# EU open source software project receives green light

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An open source software project involving the University of Oxford to extend the capacity of computational mathematics and interactive computing environments has received over 7 million euros in EU funding.

The resulting code, together with associated data and research publications, will be made available for free on the Internet as open source software that other researchers can use.

The project will develop software for mathematical tools (such as GAP and SageMath) which can be used by researchers to run computer models and crunch vast quantities of data, using computers to manipulate and solve equations. The software underpins many research projects, ranging from physics and gravity simulation, to engineering materials research and pure mathematics.

The funds will also support the development of virtual computing environment tools (such as the IPython Notebook) that create interactive documents able to solve equations using computer code, and process and visualise the resulting data.

This work flow revolutionises the ability to reproduce a computational experiment and document research data exploration. It also allows sharing of the computation and results in the 'notebook' with collaborators and is expected to penetrate all aspects of computational science over time.

OpenDreamKit is a 7.6 million euro project funded by the European Union's Framework 2020 programme. The four-year project, led by Nicolas M. Thiery of the Université Paris Sud, brings together 15 academic and industry partners from France, Germany, Norway, Poland, Switzerland and the United Kingdom. The universities of Oxford, Sheffield, Southampton, St Andrews and Warwick will share in 2.2 million euros to fund their contribution to the project.

Ursula Martin, Professor of Computer Science at the University of Oxford, comments "Mathematics is hugely important to the UK economy: according to a recent report by Deloitte contributing 2.8 million jobs and £185 billion of GVA (Gross Value Added) . This project will build the next generation of software tools for mathematics, so mathematicians and other scientists can collaborate and share data in real time, and solve more complex problems more quickly than ever before. Interdisciplinary expertise in Oxford on mathematical collaboration, keeping user contributions organised, and mathematical software, is at the heart of the project."

Ursula is joined by two other members of Oxford University's Department of Computer Science on the project. Associate Professor Edith Elkind, and Senior Research Fellow Dmitrii Pasechnik are also involved.

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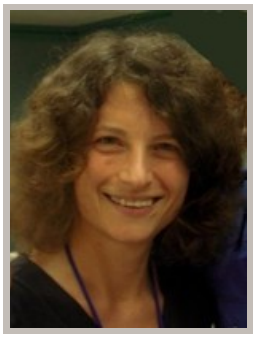

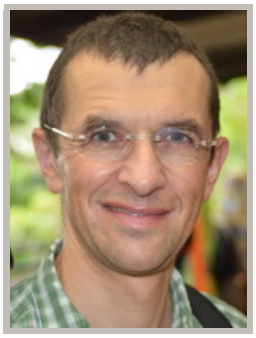

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