



# GLACIATION

Green responsible privACy  
preserving dAta operations

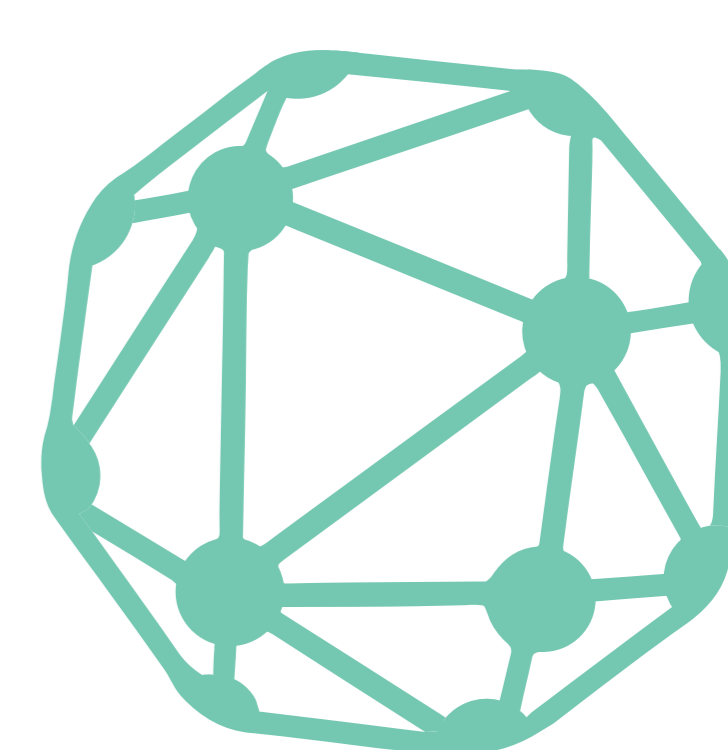
## SCOPE



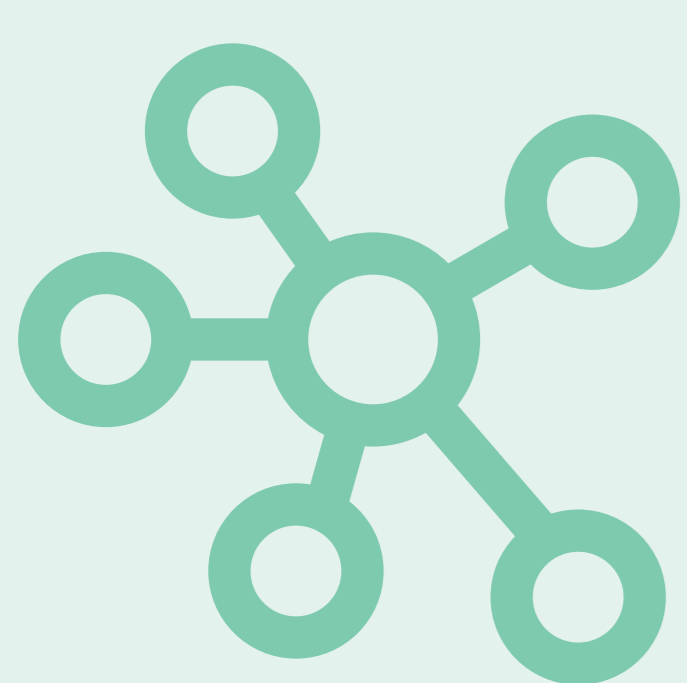
GLACIATION will improve the efficiency and the use of trustworthy digital technologies to address the requirements of citizens, companies and administrations/public organizations on privacy and commercial and administrative confidentiality as well as responsible, fair and environmentally friendly (e.g. in terms of energy/carbon/material footprint) data operations in data spaces, across the data life cycle.

## A DISTRIBUTED INFRASTRUCTURE

At the edge a complex and continuous optimization of local available computation services needs to take place to minimize round-trip costs and latencies between data producers and data consumers, optimize reliability and guarantee security and privacy.



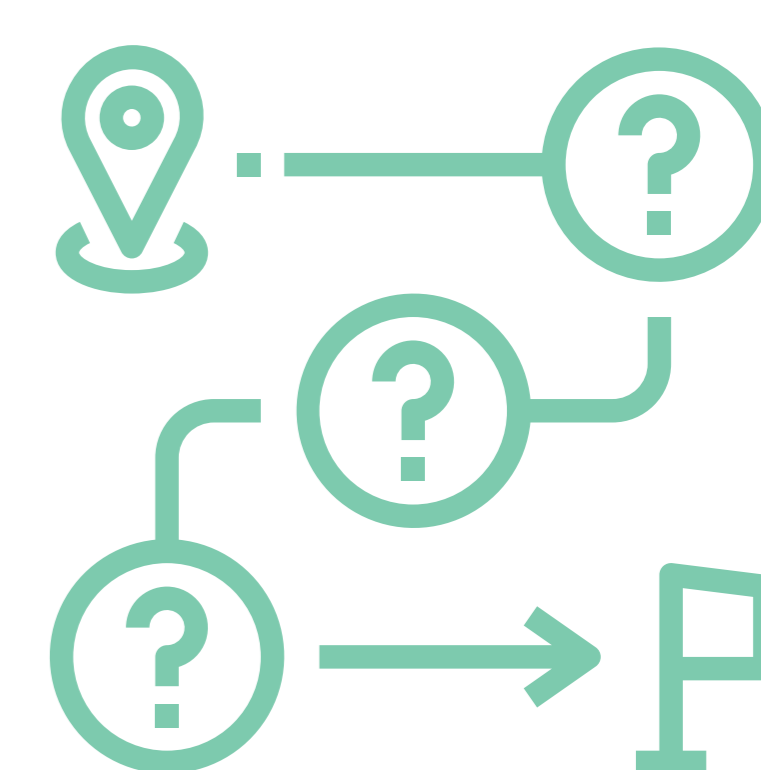
## A PUSH TOWARD THE EDGE



Energy consumption, latency and reliability critical applications will force the data capturing, computation and distribution to gravitate towards the edge in close proximity of data producers and data consumers.

## INEFFICIENCIES OF CLOUD-BASED LOGIC

Current edge storage optimisations are insufficient and based on traditional cloud-based database perspectives. These lack the cost, energy and efficiency effects of data movement and placement in a distributed infrastructure.



## A PULL TOWARDS THE CLOUD



The limited storage capacities distributed across the edge allows only relevant data to be stored at a certain edge location while non-relevant data either is discarded or moved to a more distant location or cloud data centers.

## OUR GOALS

Enable a data-centric architecture, through horizontal energy- efficient flow of data and intelligence from applications across the edge with decentralised data operations (storage, cleaning) and training of AI.

Support modular applications and AI models that are not fixed in one central location, but their modules are distributed across the edge to cloud continuum.



Handling the continuous dynamically changing flow of data.

Data-centric approach relating to scalability, energy and bandwidth efficiency, dependability/ trustworthiness, adaptability and transparency (processing capabilities, bandwidth, resources, management and orchestration).



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This project has received funding from the European Union's HE research and innovation programme under grant agreement No 101070141