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Digital Agenda for Europe - a good start and stakeholder feedback

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COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS

Digital Agenda for Europe - driving European growth digitally

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Staff Working Document– Digital Agenda for Europe: a good start and stakeholder feedback

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1. Approach to stakeholder engagement

1.1 Aims, operational aspects and impact

The Digital Agenda for Europe (DAE)[1], launched in 2010, is a key strand of the Commission's EU2020 strategy[2] – its aim is to establish the conditions for sustained digital growth in Europe.

The DAE foresaw the need for an annual conference with relevant stakeholders to enable discussion of progress and challenges. The first Digital Agenda Assembly (DAA2011) was held in Brussels in June 2011 and featured 24 workshops and two plenary sessions. The Digital Agenda Assembly 2012 (DAA2012), also in Brussels, featured workshops in eight specific key priority areas and a plenary session.

On 19 April 2012, the Commission launched a dedicated social media platform to prepare the DAA2012 and to gather input for the review of the DAE[3] [4].

This platform was the central hub of a broad approach for stakeholder engagement around the DAA and DAE, which aimed to:

- Reach out to and engaging with stakeholders, including those not normally involved in EU policy;

- Facilitate contact and collaboration amongst stakeholders; and

- Stimulate discussions and summarise results to generate meaningful policy input.

The Commission also mobilised its social media accounts related to the DAE[5] and the consortium running the mentioned platform tracked and participated to other relevant forums (1000 posts in third party forums).

The core of the platform were 10 discussion groups, corresponding to the themes of the 8 DAA workshops and 2 additional groups, as well as a range of functionalities: voting, open brainstorming, in-line commentable documents, video recommendations and visualisation of the debates.

The platform was managed by a consortium[6], including a team of specialised animators supporting the 10 discussion groups in close collaboration with the relevant Commission staff responsible for the topics discussed.

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[1]   http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52010DC0245R(01):EN:NOT
[2]   http://ec.europa.eu/europe2020/index_en.htm
[3]   http://blogs.ec.europa.eu/neelie-kroes/daa-platform/
[4]   http://daa.ec.europa.eu/
[5]   #da12

Participation was considerable, with more than 1,400 platform members, making more than 2,000 contributions over the course of two months. Participation in Twitter was also high, with over 30,000 tweets by 5,000 people using the tag #DA12 and related thematic tags.

The online platform attracted participants from all EU Member States and other countries, who belonged to various constituencies[7].

1.2   Use of Stakeholder feedback: Digital Agenda Assembly and Mid-term review

The results of the online discussions prepared and framed the discussions in the 8 workshops and the plenary sessions and were reported at the DAA 2012. 40 platform members, who made particularly valuable contributions, as assessed by the votes of other members, were invited to the DAA in Brussels, reinforcing the connection between the online and onsite discussions.

80 of the 1,400 stakeholders that joined the online platform attended the DAA. This indicates that the online and onsite activities complemented each other. While the DAA2012 event attracted a higher proportion of "traditional" stakeholders, the online discussions attracted many new stakeholders.

The positions expressed online were often different from those presented at the DAA. In particular, the online discussion had only a limited involvement of more "established" players. Online participants tended to be more active and vocal, more inclined to ask for disruptive interventions and stronger openness (for instance on High-Speed Connection, Converged Media, Data and Innovation). This calls for further reflection on the outcomes of different stakeholders' engagement methods and the relevance of a multi-method approach.

This document reports and summarises the results of both the online and onsite discussion, reflecting the issues most discussed and indicating areas of consensus. These qualitative summaries constitute valuable feedback, although by their very nature they are not statistically representative considering that:

- The approach was bottom-up, open and qualitative, as opposed to a formal questionnaire approach where all participants reply to a standard set of questions;

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6   The consortium is formed by P.A.U. Education and Tech4i2, coordinated by David Osimo. Additionally there was a team of 10 animators composed by: Annalisa de Luca (Converged Media), Chris Conder (High-speed connections), Andrew Griffin (e-commerce), Elena Donnari (Social Media), Marc Garriga (Data), Carmela M Asero (Cloud), Prokopios Drogkaris (Security), Laia Pujol (Innovation&Entrepreneurship), Stylianos Mystakidis (Jobs&Skills), Jamal Shahin (Public Services).

7   The distribution of members by type of organisation is as follows: Academic: 11%; Association/NGO: 13%; Business: 28%; European Institutions (non European Commission): 2%; European Commission: 3%; Government: 12%; International organisation: 3%; Private Citizen: 6%; unknown: 22%

- It focused on gathering insightful evidence and recommendations rather than consensus;

- In some cases online and offline input differed substantially, because the of the different profiles of the contributors, as previously indicated.

The stakeholder feedback summarised in this document has provided valuable input to the DAE mid-term review, complementing other input gathered by the Commission on DAE specific issues.

While some of the stakeholder comments reflected in this document may not be statistically representative, they can be particularly insightful and at times provocative. As such, they provide also useful input for future policy proposals and implementation activities, as well as a valuable base for future debates on specific areas.

This document is structured along the sections of the Digital Agenda mid-term review document, and under each section referring to the relevant thematic parts of the 10 discussion groups of the online platform. Each thematic section includes:

- Key issues emerging from the debate;

- Quotes;

- Links to the original discussion so that the reader can trace back the comments and have the possibility of contacting the authors via the platform.

2. Feedback from the online discussions

2.1 A European Borderless Economy – the Digital   Single Market

2.1.1 eCommerce

❖ ECOMMERCE BARRIERS:

How do small e-tailers (1) get discovered and trusted, especially cross-border? How do e-tailers deal with the plethora of payment methods in Europe (2)? How can we make it easier to find online products (3)? How do we change VAT to create a level playing field for merchants (4)? Contract law is inhibiting some e-commerce sector (5). How do we ensure people with sight loss have access to e-commerce (5)?

Trustmarks (see next challenge) are one way to address trust. Many commercial online payment aggregators (MyBank, iDeal, Skrill, Adyen, Wirecard, WorldPay, GlobalConnect, and many more) shift VAT shifting from provider to the consumer's country of origin; this reduces the impact of the provider's location (4). Find products online - support the use of semantic meta-data that enable simpler (and automated) integration of e-commerce data (for example OpenFoodFacts in France (3)). Businesses, particularly SMEs must support the proposed European Sales Law (to prevent contract law inhibiting ecommerce) (5).

❖ TRUST & TRUSTMARKS

Create a stakeholder owned trust mark scheme for Europe to level the playing field for small retailers and increase cross-border e-commerce (1). Fraudulent websites contain the most "trustmarks" (2). Trustmarks should indicate non-fraudulent sites, or show level of service (3) (4).

Many trustmark initiatives have been proposed to the EU (5). Rationalisation needed – some countries have too many trustmarks (NL, for example). Some doubt the ability of a trustmark to work (7). But trustmarks have been shown to work in some EU countries (NL, BE). Most workshop participants agree the EU has a role to define and police trustmarks (8). There is a need for e-commerce sites to improve their trustability by – providing delivery information, for instance (9).

❖ MOBILE PAYMENTS – NEED AND PRIVACY

Is there a need? Simple replacement of cards won't work. Most suggested schemes relay on selling user data – what about privacy (1)? Smartphones are still not ubiquitous – need to work on regular phones too (2).

Decide level of policy intervention needed, if any; the workshop participants indicated that new needed was needed in the short term.

❖ <u>MOBILE PAYMENTS - METHODS</u>

Important elements identified include: security (1); standards and ubiquity; the possibility to communicate via Radio Frequency/camera/other or via mobile internet (pre-registered). Important role of Telco's, banks, providers, technology suppliers (GOOG, AAPL etc). Payment mechanism must work across Europe (i.e. not just be credit card linked) (2) (3) (4).

To enable cashless low value payments, reduce payments infrastructure cost rather than just moving it around the value chain. Many stakeholders suggested schemes from banks, Telco's, technology companies, retailers. Several stakeholders indicated that no new regulation is needed, but that the EU has a role to incentivise innovation and help foster e/m payments in a non-regulatory way.

Quotes

"Markets in general and Europe especially do NOT gain from this massive concentration of power with middlemen brokers in infrastructure taking all the profits (related to travel aggregation sites)."

"If you can shop online, you need to be able to complain online."

"Mobile phone penetration globally is now higher than electricity, clean water supply, and toothbrushes (3)."

Links

Barriers

(1) http://daa.ec.europa.eu/content/e-commerce-and-open-data-0
(2) http://daa.ec.europa.eu/content/different-payment-preferences-european-b2c-e-commerce
(3) http://daa.ec.europa.eu/content/some-ideas-about-liability-search-engines
(4) http://daa.ec.europa.eu/content/tax-harmonisation
(5) http://daa.ec.europa.eu/content/e-commerce-eu-so-whats-issue
(6) http://daa.ec.europa.eu/content/accessibility-ecommerce-and-epayments
(6) Workshop discussions
(7) Workshop discussion Allegro

Trust

(1) http://daa.ec.europa.eu/content/cross-border-e-commerce-and-security-online-shopping
(2) Workshop comment EMOTA/IMRG
(3) http://daa.ec.europa.eu/content/boosting-trust-e-commerce
(4) http://daa.ec.europa.eu/content/trustmarks
(5) Workshop comment Intrasoft
(6) http://daa.ec.europa.eu/content/electronic-marketplace-app-store-android-market-amazon

http://daa.ec.europa.eu/content/e-commerce-eu-so-whats-issue
http://daa.ec.europa.eu/content/de-facto-trustmark-amazon-or-ebay-fair#comment-1752

(7) Workshop comment Thuiswinkel
(8) Workshop comments multiple sources
(9) Workshop comment European Consumer Centre
(10)　Workshop comment E-commerce Contact Point Germany

Payment privacy

(1) http://daa.ec.europa.eu/content/where-are-secure-empowered-payments
(2) http://daa.ec.europa.eu/comment/329#comment-329
(3) Workshop discussion – Roy Vella
(4) Workshop discussion - European Payments Council
(5) Workshop discussion - Consult Hyperion

Payments methods

(1) http://daa.ec.europa.eu/content/security-mobile-devices-applications-and-transactions
(2) http://daa.ec.europa.eu/content/mobile-payments-and-wallets
(3) http://daa.ec.europa.eu/content/low-value-payments-elephant-room-2012
(4) http://daa.ec.europa.eu/content/rightful-role-nfc-mobile-services-and-how-get-there
(5) Workshop discussion
(6) Workshop discussion Consult Hyperion
(7) Workshop discussion MassPay

2.1.2　Convergence

❖ Develop a sustainable EU copyright framework

A solution should be identified that safeguards content producers from the copyright point of view, without damaging consumers or strengthening market oligopolies (1). This is to encourage smaller producers and, as a result, create a more competitive market as a whole. This is key, as content is increasingly becoming a strategic asset for telecommunication operators in the broader sense (2) (3).

❖ Contribute to creating a stimulating business environment

This is both in economic and creativity terms (4). Tailor-made public funding schemes, better networking opportunities between private investors and producers, easier working conditions across Member States: these are all fundamental preconditions to entrepreneurial growth and sustainability (5).

❖ Encourage files, platforms and technology interoperability

This should limit lock-in strategies that contribute to create monopolies/oligopolies and, on the other hand, should encourage market players to compete on the quality of content (7). Interoperability (8) should also increase users' possibility to preserve digital documents over time (6).

❖ <u>Make safety a priority</u>

This is seen as a key aspect, with reference to minors and their exposure to content as well as to breach of privacy and users' control over sensitive information. 'Digital safety' must be a priority, especially in consideration of the rise of media convergence and with the increasing adoption of cloud computing. This is felt as an important issue, not only important from a users' perspective, but also from a business point of view (10): a safer and more inclusive Internet helps create a faster developing, more flexible and dynamic business environment.

Quotes

"If there was a clear and legal pan-European framework to license digital content, the number of new enterprises could blossom and this would be the biggest challenger to piracy. The difficulty is in convincing the rights' owners to embrace the new technological developments, and building a framework that works across multiple territories."

"Legislation is not always the Anathema to innovation. In fact properly applied it can spurn new markets to reach unimaginable heights.

A framework that has a mission solely to ensure that consumers (viewers) always have the power of choice is definitely needed."

"Regulators are going to have to facilitate self-regulation in the various industries concerned (CE manufacturers, app developers, Opera, second screen entrepreneurs, etc.) rather than try and write top-down laws and allow for the communities to clamp down on those that seek to take advantage of the 'Wild West' of an industry that is now unfurling."

Links

(1) http://daa.ec.europa.eu/content/eu-copyright-policy
(2) http://daa.ec.europa.eu/content/are-you-willing-pay
(3) http://daa.ec.europa.eu/content/are-you-willing-pay
(4) http://daa.ec.europa.eu/content/start-ups-and-competition
(5) http://daa.ec.europa.eu/content/pan-european-services-netflix-should-exist-now
(6) http://daa.ec.europa.eu/content/should-government-do-something-about-technology-fragmentation-0
(7) http://daa.ec.europa.eu/content/should-government-do-something-about-technology-fragmentation-0
(8) http://daa.ec.europa.eu/content/data-interoperability-and-lock-prevention
(9) http://daa.ec.europa.eu/content/broadcast-regulations-and-connected-tv
(10) http://daa.ec.europa.eu/content/security-objective-%E2%80%93-transaction-isolation

2.1.3   Data

❖ From Open Data publication to education and harmonisation

Open data leads to economic activity and therefore increased tax-revenues. These revenues will be far higher than the direct income the public bodies generate by selling their data. The European Commission and Member States should provide a small amount of funding to identify European Open Data success stories. (6). The Commission should fund work to identify a relatively small set of Core Reference Data and should then work with Member States to encourage its release under Open Data licenses. Early examples suggest that national taxation systems will earn more revenue from all the new data-powered businesses than national treasuries lost through not charging for the data any more. (4), (9)

Investigate requirement for a European Data License - there are lots of licenses used to describe what people can and cannot do with data. (2). In order to create a European Data Market we need to harmonize our data offering. First, we need to harmonise our Open Data market.

There is a need to take (open) data to the education systems, our children must understand the importance of data handling, as must teachers, and that open data is a good (and cheap) way to have and updated content. (1).

❖ Invest in Big Data while preserving the "Data Balance"

Big Data provides huge opportunities for government (10) and business (11). We need to find the "right place" between open data and privacy, between old business and new business in the European data market. Also, we need to ensure that laws and regulations don't inadvertently block the creation of new business models. Those laws and regulations must also avoid unfairly sustaining outdated business models. (7), (8)

❖ Grasp the richness of languages

There are a lot of languages spoken across Europe. How do we take that diversity, and turn it from stifling Europe-wide innovation to become an asset that strengthens our role in the global market? Language technologies are ripe for delivering real and lasting benefits. (5)

Quotes

"The open data policies are useful in the context of a society that knows how to extract value from data. The educational system must take a leading role."

"Most of the tools for data provision and sharing are still difficult to use by people who do not have a high-ICT profile, what keeps us still in a Web1.0-like context, with data providers being the ones that publish data sources and making it difficult

for others with no data sources available but with willingness to collaborate in such publication."

"Big data is often associated with all the data on the internet but one of the major data producers is the medical world with e.g. a kaleidoscope of imaging from X-rays, MRI's and other scanners, genetics, pathology, sensors and research data. Over 30% of all data stored on earth is medical data and it is growing rapidly."

Links

(1)   http://daa.ec.europa.eu/content/new-educational-content-data-society
(2)   http://daa.ec.europa.eu/content/single-opendata-license-all-eu-great-action-improve-our-open-data-sector
(3)   http://daa.ec.europa.eu/content/best-practices-open-data
(4)   http://daa.ec.europa.eu/content/common-datasets-government-or-country
(5)   http://daa.ec.europa.eu/content/cross-lingual-technologies-are-open-opportunity-eu
(6)   http://daa.ec.europa.eu/content/data-should-be-easy-provide-and-share-non-ict-skilled-citizens
(7)   http://daa.ec.europa.eu/content/big-data-and-big-privacy-debate
(8)   http://daa.ec.europa.eu/content/how-increase-trust-about-personal-data
(9)   http://daa.ec.europa.eu/content/open-data-topics-eu-wide-relevance
(10) http://daa.ec.europa.eu/content/big-data-open-data-and-ehealth-ecosystem
(11) http://daa.ec.europa.eu/content/data-and-threefourfive-vs

2.2   Public services

❖ Building EU actions and local level capacity

Europe has already developed many of the building blocks to start working on operationalizing the next phase of digital public services development. However, there are still some actions that need to be taken up at a European level in order to ensure that the Digital Single Market does not fragment, and the services delivered maintain sustainability. This includes: opening up data in a coherent fashion, in ways that governments can see what they need to do in order to ensure accessibility and inclusion (1). Furthermore, we need to encourage bottom up innovations through enabling frameworks that engage with the idea of co-creation: this works towards stimulating growth and uptake of services, whilst legitimizing them at the same time.

In order to build up capacity across Europe, we need to encourage more use of existing platforms such as epractice.eu and improve their innovativeness in helping users engage with best practices and successful stories from various countries and regions.

❖ Encourage innovation in the public sector through adoption of new processes

Innovations in other areas of society (broadband, open data, etc.) should be taken on board in public services. These are necessary drivers for digital public services too. Inclusion is a central issue: 'digital by default' should become the 'new normal' for public administrations, in order to ensure that the necessary transformations take place (2). "Is there any reason for not making eGovernment compulsory for those who have a broadband connection at home?" (3). Another element of the discussion around innovation focuses on non-economic values: the 'social economy' is a central issue for public authorities; we should recognise that values other than efficiency are important also for public services; for example transparency (4). This should also be integrated in new approaches to understanding public administrations and their role in contemporary European society, which will need to be understood through new research agendas.

❖ <u>Leverage cross-border services and reinforce (sub-)national actions</u>

With the development of various activities in the field of cross-border services in the EU, several steps towards reducing the barriers standing in the way of the Digital Single Market are unfolding. However, two main challenges seem to remain:

a) Citizens do not appear to be aware of the benefits that such projects in the fields of eJustice, healthcare, and so on can bring. We need to generate a few "launching services" to help overcome hesitation (5), as well as showing the 'business case' for this (6). In this instance, leadership from the part of the Commission could help foster change at the EU level, which would then move into other areas (7).

b) Encourage national authorities to share more common standards to ensure interoperability of data across borders.(8) This should also facilitate the further leverage of cross-border services and ensure take-up will be easier to carry out. Furthermore, this should lead to more reuse of data, which is 'key' to democratic public e-services (9).

Quotes

"I don't think we should reduce co-creation to a government-controlled innovation in public service delivery. Co-creation is also about citizens/NGOs/private companies taking the initiative and proposing an effective solution and this way saying 'no' to the existing one."

"Some changes should be made in our eGovernment strategies, as a deeper multichannel strategy, a stronger governance structure and a consolidation of infrastructures."

"Perhaps one high volume service should be made available in every EU member state in a uniform and consistent manner, to determine the volumes that would result."

Links

(1) http://daa.ec.europa.eu/comment/1561#comment-1561
(2) http://daa.ec.europa.eu/content/egovernment-winter-our-discontent#comments
(3) http://daa.ec.europa.eu/comment/1227#comment-1227
(4) http://daa.ec.europa.eu/content/suggestion-discussion-daa
(5) http://daa.ec.europa.eu/comment/1224#comment-1224
(6) http://daa.ec.europa.eu/comment/1101#comment-1101
(7) http://daa.ec.europa.eu/comment/1012#comment-1012
(8) http://daa.ec.europa.eu/content/magic-square-–-towards-"intergalactic-guide"-ict-standards#comments
(9) http://daa.ec.europa.eu/content/reuse-key-democratic-public-e-services

2.3　Broadband

❖ <u>Broadband in rural areas</u>

While cloud-based solutions increase the value of fast symmetric connections, the situation in rural areas is not progressing fast enough and current policy priority do not focus on the least reachable areas (3). Demand can increase very fast and in ways that are difficult to predict. Copper does not represent a future-proof solution – arguably not even a present-proof one in many cases (1). Mobile technology has so far not proved a clear solution (10).

Member States should drive their broadband plans prioritising less covered areas, to stimulate competition and a level playing field to address the last percentages of uncovered territory, where the traditional business model fails. This should be pursued through alternative solutions to subsidizing incumbents, such as bottom-up initiatives, truly open access middle-mile or backhaul network, a revised topology of networks and increasing the number of Local Internet Exchanges (9).

❖ <u>Cost reduction of broadband rollout</u>

Better coordination of civil works could help cutting costs significantly but remains the exception rather than the rule: insufficient joined-up thinking in government, insufficient clarity on the different responsibilities for digging, ducts and maintenance, and better awareness by policy-makers in civil works departments (4).

Some stakeholders suggest developing an EU framework for utilities, simplifying the task of checking for existing services and for alternative networks laying new infrastructure. Several best practices are ready to be replicated, in Europe and abroad, such as Catalonia and Paris (5). Innovative ideas should be explored to speed up building permits both for fixed and mobile, such as: benchmarking of cities (Telenor) ; National Regulatory Authority to play coordinating role in base station permits (Greece); carrier-neutral providers (Ireland), separation of civil works from services ; and adopt alternative funding methods such as new spectrum, crowd funding, community shares and soft loans (4).

❖ <u>NGA investment</u>

Stakeholders share doubts on the reachability of Digital Agenda targets in relation to broadband. There is a lack of alignment of the interests of stakeholders: investors, consumers, incumbents, local authorities. There is a clear innovative vision for the future (common passive network) but it is not clear how to create the incentives to get there (8).

There's a need to clarify in EU broadband guidelines that public investment in Next Generation Access networks should be exceptional and meant to achieve a major, not just incremental, change, justifying where appropriate special

regulatory regimes (e.g. the Italian proposal to keep broadband investment out of the "fiscal compact") (6), while fully maintaining network openness (11).

❖ Empowerment of consumers

There is not sufficient clarity on the definition of fibre and broadband services. Many large providers are still claiming important investments on incremental upgrades such as VDSL2 deployed from street cabinets (fibre to the node/FTTN). Consumers are confused by ambiguous marketing strategies such as "up to" speeds.

Stakeholders underline the need to ensure transparent information for consumers, creating a clear definition of level of service provided in each area. Some recommend an EU agreement whereby Member States' tax and regulatory regimes should encourage investment towards a future copper switch-off (7).

Quotes

"I'm always amazed at how public policymakers neglect the economic benefits that high-speed connections offer. Perhaps this is because they're harder to model or predict than the benefits of traditional infrastructure (rail, airports, roads). But just because they're harder to model doesn't mean they're smaller - on the contrary, the economic possibilities of much higher speed connectivity are vast."

Links

(1) http://daa.ec.europa.eu/content/we-need-many-more-local-internet-exchanges
(2) http://daa.ec.europa.eu/content/2020-vision
(3) http://daa.ec.europa.eu/content/how-can-we-bring-high-speed-connections-rural-areas
(4) http://daa.ec.europa.eu/content/special/crowdsourcing; DAA workshop morning session
(5) http://daa.ec.europa.eu/content/cost-reduction-shared-infrastructure-savings; DAA workshop morning session
(6) http://daa.ec.europa.eu/content/montis-proposal-keeping-investments-bb-and-eda-out-fiscal-compact-what-do-you-think
(7) http://daa.ec.europa.eu/content/go-fibre-not-any-fibre
(8) http://daa.ec.europa.eu/content/capexuser-what-are-actual-figures-hi-speed-broadband; DAA workshop afternoon session
(9) http://daa.ec.europa.eu/content/we-need-many-more-local-internet-exchanges
(10) http://daa.ec.europa.eu/content/mobile-bb-solution-m%C3%A1ximum-extensi%C3%B3n-hspeed
(11) http://daa.ec.europa.eu/content/what-questions-remain-unanswered

2.4   Cloud

❖ User Empowerment

Users should be able to make secure transactions in the cloud environment (1). Citizens often find themselves confronted with the decision to either give up on using an online service or accept all of the providers' terms and conditions. Users should be always kept in control of their data and confident on possibility to easily change provider and avoid vendor lock-in. Interoperability and portability rules are key elements to achieve this objective (2).

❖ Trustworthy, clear and effective regulatory environment

An EU-wide cloud strategy should ensure that some key provisions are respected in cloud offerings across Europe especially in the area of security, access to data, law enforcement on accountability and responsibility of service providers, contractual arrangements and privacy. An adequate balance of security by technology and security by policy should be ensured to create a trustworthy cloud environment (2). Users need to know which rules will apply on their use of cloud services (3). Currently, it is server location defining applicable law, so the "stored in EU" element is crucial in a short-middle time perspective (4).

❖ Single digital market for cloud services

Cloud services are borderless by default. It is important that an EU-wide strategy for cloud computing has a single market footprint and allow truly EU-wide competition among cloud operators (5).

❖ Ensure fast access to data – Cheap broadband for all

To fully exploit the benefits of cloud computing the provision of cheap and fast broadband connectivity is fundamental. Furthermore, considering the penetration of mobile devices used to access cloud-based services, roaming conditions and widespread mobile broadband development are important enabling factors. Agreement on lower roaming tariffs versus non-EU countries should also be considered (6).

❖ Foster EU leadership in cloud computing research and development

There are currently several initiatives going on in Europe to create home grown solutions and Europe has the competences and business capacity to lead in cloud technology development. Regardless of the physical location of cloud services and the origin of their source code, EU cloud actors should stay involved in all layers (from technology to business and government) of the cloud development. Conversely, Europe-based initiatives should actively invite participation from other world regions. Furthermore, they should focus on keeping cloud technology open, rely on and contribute to open standards (7).

❖ Raise awareness and information channels for SMEs on Cloud services

Although valuable guidance is available to SMEs on how to identify and address possible cloud-related risks, awareness amongst SMEs is still low. Since SMEs are a key factor in European economy, increase awareness of the Cloud and its potential for SMEs should be a priority. A Europe-wide awareness and information campaign for SMEs on cloud should be envisaged (8).

❖ Green Cloud

Stimulate green cloud by encouraging data centres to adopt renewable sources and innovative solutions to cut energy impact for sustainable and yet competitive cloud developments.

Quotes

"Not "made in Europe" but "governed by our laws". [...]

"Cloud servers in third nations make it possible for authorities in these nations to get legal and extra-legal access and there are no sanctions against business/industrial espionage because the laws of your jurisdiction do not apply. Certainly government services cannot be outsourced to foreign jurisdictions."

Links

(1) http://daa.ec.europa.eu/content/security-objective-%E2%80%93-transaction-isolation
(2) http://daa.ec.europa.eu/content/lifting-barriers-use-cloud-computing-healthcare
(3) http://daa.ec.europa.eu/content/cloud-storage-privacy-whats-really-stake
(4) http://daa.ec.europa.eu/content/should-europe-build-its-own-cloud-factories
(5) http://daa.ec.europa.eu/content/gartner-says-cloud-adoption-europe-will-trail-us-least-two-years
(6) http://daa.ec.europa.eu/content/clouds-and-roaming
(7) http://daa.ec.europa.eu/content/should-europe-build-its-own-cloud-technology-or-use-existing-developments
(8) http://daa.ec.europa.eu/content/what-are-most-relevant-obstacles-cloud-adoption-smes

2.5   Trust and Security

❖ Raise Security Awareness

Raising security awareness amongst EU citizens, SME's and organizations is the first line of defence for security of information systems and networks. A continuous effort in this direction should inform users of the importance of their information assets, their exposure to security risks and potential procedures, technologies and mechanisms they could utilise. In the long-term such effort will

also contribute to the development of an information security culture by encouraging users and stakeholders to act responsibly (1) (2) (3) (11).

❖ Address Emerging Technologies' Security and Privacy Issues

Emerging technologies, such as cloud computing, apart from experiencing increasing growth and acceptance, also introduce new challenges in terms of privacy, security and auditing. It is therefore imperative to review and enhance the relevant legal and operative framework so as to not only address these issues but also foresee any additional requirements that may arise in the near future and establish a well-defined and solid environment (1) (7) (4).

❖ Promote Security Standardisation

Having in mind the acceptance of already proposed standards (ISO 27001) or procedures from accredited institutes (ENISA, NIST), the EU should not only promote further security standardisation through the adoption of existing standards but also endeavour for the proposal and acceptance of newly proposed ones and ensure their appliance and review. Through this, not only it will be possible to ensure certain levels of security and trust but will also create sets of guidelines for the implementation and introduction of secure information systems, mechanisms and procedures (1) (6) (13).

❖ Endorse International Strategic and Operational Partnerships

Since the Internet as a supply chain is global in its nature and today's physical country borders cannot be easily enforced, the time has come for global collaboration, both strategic and operational, especially with cybersecurity and privacy converging. Collaborations, beyond the EU and the US, that would impose common standards, procedures and policies for the protection of information assets towards the preservation of cybersecurity (1) (5).

❖ Empower citizens

We must move on from existing identification schemes, procedures and policies to newly proposed ones that will ensure that users are able to control their own data privacy settings. The proposed direction should be towards built-in security, control distribution, parameterised and interoperable identities so that users will be free to share throughout value chain as linking control will remain on the demand side. Therefore they can choose who to trust with specific liability and there won't be a need to trust a specific system or an organization (1) (8) (9) (10).

❖ Stimulate Investments towards a Secure and Trustworthy European ICT

European ICT security industry should be propelled to experience a growth similar to worldwide ICT security market. This could be achieved by promoting best practices and innovative ideas, clarifying allocation of security

responsibilities, increasing accountability, harmonizing EU security policies, lowering market entry barriers and increasing awareness (1) (12).

Quotes

"Legislation shall protect users also from harm caused by data they willingly contributed to the public domain."

"One of the problems with privacy on the Internet is that people had a false sense of security".

"All kind of embedded systems are being connected, and this will have a big impact. House appliances, cars, trains, smart cities, health monitoring devices, etc. very soon. The potential damage of someone controlling our washing machines, someone able of changing our car direction, health damage, and so on is also worth mentioning."

Links

(1) Digital Agenda Assembly Security Workshop: http://ec.europa.eu/information_society/events/cf/daa2012/item-display.cfm?id=8282
(2) Raising Security Awareness and Avoiding Misuse: http://daa.ec.europa.eu/content/raising-security-awareness-and-avoiding-misuse
(3) SMEs Security Awareness Level: http://daa.ec.europa.eu/content/smes-security-awareness-level
(4) Trade-offs and Security Challenges in the Cloud: http://daa.ec.europa.eu/content/trade-offs-and-security-challenges-cloud
(5) From "Titan Rain" and "Estonia 2007" to "Greece 2012" - The Case of Hacktivism: http://daa.ec.europa.eu/content/titan-rain-and-estonia-2007-greece-2012-case-hacktivism
(6) Data Privacy and Security proposed EU regulations: http://daa.ec.europa.eu/content/data-privacy-and-security-proposed-eu-regualtions
(7) Cloud-based Public Administration: http://daa.ec.europa.eu/content/cloud-based-public-administration
(8) Focus on change instead of invention: http://daa.ec.europa.eu/content/focus-change-instead-invention
(9) From Web 2.0 to Citizen Empowerment: http://daa.ec.europa.eu/content/web-20-citizen-empowerment
(10) The Security Objective – Transaction Isolation: http://daa.ec.europa.eu/content/security-objective-%E2%80%93-transaction-isolation
(11) Easy to use mechanisms enabling awareness & privacy control: http://daa.ec.europa.eu/content/easy-use-mechanisms-enabling-awareness-privacy-control

(12) How to Stimulate Investments in Secure & Trustworthy ICT?: http://daa.ec.europa.eu/content/special/how-stimulate-investments-secure-trustworthy-ict

(13) Wi-Fi security issues and legal certainty: http://daa.ec.europa.eu/content/wi-fi-security-issues-and-legal-certainty

2.6   Entrepreneurship and ICT for Jobs and Skills

2.6.1 Jobs & Skills

❖ Accelerate massive constant up-and re-skilling:

Life-long learning and the steady acquisition of new - ICT-related and other- skills is closely associated with sustainable employability (1). This is acute and urgent both for the unemployed and the business that face shortage of skilled workforce. More specifically e-skills deficiencies have been proven to cost billions to European economy (2).

Stakeholders suggest the use of disruptive innovation training & learning schemes to facilitate massive uptake of e-skills. These can include: open education (3), distance learning, apprenticeship, volunteering work, teaching/helping, start-ups, informal learning, the formation of sustainable communities of practice, creation and sharing of useful open educational resources (4), flexible skills certification/accreditation methods. It is also recommended to use existing cost-effective infrastructure such as public libraries for training activities (5). More suggestions include the broad adoption of flexible working methods including co-working, teleworking, homeworking, the use of Corporate Social Responsibility to shift the balance of power that exists between the corporate world and the individual (6) and the development of virtual work and virtual factories (7).

In the same context, it was suggested at the DAA2012 workshop to facilitate the development of skills for future leaders; humanistic managers who are not only expert in technology and management techniques, but also have the capacity to understand and deal with cross-disciplinary, moral and inter-cultural issues.

❖ Training initiatives performance indicators

Learning and training actions are meaningful to the degree that they lead to tangible employment. It was stressed the importance of introducing reliable metrics such as job placement monitoring methods in training and learning interventions to prove the quality and quantify the direct impact of the action on employment (job finding/creation) (8).

❖ Create Centres for change and innovation

Stakeholders identified a variety of options and opportunities for people to shape, restart or refocus their career. One proposed action was to encourage the creation of working, meeting and learning places (e.g. Telecentres) where citizens go in order to connect with other people, resources and technology, learn, collaborate and develop ideas creating social, cultural or economic value for the local or the wider community (9).

❖ Skills mapping: Monitor market needs and link them to training

Stakeholders highlighted the need to identify, monitor, analyse and document efficiently current and future national/regional level sector skills (10) and use them as input for dynamic new job profile descriptions (11) and respective agile training programs. The implementation of this process based on successful practices from different member states is a suggested task of the European-wide multi-stakeholder alliance for ICT jobs.

Quotes

"Despite the high unemployment rate in many developed economies, companies are struggling to fill manufacturing jobs with the right talent. And emerging economies cannot fuel their growth without more talent. Access to talent will become more important and more competitive."

"Shouldn't the production system (let's call like this, i.e. existing companies, employers) try to be more jobs-friendly, then supporting (re)skilling rather than just expecting the education system (public or private) to deliver the perfect employees?"

"Telecentres are no longer training spaces for digital skills. Now, [...] telecentres are places where citizens go in order to connect with other people, resources and technology and to develop their idea creating social, cultural or economic value for the community."

"[Many] people have no clue what their real skills are. They focus on 'formal' eSkills and miss out on mentioning their qualifications in management, commercial and communication skills. I.e. skills also needed to sell their own eSkills. I.e. could it be that we might have more eSkills available than we assume?"

Links

(1) http://daa.ec.europa.eu/content/youth-employment-crisis
(2) http://daa.ec.europa.eu/content/digital-skills-deficiencies-cost-europe-billions
(3) http://daa.ec.europa.eu/content/open-education-learning-e-skills-ecosystems
(4) http://daa.ec.europa.eu/content/mass-creation-skills
(5) http://daa.ec.europa.eu/content/public-libraries-employment
(6) http://daa.ec.europa.eu/content/csr-corporate-social-responsibility-and-employment
(7) http://daa.ec.europa.eu/content/more-manufactoring-general
(8) http://daa.ec.europa.eu/content/policy-action-help-search-inspiring-initiatives-fit
(9) http://daa.ec.europa.eu/content/telecentres-and-social-innovation-employability-and-innovation
(10) http://daa.ec.europa.eu/content/new-professional-profile-e-facilitator-ict-space
(11) http://daa.ec.europa.eu/content/iwa-italy-web-skills-profiles

2.6.2   Social Media

❖ <u>Need for an 'innovation culture' that makes use of social media in SMEs and start-ups to enable a contribution towards growth and job creation.</u>

Stimulating innovative start-ups and SMEs that use social media will help contribute towards this fast-growing element of the economy. However, this cannot simply be a matter of implementing social media technologies: education is a central element of the puzzle (1). We need to encourage organizations in Europe to capitalize on their greatest asset: knowledge. For this, education in new (social media) practices is central to the sustainability and success of the technology and the processes it engenders in European businesses and public organizations. Additionally, job creation can also emerge in the voluntary sector (2).

❖ <u>Finding ways to increasing transparency regarding user data management</u>

One of the major barriers to greater social media adoption appears to be unwillingness to expose too much personal data online. Whilst clear rules on protection might be difficult to achieve, transparency and thereby increased awareness of what data is being published is important to increase further uptake (3). In this respect, the 'right to be forgotten' will be a crucial element of building trust in the ecosystem.

❖ <u>Enhance and encourage more collaborative public services</u>

The public sector needs to adapt to transformations in service design, production, and delivery by taking on collaborative aspects into their operations. "...A lot of government tasks can be performed (completely or in part) by citizens or companies. That way government can become smaller and hopefully more agile while at the same time stimulating groups, organizations, and companies to come up with innovative solutions to improve services" (4).

Opening up key public data is central to this process, and social media can be a good channel to operationalize this. This should be part of a broader reconsideration of the goals of organizations and the processes which they use (5). Having "an organisational culture of openness and sharing is a very important factor in putting together a successful social media strategy" (6). If data is opened up and available for use in the context of social media, this should stimulate growth and employment in the social media sector notably the 'App Economy' which has emerged as a thriving environment for innovative micro-companies and SMEs to generate services and products (7). The health sector could be one public service that can clearly benefit from such developments (8).

Quotes

Transforming business with social media will #FAIL, if they don't get the education.

Let's face it - solving the problems facing Europe is beyond any small group of people, regardless of how intelligent they may appear. Tackling this crisis will require a platform for collective intelligence that harnesses the cognitive power of literally millions, taking the best features of Facebook, Twitter, and Google Maps as a decentralized civic architecture. Going beyond this crisis will require massive crowd-sourced innovation in business, bottom-up decision-making in politics, new ways of monitoring local ecologies, and most importantly - knitting this all together into a new way of doing/being.

Social media has to move from just being a social 'chatting' platform to being the way we communicate and collaborate: in business, in politics, in administration, in everything.

Links

(1) http://daa.ec.europa.eu/content/transforming-business-social-media-will-fail-if-they-dont-get-education#comments
(2) http://daa.ec.europa.eu/content/transforming-business-social-media-will-fail-if-they-dont-get-education ; #da12social workshop DAA
(3) http://daa.ec.europa.eu/content/platforms-collective-awareness-and-social-media" http://daa.ec.europa.eu/content/platforms-collective-awareness-and-social-media
(4) http://daa.ec.europa.eu/content/21st-century-media-needs-21st-century-rule" http://daa.ec.europa.eu/content/21st-century-media-needs-21st-century-rule
(5) http://daa.ec.europa.eu/comment/330#comment-330
(6) http://daa.ec.europa.eu/comment/330#comment-330
(7) http://daa.ec.europa.eu/content/successful-social-media-economy-four-keys-success" http://daa.ec.europa.eu/content/successful-social-media-economy-four-keys-success
(8) http://daa.ec.europa.eu/comment/398#comment-398
(9) #da12social workshop
(10) #da12social workshop

2.7   Innovation and Research

❖ Start-up Europe Partnership

According to stakeholders, start-ups fail to grow in Europe (1). Venture Capital (VC) financing model is not common in continental Europe (2). As one of the stakeholders outlined, "in the last 5 years, the American software industry received €14 billion more VC than the European, in 2010 it was €312 million in EU-27   vs.   €2.1   billion   in   the USA"Carstenhttp://daa.ec.europa.eu/users/carsten-kestermannKestermann (3). There is a lack of entrepreneurial culture. "There is a need for us in Europe to really change our attitude to risk and reward if we are to capture the economic growth being driven by young entrepreneurs" (4). The barriers seem to be cultural. Many target first a local market, and then expect to be bought by a US company (5). There is still a lack of EU policies to overcome national fragmentation.

Proposed solutions about approaches to raising money for start-ups were discussed (6). Different examples of crowdsourcing funding came up (e.g. Goteo) which soon evolved into the idea of launching an EU start-up partnership (7), similar to Start-up America in the US, to support web entrepreneurs in Europe. According to stakeholders, the partnership should provide the following services (8): organising events, creating how-to guides, supporting the networking of existing accelerators and services, promoting to investors, pitching competitions, demo events, arranging investor meetings, creating an experienced entrepreneur network, with access to customers, information on opportunities per country and industry, mentoring, address VC's to create spill over effects (to match Governmental investment), programme should not limit itself to small investments (get more growth capital to EU playground).

❖ Innovation funding and Horizon 2020

How could EU research and innovation funds engage the most innovative EU actors? (9). The perception is still that management of EU fund is bureaucratic, time consuming and geared towards technical or academic research rather than consumer or web start-ups. As some stakeholders outlined, in a European R&D framework, the aim of the research performed has to be crystal clear; either it is long-term basic research or it is industrially-driven applied R&D. Academia has a leading role in the first and industry in the latter (10).

The proposed solutions revolve around the possibility to introduce more flexible funding mechanisms, the capacity to attract the "right" people, the need for coherence between basic and applied research. Some stakeholders propose to use much more inducement prizes to promote innovation and to simplify access to funding. A good example was shared of an open funding model: the Arts Council England (11)[7], where red tape is reduced to a minimum (no deadline, no form, just free-form applications). Stakeholders proposed also to implement an

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[7] http://www.artscouncil.org.uk/funding/grants-arts/.

incremental approach: instead of funding big projects, to fund small ones, and then re-invest in furthering those that look promising. Ideally, this would replace a lot of ex-ante evaluation by monitoring.

There is also a need to foster the use of output indicators on R&D that are not yet available (12). Stakeholders share doubts on the protection of results: while online discussions outlined that if R&D is publicly funded it should be exploitable by all players on the European market, in the workshop participants shared that if there is co-investment by private players results should be protected. Finally, funding should be addressed to SMEs. When SME represent 80% of the market they also need to get 80% of the EU research funding (13). Stakeholders underlined that EU funded research should not go to those players that do not invest in Europe.

❖ Public-Private Partnerships- Innovation Charter

Stakeholders underline the importance of keeping and fostering manufacturing in Europe. This is a major challenge that industry needs to address by establishing design and manufacturing facilities in Europe.

In order to better exploit research results in Europe stakeholders propose to involve venture capital firms and entrepreneurs in the end of the value chain. There is also a need to change universities culture to better exploit research results: we shall promote engagement on the industry-side, but also make efforts on the university side to motivate researchers (14).

❖ Cluster Policy

Typically clusters are local, but what is the role of the EU? Should a multitude of clusters be supported, or should investment be focused on selected areas of excellence across country? The cooperation between different R&I actors located in a region should be enhanced. Clusters need to maintain the focus on genuine excellence, highly focused concentrated and selective. They need to be locally embedded but competitive on the global market (15).

❖ Entrepreneurial Culture and Framework conditions to boost entrepreneurship

The framework conditions are not conducive to promote entrepreneurship for start-ups in Europe. Some inspiring examples shared: UK, US or Israel. E.g. The UK Government has launched (16) in 2011 determined steps to unleash enterprise and drive new business growth, linking tax, regulation, education and innovation policy.

Stakeholders underline the need to promote an entrepreneurial culture in the EU by: educating schoolchildren to become entrepreneurs; stimulating entrepreneurial hot spots, or clusters for specific areas; and more simplified intellectual property protection (17).

Quotes

"About UK policy: great set of initiatives. Wish it had been there when we started. Much more important than TechCity PR nonsense #da12innov".

"One of the things that struck me the most is how the narrative is changing from 'Austerity' to 'Growth'. There's real hunger to support European growth, in the form of new start-up's, funding, improved education and skills, connectivity, and general policy changes that would remove obstacles from the innovation process."

Links

(1) http://daa.ec.europa.eu/comment/342#comment-342
(2) http://daa.ec.europa.eu/comment/940#comment-940
(3) http://daa.ec.europa.eu/comment/978#comment-978
(4) http://daa.ec.europa.eu/content/changing-entrepreneurs-culture-europe
(5) http://daa.ec.europa.eu/content/article-building-next-facebook-tough-task-europe-nyt
(6) http://daa.ec.europa.eu/content/raising-money-start-ups-what-policy-support-us-rigth
(7) http://daa.ec.europa.eu/content/do-we-need-european-public-private-partnership-support-eu-web-enterpreneurs-start-and-grow
(8) http://daa.ec.europa.eu/content/what-do-you-think-european-partnership-web-enterpreneurs-should-consist
(9) http://daa.ec.europa.eu/content/sparking-innovation-europe
(10) http://daa.ec.europa.eu/comment/48#comment-48
(11) http://daa.ec.europa.eu/content/special/comment-position-paper
(12) http://daa.ec.europa.eu/content/are-eu-countries-doubling-their-investment-rd-ict
(13) http://daa.ec.europa.eu/content/special/comment-position-paper
(14) http://daa.ec.europa.eu/content/writing-together-digital-innovation-charter
(15) http://daa.ec.europa.eu/content/ict-clusters-europe-what-should-be-done
(16) http://daa.ec.europa.eu/content/interesting-uk-policy-starting-and-growing-business-what%C2%B4s-happening-elsewhere
(17) http://daa.ec.europa.eu/content/changing-entrepreneurs-culture-europe

3.   Conclusions and lessons learnt

Online engagement is not a novelty in European policy-making: For several years the European Commission has organised consultation through the Interactive Policy Making (IPM) 2.0 tool, which has been effective in generating policy-relevant input; and the Commission is very active in social media, which is effective for communicating but also stimulating out-of-the-box thinking. The approach of the DAA is original insofar as it tries to combine the targeted approach of IPM with the openness of social media, in particular through:

- Peer-to-peer: allowing anyone to see what other people are saying and to pose questions ; enabling distributed contributions by stakeholders;

- Federated: two-way integration of content with social media through "tags";

- More open: publishing early draft EC documents for comments; releasing all the content of the discussion as open data; non-filtered discussion with direct participation of Commission staff;

- Qualitative: focussing on quality of evidence (number of "interesting" votes) rather than consensus (number of "like" votes).

While experimental in nature, the outcome was satisfactory in terms of quality and quantity of participation. The level of online engagement was effective in achieving the goals of:

- Reaching out to new stakeholders: more than 90% of online participants did not attend the DAA. Online engagement proved complementary, not redundant;
- Facilitating peer to peer discussion: participants provided comments, launched discussions, posed questions and even new initiatives ;
- Generating meaningful policy input: new ideas and inspiring examples were proposed across all forums.

The key lessons learnt can be grouped around 2 main points:

i.   Clear design

Online engagement requires careful design. The policy context and goals should be clear from the outset, and each workshop should have clear leadership. The language is particularly important, as it needs to reach out and include non EU specialists.

The lack of a clear structure from the outset of the discussion was perceived as a barrier to participation and made it much more challenging to summarise the results. Too many discussions were launched and this often increased the "noise" for both stakeholders and the European Commission. While allowing for open bottom-up discussion, there is a need to simplify the process, clarifying the key

questions and focusing the discussion around these questions; add new "navigation" tools beyond the "what's new and what's hot".

As the feedback received is qualitative rather than quantitative, it is difficult to report on the discussion in terms of "stakeholders think that". Usage of the online input should be considered as a collective intelligence effort, aimed at insight rather than representativeness. As such, the value-added is often more on the evidence and new ideas emerging, rather than on the opinion stated.

ii. A long-term process

The online engagement was effective but far from perfect. Opening up lead to a better debate, to new ideas and brought new people to the debate. But learning and tweaking is necessary from both the Commission and the stakeholder's side. In particular, the role of online engagement in the policy-making process should be clarified, building on the experience of the present. The process should be well documented to the Commission and to stakeholders, to ensure that participants are clear about how their input has been used.

Established players were less likely to participate because they have more traditional channels to influence policy. Online input may have differed from the discussion in the workshops because of the different participants.

The outcome of the online engagement does not end here. As described in the introduction, engagement was primarily designed to leverage insight and evidence, rather than stimulating representative feedback. Accordingly, participants provided not simply opinions about strategic policy priorities, but a rich set of inspiring examples of initiatives that will contribute towards the implementation of the Digital Agenda for Europe.