

EuroSys

European chapter of ACM SIGOPS

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Press Release

EuroSys, the European professional society in Computer Systems, announces the imminent release of its White Paper, "Fostering Systems Research in Europe".

As shown by examples such as Linux, Xen, Google or Microsoft, Systems research has considerable impact. However, European Systems research does not perform as expected, due to a number of factors analysed in detail in the paper, e.g. under-investment in Systems research, need for a culture of excellence in academia, or isolation of European Systems research groups from one another and from industry. The White paper makes specific, targeted recommendations: for instance, five-year research-oriented Masters-PhD programmes, funding of long-term, risky and focused research, improved interaction between industry and academia, attractive academic careers, or impact-oriented evaluation criteria.

The White Paper was written by a committee of eminent European scholars in Computer Systems. It will be published on 21 April 2006, during the first European conference in Computer Systems, EuroSys 2006, in Leuven (Belgium) 18--21 April 2006. A number of other notable events will take place at the same time:

- The Roger Needham Prize 2006 will be awarded to the best recent European doctoral thesis.
- An "Authoring Workshop" to help improve the chances of European PhD students in Systems getting their papers accepted in the major conferences.
- A European Commission (FET) - EuroSys workshop to discuss Systems-oriented research in Europe.

Here are some excerpts from the White Paper: *"The Computer Systems discipline [...] constitutes a central pillar of computer science. Systems*

research is the scientific study, analysis, modelling and engineering of effective software platforms. [...] Europe [...] tends to be overshadowed by research in the US. We find several systemic reasons for this [...]:

- Overall, Europe under-invests in fundamental research in Systems.*
- The structure and culture of academic institutions do not consistently foster excellence [...].*
- In general, European research groups are isolated, and need to network more effectively amongst each other, with their peer groups in the US and other parts of the world, and with the IT industry.*

[Summary of recommendations:]

- (1) Universities: The top priority is to foster excellence at all levels of education and research. [...] establish "Research Master" programmes feeding into PhD; ease time limits on PhDs; generalise doctoral internships; encourage student exchanges. [...]*
- (2) Industry: [...] The Systems research community and industry need to [...] better appreciate the other's needs and roles [...]. The European IT industry should offer internships for PhD students and hire more PhDs.*
- (3) Funding agencies: Funding agencies should support long-term, focused, risky and fundamental research projects. Systems research and infrastructure investment need to be sustained over sufficiently long periods. Funding decisions need to be based primarily on technical criteria [...].*

There is currently a window of opportunity for attracting talented researchers to Europe and to establish Europe as the leading location for high-quality, high-impact Systems research. But to take advantage of this opportunity, the issues we raise need to be addressed now."

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Links:

- EuroSys, the European Professional Society in Computer Systems and European Chapter of ACM Sigops: <http://www.eurosys.org/>*
- EuroSys 2006 Conference: <http://www.cs.kuleuven.ac.be/conference/EuroSys2006/>*
- White paper (after 24 April 2006): <http://www.eurosys.org/whitepaper-2006/>*