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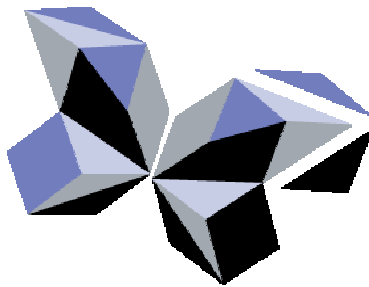
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The project newsletter of the Digital Business Ecosystem
Issue 7 - January 2006

The golden age of the Internet dawns

It now seems certain that Digital Ecosystems will play an important role in the next generation of the Internet, fundamentally influencing economic and social developments around the world. The DBE project has enabled Europe to play an important role in the birth of that new age.

The DBE Project officially finished its EU 6th Framework Programme funded activity on 31st January, having come a long way in three short years. At the start, Digital Ecosystems were a new concept that was hard to understand, and even harder to explain. As there were no real applications there was nothing to demonstrate, and many must have thought the concept to be academic or 'vapourware'.

However, the project was able to create the tools, make a system that works, and demonstrate it in real applications, at the same time pioneering new ways of engaging SMEs in research work.

Perhaps the most important outcome of the project is the knowledge and awareness that it has generated both among the project partners, and in the wider world. Today, DBE finds itself

surrounded by a growing realisation of how the future direction of the Internet will be changed by digital ecosystems, and governments from other continents are expressing keen interest in joining in development and application work.

Not all of this attention is good. Major vendors are claiming to have their own proprietary digital ecosystems, and much speculation and clamouring is going on as various interested organisations try to establish dominant positions. This is inevitable in such a new and growing technology and much of it will prove to have been empty words and counter to the ethos of Digital Ecosystems and the Internet. Public authorities are increasingly adopting Open Source application software and the new Open Document Format, demonstrating that the power of proprietary monopolies to profit from 'de facto' standards in this field is over.

The twin issues of sustainability and governance have inevitably generated controversy. The big question is what happens now? Will Europe continue to lead this new generation of technological change? Will we reap the economic and social benefits? Certainly we have started something that will grow. The future is born.

SMEs demonstrate innovative DBE solutions at first international 'expo' of applications

Nineteen software SMEs from Finland, Spain, and the UK gathered in Helsinki during January and presented their uses and experiences of DBE to each other.

Hosted by Tommi Rissanen of Technology Centre Hermia, this valuable event

demonstrated the real practical success of DBE, and provided examples of real world applications and ideas that the DBE Regional Catalysts and other partners found new and inspiring.



The presenters were the 'Driver' SMEs that have been directly engaged by the project to develop applications and use them with their clients. Despite this driver community being small, the meeting had a buzz about it and one delegate commented that it felt like a kick-off meeting. The delegates all had knowledge and expertise in the subject and so had interesting views on where the technology is going. Many were seen networking with each other and all could see the possibilities of doing business with each other as the applications had many commonalities and interlinks, which are summed up by Nagaraj Konda in a diagram below.

Diversity

The presenting companies ranged from a micro business of 3 people to a well-established company with 180 staff. They ranged from 2 years old to 30 years old and many had 20 years or more experience in their industries.



Applications from signature verification to supplying hockey sticks, taxi management to fashion galleries, and a high resilience 'battlefield Google' to small business support services were described. Despite the mind-blowing diversity of applications, some strong themes emerged in certain application sectors:

- Systems integration and resource planning (ERP) - where DBE offers multiple platform compatibility advantages
- Tourism - where complex services can be aggregated via DBE and small operators can have better market access
- Ordering, warehousing and logistics - where DBE can reconcile multiple factors in real time
- Transport - where DBE can match the demand for services with the availability of vehicles

- Mobile and wireless applications - where platform independence and a distributed environment are important
- E-commerce - where DBE can assemble services from multiple providers

New ideas emerged from breakout groups, including the potential for DBE to be a platform for 'C2C' services. Many of the presenters talked about the future markets that they were aiming for as well as their current implementations.



Feedback

One important part of the event was the SMEs giving feedback on the DBE. Early instability and late development of some components were common complaints, while the code camps were greatly appreciated. A big item that needs to be addressed is the current lack of security and authentication. There was a strong belief in the value of DBE but it was also acknowledged that software houses have a difficult task ahead in educating end user companies to change their thinking and to adopt DBE as a whole rather than component parts. Several times it was mentioned that a DBE 'cloud' does not yet exist and achieving critical mass is still a key objective.

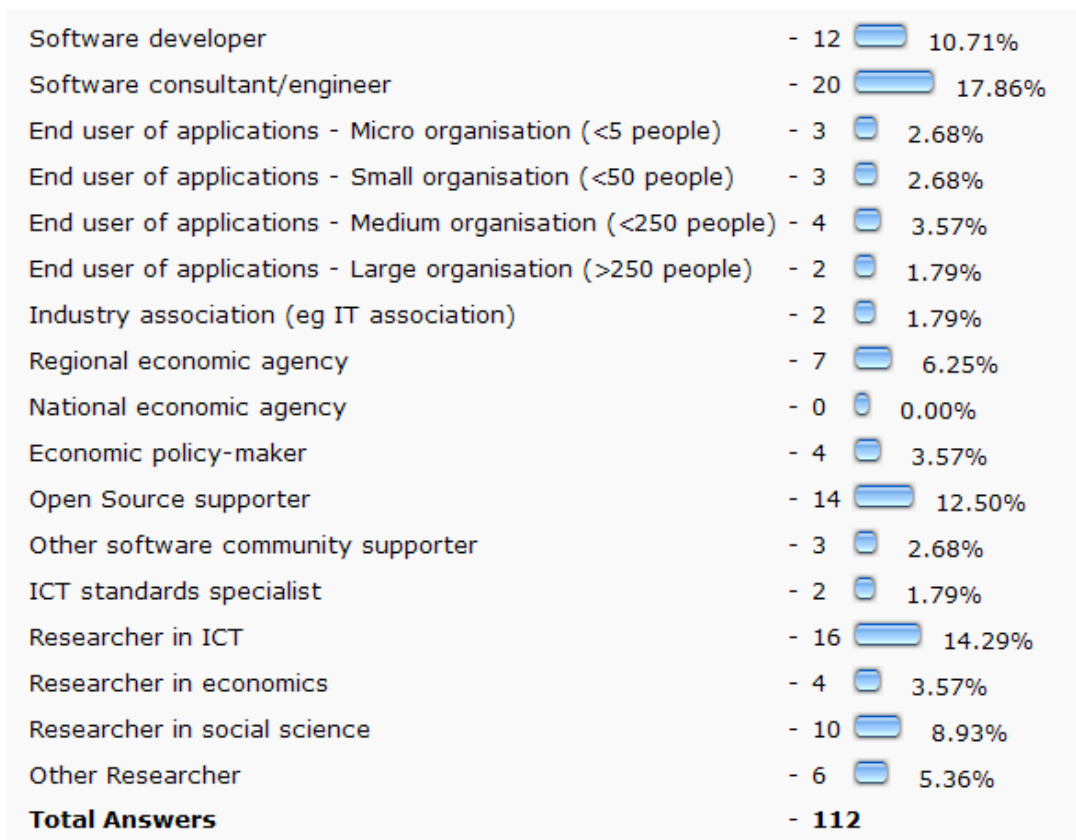
The event presentation slides, photographs, and video interviews with the delegates can be seen at:

<http://www.digital-ecosystem.org/Members/aenglishx/helsiknievent>

Online survey clarifies views on sustainability and governance

The future is never easy to predict, and when it involves emerging technology it is even harder. No wonder that Digital Ecosystems are generating controversy and conflicting views on what the future holds and what to do next to bring it to fruition. A Business Domain meeting in Berlin in November had to address this problem from the point of view of producing final recommendations of the diverse DBE community.

The answer the meeting came up with was to conduct an online study using the 'Delphi' technique in which open questions were asked of invited community members and the results analysed. DBE Partner Censis undertook the work, the second round of which is currently in progress, and allows participants to support the anonymous views expressed in the first round. In this way we are able to produce a methodical distillation of the core predictions of a complex community.



Profile of respondents' interests

Sixty-four people participated in round one, providing around 40 rich answers to each question posed. The results show that the community contains two camps on sustainability and governance. One is firmly rooted in the principles of Free and Open Source Software (F/OSS) and allowing a community to emerge based on individual contributions, while the other sees a need to introduce more traditional business models and organisational structure as a necessary form of light management.

There was common support for building outwards from a base of regional projects and initiatives, and most respondents felt the need to link DBE into standards bodies and lobby for a supportive legal environment. Developing countries are seen by many as potential rapid adopters having a lot to gain, though perhaps adopting it in different ways than developed countries.

On timescales for DBE success, the views seem to divide into three groups: those who are looking at a 1 - 3 year horizon, a cluster that consider 5 years reasonable, while others see 10 or more years being required. This may reflect different views on what constitutes success, but also underlines how difficult it is to put a timeline on such new technology. Certainly the respondents believed that DBE will succeed, and particularly that F/OSS will be taken up by the younger generation, who are more comfortable with the concept. The main threat seen by some was that DBE itself may be overtaken by other technological developments in this rapidly changing field. A consensus seemed to form on the need to develop a roadmap to guide research and to give a sense of credibility, direction, and objectives, while remaining open to the 'anarchy' of new ideas and directions.

DBE well represented at February IEEE conference



The Institute of Electrical and Electronics Engineers (IEEE) conference on 'Digital EcoSystems and Technologies' (DEST) in Cairns, Australia will see a number of speakers presenting aspects of DBE. Research leader Paolo Dini is featured as a keynote speaker while DBE partners are leading and presenting in many of the sessions.

Details:

<http://www.ieee-dest.curtin.edu.au/>

Ireland sees interest in becoming DBE region

The DBE roadshow was hosted in Dublin on 13th September, by National University Ireland (NUI) together with Intel Ireland. The aim of the roadshow is to identify new Regional Catalysts, in this case on Dublin's commuter belt.



The event was a great success with nearly 40 attendees in all from the University, Enterprise Ireland, the European Commission, Meath and Kildare County Councils and Partners in the DBE project from all over Europe.

Local Development and Enterprise representatives attended, as well as DBE partners and other key representatives from Enterprise Ireland, and the European Commission. A series of follow up events has been agreed that will undertake the next practical steps.

Follow-up action is being undertaken with the National University of Ireland, Maynooth, (NUIM) which has expressed interest in being a Regional Catalyst for the Regions of Meath and Kildare. Acting Director of the National Institute for Regional and Spatial Analysis (NIRSA), at NUIM, Brendan Bartley, also commented on "...the usefulness of your excellent DBE website which has been of particular benefit to me in a number of respects...to provide briefing material targeted both at likely experts in the field and the less initiated."

For more see:

<http://www.digital-ecosystem.org/Members/aenglishx/roadshow1>

Regional profile - Aragon

Region finds political support for technology



The autonomous region of Aragon is seeking more visibility at an international level for the SMEs located in the region and sees DBE as part of a long-term strategy for achieving this, along with increased competitiveness and market access for SMEs. Javier Val describes their experiences.

Why was tourism selected for first deployment?

At the start of the DBE project there was a need to concentrate effort and to select one specific sector that would benefit strongly from DBE. Following a deep and intense consultancy study of different sectors it was concluded that the tourism sector is a non-structured sector in the region of Aragon composed mainly of small companies that face a big handicap when they try to compete with the big companies. The tourism sector represents an important part of the GDP, mainly in the rural areas of the region.

What was the 'bootstrap' strategy?

We identified four main types of actors in the region and their roles:

- The Regional Catalyst has the objective to deploy the DBE platform in the region and to check the pilot concepts, coordinating all the recruitment and training activities.
- SW Developer SMEs that have already developed applications in the tourism sector and that have already deployed their solutions in real User SMEs, with high experience in the sector. They are the first actor that has to understand the DBE concepts and the potential of the technology.

- User SMEs in the tourism sector, and in our particular case, those that are already customers of the previous SW Developer SMEs and are already using their SW applications. In this way, the learning curve is minimized and the project resources optimised.
- Lastly, the Influencers, both the main political agents, and the main advisors in the region that take the most important decisions. Indeed, once the project is proposed to the SW Developer SMEs and User SMEs, they tend to request a recommendation from their influencers. So, if those Influencers are already aware of the project and have already a positive view of it, then the user participation is guaranteed.

The main chain of activities for bootstrapping were:

- A survey of all IST SMEs in the region and a segmentation by sector.
- Support from the main political agents in the region.
- A one day workshop with the support of the Government where the main SW Developer SMEs of the region attend, and the DBE project is presented.
- Personal interviews with the interested SMEs in order to clarify key concepts and even more important, structure and clarify the work plan and the activities that these companies will have to execute if they participate in the project.

The engagement of the SW Developer SMEs was carried out in three phases for the following reasons:

- the feedback provided by the first groups could be tested by the followers.
- the first groups help to make a more robust platform and suggest how to improve the architecture and which new features could make a better platform.
- the last group of SMEs help to check the robustness and usability of the platform.

User SMEs were engaged in the project by their SW providers so that the project resources are optimised.



Aragonese SME Drivers at the DBE Helsinki event

The present situation is that:

- the first group of SW Developer SMEs (4) have already finished their development. The User SMEs they are going to integrate in the project (11) have already signed an agreement of participation and they are going to install the solutions on field in the following weeks. Some new features have been added to their applications thanks to the new technology and it has also provided the easy and fast integration of different technologies through the DBE.
- the second group of SW Developer SMEs (8) are working on their developments. They have already defined what they are going to implement and each of them have already selected 2 User SMEs at least.
- the third group SW Developer SMEs (12) has just started their work. They also work in other sectors besides tourism. They have already

defined what they are going to implement and each of them have already selected 2 User SMEs at least.

At the end of this project it is expected to have more than 30 SW Developer SMEs and more than 100 User SMEs; a demonstrable success in the region of Aragon.

Sustainability

The DBE researchers developed the concepts and technology, while our pilot proved those concepts, and validated the underlying technology. We now see the possibility to make a big deployment based on this first pilot and supported by the SMEs themselves. One first step has been implemented as the Government of Aragon has already launched a call tender for the creation of new services based on the DBE Technology for 2007. That call tender is closed on December 30th, 2006. The funding is 153.000 euros and more activities are planned.

One business model that Aragon have studied closely is that of JBoss, an organisation that provides a Linux operating system on a commercial basis, its value added being to guarantee stability and support. Users remain free to alter and add to their own system, but the core is only developed in traditional releases. This is similar to Spanish region Extremadura that have produced their own 'brand' of Linux called LinEx.

The key issue for Aragon is to get a critical mass of SMEs to use and develop these services effectively, at the same time as other SMEs in other sectors start to be interested. If this milestone is reached, it is intended to promote the usage of the platform in other sectors where the DBE tools may be the key to success.

This is something that has already begun at different levels. Some SMEs have created small joint ventures to adapt/create products based DBE. Some important big companies are interested in the project and in the technology, for example one application is to enable big companies to access the abilities of SMEs in an easy

and fast way, and integrate their activities into the major business in a very dynamic way.

For information on Aragon: <http://www.aragon.es/>

For information on the Regional Catalyst: <http://dbe.ita.es>

ISP joins DBE

EMNET, the UK East Midlands company that provides ICT support and ISP services to around 200 SMEs has been recruited to the DBE community by UCE, the UK Regional Catalyst. Led by Tim Miller, EMNET has long experience of European projects, of innovation processes in regional networks, and of connecting SMEs in value adding clusters around their Internet service provider.

Welcoming the new addition, UCE's Rod Shelton said "Our next steps as regional catalysts will be to invest locally with sponsors and clients to maintain the innovative thrust. We have for example sought funding for a £3.2m business software centre in which businesses can obtain support to grow the kind of services the DBE has envisaged. In the OPAALs project we will work with a new cluster of partners on self-generating networks. On balance the DBE has been an enlightening experience for us-showing how ambitious we can be in what we might achieve with the right partners."



See EMNET at:

<http://web.emnet.co.uk/>

DE project cluster takes up the research task

Several projects will continue the work on developing Digital Ecosystems (DE) with European, national, or regional funding. Some specific projects are:

EU FP6 projects

- OPAALS (NoE)
- PEARDROP (SSA)
- ONE (STREP)
- SEAMLESS (STREP)
- E-NVISION (STREP)
- SATINE (STREP)
- VISP (STREP)

EU FP7 projects

- NESSI (Technology Platform) - workgroup "Micro-Entities Networks"

Regional projects

- Centre for Open Source Software - COSS (Finland)
- Centre for Business Software – CBS (UK)
- Centre for Embedded Applications for Mobile – CREAM
- ANUBIS West Midlands
- InfoWeb – Semantic web for knowledge discovery and innovation profile

Digital Ecosystems research in FP7 set back

Digital Ecosystems are a part of the 7th Framework Programme that was agreed at EU political level, but was not then included in the first published FP7 Work Programme of the Commission. This has caused some debate and Digital Ecosystems researchers are hoping that this will be rectified through the Programme's political and management process.

See the Framework Programme at

http://ec.europa.eu/research/fp7/documents_en.html

News and events can be contributed to the DBE website:

<http://www.digital-ecosystem.org/>

or by email to:

info@digitalecosystem.org