Aidge : Independent Deep Learning framework for embedded AI

- **Open source and collaborative framework** dedicated to **embedded AI**
- **Complete tool chain to design, optimize and deploy deep neural networks for** constrained systems
- **Innovative features** to reduce the complexity of models and their memory needs
- **Optimized implementation on a wide range of hardware architectures** such as MCU, CPU, GPU, FPGA, and ASIC

More than **40** partners

5 European countries

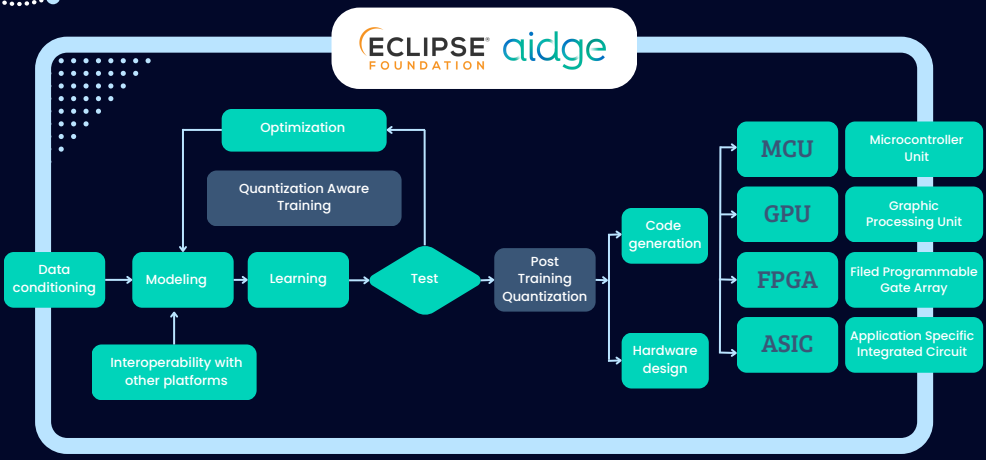
2 Main projects

Ecosystem

- Aidge is hosted by Eclipse Foundation for open and business friendly environment
- Aidge takes benefit of strong French and European initiatives (DeepGreen and NeuroKit2E projects) to become the reference platform for embedded AI

DEEPGREEN

NEUROKIT2E

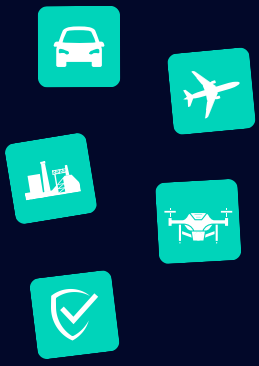


Innovation & assets

- **Support of the State of the Art Models :** CNN, RNN, GAN and Transformers architectures
- **Powerful graph manipulation :** Tiling, Graph search and replace Engine

- **Post training Optimization :** Quantization, Pruning, Compression
- **Quantization Aware Training** : Innovative and state of the art method based on SAT and LSQ
- **Robust approaches for learning and inference :** Incremental learning and Adversarial attack

- **Export modules for optimized and transparent code generation on a wide range of hardware targets :** MCU, CPU, GPU, NPU, ASIC, FPGA
- **Hardware Design** : NeuroCorgi



Uses cases on key sectors

- **Space & Defense:** On-board recognition and geolocation for drones and satellites, Operator assistance functions using on-board AI in the defence context
- **Automotive**: object detection in urban environment in the ADAS, Advanced Driver Assistance Systems context
- **Avionics:** functions development for safe and trusted avionics
- **Smart Manufacturing**: Image recognition for production control in constrained environment, Predictive maintenance for autonomous systems
- **Health:** real time speech enhancement on a miniaturized solution integrated on glasses for the hearing impaired

OUR OFFER

- → Free access to the tool
- → Specific module development on demand
- → Expertise on embedded AI to reach the requested performance in terms of accuracy, latency, power consumption, form factor…

For more information about our offer :
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