BioExcel Centre of Excellence for Computational Biomolecular Research

Fact Sheet

Project Information

BioExcel-2
Grant agreement ID: 823830

Funded under
EXCELLENT SCIENCE - Research Infrastructures

DOI
10.3030/823830

Total cost
€ 7 998 833,75

EU contribution
€ 7 998 833,75

Coordinated by
KUNGLIGA TEKNISKA HOEGSKOLAN
Sweden

Start date
1 January 2019

End date
30 June 2022

Closed project

Objective

Life Sciences have become increasingly digital and this is accelerating. Computational techniques play key roles in processing, analysis and generating new knowledge from experiments, even in replacing them. This has been enabled due to tremendous advances in techniques such as docking and molecular simulations at both atomistic and quantum levels to which world-leading European research and software are contributing. Pushing computational capabilities towards Exascale will advance the area, enabling researchers to tackle increasingly complex questions related to biomolecules' function, mechanisms, dynamics and interactions. This will impact on our daily life, in health, for the development of new drugs and efficient drug delivery methods, in biotechnology, environment, agriculture, food industry and education. To exploit this great computational power, in academia and industry,
significant efforts on software efficiency, scaling, usability and education are needed. This is the mission of the BioExcel Centre of Excellence for Computational Biomolecular Research launched in 2015 with EC support. It has made significant contributions by focusing on highest-impact European codes, workflows and an extensive, international education program. BioExcel-2 will continue and expand this work, with a focus on Exascale impact, improved usability, expanded training and commercial applications, while strengthening its user-driven governance. Specifically it will: * Push performance, efficiency, scalability and usability of the selected software packages towards Exascale in a co-design manner, contributing to the EuroHPC vision * Support convergence of HPC, HTC, and HPDA with workflows combining simulations with data management and analytics * Support and enlarge the user community by providing support, workforce development, continued training, guidance, and best practices * Develop a sustainable and open community centre with user-driven governance and clear KPIs.

**Fields of science**

natural sciences › computer and information sciences › software
social sciences › sociology › governance
natural sciences › biological sciences › biochemistry › biomolecules
agricultural sciences › agriculture, forestry, and fisheries › agriculture

**Programme(s)**

H2020-EU.1.4. - EXCELLENT SCIENCE - Research Infrastructures  
H2020-EU.1.4.1.3. - Development, deployment and operation of ICT-based e-infrastructures

**Topic(s)**

INFRAEDI-02-2018 - HPC PPP - Centres of Excellence on HPC

**Call for proposal**

H2020-INFRAEDI-2018-2020

See other projects for this call

**Sub call**

H2020-INFRAEDI-2018-1
Funding Scheme

RIA - Research and Innovation action

Coordinator

KUNGLIGA TEKNISKA HOEGSKOLAN

Net EU contribution
€ 1 993 750,00

Address
Brinellvagen 8
100 44 Stockholm
Sweden

Region
Östra Sverige > Stockholm > Stockholms län

Activity type
Higher or Secondary Education Establishments

Links
Contact the organisation
Website
Participation in EU R&I programmes
H2020 collaboration network

Non-EU contribution
€ 0,00

Participants (13)

UNIVERSITEIT UTRECHT

Netherlands
Net EU contribution
€ 1 046 875,00

Address
Heidelberglaan 8
3584 CS Utrecht

Region
West-Nederland > Utrecht > Utrecht
Activity type

Higher or Secondary Education Establishments

FUNDACIO INSTITUT DE RECERCA BIOMEDICA (IRB BARCELONA)

Spain

Net EU contribution

€ 469 687,50

Address

Carrer Baldiri Reixac 10-12 Parc Scientific De Barcelona
08028 Barcelona

Region

Este > Cataluña > Barcelona

Activity type

Research Organisations

FORSCHUNGSZENTRUM JULICH GMBH

Germany

Net EU contribution

€ 178 442,50

Address

Wilhelm Johnen Strasse
52428 Julich
THE UNIVERSITY OF EDINBURGH
United Kingdom
Net EU contribution
€ 777 301,25
Address
Old College, South Bridge
EH8 9YL Edinburgh
Region
Eastern Scotland > Edinburgh
Activity type
Higher or Secondary Education Establishments
Links
Contact the organisation Website
Participation in EU R&I programmes
H2020 collaboration network
Non-EU contribution
€ 0,00

THE UNIVERSITY OF MANCHESTER
United Kingdom
Net EU contribution
€ 711 937,50
Address
Oxford Road
M13 9PL Manchester

Region
North West (England) > Greater Manchester > Manchester

Activity type
Higher or Secondary Education Establishments

Links
Contact the organisation  Website  Participation in EU R&I programmes  H2020 collaboration network

Non-EU contribution
€ 0,00

JYVASKYLAN YLIOPISTO
Finland

Net EU contribution
€ 314 406,25

Address
Seminaarinkatu 15
40100 Jyvaskyla

Region
Manner-Suomi > Länsi-Suomi > Keski-Suomi

Activity type
Higher or Secondary Education Establishments

Links
Contact the organisation  Website  Participation in EU R&I programmes  H2020 collaboration network

Non-EU contribution
€ 0,00

EUROPEAN MOLECULAR BIOLOGY LABORATORY
Germany
Net EU contribution
€ 824 683.75

Address
Meyerhofstrasse 1
69117 Heidelberg

Region
Baden-Württemberg > Karlsruhe > Heidelberg, Stadtkreis

Activity type
Research Organisations

Links
Contact the organisation Website
Participation in EU R&I programmes
H2020 collaboration network

Non-EU contribution
€ 0.00

MAX-PLANCK-GESELLSCHAFT ZUR FORDERUNG DER WISSENSCHAFTEN EV

Net EU contribution
€ 483 750.00

Address
Hofgartenstrasse 8
80539 München

Region
Bayern > Oberbayern > München, Kreisfreie Stadt

Activity type
Research Organisations

Links
Contact the organisation Website
Participation in EU R&I programmes
H2020 collaboration network

Non-EU contribution
€ 0.00
ACROSSLIMITS LTD

Malta

Net EU contribution
€ 197 087,50

Address
Tower Business Centre 2nd Fl Tower Street Swatar
BKR 4013 Birkirkara

SME
Yes

Region
Malta > Malta > Malta

Activity type
Higher or Secondary Education Establishments

Links
Contact the organisation  Website  Participation in EU R&I programmes  H2020 collaboration network

Non-EU contribution
€ 0,00

BARCELONA SUPERCOMPUTING CENTER-CENTRO NACIONAL DE SUPERCOMPUTACION

Spain

Net EU contribution
€ 468 662,50

Address
Calle Jordi Girona 31
08034 Barcelona

Region
Este > Cataluña > Barcelona

Activity type
Research Organisations

Links
Contact the organisation  Website  Participation in EU R&I programmes  H2020 collaboration network
IAN HARROW CONSULTING LTD
United Kingdom
Net EU contribution
€ 102 375,00
Address
Kd Tower Plaza Suite 9 Cotterells
HP1 1FW Hemel Hempstead
SME  
Yes
Region
East of England > Bedfordshire and Hertfordshire > Hertfordshire
Activity type
Private for-profit entities (excluding Higher or Secondary Education Establishments)
Links
Contact the organisation
Participation in EU R&I programmes
H2020 collaboration network
Non-EU contribution
€ 0,00

NORMAN RICHARD ALBERT
Norway
Net EU contribution
€ 253 600,00
Activity type
Private for-profit entities (excluding Higher or Secondary Education Establishments)
Links
Contact the organisation
Participation in EU R&I programmes
H2020 collaboration network
Non-EU contribution
NOSTRUM BIODISCOVERY SL
Spain
Net EU contribution
€ 176,275,00

Address
Parc Cientific De Barcelona Calle Baldiri Reixac 10-12
08028 Barcelona

SME
Yes

Region
Este > Cataluña > Barcelona

Activity type
Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links
Contact the organisation
Participation in EU R&I programmes
H2020 collaboration network

Non-EU contribution
€ 0,00

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