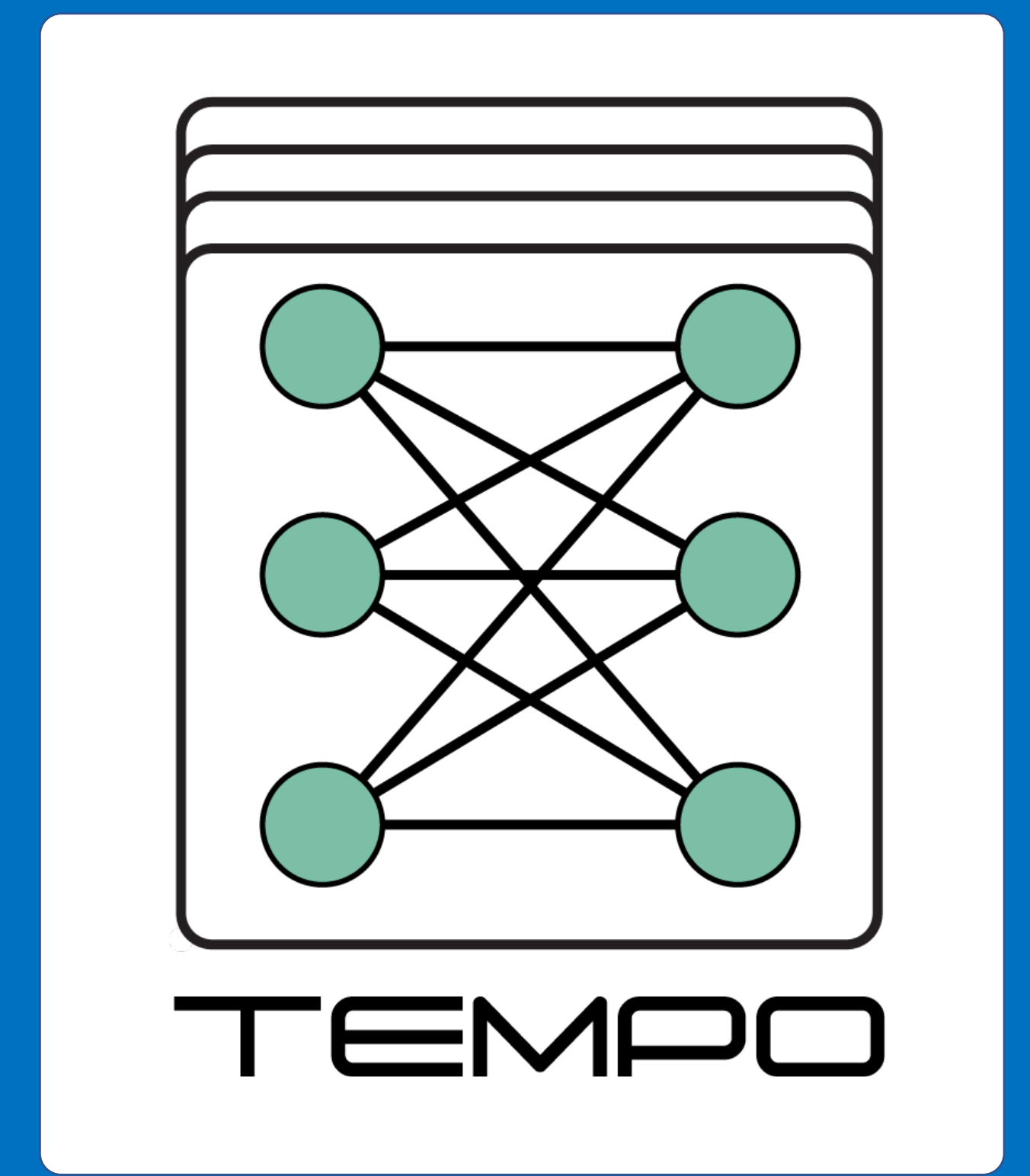


# Technology and hardware for neuromorphic computing

*enabling efficient yet powerful edge AI devices*



## Vision

Boost local data processing in edge AI devices and strengthen the European's value chain by advancing neuromorphic computing technology development. Accelerate the edge processing adoption in different application domains through reference demonstrators implementing the developed technologies.

## Mission

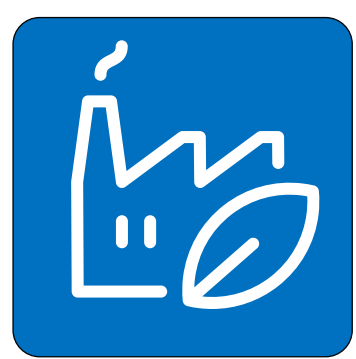
Develop technologies & hardware solutions to broaden the applicability and strengthen the European ecosystem of integrated neuromorphic hardware serving a diversity of application domains.

## Global goal

This project aims to provide semiconductor & hardware technologies, inspired by the human's brain nerve network, to validate and benchmark their performance and to demonstrate their enhanced edge AI computation performance across the following application domains



Health



Digital industry



Automotive



Digital life

## Objectives

### Emerging technologies

- Define emerging technology platforms
- Enable development through foundries
- Support development by systemized logistics

### Technology architecture & design

- Design enablement
- Power-performance-area optimization

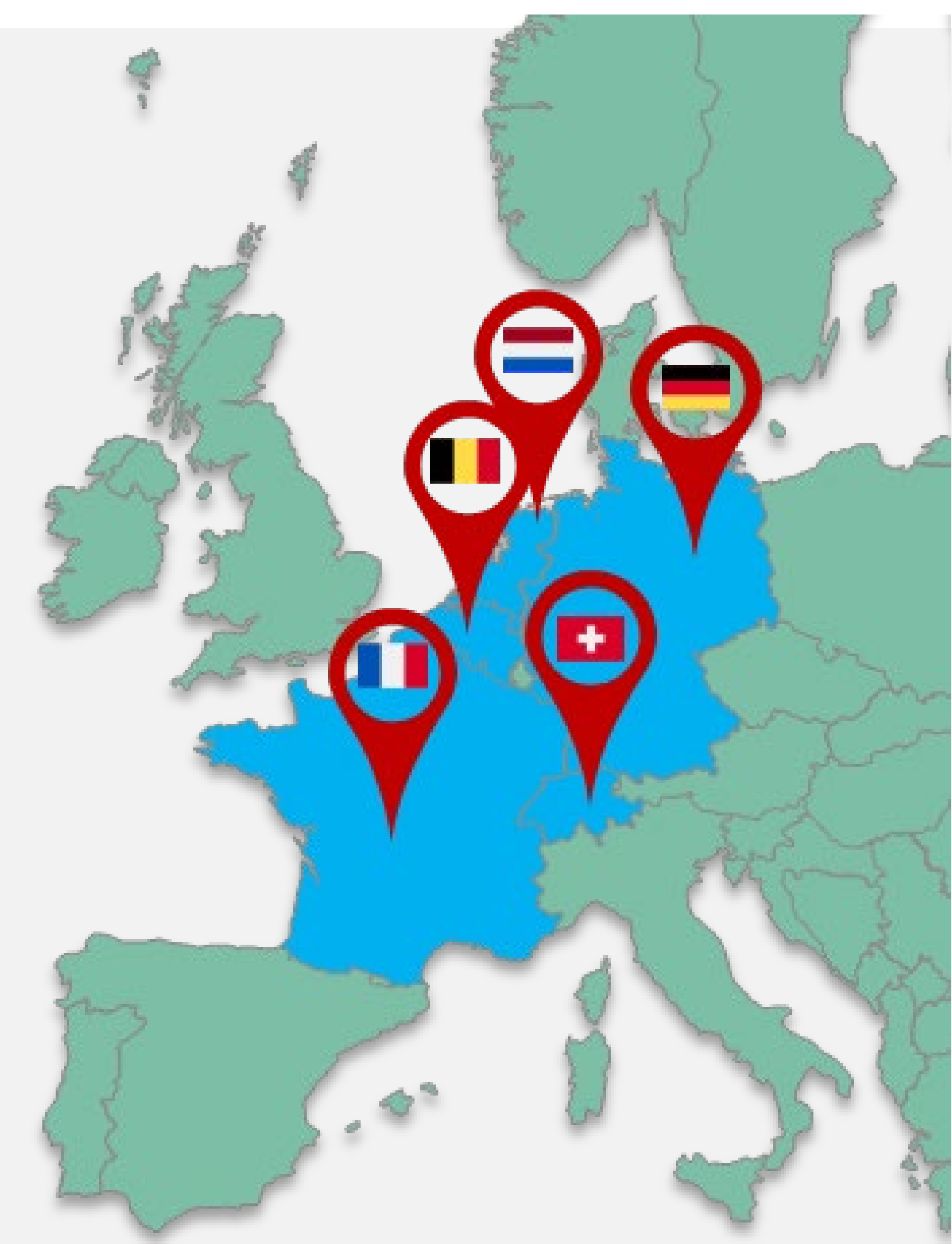
### Algorithms and applications

- Identification of critical neuromorphic workload
- Application-driven DNN & SNN optimization
- Leverage technologies in application demonstrators

## PROJECT FACTS

Project coordination: imec vzw  
Project start: May 2019  
Duration: 43 months  
Total investment: ~ 34.5 €M  
EU funding: ~ 10 €M  
National funding: ~ 10 €M  
Number of partners: 19  
Number of countries: 5

## PROJECT PARTNERS



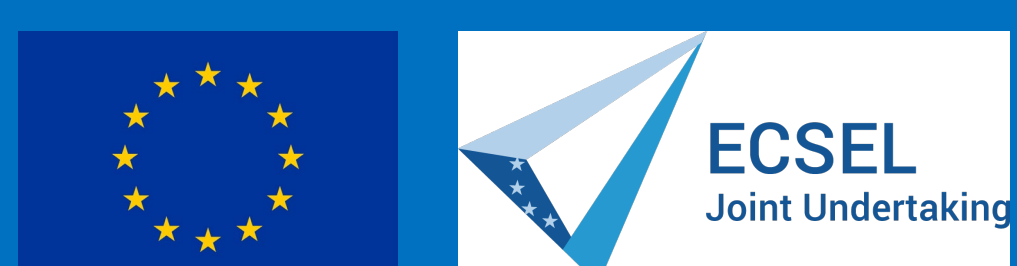
TEMPO

## Technologies and hardware for neuromorphic computing

<https://tempo-ecsel.eu/>

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