# FICHE PROJET

# AURELA-AI

AURELA-AI is designed to develop new Large Language Model-based AI that is capable of autonomously processing legislative and jurisdictional documents within a secure data environment.

## Inspiration

In recent years, legislature has emerged as a primary tool for influencing world affairs. Leading nations and states associations are using their economic leverage to support their political agendas, for instance by introducing new data privacy standards for citizens of the European Union. Although being designed to improve their respective domain of application, such legislations can have disruptive consequences for industries when they demand the modification of existing workflows and business procedures. Moreover, in a globalized economy, domestic legislations likely affect actors in third-party states via international trade. This makes it particularly difficult for companies that have many points of contact with regulations, such as financial institutions and administrative units. They need to be aware of changes to their respective legal frame as soon as possible to make adequate adjustments.

## Innovation

The joint HPC research project called AURELA-AI is designed to develop a novel graph-fueled LLM-driven AI system that is capable of autonomously processing and analysing legal documents, such as legislations, regulatory directives, and other law texts. The system will be trained to structure, relate, and analyze legal documents that regulate common topics or objects. The target is to create a smart application that can autonomously understand a legal frame, identify contextual legal risks of involved actors, and suggest risk policies to mitigate them. As pilot domain of application, we consider anti-money laundering (AML) regulations. However, the resulting technology can be transferred to other legal domains, such as supply chain due diligence.

## Impact

Regarding Luxembourg's economy, AURELA-AI has the potential to significantly contribute to the democratization of legal counselling in selected domains, which is currently a very expensive privilege. With the technology, the user can receive low-cost legal advice and evaluations within a few seconds. The resulting technology may be used in public institutions and private companies that have many points of contact with regulations, such as financial institutions orbusiness consultants.

## Partenaires

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