Vision is the most demanding sensor in terms of power consumption and required processing power. Our objective in this project is to build an optimized core vision platform that can work independently and also embedded into all types of artefacts. The envisioned open hardware, featuring the Movidius Myriad 2 SoC as well as power, size and cost-optimized camera and WiFi components, is combined with carefully designed APIs that maximize inferred information per milliWatt and adapt the quality of inferred results to each particular application.

This will not only mean more hours of continuous operation, it will allow to create novel applications and services that go beyond what current vision systems can do, which are either mobile or “always-on” but not both at the same time. Thanks to the underlying MQTT-based middleware, metadata can be efficiently streamed in and out of the device. Video streaming is also available. Besides, in EoT the vision application can be uploaded and configured wirelessly from an external PC or tablet.