



CONSORTIUM



ICCS - INSTITUTE OF
COMMUNICATIONS AND
COMPUTER SYSTEMS
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MAXELER TECHNOLOGIES *UK*
WWW.MAXELER.COM



BULL SYSTEMS *FRANCE*
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TECHNOLOGY
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SCIENCE AND
TECHNOLOGIES FACILITIES
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THE NETHERLANDS
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LEANXSCALE *SPAIN*
WWW.LEANXSCALE.COM



LOBA *PORTUGAL*
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VINEYARD

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VERSATILE INTEGRATED ACCELERATOR-BASED HETEROGENEOUS DATA CENTRES

www.vineyard-h2020.eu

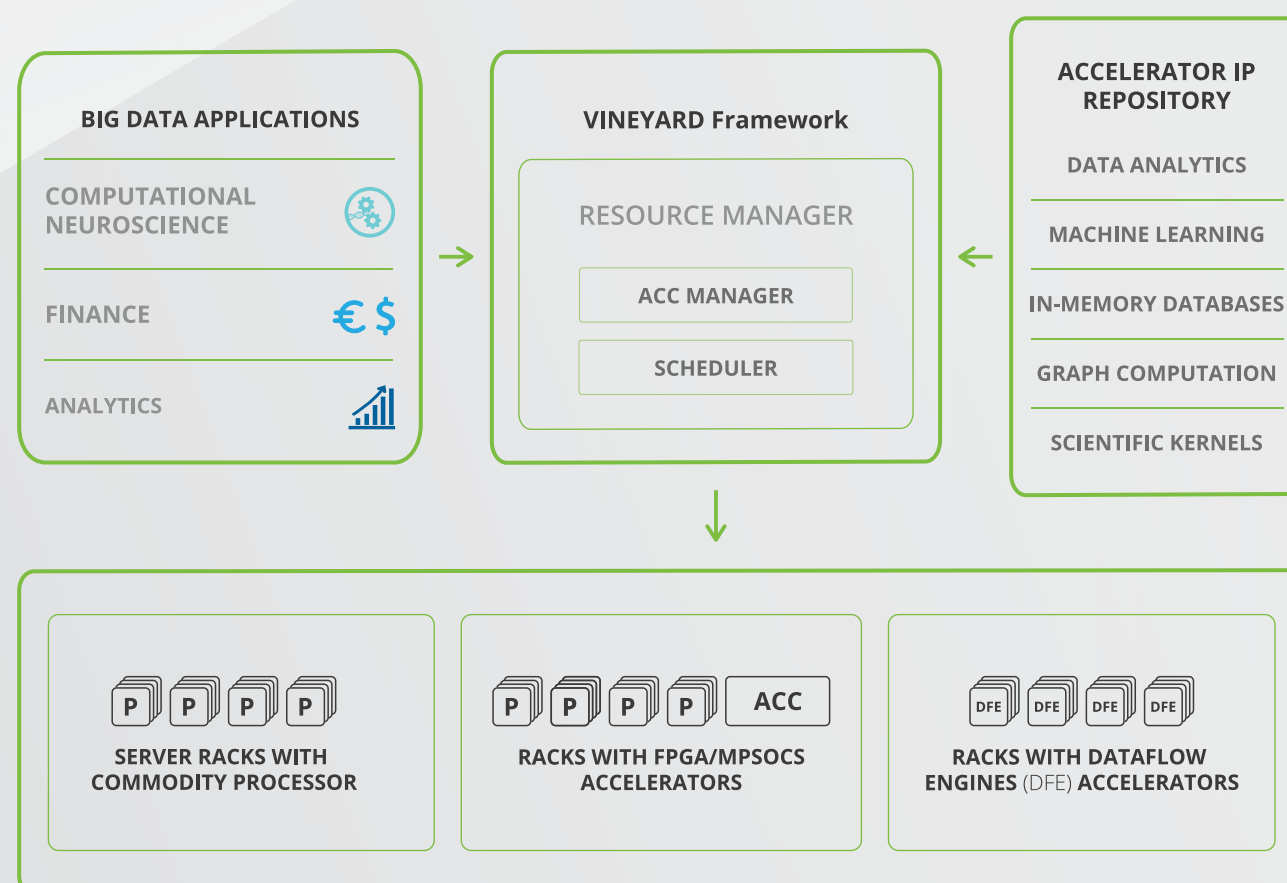


VINEYARD
Versatile Integrated Accelerator-based
Heterogeneous Data Centres

WEBSITE
WWW.VINEYARD-H2020.EU

ACCELERATED BIG DATA CLOUD APPLICATIONS, IN GREEN DATA CENTRES, SEAMLESSLY

VINEYARD project aims to **increase** significantly the **performance** and the **energy efficiency** of the data centres for cloud computing applications.



ADVANTAGES

- **HIGHER PERFORMANCE**
- **LOWER ENERGY CONSUMPTION**



DEMONSTRATION IN REAL-WORLD APPLICATIONS



COMPUTATIONAL NEUROSCIENCE

Brain exploration
through simulation of
biologically accurate
neuronal models



FINANCIAL APPLICATIONS

Trading system
operations and
Pre-trade risk
management



DATA ANALYTICS

TPC-C (on-line
transaction processing
(OLTP) benchmark)
TPC-H (decision
support benchmark)

EXPECTED IMPACT

- Reinforce Europe's position in energy-efficient computing
- Foster innovation in the area of silicon IPs
- Increase the adoption of form-factor data centres and heterogeneous highly parallel computing systems
- Allow the seamless utilization of hardware accelerators in data centres
- Allow the increased adoption of concurrency in applications and foster the utilization of hardware accelerators