

Completed international projects

PROCESS

Full name: PROviding Computing solutions for ExaScale ChallengeS

Duration: 1.11.2017 r. - 31.10.2020 r.

Aim: The solutions developed within the PROCESS (PROviding Computing solutions for ExaScale ChallengeS) project are a breakthrough step in the creation of innovative, exascale processing services, maximizing the benefits of modern data processing systems. The results of the project include five prototype large-scale data management services implemented using mature, modular, extensible open source solutions to create a user-friendly data processing platform.

Contact: Marian Bubak, e-mail: bubak at agh.edu.pl, phone: (+48 12) 328 33 56

More info: <https://www.process-project.eu/>

XDC

Full name: eXtreme DataCloud

Duration: 1.11.2017 r. - 30.04.2020 r.

Aim: The goal of the XDC (eXtreme DataCloud) project was to build specialized solutions for managing and processing large-scale data in a hybrid cloud, thus introducing access and data migration in distributed cloud environments.

Contact: Łukasz Dutka, e-mail: l.dutka at cyfronet.pl, phone: (+48 12) 632 33 55

More info: <http://www.extreme-datacloud.eu/>

SERA

Full name: Seismology and Earthquake Engineering Research Infrastructure Alliance for Europe

Duration: 1.05.2017 r. - 30.04.2020 r.

Aim: The overall objective of SERA was to give a significant contribution to improve the access to data, services and research infrastructures, and deliver solutions based on innovative R&D in seismology and

earthquake engineering, aiming at reducing the exposure of our society to the risk posed by natural and anthropogenic earthquakes.

Contact: Mariusz Sterzel, e-mail: m.sterzel@cyfronet.pl, phone: (+48 12) 632 33 55 ext. 314

More info: <http://www.sera-eu.org/>

EPOS IP

Full name: EPOS Implementation Phase

Duration: 1.10.2015 r. - 30.09.2019 r.

Aim: EPOS is integrating the diverse, but advanced European Research Infrastructures for solid Earth Science, and builds on new e-science opportunities to monitor and understand the dynamic and complex solid-Earth System. The EPOS Implementation Phase project (EPOS IP) builds on the achievements of the successful EPOS preparatory phase project (EPOS PP); it is dedicated to realize the key elements of the EPOS implementation phase: the legal and governance framework, the financial framework for all its components, and a successful transition from the preparatory phase to the operational phase, being synergetic and coherent with the establishment of the EPOS-ERIC.

Contact: Tomasz Szepieniec, e-mail: t.szepieniec@cyfronet.pl, phone: (+48 12) 632 33 55 ext. 310

More info:
<https://www.epos-ip.org/about/epos-implementation-phase/epos-implementation-phase-project>

EOSCpilot

Full name: The European Open Science Cloud for Research Pilot Project

Duration: 1.01.2017 r. - 31.05.2019 r.

Aim: The project supported the first phase of the EOSC (European Open Science Cloud) project by developing the foundation of the Open Science Cloud for Research, which enabled to easily combine multiple types of resources. In addition, a number of experimental pilot projects was carried out to demonstrate future solutions. Within the project, a deep analysis of the problem of

open science management on the European scale was carried out, with a proposal of a new target model.

Contact: Łukasz Dutka, e-mail: l.dutka@cyfronet.pl, phone: (+48 12) 632 33 55

More info: <https://eoscpilot.eu/>

AARC2

Full name: Authentication and Authorisation For Research and Collaboration

Duration: 1.05.2017 r. - 30.04.2019 r.

Aim: The goal of AARC2 was to design an AAI (authentication and authorisation infrastructure) framework to develop interoperable AAI, to enable researchers to access the whole research and infrastructure service portfolio with one login. AARC2's objectives involved: 1) enabling federated access in research communities participating in AARC2, 2) assisting research communities to map their requirements to concrete service offerings, 3) supporting research (e-)infrastructures to implement the integrated architecture and policies frameworks developed by AARC project, 4) offering different training to adopt AARC/AARC2 results, 5) enhancing the integrated architecture.

Contact: Mariusz Sterzel, e-mail: m.sterzel@cyfronet.pl, phone: (+48 12) 632 33 55 ext. 314

More info: <http://aarc-project.eu/>

PRACE-5IP

Full name: PRACE 5th Implementation Phase Project

Duration: 1.01.2017 r. - 30.04.2019 r.

Aim: The objectives of PRACE-5IP were to build on and seamlessly continue the successes of PRACE and start new innovative and collaborative activities proposed by the consortium. These included: 1) assisting the transition to PRACE2 including analysis of TransNational Access, 2) strengthening the internationally recognised PRACE brand, 3) continuing and extending advanced training which so far provided more than 18 800 persontraining

days, 4) preparing strategies and best practices towards Exascale computing, 5) coordinating and enhancing the operation of the multi-tier HPC systems and services, 6) supporting users to exploit massively parallel systems and novel architectures.

Contact: Łukasz Dutka, e-mail: l.dutka at cyfronet.pl, phone: (+48 12) 632 33 55

More info:
<http://www.prace-ri.eu/prace-5ip/>

EurValve

Full name: Personalised Decision Support for Heart Valve Disease

Duration: 1.02.2016 r. - 31.01.2019 r.

Aim: Valvular Heart Disease currently affects 2.5% of the population, but is overwhelmingly a disease of the elderly and consequently on the rise. It is dominated by two conditions, Aortic Stenosis and Mitral Regurgitation, both of which are associated with significant morbidity and mortality, yet which pose a truly demanding challenge for treatment optimisation. By combining multiple complex modelling components developed in recent EC-funded research projects, a comprehensive, clinically-compliant decision-support system was developed to meet this challenge, by quantifying individualised disease severity and patient impairment, predicting disease progression, ranking the effectiveness of alternative candidate procedures, and optimising the patient-specific intervention plan. This algorithmically-driven process dramatically improved outcomes and consistency across Europe in this fast-growing patient group, maximising individual, societal and economic outcomes.

Contact: Marian Bubak, e-mail: bubak at agh.edu.pl, phone: (+48 12) 328 33 56

More info: <http://www.eurvalve.eu/>

CECM Teaming for Excellence

Full name: A Centre for New Methods in Computational Diagnostics and Personalised Therapy

Duration: 1.09.2017 r. - 31.08.2018 r.

Aim: The project developed a Business Case

to establish in Poland Europe's first Centre for simulation-driven healthcare Decision Support. The Centre's mission comprised development of new computation-based solutions for diagnostics and therapy in daily healthcare to improve personalised patient treatment, enhanced growth of SMEs which deal with technologies and services for novel personalised diagnostics and treatment strategies, as well as strong advancement of algorithms, models and technologies involved in personalised medicine.

The project aimed to develop a Business Plan establishing the Centre and enabling it to achieve measurable success through introduction of a number of solutions based on computational models to clinical trials, development of a number of new market-ready products and services based on innovations, authoring highly cited scientific papers, obtaining patents and securing grants.

The Plan was based on the Polish Specialisation Strategy and was elaborated by two Polish partners: ACC Cyfronet AGH (experts in simulation and computing infrastructures for science) and Klaster LifeScience Kraków (top cluster of industry, academia and hospitals in the life sciences domain), in collaboration with the University of Sheffield and Insigneo Institute (experts in translation of *in silico* modelling and simulations to clinics), Forschungszentrum Jülich (experts in innovative HPC and data techniques for science and industry) and Fraunhofer ISI (experts in systemic multi-domain solutions and innovation in medicine).

Contact: Marian Bubak, e-mail: bubak@agh.edu.pl, phone: (+48 12) 328 33 56

PRACE-4IP

Duration: 1.02.2015 r. - 31.12.2017 r.

Aim: The PRACE-4IP project was designed to build on and seamlessly continue the successes of the Partnership for Advanced Computing in Europe (PRACE) and start new innovative and collaborative activities. These included: assisting the transition to PRACE 2; strengthening the internationally recognised PRACE brand; preparing strategies and best practices towards exascale computing,

coordinating and enhancing the operation of the multi-tier HPC systems and services, and supporting and educating users to exploit massively parallel systems and novel architectures.

Contact: Łukasz Dutka, e-mail: l.dutka at cyfronet.pl, phone: (+48 12) 632 33 55

More info:
<http://www.prace-ri.eu/prace-fourth-implementation-phase-prace-4ip-project/>

INDIGO-DataCloud

Duration: 1.04.2015 r. - 30.09.2017 r.

Aim: The project aimed at the development of the PaaS (Platform as a Service) environment, which enabled to conduct the large-scale calculations, integrating the grid and cloud resources and providing unified access to computing- and data storage resources.

Contact: Łukasz Dutka, e-mail: l.dutka at cyfronet.pl, phone: (+48 12) 632 33 55

More info: <https://www.indigo-datacloud.eu>

EGI-Engage

Duration: 1.03.2015 r. - 31.08.2017 r.

Aim: The aim of the project was to accelerate the implementation of the Open Science Commons by expanding the capabilities of a European backbone of federated services for computing, storage, data, communication, knowledge and expertise, complementing community-specific capabilities.

Contact: Mariusz Sterzel, e-mail: m.sterzel at cyfronet.pl, phone: (+48 12) 632 33 55 ext. 314

More info:
<https://www.egi.eu/about/egi-engage/>

VirtROLL

Duration: 1.07.2013 r. - 31.10.2016 r.

Aim: The main objective of the project was the development of a model-based predictor system, "VirtRoll", supporting the flexible design of strip rolling, joining functionality of numerical simulations, material modelling (metamodelling), sensitivity analysis and

optimization to minimize costs related to the design of production processes and to optimize the properties of semi and final products.

Contact: Łukasz Rauch, e-mail: lrauch at agh.edu.pl, phone: (+48 12) 632 38 75

More info: <http://virtroll.cyfronet.pl>

FedSM

Duration: 1.09.2012 r. - 31.08.2015 r.

Aim: The aim of the project was to adapt the standards and best ITSM (IT Service Management) practices to the federated infrastructures. Project activities included aspects of staff management and training (training track), management processes and supporting technologies.

Contact: Tomasz Szepieniec, e-mail: t.szepieniec at cyfronet.pl, tel.: (+48 12) 632 33 55 w. 310

More info: <http://www.fedsm.eu/>

VPH-Share

Duration: 1.03.2011 r. - 31.05.2015 r.

Aim: The main objective of the VPH-Share project was creation and implementation of a platform for the sharing of scientific applications implemented by the members of a European Virtual Physiological Human (VPH) consortium, as well as to adapt existing applications and data repositories for sharing within the framework of the aforementioned platform.

Contact: Marian Bubak, e-mail: bubak at agh.edu.pl, tel.: (+48 12) 632 33 55

More info: <http://www.vph-share.eu/>

EGI-InSPIRE

Duration: 1.05.2010 r. - 31.12.2014 r.

Aim: The aim of the project was to provide and maintain a sustainable European Grid Infrastructure through the cooperation of a number of institutions in more than 40 countries, building the National Grid Infrastructures. With the latest technological advances and hardware base of the national e-Infrastructures, EGI-InSPIRE is the ideal

candidate that could connect distributed computational resources (Distributed Computing Infrastructures) - such as computing clouds, networks of supercomputers and grids - for use by the scientific communities in the European Research Area.

Contact: Aleksander Kuszniur, e-mail: a.kuszniur at cyfronet.pl, tel.: (+48 12) 634 17 66

More

info: <http://www.egi.eu/about/egi-inspire/>

MAPPER

Duration: 1.10.2010 r. - 30.09.2013 r.

Aim: The aim of the MAPPER project was to create computational strategies, services and software to support multi-scale simulations in many disciplines of science, using existing and emerging European computing e-Infrastructures (EGI, DEISA). Within the MAPPER project it was planned to support the seven applications from the representative areas of science (nuclear physics, medicine, systems biology, nanotechnology, and hydrology).

Contact: Marian Bubak, e-mail: bubak at agh.edu.pl, tel.: (+48 12) 632 33 55

More info: <http://www.mapper-project.eu>

EUSAS

Duration: 1.12.2009 r. - 1.12.2012 r.

Aim: The result of the project was developed methodology and prototypes of a system which allow verification and analysis of various approaches to urban areas, taking into account also the sociological and psychological aspects of human behavior in conflict situations.

Contact: e-mail: cyfronet at cyfronet.pl, tel.: (+48 12) 632 33 55

More info: -

UrbanFlood

Duration: 1.12.2009 r. - 30.11.2012 r.

Aim: The aim of the project was to create a universal IT service platform, available on-line for Early Warning Systems (EWS),

which purpose is to warn from the effects of natural disasters; such a platform is capable of processing data coming from large-scale sensor networks via the Internet.

Contact: Marian Bubak, e-mail: bubak at agh.edu.pl, tel.: (+48 12) 632 33 55

More info: <http://www.urbanflood.eu>

gSLM

Duration: 1.09.2010 r. - 31.08.2012 r.

Aim: The aim of the project was to develop a model of service level management (SLM) for grid computing environments, and other federated environments. The project consortium united grid computing experts and IT service management experts, so that the proposed SLM model was adapted to the needs of modern computing environments.

Contact: Tomasz Szepieniec, e-mail: t.szepieniec at cyfronet.pl, tel.: (+48 12) 632 33 55 w. 310

More info: <http://gslm.eu>

EGEE-III

Duration: 1.04.2008 r. - 1.04.2010 r.

Aim: Within the EGEE-III project preparations were started for the establishment of a permanent, stable organizational structure, in cooperation with state NGI (National Grid Infrastructures) structures and EGI_DS (European Grid Infrastructure Design Study) project, under the 7th Framework Programme.

Contact: Aleksander Kuszniir, e-mail: a.kuszniir at cyfronet.pl, tel.: (+48 12) 634 17 66

More info: [Cordis web site](http://cordis.europa.eu)

ViroLab

Duration: 1.03.2006 r. - 28.02.2009 r.

Aim: The project aim was to develop a virtual laboratory for infectious diseases, facilitating the acquisition of medical knowledge and supporting decision making process.

Contact: Marian Bubak, e-mail: bubak at agh.edu.pl, tel.: (+48 12) 632 33 55

More info: <http://www.virolab.org>

GREDIA

Duration: 1.10.2006 r. - 30.09.2008 r.

Aim: The aim of the project was to build a Grid Application Development Platform. The platform was a tool for the construction of new applications. Created applications were differentiated by using the concept of virtual organizations and distributed data sharing, both purely numerical and multimedia.

Contact: Marian Bubak, e-mail: [bubak at agh.edu.pl](mailto:bubak@agh.edu.pl), tel.: (+48 12) 632 33 55

More info: <http://www.gredia.eu>

CoreGRID

Duration: 1.09.2004 r. - 31.08.2008 r.

Aim: Within the project a European research network was created for the development of theoretical basis of software infrastructure and applications for large-scale distributed computations, as well as grid and peer-to-peer systems.

Contact: Marian Bubak, e-mail: [bubak at agh.edu.pl](mailto:bubak@agh.edu.pl), tel.: (+48 12) 632 33 55

More info: [Cordis web site](#)

Int.eu.grid

Duration: 1.05.2006 r. - 30.04.2008 r.

Aim: The project aimed at the development of advanced infrastructure in the European Research Area, aimed at support of running interactive, demanding applications.

Contact: Łukasz Dutka, e-mail: [l.dutka at cyfronet.pl](mailto:l.dutka@cyfronet.pl), tel.: (+48 12) 632 33 55

More info: [Cordis web site](#)

EGEE-II

Duration: 1.04.2006 r. - 31.03.2008 r.

Aim: The aim of the EGEE-II project was a continuation of EGEE project goals, and in particular: the creation of a pan-European grid computing infrastructure, further increasing the resources of this infrastructure - the number of processors and storage capacity and improvement of the stability of the infrastructure.

Contact: Aleksander Kuszniur, e-mail:

a.kusznir at cyfronet.pl, tel.: (+48 12) 634
17 66

More info: [Cordis web site](#)

Ambient Networks Phase 2

Duration: 1.01.2006 r. - 31.12.2007 r.

Aim: The aim of the project was to create a network, providing and integrating multimedia services in heterogeneous mobile environments, providing a dynamic composition of the existing networks, depending on user's requirements.

Contact: e-mail: cyfronet at cyfronet.pl, tel.: (+48 12) 632 33 55

More info: [Cordis web site](#)

K-Wf Grid

Duration: 1.09.2004 r. - 28.02.2007 r.

Aim: The project was designed to work on a system for grid applications development, based on knowledge and accumulated experience. The project consortium has developed and implemented a system that allowed (among other things) semi-automatic generation of applications (using grid services) based on the knowledge accumulated from past implementations and execution of finished workflow applications in the grid environment.

Contact: Marian Bubak, e-mail: bubak at agh.edu.pl, tel.: (+48 12) 632 33 55

More info: [Cordis web site](#)

EGEE

Duration: 1.04.2004 r. - 31.03.2006 r.

Aim: The aim of the project was the integration of national grids (regional and thematic ones) to create an infrastructure supporting so-called European Research Area (ERA). The EGEE project was intended to use achievements of previous EU projects (such as DataGrid, CrossGrid, DataTAG and others) and lead to the creation of the first on such a large scale, coherent and secure Grid, enabling users access to vast computing resources, independent of their

geographic location .

Contact: Aleksander Kuznir, e-mail:
a.kuznir at cyfronet.pl, tel.: (+48 12) 634
17 66

More info: [Cordis web site](#)

GRIDSTART

Duration: 1.04.2002 r. - 31.03.2005 r.

Aim: The purpose of the project was the coordination of the following grid projects: AVO, CrossGrid, DAMIEN, DataGrid, DataTAG, EGSO, EuroGrid, GRIA, GridLab and GRIP for the transfer of technology, experience and expertise among the partners of the consortium and to represent its views while setting international standards.

Contact: e-mail: cyfronet at cyfronet.pl, tel.:
(+48 12) 632 33 55

More info: [Cordis web site](#)

CROSSGRID

Duration: 1.03.2002 r. - 28.02.2005 r.

Aim: The project aim was to develop and implement new tools and services used to run interactive applications, which required high computing power and large data collections in the grid environment.

Contact: e-mail: cyfronet at cyfronet.pl, tel.:
(+48 12) 632 33 55

More info: [Cordis web site](#)

PRO-ACCESS

Duration: 1.07.2002 r. - 31.12.2004 r.

Aim: The aim of the project was to create a platform for the promotion and dissemination of advanced concepts of medical telematics in EU Newly Associated States and for the transfer of EU solutions, practices and experiences.

Contact: e-mail: cyfronet at cyfronet.pl, tel.:
(+48 12) 632 33 55

More info: [Cordis web site](#)

PELLUCID

Duration: 1.03.2002 r. - 31.10.2004 r.

Aim: The purpose of the project was to develop a universal software platform for supporting the activities of medium and high-level employees, changing workplace within the organizational structure of the public sector.

Contact: e-mail: [cyfronet at cyfronet.pl](mailto:cyfronet@cyfronet.pl), tel.: (+48 12) 632 33 55

More info: [Cordis web site](#)

6WINIT

Duration: 1.01.2001 r. - 31.12.2002 r.

Aim: The project dealt with wireless and wired communication in IP networks (Internet and intranets) with the protocol in version 6. Strictly technical part of this project was completed with application tasks, regarding the use of mobile access to the Internet in medicine.

Contact: e-mail: [cyfronet at cyfronet.pl](mailto:cyfronet@cyfronet.pl), tel.: (+48 12) 632 33 55

More info: [Cordis web site](#)