e v o l v e

Leading the Big Data Revolution

Deliverable D8.1a

PoC Identification and Design

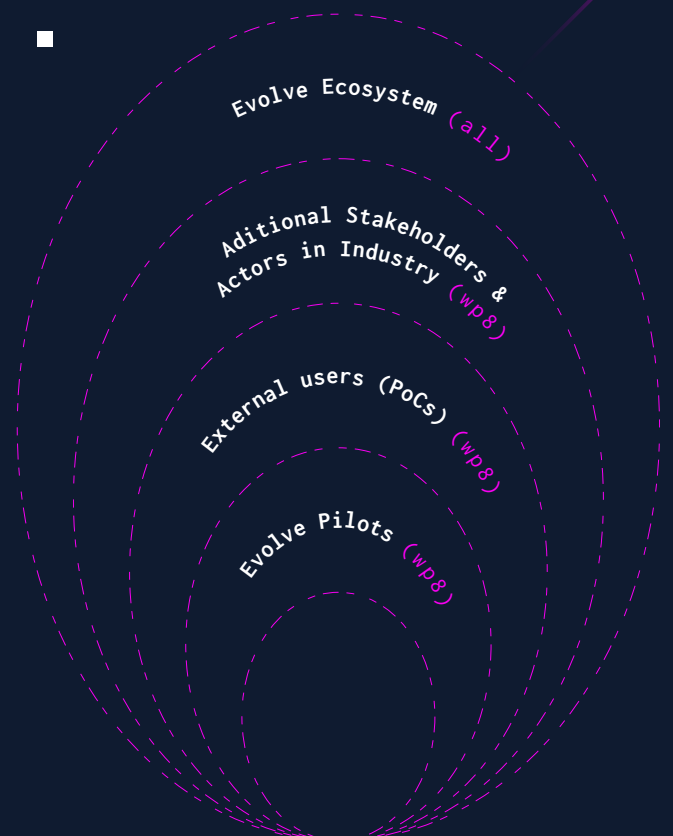By: **Alexander Stocker . VIF . Austria**

GOALS OF THE DELIVERABLE

- Define and describe the process for identifying proof of concepts (POCs) to be run on the EVOLVE testbed;

- Develop an EVOLVE value proposition and describe EVOLVE ecosystem development activities performed;

- Describe the identified POCs in a unified structure.

EVOLVE VALUE PROPOSITION

The EVOLVE testbed combines High Performance Computing Efficiency, Big Data Performance, and Cloud Convenience for 'Your' applications within one platform.

- The EVOLVE testbed is an advanced computing platform with HPC features and systems software (High Performance Computing Efficiency).

- The EVOLVE testbed has a versatile big-data processing stack for end-to-end workflows (Big Data Performance).

- The EVOLVE testbed features ease of deployment, access and use.

Evolve Ecosystem (all)

Aditional Stakeholders & Actors in Industry (wp8)

External users (PoCs) (wp8)

Evolve Pilots (wp8)

EVOLVE BENEFITS FOR PROOF-OF-CONCEPTS

- The advantages of EVOLVE: 'Your' Application on 'Our' Platform:

  - Reduce time to market for new products and services by exploiting an HPC-grade computing system;

  - Development and operational costs are reduced;

  - Benefit from greater performances with Big Data analytics;

  - Easy to deploy, easy to maintain, easy to use;

  - Secure and private.

- Try out our platform: Help us tailor the platform to your market needs.

  - Gain a competitive advantage by scaling-up your datasets while still reducing computation time;

  - Experience the performance of your application increasing transparently thanks to the innovations introduced throughout the course of the project;

  - Get full-stack support from academic and industrial experts.

EVOLVE BENEFITS FOR PROOF-OF-CONCEPTS

POC (OWNER)	MANAGEMENT	DATA SCIENTIST	IT
Status detection of vehicle assistance systems (VIF)	·Accelerate performance of big data analytics ·Try out combined HPC, cloud and data analytics	·Accelerate computation ·Fast storage ·Easy access to high performance computing features ·Benefit from GPUs and FPGAs	·Run business logic over large datasets
Population genetics study (FORTH)	·Competitive advantage of large data ·Accelerate performance with fast storage	·Accelerate computation ·Benefit from GPU ·Productivity-oriented/user-friendly use of an HPC platforms	
Improvement of PT service performance – non real time analysis (Memex-Tiemme)	·Reduced time required to carry out the assessment of bus service performance ·Improved usability for bus operator technicians	·Accelerate computation ·Interactive visualisation tools	·Provide IT solutions able to cope with the needs of small-medium size bus operators which are the larger part of the bus companies
Improvement of service operation – real time analysis (Memex-Tiemme)	·Possibility to use data about travelling time of buses to take "real-time" decisions in case of service disruption (i.e. re-routing, etc.)	·Accelerate computation ·Interactive visualisation tools	·Provide IT solutions able to cope with the needs of small-medium size bus operators which are the larger part of the bus companies
Learning acceleration for retail AI (DDN)	·Competitive advantage of large data set ·Accelerate performance with fast storage	·Benefit from GPUs and FPGA in one platform	

DDN STORAGE   Bull atos technologies   IBM   FORTH Institute of Computer Science   onapp   ΙΤΕ/ICCS   memoscale   webLyzard technology   LOBA   ThalesAlenia Space

SPACE   CybeleTech   MemEx   NEUROCOM   tiemme TOSCANA mobilità   virtual vehicle   AVL   BMW   koola