

Q1 What is your organisation's/project's name?

International Center for Numerical Methods in Engineering (CIMNE)

Q2 Your organisation's/project's website

www.cimne.com

Q3 Are you?

A research organisation

Q4 Your name

Q5 Your email address

Q6 Your contact phone number

Q7 Please summarise who you are and what you do

The International Center for Numerical Methods in Engineering (CIMNE) was founded in 1987 at the heart of the Technical University of Catalonia (UPC) under the auspices of UNESCO.

The research activities of CIMNE aim of promoting and fostering advances in the development and application of numerical methods and computational techniques for the solution of engineering problems in an international context. CIMNE organizes a wide range of activities aimed at the teaching and spreading of knowledge in the field of computational engineering, such as courses, seminars, conferences and publications. Additionally, CIMNE carries out various research and development activities and has participated in a large number of technology transfer projects in cooperation with many enterprises and organizations from different countries. CIMNE has participated in some 150 projects of EC programs and has acted as coordinator in 40 of these projects.

Q8 In what way would like to contribute to an EsD project? **An an application provider**

Q9 What would be your contribution to an EsD project?

With large experience in providing technologies and software to engineers, CIMNE would provide software with technologies tailored for such a large machines and prepare itself for extreme scale era. CIMNE also contributes to different large opensource projects in the simulation sector which would be the base point for development in this area.

Our contribution will be:

- Selecting some of the engineering problems to be solved in extreme scale
 - Tailoring the available technologies for solution of this problems and innovate new technologies adapted to extreme scale
 - Innovative technologies and software for pre and post processing for extremely large simulations
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Q10 What partners are you looking for?

- System providers
 - Application profiling and analyzing experts
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Q11 Please include links to any additional material.

Kratos Multiphysics: A framework for building parallel multi-disciplinary simulation software. Modularity, extensibility and HPC are the main objectives. Kratos has BSD license and is written in C++ with extensive Python interface.

<https://github.com/KratosMultiphysics/Kratos>

Q12 Other comments/ideas

Respondent skipped this question
