

JUNE 2010

FIRST INPUTS FROM THE MEMBERS OF THE PARADISO HIGH-LEVEL EXPERT PANEL



paradiso 
INTERNET FOR THE FUTURE

Wouldn't it be paradoxical to explore the Future Internet
without thoroughly exploring what the future of our societies should be?



European Commission
Information Society and Media

WWW.PARADISO-FP7.EU

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Introduction

The present document includes the inputs received from the members of the PARADISO high-level expert panel before the first panel meeting (in Brussels, on July 7, 2010), following a request by the PARADISO project coordinator to kindly provide:

- a quote if considered as relevant to complement the expert's profile on the PARADISO web site,
- first remarks, suggestions or recommendations concerning PARADISO objectives, activities, and expected outputs.

The list of the members of the PARADISO high-level expert panel, as of June 28, 2010, is provided in Annex 1, while a recently released two-page brochure of the PARADISO2 FP7 project, on the occasion of which the present panel has been formed, is reproduced in Annex 2.

Inputs from panel members

Dr Adriano Gasperi



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QUOTE

PARADISO represents to me a concrete opportunity to show how new ICT tools, and especially Future Internet, may contribute to reach the ambitious target to “grant a future” to incoming generations taking into consideration the need to respect basic human and social values.

INPUTS FOR THE FIRST MEETING

In 2015 from May 1st to October 31st, the City of Milano will host the Universal Exhibition (EXPO) on the theme “Feeding the Planet Energy for Life”, whose in-depth declination, making use also of the most advanced ICT technologies and Future internet, should bring its contribution in the construction of better world.

ICT technologies will play a pivotal role in the entire Expo process, both in terms of services to the event and in terms of information, education and development of new tools (i.e. visual) for granting easier access to knowledge and information.

Furthermore Internet is not only a target but also a source for research on society, a space where sources, data, information and knowledge are constantly competing.

Not being an expert on technological issues that will be developed by the panel supporting project's activities my interest in taking part in such challenging exercise is double:

- to bring into the debate some views, based on personal experience built up serving for more than twenty years abroad on technology transfer needs from industrialized, to emerging and developing countries and vice versa.
- to make acquainted the panel on the preparation process of the Milano2015 EXPO, a global event that will make use of Future. Being a melting pot where tradition, innovation, vision constitute an interesting laboratory for testing new ideas, models and applications.



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QUOTE

The term “Digital Revolution” has been used so much that our legislators could not see the word “revolution” in it anymore. In this context, PARADISO2 is well placed to bring their attention to the paradigms that need to shift, based on the Digital Sciences, if Europe is to retain its influential position in the world.

INPUTS FOR THE FIRST MEETING

PARADISO2’s catch question “how should societies evolve” should be deconstructed in order to avoid misconceptions at the start of the project.

Societies will follow their own evolutionary paths no matter what conclusions PARADISO2 proposes, unless legislators are convinced to use the project’s recommendations in order to build a normative societal framework. Even then, this may not work if the rollout of such a framework is not detailed enough, as the disastrous performance of the Lisbon agenda, set in 2000, unfortunately shows.

As a consequence, an implementation plan is needed right from the project’s outset, along with the definition of the vision for a future society permeated by a powerful communication infrastructure. Scenarios could then be examined, using characteristics of such a Future Internet as parameters that impact the quality of society in future. Once the preferred scenarios are defined, then a fairly detailed operational rollout plan should be designed and transferred to legislators, in accordance with the implementation plan.

Mr Alexander Ntoko



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QUOTE

It is a relevant objective to “explore how might or should our societies evolve in the next decades, how can ICT, and the Internet in particular, contribute to make this future better, and to derive recommendations for Future Internet research to be developed under FP8”.

INPUTS FOR THE FIRST MEETING

The Internet is a global phenomenon. The number of Internet users worldwide is estimated to be 1.8 billion with the greatest growth coming from the developing world (e.g. 40% of the total global Internet users are in Asia). The Internet has become a critical resource for the socio-economic development as well as the cultural identity of nations. Therefore, any study of the evolution of the Future Internet should adopt a holistic approach, which takes into consideration every aspect of the evolution of the way global societies use this critical resource.

The outcome of the World Summit on the information Society (WSIS, 2005) was a result of intense consultations in a uniquely multi-stakeholder environment involving Governments, Industry, Civil Society and Intergovernmental Organizations. The WSIS outcomes provides us with a comprehensive set of principles on several aspects of the information society - such as the role of governments and all stakeholders in the promotion of ICTs for development, ICT infrastructure, access to information and knowledge, capacity building, building confidence and security in the use of ICTs, providing an enabling environment, ICT applications and its benefits in all aspects of life, cultural diversity and identity, linguistic diversity, and local content, role of the media, ethical dimensions of the information society, and international and regional cooperation.

The outcome (agreed to by world leaders) and the broad principles it enunciates, was formulated to stand the test of time. PARADISO could consider using the WSIS outcomes as a framework for discussions on the Future Internet.

Ms Amelia Andersdotter



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QUOTE

The PARADISO project can help in defining Commission policies for funding of research in network cultures and internet development. It will hopefully create a space for strengthening European policies on an internet for citizens.

INPUTS FOR THE FIRST MEETING

When discussing the Future Internet, it will be important not to lock the discussions down too early. Public-private partnerships need to be complemented with a vision for how a social internet could evolve. For policy makers it will be important to take care not to envision a Future Internet building solely on commerce, but also on the wealth growing from interconnectivity and communication between citizens, or even public institutions.

This is a goal that needs to be added to the current PARADISO2 problem formulations. To achieve it, the project needs a higher level of involvement from the social sector, or activist sector. These groups can be reached by better advertising of the events - there is, for instance, not a lack of citizens who care enough about networks and the internet to travel to Brussels from afar to share their insights. Not seldom do they come from technical sectors or small business ventures as well, and so represent a big part of the IT industry that is not represented by the major Telcos.

From a market perspective, the Future Internet will need to have a better enforced competition law - small and medium sized ISPs or hosting providers are too often kept out of the market by larger players, and competition authorities all over Europe still favour old state monopolies over new market entrants. The issues of making Future Internets and infrastructures available to all citizens (digital divide, digital dividend) are still urgent, and it would probably be premature to drop them from further FI policy discussions.

All in all, discussion on the above points could lead to more constructive talks about an open, available and sustainable Future Internet that is actually open for citizens to use.

Mr Christopher Marsden



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INPUTS FOR THE FIRST MEETING

My concerns about the future design of the Internet may be too general for the initial meeting, so please delete/amend as necessary. There are two main areas of concern: standards and control by gatekeepers. In each case, the primary concern is openness.

On standards, there needs to be major commitment to openness and interoperability – and that needs to be backed by government and local government (especially in education and accounting) commitment to purchasing of open source and free software, as well as continued EC and other R&D efforts to establish the primacy of open source and similar approaches to technology platforms. That applies equally to non-Internet software and services.

On gatekeepers, the openness of software and services needs to be reflected in the openness of layers (as in the OSI model) so that innovators in content and applications are not stymied by restrictive pre-digital business models and engineering approaches in lower levels. My own work examines the transport layer primarily (see Marsden [2010] Net neutrality: Towards a Co-regulatory Solution) but other layers may equally be pro- or anti-openness. While many closed systems also reflect innovation, and there are varying degrees of openness (see e.g. SAP or Apple), the bias should be towards encouraging the type of open platform that has led us to this stage of development on the Internet.

As an institutional matter, I believe we need a broader and more nuanced understanding of co-regulation and its benefits as compared to command-and-control top-down regulation and self- or un-regulation. Co-regulation can often mean employing all the state's powers of persuasion in differing degrees to achieve an openness result (for instance purchasing, deployment, as well as legislation and policy-making).

I would be happy to talk more about this at the second experts' meeting.

Mr Dimitri Papadimitriou



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INPUTS FOR THE FIRST MEETING

A couple of specific objectives and associated tasks could be initiated:

- Dedicate efforts towards the identification of relationship/interactions between Internet and society and their joint evolution, as well as the corresponding (new) research challenges and potential applications sitting at the intersection between social communication, complex systems, and information/computer communication networks.
- Characterize the common values and inspirations that would drive the Internet evolution including - but not limited to- e.g. knowledge/cognition/culture, emancipation, self-arbitration (accessibility to communication and information as well as associated processing means), collective control of information and communication means/artifacts, etc. and possible means to ensure their prevalence over time beyond EU frontiers (as opposed to an Internet driven by the monetary value, commercial/consumerist interests, selfishness, and oligarchic control) .
- How to link PARADISO prospective study/reference document with subsequent action plans including educational aspects could be made more concrete (recommendations should not be limited to FP8 program).



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QUOTE

PARADISO brings together expertise that can shed light on issues regarding the Future Internet that go beyond pure technological ones. The inclusion of socio-economics and end-user perspective is a strength that differentiates from the many attempts to merely advance our Internet technologically without recognising the societal impact we might be having.

INPUTS FOR THE FIRST MEETING

Attempting to address issues beyond pure technological ones is noble and the right approach, given the impact the current Internet has already have on society and the increasing impact any Future Internet will have. But it is unclear to me how the PARADISO approach will drive this objective forward.

A similar activity, mainly focussed on technology issues, was established in 2008 with the EIFFEL think tank, organised and funded through the EIFFEL support action in call 1 of FP7. The objective is this imitative is similar to PARADISO in the sense of bringing together expertise to better understand the possible future. Again, while the objective is noble, the question arises HOW such understanding can be created. And a similar question arises when looking at PARADISO. What is the REAL impact that PARADISO can deliver within its lifetime and beyond?

The approach that was taken by the EIFFEL think tank is seemingly simple. It is recognised that advances in various fields will take place through various forces in industry and academic. But these advances are unlikely to take place in agreement among all actors. Cases like GSM, bringing together the European wireless industry in a single standard, are often the exception. Instead, competing approaches are positioned, some of which only slightly differ while others are fundamentally different. Understand the extent of the disagreement in why a certain approach is to be taken (or not) can be seen as a first starting point for progress.

It was this recognition, i.e., the agreement on disagreements, which drives the current thrust of the EIFFEL think tank. Tools like online wikis are used to gather potential disagreements with the goal of fleshing out the precise nature of the disagreement. This is believed to help us in making progress in evaluating potential solutions but also focussing efforts towards pursuing such solution at all (why developing competing approaches if there is seemingly no disagreement at all?).

The EIFFEL think tank has largely been focussing on technological and architectural issues. But there is naturally a grey area where issues, in particular on architectural level, reach into socio-economics as well as end-user perspectives. Examples for this are privacy, value-free architectures, incentive alignment in the design of network functions and others.

The discussions and therefore the current work in the EIFFEL think tank is grounded by this approach of *agreeing on disagreements*. Its output in form of whitepapers addresses particular aspects of these disagreements and intends to shed some light on the issues surrounding the disagreements. This grounded approach has led to defining an operational model of the EIFFEL think tank with the aim to continue the initiative beyond the actual funding period. As a first step, the first non-supported EIFFEL think tank has been announced for the Fall 2010.

I believe that such and similar grounded approaches to understand the deep questions surrounding the Future Internet can serve as a role model for PARADISO in providing an approach towards impact.

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QUOTE

Internet is one of the key technologies which have been leading social evolution and building social trends for last decades and it will influence the society more and more. Therefore, PARADISO is very necessary study as it will see internet not only in a view point of technical development but in a view point of social impact. I strongly believe that such view and forecast are very important for making future networks more beneficial to the society.

INPUTS FOR THE FIRST MEETING

The object of PARADISO is well built, and I think it is a very important study. It will not be easy to foresee the future but it will be possible to draw the ideal shape and functions of future internet in a view point of sustainable future.

We should review the current status and impact of internet in our society both in developed and developing countries. Such review will show us where we should focus more or where we should fix, which will bring us to see the way to go forward in a right direction.

As the PARADISO 1 already provided the background study of ICT role for the sustainable future, PARADISO 2 may start from the analysis of feasible case studies for learning social impact of internet (networks).

We may collect some of use cases from studies about ICT and climate changes which emphasize the importance of ICT for mitigating climate change and sustainable growth of ICT. Such studies contain many useful use cases of network enabled services for energy saving, disaster surveillance, environmental monitoring in harsh nature, reducing physical travelling, efficient traffic and road systems, etc. In addition, some of environmental studies contain good input how to handle the issue with consideration of developing countries. For sustainable growth of society, such view will give us useful lessons and we may find some applicable parameters to the future networks.

The other use cases to look at can be found in studies of Internet of Things. It is not deniable that the IoT will bring significant paradigm shift in human behaviours and thoughts. Such service demands will naturally lead network evolution to support them. PARADISO 2 can touch IoT in a view of sustainability, not only technical development.

The purpose of the analysis of use case is to derive social requirements not only service and functional requirements of the future networks. The results can be pictured by showing ideal future use cases applying the derived requirements. The result will be a good source for the related EC future internet projects giving guidance how to take social impact of networks into account and which capabilities to be focused on while they make technical evolution of the future networks.

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QUOTE

The PARADISO project has the potential to make central contributions how Future Internet changes our society far beyond consumer or business applications.

INPUTS FOR THE FIRST MEETING

Objectives for the project are pretty well defined. However, I would expand the target setting to include the strategic goals for Europe spelled out in recent Europe 2020 document: Smart, Sustainable and Inclusive Growth

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QUOTE

Paradiso, the plaza for knowledge and action toward sustainable growth and happier life.

INPUTS FOR THE FIRST MEETING

Many of the governments and global companies are paying attention to green ICT which is new role and development direction of ICT, and Internet is located at the centre.

As more things are connected on the Internet and services are converged, Internet is taking more important roles, and come to have bigger potential to materialize green growth thru 'Green for Internet' and 'Internet for Green'. Therefore, I agree to focus on Internet this time, and would like to suggest to focus more on Green Internet.

- To make Internet greener, what is going on and should we do further?
- To make the world greener, what can Internet do and what should we do to make it happened?
- If Internet is not fully utilized for green life and economy, what are the reasons?
- What should the international community such as EU do?
- If Green Internet is accomplished, how things will be changed?



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QUOTE

ICT is the key to sustainable development. PARADISO investigates its possible impact and proposes community-driven approaches towards an all-inclusive vision of a better life for all.

INPUTS FOR THE FIRST MEETING

PARADISO is in danger to become a paper-project without any impact. While the objectives are clear, the expected outcome (and what to do with it) is not. What are the three project achievements that we expect to see and to survive?



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QUOTE

PARADISO provides a unique opportunity to depict what things are like in an efficient, harmonious information society in the future, that in long run will definitely benefit various economies including fast growing emerging economy.

INPUTS FOR THE FIRST MEETING

In second phase of PARADISO project research, what may interest me focus on how Future Internet merge with Internet of Things (IOT), the merging process allows interaction between the virtual space and the real world, and that process may dramatically influence the evolution of Future Internet and future social formation. Great importance should be attached to sectors which tend to adopt more IOT applications: manufacturing management, intelligent transportation, public security, remote medical treatment, smart home appliance etc, from social management to public service. Some tentative research fields from my suggestion list as below:

1. FI & IOT Interoperability
2. FI & IOT network merging
3. IOT standard and policy
4. IOT system infrastructure and fundamental resources management (device ID, network address etc)
5. new model for data acquisition, identification, communication, processing on IOT
6. root CA authentication and information security on IOT



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QUOTE

PARADISO brings key societal needs to the attention of those developing the technological capabilities of ICT. This awareness is increasingly important in financially challenging times.

INPUTS FOR THE FIRST MEETING

For me, the PARADISO objectives are clear: to investigate (i) “how should societies evolve?” and (ii) “which FI can be suited to these societies?”.

The answers, however, are more difficult, and it seems to me unlikely that there will be a simple set of conclusions for either objective. I am even not sure how to structure/classify the answers (a classification would already be one important outcome of PARADISO).

How should societies evolve?

There are as many answers as there are “societies”. Inhabitants of (eg.) the US will have different opinions from those in China, or less-developed regions. Even within Europe or a single country there will be societies oriented more towards the achievement of monetary wealth and those for whom the enjoyment of leisure and entertainment, or mere survival, has a higher priority. There will be societies where family ties are strong and support for the weaker dependents is managed within the family, and those which rely on the state or private services. There are also generational differences; the younger generation is much more open with their personal details than their parents, through the common use of social networking applications, but this also leads to privacy issues, which many have not yet appreciated.

All these differences (and there are many, many more) translate into different needs for ICT services that the FI has to support.

Which FI can be suited to these societies?

We cannot “put the Genie (/GENI ☺) back in the bottle”. Cheap, global, instant communication and ubiquitous reachability provided by the current Internet is here to stay, with its associated good and bad attributes. There is a massive amount of work needed to find workable privacy and security mechanisms, more intelligent anti-SPAM algorithms, etc. with which to protect the more vulnerable members of society. We must work to minimise the negative influences of the Internet and exploit the positive ones in the next phase.

There are also the standard (but more boring!) technical FI challenges of providing ever higher bandwidth for an ever lower price and hiding the complexity from the end user.



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QUOTE

It is essential that the development of the Future Internet is carried out in full knowledge of the societal changes that we can expect. With the selected panel PARADISO has the opportunity to make a significant contribution.

INPUTS FOR THE FIRST MEETING

The support of ICT infrastructures and activities is using an increasing proportion of the world's resources. This is bringing huge benefits to people in their everyday lives. However, to bring these benefits to all, and enable an increased participation in the development of content and services that deliver what people want and need, we need to develop a Future Internet that is more robust, efficient and flexible. There are activities worldwide that are addressing these issues, in addition to the existing FI activities funded by the EU.

PARADISO is well placed to ensure that the EU investment in the Future Internet PPP is effective. But to do this, it must be open to a wide range of different voices (from beyond the panel), while producing as a result of the process a clear set of guidelines that are usable. This will mean using social networks, blogs and other modern communication tools to solicit input.

The workshops that WWRF has run in this area have convinced me that there is a strong need for ongoing communication between regional activities, and it would be good to see PARADISO involved in these.

The increasing dependence of the world's economy on a fully functioning Internet means that issues of robustness, and security are coming to the fore, and PARADISO should pay careful attention to specifying them. On the issue of sustainability, we need to be clear what this really means, and how it can be planned for.

Mr Peter Madden



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QUOTE

It is important to try to understand and shape the future, and not remain passive and reactive. This ambitious project is trying to see how one of the most important social and technological developments of our age - the internet - can help to create a sustainable future.

INPUTS FOR THE FIRST MEETING

I think that the first question 'how might or should our societies evolve in the next decades?' is incredibly broad, perhaps too broad. I think the work programme should keep the question as tightly related to the future of the internet as possible. I would like to ask:

- how is the internet likely to affect societal developments?
- how can the internet contribute to a sustainable future?
- what mechanisms can help to shape the internet to contribute to societal progress, without stifling creativity and freedom?



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QUOTE

I expect the PARADISO Project to help us clarify how the concept of “Knowledge Societies” can be put to serve the interests of the “Global Good”.

INPUTS FOR THE FIRST MEETING

Information and Knowledge : a Means for what Ends ?

Though appealing, the concepts of Information or Knowledge Societies have paradoxically not yet gained wide acceptance, in the depths of societies worldwide, maybe because they still are associated to “technologies”, and they do not yet convey an explicit societal goal, that could be politically recognized. For instance, it seems easier for European Commission Vice-President Nelly Kroes to promote the neutral expression “Digital Agenda”, rather than the “Information Society” concept.

The idea of Knowledge Society tries to translate the fact that it is not only information as such, but also the transformation of information in human knowledge that make it socially effective. But the question still is: what (social) ends this information and this knowledge is put to serve?

In fact the concept of “knowledge” is not without its own ambiguities. “Knowledge” can be used for instance to gain power, or to favour creation, or to acquire wisdom. All this belong to the fabric of complex societies. However, different economic or social policies may use different blending, different balances between these different paradigms of “knowledge”. And identifying the correct and balanced blending of power, creation, wisdom that a given “knowledge society” offers to its citizen is not an easy task.

This sort of question is not just philosophical. It is very political in nature. Take Intellectual Property Rights issues for instance. It is all a question of “balance” between very different and very heterogeneous social needs. The question still is: what (social) ends a given legal framework really serve?

It is important to articulate more precisely the impact of ICT and knowledge on power issues, such as the level of freedom and control in a given society. Knowledge considered as sapience and wisdom can indeed have an impact on social justice, on community building or on the establishment of a more just society. Knowledge as creation and generation is at the core of all processes of invention, cognition, research. It is also worth noting that knowledge is in no way independent of contradictions and antinomies, such as freedom vs. security, privacy vs. surveillance, equity vs. deregulation or public interest vs. private interests...

If ICT are not just a means, and if knowledge is an acceptable, though multiform paradigm, the question still is: for what ends do they stand? Let us evoke a few complex but concrete issues, of growing complexity. In what measure ICT and knowledge can help repair the global financial system? Put an end to fiscal paradises? Deal with global warming and “climate neutral” energy and transportation? Avert new wars? Guarantee fair elections? Reduce poverty, put an end to human rights abuses? No doubt that they can play *some* role, but is this role purely instrumental or actually decisive? Or is “decision” of another nature, political rather than cognitive, for instance?

The UN Millenium Declaration appealed for “a more peaceful, prosperous and just world”. The Paradiso project wants “to contribute to the well being of all citizens around the world”. These one-liners embed a spirit, of course, but when we have to translate them into action, they are often declined as long shopping-lists that do not always convey the multiplicity, the complexity, the transversality of issues at stake. If we were to define, for instance, a “global sustainable future”, the innumerable and intertwined issues concerning Energy, Population, Education, Environment, Governance, Economy, Finance, defy imagination. In other words, the exact impact of national or international “Policies” vis-à-vis global, systemic, immanent societal dynamics has yet to be tested. What we have to try to understand is the role that ICT really play in this global, auto-emerging societal fabric.



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QUOTE

I like very much the holistic approach to consider technology and societal aspects together. I also like, and very much support, the idea of thinking out of the box. I would expect to see more out of the box thinking coming out of Paradiso, daring to challenge the “taken for granted”.

INPUTS FOR THE FIRST MEETING

I would like to see the objective of the disappearance of ICT in this decade. What I mean is that until we will be talking about ICT and...we are basically taking for granted that ICT is a separated entity. This is ok if we look at technology but now we should at the same time go beyond the development of technology and look at the embedding of technology.

We are not talking about wheels and car manufacturing. You are not buying a car and then ask for the wheels. They are perceived, and indeed are an integral part of the concept of car. ICT shall become an integral part of most of our life and business activities.

When we say that the network is going to be pervasive we are reasoning in terms of the existence of a network that shall be extended to reach any nook and cranny. But we should say that communications is an embedded property of anything that can be implemented in several ways and that, yes, it may be using a structured network but may also happen through other means (e.g. an halo around each objects providing a connectivity fabric: we don't need a network to talk face to face...).

A really radical approach would be useful to distinguish the vision of the future from an extension of today's reality.



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INPUTS FOR THE FIRST MEETING

Paradiso should help to better understand fears about progress in ICT, how they can be managed and shaped for the well-being of citizens in Europe but also to give opportunities for developing countries to take an active part in this future.

- Identify the fears and threats that emerge from the usage of ICT
- Are they related to governance, economy? can they be leveraged by technical solutions?
- What are the novel (paradigm as mentioned in Paradiso) paths that can be proposed?
- What are the main targets: health, environment, competitiveness, education, gouvernance, ...?
- ICT as a mean to support developing countries. How?
- What should the local and global policies and recommendations be?
- Paradiso should organize the recommendations wrt the reader or the different targets for the report.
- What should be the process to give Paradiso a better chance to reached its objectives?

Ms Silvina Tejada



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QUOTE

PARADISO2 is a challenging continuation of the PARADISO initiative, which promises a focus on the Future of Internet in a concrete way, taking into account its profound impact on the development of societies. Interesting enough, current social developments indicate a more frequent use of ICT for purposes other than economic or financial and the trend seems to indicate that tomorrows Internet is going to be about people and innovation. But, what type of societal developments will shape this Future Internet? And what type of innovation is needed to define the Future Internet that goes far beyond merely functional and technological specifications? My expectations are placed on these discussions.

INPUTS FOR THE FIRST MEETING

Suggestions and/or recommendations from my side are limited at this point, since I have recently joined the initiative. In general, objectives seem to be clear, as well as the activities planned to attain those objectives.

Dr Steven Bratt



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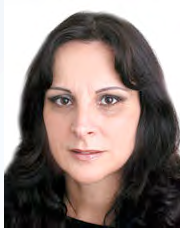
QUOTE

The World Wide Web – the technology that has made the Internet useful for many people – is used by only one-quarter of the Earth’s inhabitants. In considering the Internet of the future, it is my hope that PARADISO will develop an action plan for the research needed to ensure that the Web of the future empowers ALL people on the planet, including those now excluded from using the Web because of low literacy, language, disabilities, age, inexperience and different modes of Internet accessibility.

INPUTS FOR THE FIRST MEETING

The PARADISO2 project objectives will crystallize for all of us once we start the conversation. Here are some thoughts that I hope will become part of our objectives: In the parlance of the World Wide Web Community, the Internet is the infrastructure upon which the Web, email, Voice over IP, instant messaging and other applications depend. My particular interest is that we develop a plan to ensure that the Future Internet supports the continued free and open growth of the Web. We need to ensure that the Web of the future empowers ALL people on the planet, including those now excluded from creating and consuming content on the Web because of low literacy, language, disabilities, age, inexperience and different modes of Internet accessibility. We should find a way to include the voices and active participation of experts from low- and middle-income countries, which will be critical to this part of the conversation. Also critically important is the evolution of the semantic Web – the Web of linked data – which **could be** the most revolutionary advance in the Web in nearly two decades, and **could** drive new economic and social progress, if its promise is fulfilled.

Mrs Tania Regina Tronco



Fundação CPqD - ICT R&D Center
Future Internet Project Coordinator
Brazil
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QUOTE

Think about how should societies evolve and how to shape the future of the Internet to achieve these new requirements is the start point to build a global future scenario with new paradigms and transformative change like respect for nature.

INPUTS FOR THE FIRST MEETING

I think its time to include social and environmental aspects in the future Internet domain. The communities, state regulation and market forces certainly will influence the evolution of the Internet. In this sense, design social evolution scenarios, modelling the driving forces in the present, extrapolating them into the future and considering their implications for Internet development is one important step. On the other hand, try to identify how the Internet will affect the social and environment change in terms of barriers and enablers and which is the Internet's role in social transformation, is another way. Certainly there are others. Then, for me, the first step is to know (or to define) which methodology will be used in the project development.

I am very confident that the project objectives will be reached!

Prof. Dr Žiga Turk



University of Ljubljana
Chair
Slovenia
Ziga.turk@gmail.com

QUOTE

The digital communication revolution is a disruptive event in the order of magnitude of the invention of cheap paper and printing technology. It will not leave any area of economy and society unchanged. PARADISO is one of the efforts that will prepare us for the change.

Annex 1 : Members of the PARADISO high-level expert panel

AS OF JUNE 28, 2010

	Comments		Position
	in the survey	at the meeting of July 01	
Adriano Gaspari	Yes	Yes	Secretary General of the Scientific Committee, Expo Milan 2015
Afonso Ferreira	Yes	Yes	Scientific Coordinator for international relations, CNRS - INS2I
Amelia Andersdotter	Yes	Yes	"Lisbon" Member of the European Parliament for Sweden
Dirk Trossaen	Yes	Yes	University of Cambridge Computer Laboratory, author of the EIFFEL whitepaper on Future Internet efforts within the EU
Elmar Husman	Yes	Yes	IBM Senior managing consultant, member of NESSI SC
Helkki Huomo	Yes	Yes	Director of the Center for Internet Excellence, University of Oulu, Finland
Hyun-won Lee	Yes	Yes	Director, Strategic Planning Division, National IT Promotion Agency, Korea, and Board Member, Korea Techn. Innovation Society
Karl Jonas	Yes	Yes	Director Competence Center Network Research, Fraunhofer FOKUS.NET
Luis Neves	Yes	Yes	Head Corporate responsibility, Deutsche Telekom, Chairman of the ITU and UNEP supported "Global e-sustainability initiative"
Max Ott	Yes	Yes	Program Leader of the Networking and Pervasive Computing (NPC) Program at NICTA. He also leads the CAMP and StarCom project.
Nigel Jefferies	Yes	Yes	Head of Academic Relationships at Vodafone, Chairman of the Wireless World Research Forum, member of eMobility Steering Board
Peter Madden	Yes	Yes	Chief Executive of the Forum for the Future
Roberto Saracco	Yes	Yes	Director of Telecom Italia Future Centre and co Chair of the Edge-Core group of the Communications Future Program of the MIT
Simon Hampton	Yes	Yes	Director, European Public Policy & Government Relations, Google
Steve Bratt	Yes	Yes	Chief Executive Officer, World Wide Web Foundation
Tania Regina Tronco	Yes	Yes	Diretoria da Gestão da Inovação, Fundação CPqD, Campinas - SP, Brazil
Ziga Turk	Yes	Yes	Professor at Univ. of Ljubljana and Secretary General of the Reflection Group on the Future of Europe, Former Minister for growth in the gov. of Slovenia
Silvina Tejada	Rapp.	Yes	Project manager at Jönköping University
Roger Torrenti	Sec.	Yes	CEO of Sigma Orionis, coordinator of the FP7 PARADISO2 FIRE project
Roland Bürger	Sec.	Yes	Board member of the Italian chapter of the Club of Rome, partner of the FP7 PARADISO2 FIRE project
Fabrizio Sestini	Dis.	Yes	Scientific Officer, FIRE Unit, DG Information Society and Media, European Commission
Jacques Babot	Dis.	Yes	Scientific Officer, FIRE Unit, DG Information Society and Media, European Commission
Alexander Ntoko	Yes	No	Head of ITU Corporate Strategy Division
Ashok Jhunjhunwala	Yes	No	Head of the Telecoms and Computer Networks group at ITT Madras, India, member of Prime Minister's Scientific Advisory Committee
Chris Marsden	Yes	No	Senior lecturer in communications law, University of Essex
Dimitri Papadimitriou	Yes	No	Principal Research Engineer on Future Internet research for the Alcatel Corporate CTO
Eunsook "Eunah" Kim	Yes	No	IETF member, Senior researcher at ETRI, Korea (Standard Engineering Center)
Li Jun	Yes	No	CEO CCID Consulting Co. China, and deputy secretary-general of China Federation of Informatization Promotion
Lynn St Amour	Yes	No	President and CEO, The Internet Society
Martin Curley	Yes	No	Director of Intel Labs, Global Director of IT Innovation at Intel
Martin Potts	Rapp.	No	Director of Martel GmbH, rapporteur for the FP7 consultation event: "Future Infrastructure for Research in Europe (FIRE)"
Philippe Quéau	Yes	No	Former Director of UNESCO Information Society Division, present representative of UNESCO to the Maghreb
Roberto Peccai	Yes	No	Vice-Chancellor for research at UCLA (USA) and President of the Italian chapter of the Club of Rome
Serge Fdida	Yes	No	Head of the Network and Performance Analysis group of the LIP6 Laboratory (CNRS-Univ. Pierre and Marie Curie)
Sergey P Kapitza	Yes	No	Russian Academy of Sciences, winner of the Russian State prize for science and the UNESCO Kalining prize
Vincenzo Spiezia	Yes	No	Head of the OECD Territorial Indicators and Statistics Unit
Alvaro Duarte de Oliveira	TBC		President of ENoLL
Luciano Floridi	TBC		UNESCO Chair in Information and Computer Ethics, School of Humanities, University of Hertfordshire
Marlaine Nganuu	TBC		Permanent Secretary, Ministry of Communications, Science and Technology,

Annex 2 : PARADISO brochure

THE PARADISO REFERENCE DOCUMENT

The main objective of PARADISO activities is to explore how might or should our societies evolve in the next decades (a probable paradigm shift) and to derive from this analysis how can Information and Communication Technologies (ICT), and the Future Internet in particular, contribute to making this future better.

Doing so, PARADISO proposes to follow an approach "starting from the planet" which would usefully complement the traditional approach (when addressing progress in ICT) "starting from the user".

The main findings, based on various inputs including those from any interested stakeholders contributing through the online consultation, the PARADISO social networks, their participation in project events, etc. will be detailed in the successive versions of the "PARADISO reference document" (to be released in December 2010 and in September 2011 and made available on the PARADISO web site).

This document will include technical specification of the envisioned Future Internet and recommendations to the European Commission on research topics to be addressed in future EU-funded programmes.



Opening session of the PARADISO conference organised in January 2009 at the European Commission in Brussels

EXPECTED BENEFITS

The PARADISO2 project should contribute offering a true opportunity to put Europe at the forefront of international developments, at a time when the EU has the ambition to be a leader in this field, particularly with the launch of the Future Internet PPP.

All project activities are open to any organisations interested in a project approach and expected outputs. External contributions are welcomed, particularly through the project web site (and including from the public at large).

This sustainability beyond the formal project period of the momentum created by PARADISO will be investigated early in the project lifetime, so that an open "PARADISO think and action tank" can continue its activities, after the end of the project, on the basis of resources coming from the private sector and Foundations.

CONTACT US

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www.paradiso-fp7.eu
INTERNET FOR THE FUTURE

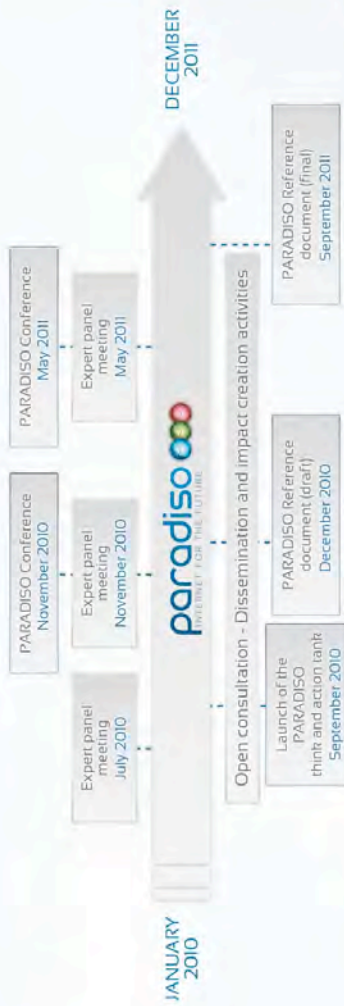
Wouldn't it be paradoxical to explore the Future Internet without thoroughly exploring what the future of our societies should be?

If it is today well acknowledged that **the world has profoundly changed** during the last decades, it has to be acknowledged too that the world will probably profoundly change in **the next decades in order to avoid major risks of breakdown**

PARADISO IN A NUTSHELL

Industrialized, emerging and developing countries will therefore need to agree, sooner or later, on **an alternative way forward based on a true sustainable development**, more sustainable economic and financial models, more equally shared resources. What is at stake if of course, ultimately, the wellbeing of all citizens of the world, to be measured by **new indexes going beyond GDP**.

The PARADISO initiative, launched during the first half of 2007 (i.e. before the present worldwide financial and economic crisis started to develop) by Sigma Orionis and the Club of Rome has explored this paradigm shift concerning **global societal developments and the role that Information and Communication Technologies (ICT) could play in this "other future"** (PARADISO is an acronym formed by the two words **PARADigm and Societal**, and an obvious reference to a better world).



The support from the European Commission through its FP7 research funding programme has allowed to develop a **first set of activities over the period 2008-2009 and another one over the period 2020-2011** (covered by the "FP7 PARADISO2 project").

These activities mainly consisted during the first period in the **organisation of open events** (including a high-level conference in Brussels in January 2009) and the **release of the "PARADISO reference document"**. They had quite an important impact since they appeared quite visionary and timely when the present economic and financial crisis started to expand during the year 2008.

During the period 2010-2011, PARADISO activities will further explore **how might or should or societies evolve in the next decades and how can ICT, and the Future Internet in particular, contribute to making this future better**.

Outputs will be detailed in successive versions of the "PARADISO reference document", released in December 2010 and in September 2011, and that will include **functional and technological specification of the envisioned Future Internet, and recommendations concerning research to be developed in the framework of EU-funded research**.

Two open events will be organised in Brussels: a **"PARADISO scientific workshop"** (in November 2010) to discuss draft outputs and collect inputs from any interested stakeholders and the PARADISO conference **"Future Internet for a global sustainable future"** (in May 2011) to promote final results and enhance the media and political impacts of the project.

All project activities are open to any organisations interested in project approach and expected outputs. **External contributions are welcomed, particularly through the project web site** (and including from the public at large).

The PARADISO2 initiative can count on the involvement of a **multidisciplinary high-level expert panel** composed of over 30 representatives from leading institutions, companies, research institutes, and NGOs from Europe and all over the world.

