

# DISCOVER THE **CERN OPENLAB** PROJECTS





# Sustainable Infrastructures

Heterogeneous Computing, Platforms and HPC systems

Advanced Storage, Data Management and Networks

Computing Architectures and Software Engineering

Infrastructures and Techniques for Artificial Intelligence

Applications for Society and Environment



Real-time Data Processing for Level-1 Trigger: Scouting at CMS using CXL Memory-Lake Architecture



Anomaly Detection for Ultra-Low Latency Event Selection at the LHC



Applied Multi-Disciplinary AI on High-Performance Computing



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Applications for Society and  
Environment



Oracle  
Kubernetes  
Operator



Cost Optimization and  
Sustainability for Public  
Cloud Provider



Integration of Oracle Cloud  
Resources into CERN IT  
Business Continuity &  
Disaster Recovery



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Next Generation  
Archiver for WinCC OA



Data Analytics for  
Industrial Control  
Systems





# Sustainable Infrastructures

Advanced Storage, Data Management and Networks



Next-Generation Exascale Flash Storage

# Emerging Technologies

New Materials for Long-Term Digital Storage



Evaluation of Cerabyte: Archival Data Storage Technology using Ceramic Nanolayers





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Online Data Intensive Solutions for Science in the Exabytes Era (ODISSEE)



SPECTRUM:  
Strategical and technical blueprint for an exabyte-scale research data federation and compute continuum for data-intensive sciences





# Emerging Technologies

Digital Twins



interTwin: Co-designing  
and Prototyping an  
Interdisciplinary  
Digital Twin Engine



Digital Twin: Data  
Science Engine





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Center of Excellence on AI and Simulation-Based Engineering at Exascale (CoE RAISE)



EMP2: Environmental Modelling and Prediction Platform



BioDynaMo: Biology Dynamics Modeller



Strategic Partnership on Artificial Intelligence



**Contact us** for more information!



 **Send us a message**



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Accelerating computing for science

