***, including an AI focus, will strengthen the links between research and the market. The field of deep tech – rather than that of pure AI – broadens the scope and allows the inclusion of other high-potential technologies such as quantum computing. This *Deep Tech Lab* should be attached to an existing structure and should take the form of a **public-private partnership**. Apart from research participants, it is important that businesses of all sizes contribute their projects and play a role in its governance (via the governance board).

In order to maximise the tangible results of applied research projects (particularly the creation of spin-offs), funding should rely not only on public funds, but also on a **contribution from the private sector**, similar to the partnerships established between the University of Luxembourg, SnT, LIST and the major global technology actors. On an extended scale, the *Deep Tech Lab* should form the centrepiece of an **integrated technology campus, bringing together researchers from the public and private sectors on the same site**. The launch in February 2025 of the AI and cybersecurity Centre of Excellence co-founded by Google and the University of Luxembourg, bringing together researchers from both institutions, should be a catalyst for attracting other leading technology actors. Other similar projects would greatly benefit Luxembourg. Such initiatives are fully in line with Luxembourg's desire, as stated in its "10-Point Action Plan for Startups", to facilitate the creation and financing of deep tech spin-offs.

Introduce tax incentives to stimulate corporate R&D

Incentives should be introduced **(tax benefits, subsidies, researcher-talent visas)** to enable companies to **build and retain high-performance AI teams**. Tax incentives should also target **AI innovation and R&D activities** in Luxembourg.

The following measures could be considered:

Introduction of a Research Tax Credit (RTC)

To boost AI research, it is proposed to put in place a **tax credit** for corporate R&D activities. This would allow all companies carrying out eligible R&D activities to benefit from a tax credit calculated on the investments and expenditure relating to these activities. The amount of this tax credit has yet to be defined and will depend on how the country wishes to position itself in relation to its competitors. A minimum threshold of 30% for salary costs is recommended.

Partial exemption from withholding tax on the salaries of researchers and technical staff

The **partial exemption from the withholding tax on the salaries** of researchers (as well as technicians and related staff) would enable companies to allocate more money to the recruitment and remuneration of R&D talent, and to offer them more competitive salaries.

Adapt the decision-making system to the rapid innovation cycles of AI projects and deep tech in general

Current decision-making timeframes appear ill-suited to the exceptionally rapid innovation cycles of AI, which is evolving at an unprecedented rate. Given the accelerated obsolescence of these projects, the decision-making process for funding R&D projects in AI and deep tech needs to be rethought.

It is proposed to introduce an **accelerated financing mechanism, based on rapid decision-making, for AI projects**. This should be complemented by **a systematic evaluation** after a few months to decide whether the project should be continued.

Strengthen collaboration between the public sector and research

It is imperative **that the public sector takes full advantage of the possibilities to collaborate with public research**, particularly to share knowledge and skills in key areas such as AI. To give a specific example: The regulator responsible for implementing regulatory sandboxes in Luxembourg[20] should take advantage of the experience of LIST in establishing a sandbox intended to help Luxembourg companies to promote AI based on transparency and to comply with the AI Act.

Focus on communication and support to increase collaboration between the private sector and research

Collaborations or partnerships between the private sector and research allow the costs and risks of AI projects to be shared. However, this requires **improved communication about how companies and the research community can collaborate**, as well as **more support for companies in managing administrative procedures**.

Communicate extensively on ways for companies and the research community to collaborate

There must be **clear, coherent and pooled communication on all the ways in which companies and research can collaborate** in Luxembourg, to encourage partnerships in a transparent manner and make them more accessible to the parties concerned.

The *AI Factory* could ensure this by making available a practical guide presenting the different options for collaboration and the FAQs, particularly regarding intellectual property. This could be featured on an AI ecosystem website **pooling all the initiatives and players active** in the field (see Orientation I, recommendation to *List AI initiatives on a dedicated website*).

Communicate extensively on the financing that exists and increase support for companies in preparing their application

There must be **more communication on the grant schemes for R&D that exist** in Luxembourg. With this in mind, **companies also need more support in preparing applications** for research project funding – particularly for RDI grants from the Ministry of the Economy – to enable them to benefit fully and quickly from this type of financing. It is crucial to ensure a **sufficiently swift process**, aligned with the accelerated pace of AI technologies.

[20] For a full examination of this point, please see Orientation III of this report, in the subsection *Set up attractive regulatory sandboxes*

Orientation VI: Communication centred around the LuxAIhub

Draw up an AI-focused nation branding strategy

AI-related nation branding must be **treated by the government as a strategic priority**, with emphasis placed on key aspects of AI such as its ecosystem, legislation, available solutions, infrastructure, support mechanisms, training, as well as host and test environments. **The country's achievements in these areas must be actively promoted abroad**.

The strategic positioning of the **space sector** serves as a reference. In its early days, communication campaigns rested on embryonic foundations. Within ten years, many companies – including startups – set up and/or expanded in Luxembourg thanks to a **visionary approach**.

Two practical avenues to support this strategy:

- Organising an **annual large-scale international event in Luxembourg dedicated exclusively to AI**, with a unique focus to distinguish it from other international AI events – for example, AI for the financial sector.
- Promoting **strategic public-private collaboration** to increase Luxembourg's visibility.

Establish strategic prospection and systematic follow-up

Prospection represents a **critical lever for attracting innovative AI companies** to Luxembourg. This prospection will need to be aligned with the national AI strategy, including the chosen sector niches, and nation branding initiatives.

Public-sector actors must play a decisive role in prospection missions abroad, forging **direct connections with unicorns and promising startups**. These prospection efforts must be strengthened by adopting a targeted approach to maximise the effectiveness of this process. Once companies are interested in settling in Luxembourg, it is vital to ensure coordinated follow-up to help them understand the Luxembourg ecosystem through personalised support. To conduct this follow-up, it is important to clarify the roles and responsibilities of the various Luxembourg stakeholders.

Increase Luxembourg's presence in international networks

Luxembourg could **join international AI networks** to strengthen the ties between national actors and their partners worldwide. Against this background, the signing of the EuropIA Luxembourg agreement in February 2025 is welcomed.

Specifically, the following initiatives could be pursued:

- Increasing Luxembourg's attendance and participation at **international trade fairs**;
- Developing collaboration with **new international AI research clusters**, but also with **other European *AI Factories* and future *GigaFactories***;
- Reinforcing Luxembourg's **presence in AI hubs throughout the world, especially Silicon Valley**, similar to the **Swissnex centres** for science, innovation and education.

Conclusion: From words to action

Far from being merely a technological evolution, AI represents a strategic opportunity to boost productivity in Luxembourg and assert its positioning in a Europe seeking digital competitiveness. In a world where innovation and technological sovereignty present major challenges, Luxembourg must **demonstrate high aspirations to foster the development of AI and its own strategic autonomy**. The challenges are real – particularly funding, coordinating initiatives, technology adoption, and training – but so are the opportunities. It is therefore a matter of maximising the impact of AI across the entire Luxembourg economy. The recommendations presented in this report align with this line of thought; they offer **a structured, coherent and operational framework that supports an ambitious national AI strategy**.

With a clear vision, targeted actions and a collective mobilisation of those involved from both public and private sectors, **Luxembourg could go for gold and play an indispensable role in European AI** through the creation of the **LuxAIhub**. History has shown that the country is capable of redirecting and even diversifying its economy. Today it can draw on solid specialisations in the financial sector in particular, along with regulatory expertise and top-notch infrastructure, to position itself on the European – and indeed international – stage in the field of AI. Luxembourg's political stability is also a major strategic advantage for investors, particularly in a sector where sovereignty is paramount.

However, beyond the structuring measures, in particular those aimed at boosting the financing of AI, a **real cultural shift** is needed in Luxembourg as well as in Europe. To achieve a lasting boost of private investments in AI and innovation, mindsets must shift, ambitions must be unleashed, and bolder risk-taking must be encouraged.

The future of AI is being decided today, and Luxembourg holds all the cards to become a major actor in Europe. But this ambition cannot become a reality unless all the stakeholders – both public and private – are coordinated, the initiatives coherent and the decision-making rapid, in line with the swift development of AI technologies. In fact, fully harnessing the potential of AI requires **acting quickly, decisively, and in a coordinated manner**.

Methodology

The Luxembourg Chamber of Commerce's working group on AI, chaired by Gérard Hoffmann, elected member of the Chamber of Commerce and CEO of Proximus Luxembourg, was led by the Economic Affairs Department, in close collaboration with the Legal & Tax Department. Its objective was to **formulate concrete recommendations to identify the potential of AI and the opportunities arising from it, with a view to maximising its economic impact**.

To prepare its recommendations, the working group met once a month between September 2024 and May 2025. It held meetings with institutions and enterprises in banking and insurance, healthcare, telecommunications, industry, technology, transport and commerce, among other sectors. Its thinking was shaped by the working group sessions, as well as interviews and discussions with public and private stakeholders.

List of participants	
Association des Banques et Banquiers Luxembourg (ABBL)	Interdisciplinary Centre for Security, Reliability and Trust (SnT)
Association Luxembourgeoise des Fonds d'Investissement (ALFI)	Luxembourg-City Incubator (LCI)
Amazon Web Services (AWS)	Luxembourg Institute of Science and Technology (LIST)
B Medical Systems	Microsoft
Clarence	The Artificial Business
Commission Nationale pour la Protection des Données (CNPD)	The Luxembourg Alternative Administrators Association (L3A)
Dealfox	LuxProvide
Foyer	Proximus
Fundvis	UI efa
Google	Union des entreprises luxembourgeoises (UEL)
Helical	University of Luxembourg
House of Startups (HoST)	

The discussions held in the working group meetings, supplemented by the contributions from external experts and the bilateral interviews, formed the groundwork for drafting the recommendations presented in this document.

In the context of preparing Luxembourg's new AI strategy, the working group submitted three versions of its preliminary report to the Ministry of State (in January, March and April 2025).

The Luxembourg Chamber of Commerce would like to thank all the people, companies and institutions who participated in this working group.

Summary of recommendations

no.		
	Orientation I: Large-scale use of AI to boost productivity	
1		Supervise the adoption of AI in the financial sector in order to preserve the industry's competitiveness
2		List AI initiatives on a dedicated website
3		Accelerate the adoption of AI across the entire public administration
4		Integrate AI into school curricula and higher education programs
5		Move from theory to practice to ensure effective productivity gains
6		Promote existing upskilling and reskilling programmes to strengthen workers' AI-related skills
	Orientation II: Increased and diversified financing to support the development of AI	
7		Attract major firms and front offices of private equity and venture capital funds to increase Luxembourg's market share in the deal flow of startups setting up in Europe
8		Strengthen tax incentives for investment funds targeting technology startups to encourage their establishment in Luxembourg
9		Facilitate private investments in venture capital and private equity
10		Facilitate private investments by introducing a tax reduction to encourage individuals to invest in AI startups
11		Introduce an employee share ownership scheme tailored to startups in order to attract and retain talent and thus enhance Luxembourg's attractiveness as a startup nation
12		Strengthen and develop public-private co-financing to support investment in AI
13		Increase the tax relief rate for investments directly linked to AI to 25%
	Orientation III: Implementation of the AI Act focused on promoting innovation	
14		Create an ecosystem of excellent national competent authorities
15		Set up attractive regulatory sandboxes
16		Position Luxembourg as an *AI Legal Hub*
	Orientation IV: Capitalisation on infrastructure and enhancement of public data access	
17		Strategically define sectors in which Luxembourg can establish its leadership
18		Build on existing AI infrastructure to position Luxembourg as a European *Private AI* hub
19		Encourage new private investments in AI infrastructure to support the commitment of the public sector
20		Leverage Luxembourg's power grid capacity and guarantee competitive electricity prices
21		Facilitate the production of sovereign AI models by startups and SMEs in Luxembourg by removing existing barriers
22		Improve access to public data for private entities
	Orientation V: Integrated and high-performance R&D based on excellence-driven collaboration	
23		Make the future *Deep Tech Lab* a catalyst for innovation, focusing on an integrated approach to facilitate the transition from research to development and then to commercialisation
24		Introduce tax incentives to stimulate corporate R&D
25		Adapt the decision-making system to the rapid innovation cycles of AI projects and deep tech in general
26		Strengthen collaboration between the public sector and research
27		Focus on communication and support to increase collaboration between the private sector and research
	Orientation VI: Communication centred around the LuxAIhub	
28		Draw up an AI-focused nation branding strategy
29		Establish strategic prospection and systematic follow-up
30		Increase Luxembourg's presence in international networks


CHAMBER
OF COMMERCE
LUXEMBOURG
POWERING BUSINESS