European Commission

SCALE

Workshop no. 1 Report

empirica

In cooperation with:

pwc

IDC Analyze the Future

and

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Content

1 Towards an Agenda

Under the service contract "Promotion of e-Leadership Skills in Europe" - which empirica, PwC and IDC are carrying out together with researchers from the Oxford Martin School at Oxford University – an 'Agenda for e-Leadership in Europe 2016-2020' will be developed. Development will take place in iterations and supported through experts providing feedback on early drafts, expressing their views and making their contributions in a series of expert workshops conducted throughout the year 2016. The first workshop was organised by empirica on the topic 'Disruptive Digital Economy Trends and the Implications for the Workforce, Skills and Policy Initiatives on e-Leadership Skills' and took place in Brussels on 22 January 2016. The interim results of the agenda development activities including the results from this first expert workshop are presented in the present report. It comes timely for consideration by the new European Commission Communication to be published in May 2016 which is expected to include a revision of the current European Commission e-skills strategy.

Our ambition is to ensure that Europe can act as a global leader for leadership skills and talent for digital and key enabling technologies.

1 Towards an Agenda

2 Developing the Agenda

The agenda will be developed in collaboration between the above partners as well as experts from a range of national governments and associated institutions, policy developers, industry and its association representatives at national and European level, think tanks, researchers and academics as well as higher and executive education institutions and other relevant key stakeholders all providing their views on the future necessary (policy) actions and thereby directly contributing to and shaping European and Member State policy development for the coming years.

As mentioned above a series of expert consultations will take place with the above stakeholder in the preparation of the agenda organised through workshops to which experts will be invited and as follows:

Workshop	Topic	Date and venue
Workshop 1	Disruptive Digital Economy Trends and the Implications for the Workforce, Skills and Policy Initiatives on e-Leadership Skills	22 January 2016, Brussels
Workshop 2	Software in Europe – what needs to be done for Europe to move from 'use' to 'creation'	20 April 2016, Brussels
Workshop 3	Best Practice Initiatives - Lessons and Contributions to the Development of the 'Agenda for e-Leadership in Europe 2016-2020'	22 September 2016, Brussels
Workshop 4	Tbd	24 November 2016, Brussels

The final results and the 'Agenda for e-Leadership in Europe 2016-2020' will be presented at a European closing conference on 26 January 2017 in Brussels.

2.1 Towards recommendations and actions

2.1.1 Initial set of recommendations and actions

Focussing on strategic priorities is needed to meet the ambitious targets. These together with recommendations were firstly derived from those identified in relevant precursor studies and activities including the European e-Leadership Initiative which started in 2013 (see www.eskills-guide.eu) and which was continued in 2014 by also addressing SME and start-ups (www.eskills-lead.eu) and ended in late 2015 and the KETs Skills Initiative ('Vision and sectoral pilot on skills for key enabling technologies') which ended in 2016.

Secondly, these recommendations were and will continue to be validated, enhanced and further developed in discussions and consultations with stakeholders by what the experts envisage as relevant and most important strategic priorities and recommendations addressed to different policy makers and stakeholders at all levels and the necessary actions resulting from these.

2.1.2 Conclusions and consolidated recommendations and actions

The first workshop was consulting experts on recommendations which they were asked to formulate as potential policy actions with an interest in delivery, scalability and sectoral focuses, aiming at new skills development and the strategy to achieve this. Preference was to be given to joint activities with Member States able to make use of existing European Commission funding instruments.

The structured summary of 34 recommendations and actions from precursor activities were use as the basis and starting point for this discussion at the workshop. These are presented in Annex 1. The numbering of these initial recommendations is referred to in brackets where appropriate in the tabular overview below.

After a very lively discussion and receipt of several concrete contributions and discussions following the workshop we – for the time being - formulated the following 9 strategic priorities:

1. New indicators, statistics, monitoring, benchmarking and forecasting
2. New education and training
3. Best practice replication, expansion and scaling contributing to more balanced regional development in Europe
4. Platform-based online career support, recruitment and job search
5. Maturing the ICT Profession
6. Alignment and integration of different policy fields and education and training programmes
7. Longer-term national policy and stakeholder commitment and coordinated actions
8. Promotion and awareness raising
9. New KET skills training.

For each of these strategic priorities recommendations and actions were formulated. In the vast majority of cases these are the result of a further development and consolidation of existing recommendations into which the comments and recommendations of the experts were incorporated. As a result, many recommendations were substantially enhanced. Some of the recommendations were newly proposed by experts. This is indicated in brackets. The references to the numbering of the original recommendations and actions were kept and these are also shown in brackets.

Key contributions, recommendations and conclusions from the experts included the following ones:

- There is an urgent need for and the European Commission is asked to establish and operate a continuous monitoring of developments as an 'early warning system' to guide policy development at European and national Member State level in the whole area of digital, e-skills and e-leadership skills and regularly and continuously report about the results.
- In Europe we have to increase the number and share of teachers/lecturers from user industry (strategists, executives) to better align education and training with user industry and social partner requirements.
- The experts recommend to support more experimentation with 'loose' or no curricula-based (ad hoc) education and training programmes using new approaches for creative learning like for instance peer-to-peer learning (e.g. ecole 42) offering co-working and learning spaces as opposed to the traditional tutorial teaching approach.
- Several experts made the strong point for
  - o the development and provision of online tools and guidance supporting diagnosis and self-assessment in recruitment, appraisal and career advancement processes mainly based on 'development potential' and less on certificates; p
  - o the provision of tools and guidance for rapid programme adaptation building on new approaches such as the 'curriculum profile' approach followed by rapid light-weight certification;
- Good practices from the own experiences of experts attend the workshop and from which to learn and base developments on include tools like the
  - o 'Berufsnavigator' (occupation navigator) from the German employment agency linking career advancement to training and thereby demonstrating short and long-term effects of training activities;
  - o Further activities in this area should be based on an assessment of existing diagnostic tools which reflect the e-leadership skill requirements for their suitability (e.g. LMSA in Northern Ireland, the Entrepreneurial Skills Check as part of ECN Network in Austria, improve tool: https://www.improve-innovation.eu) to provide a checkpoint or baseline for individuals and signpost areas for development.
- These tools should be used in
  - o providing benchmark data to individuals, so they can see how they compare and also information for the Monitoring and Benchmarking of e-leadership skills;

- o could support the Innovative platform-based career support and job search services (see topic 3 below);
- o develop an online European repository for the promotion of tools and best practices of tool use but also case studies on how e-leaders of today developed their skills to make them successful.

- Start early: Teach ICT use potential and digital literacy focussing on real-world challenges and situations starting already in primary and secondary schools and with a strong industry-related focus in vocational schools; increase exploration and experimentation with a 'boot camp' approach (e.g. Generation initiative of McKinsey).
- Test different policy options to address e-leadership skills challenge based on the experiences of and lessons learnt for instance in the UK Commission for Employment and Skills 'UK Futures programme' (UKFP). Experience has shown that policy programmes could be developed throughout Europe with a relatively small sum of public money to pilot innovative solutions, with specific learning delivery mechanisms, awarded in a competitive process, with a strong employer leadership and collaboration between partners, with the potential for scalability and replicability, committed to dissemination operating in timebound manner to stimulate swift activity and working towards concrete goals with the potential for co-creation across different projects working to tackle the same problem.

These expert recommendations for action have been included and considered in the further development of recommendations. The tabular overview below now reflects the current state-of-the-play in the development of strategic priorities, recommendations and actions for inclusion into the 'Leadership Skills for Digital and Key Enabling Technologies 2016-2020'.

The consultation process will be continued in all the other workshops referred to above.

Type	Group / Topic	Recommendation NEW (in brackets: reference to numbering of the original recommendation)
1	**New indicators, statistics, monitoring, benchmarking and forecasting**	**Scoreboard (1)**: Engage with a broader set of stakeholder groups to sharpen definitions and metrics for e-leadership skills: Continuously update e-leadership indicators and scoreboard in a coordinated Europe-wide activity reaching beyond Europe where possible and regularly and continuously report about the results.
		Observatory (2, 21, 24): Continuously update workforce, demand, supply and forecast figures for EU28 and each Member State. Develop Big-Data-type approaches and methodologies based on comprehensive vacancy data sources and seek cooperation with key players in the market including global business-oriented social networking service operators offering relevant big data datasets covering (many) European countries and beyond. Regularly and continuously report about the results.
2	**New education and training**	**New partnerships and players (4, 10, 20):** Universities to more rapidly align curricula and programmes to newly emerging skill requirements. Co-existence of different actors and approaches and division of work between a) universities and business schools, b) other training providers and consultants, c) new players and market entrants; programme development more aligned to user industry needs; rapid new curricula development for programmes; 'on-demand' courses without curricula and Bologna certification behind.
		New formats (4, 22): Motivate and support education and training institutions to implement and offer a range and variety of learning formats: from f2f, blended to online teaching/learning including 'hybrid' learning models (e.g. using MOOCs, remote and f2f tutorship and exercises, in order to achieve measureable and certified outcomes) and make 'horizontal' skills (social, soft and leadership skills) teaching mandatory. Significantly increase the number and share of teachers/lecturers from user industry (strategists, executives) to better align education and training with user industry and social partner requirements. Support more experimentation with 'loose' or no curricula-based

Type	Group / Topic	Recommendation NEW (in brackets: reference to numbering of the original recommendation)
		(ad hoc) education and training programmes using new approaches for creative learning like for instance peer-to-peer learning (e.g. ecole 42) offering co-working and learning spaces as opposed to the traditional tutorial teaching approach.
		Platform-based toolbox (3, 12, 13, 15, 16; relationship to 11, 34): Develop and provide online tools and guidance supporting diagnosis and self-assessment in recruitment, appraisal and career advancement processes mainly based on 'development potential' and less on certificates; provide tools and guidance for rapid programme adaptation building on new approaches such as the 'curriculum profile' approach followed by rapid light-weight certification; base developments on lessons learnt from tools like the 'Berufsnavigator' (occupation navigator) from the German employment agency linking career advancement to training and thereby demonstrating short and long-term effects of training activities; assess existing diagnostic tools which reflect the e-leadership skill requirements for their suitability (e.g. LMSA in Northern Ireland, the Entrepreneurial Skills Check as part of ECN Network in Austria, improve tool: https://www.improve-innovation.eu/ to provide a checkpoint or baseline for individuals and signpost areas for development; use tools in providing benchmark data to individuals, so they can see how they compare and also information for the Monitoring and Benchmarking of e-leadership skills; could support the Innovative platform-based career support and job search services (see topic 3 below); develop an online European repository for the promotion of tools and best practices of tool use but also case studies on how e-leaders of today developed their skills to make them successful.
		Light-weight Certification (14, 15): Develop light-weight certification and quality label for ad-hoc and short-term courses in close cooperation with industry.
		Start early and in schools (10): Teach ICT use potential and digital literacy focussing on real-world challenges and situations starting already in primary and secondary schools and with a strong industry-related focus in vocational schools; increase exploration and experimentation with a 'boot camp' approach (e.g. Generation initiative of McKinsey).
		Replication, upscaling and expansion (NEW) of tested and successful approaches, methodologies and partnerships for the development of leadership skills for digital and key enabling technologies supported by the promotion of best practices offering guidance and a concrete methodology for replication to achieve upscaling and expansion.
3	**Platform-based online career support, recruitment and job search**	**Innovative platform-based online career support, recruitment and job search services (11, 34; relationship to 3, 12, 13, 15, 16):** Explore avenues for exploiting big data analytics and information generated on online job/talent, job advertising platforms and job-matching sites. The European Commission to work with national employment agencies to ensure that national systems are aligned with Europe-wide initiatives. To facilitate workers' shifting into new types of jobs, training providers should exploit labour market intelligence to offer relevant learning opportunities that allow workers to plug skill gaps as they emerge over the course of work life. The e-CF to be used as the common 'language' in this online mapping and matching process.
4	**Maturing the ICT Profession**	**e-CF 4.0 and 5.0 (12, 18):** Enlarge the e-CF by new leadership requirments skills and competences for digital and key enabling technologies allowing to fully define the ICT profession/professionals; encourage convergence of disparate related competence frameworks in the realm of e-leadership and e-skills; motivate industry, job-seekers, career changers, employment agencies and staffing industry to use the e-CF framework as the common 'language' in the

Type	Group / Topic	Recommendation NEW (in brackets: reference to numbering of the original recommendation)
		(online) competence and skill mapping and matching process to achieve a best match bewteen demand and supply in the market and to counsel job seekers on re-skilling and certification.
		Future ICT Professions and job profiles 2020+ (12, relationship to 4, 10, 20): Define the ICT professions of the future resulting from latest technology, industry and business developments and trends and the new job profiles in form of 'competence and skill bundles' using the (enlarged) e-CF and / or ESCO as framework(s) allowing to remain flexible and responsive to changes likely to emerge in increasingly shorter time frames; develop suitable VET, higher and executive education and training and further training paths, curricula, programmes and courses to be offered by all co-existing training providers
5	**Alignment and integration of different policy fields on ICT, e-leadership, digital entrepreneurship and KETs and related education and training programmes**	**Alignment (5, 6):** Align higher and executive ICT and business education and training with leadership training and integrate these into KET higher education programmes. Reflect this in national policies and policy programmes supporting integration and alignment and cooperation on these issues between higher and executive education institutions and industry actors by providing incentives to speed up the process.
6	**Longer-term national EU28 member state policy commitment and action towards leadership skills for digital and key enabling technologies**	**Longer-term policy commitment (8, 9, 17, 25, 32, 33):** Motivate Member State governments for a longer-term policy commitment and scale up effort through launching initiatives especially in countries lagging behind which could include the establishment of digital competence centres in all NUTS2 regions building on already existing infrastructures (e.g. telecentres) and well equipped laboratories for KETs training.
7		**Test different policy options to address e-leadership skills challenge (NEW):** Based on the experiences of and lessons learnt in the UK Commission for Employment and Skills 'UK Futures programme' (UKFP), policy programmes could be developed throughout Europe with a relatively small sum of public money to pilot innovative solutions, with specific learning delivery mechanisms, awarded in a competitive process, with a strong employer leadership and collaboration between partners, with the potential for scalability and replicability, committed to dissemination operating in timebound manner to stimulate swift activity and working towards concrete goals with the potential for co-creation across different projects working to tackle the same problem.
8	**Promotion and awareness raising for e-leadership, KET and e-skills**	**Promotion and awareness raising (7, 19, 23, 31):** Continue promotion and awareness raising throughout Europe, not only at later stages of education, but also from early ages onwards.
9	**New KET skills training**	**Embedding technical multidisciplinarity in the curriculum (26):** Training students in various disciplines simultaneously so that they can work 'at the crossroads' of those disciplines (e.g. mechatronics combining mechanics, electrics and systems engineering).
		Embedding non-technical courses in technical curricula (27): offering non-technical courses for technical students in the areas of quality, risk & safety; management & entrepreneurship; communication; innovation-related competences and emotional intelligence skills.
		Updating the skills of teachers/professors (28): sending educational personnel to companies to get insights into the latest developments, while inviting people from companies to regularly teach in the classroom, to increase the (practical) relevance of education.
		Train transformational skills (NEW; relationship to 26, 27): there is a need to train a combination of technical and non-technical skills that together drive the transformational capacity of people in KETs, particularly by stimulating agility and their ability to solve complex problems. This includes a need to stimulate the skills required for solving problems as a team, as today's complex (societal)

Type	Group / Topic	Recommendation NEW (in brackets: reference to numbering of the original recommendation)
		challenges demand a multidisciplinary approach.

3   ANNEXES

3.1 Initial set of recommendations for discussion

	GROUP	RECOMMENDATIONS	ACTIONS 2016-2020
1	**e-Leadership indicators, scoreboard, continuous demand and supply monitoring based on new (big) data sources, benchmarking and forecasting for EU28 and beyond**	**1. Sharpen metrics**: Engage with a broader set of stakeholder groups to sharpen definitions and metrics for e-leadership skills.	Continuously update e-leadership indicators and scoreboard in a coordinated Europe-wide activity reaching beyond Europe where possible.
1		**2. Monitor demand and supply**: Regularly monitor demand and supply of e-leadership while improving planning and data availability about e-leadership skills.	Continuously update e-leadership demand, supply and forecast figures 2016-2020 in a coordinated Europe-wide activity reaching beyond Europe where possible.
1		**21. Gap monitoring**: Establish and disseminate robust estimates of supply and demand	Identify new data sources for information on demand and supply of e-leadership skills and develop big data-type approaches for addressing this issue to establish a comprehensive monitoring and projection system.
1		**24. Monitoring and benchmarking**: Develop innovative estimates on e-leadership supply and demand	Develop innovative estimates on e-leadership supply and demand using new data sources for a pan-European observatory and where possible extending beyond Europe (see also recommendations 1, 2 and 21)
2	**New e-leadership education and training**	**4. Create new teaching formats and partnerships**: Create new formats and partnerships for teaching and acquiring e-leadership skills.	A greater number of educational institutions to team up with industry and roll out a range of e-leadership curricula and programmes / courses.
2		**20. Skills variety**: Continue stakeholder dialogue to stimulate supply-side response to the variety of e-leadership skills requirements across the economy	Continue stakeholder dialogue to stimulate supply-side response to the variety of e-leadership skills requirements across the economy.
2		**22. Research and training**: Utilise the opportunities for e-leadership training course / programme development	Training institutions to put greater emphasis on digital leadership, act as life-long training providers and utilise the opportunities for e-leadership training course / programme development and develop new or adapt existing programmes building on curriculum profiles and including 'hybrid' learning

	GROUP	RECOMMENDATIONS	ACTIONS 2016-2020
			models such as MOOCs thereby using EC funding opportunities where appropriate.
2		**3. Develop curricula guidelines and quality label**: Develop and apply e-leadership curricula guidelines and quality labels.	Prepare the consolidation and maintenance of e-leadership guidelines and curriculum profiles in conjunction with key stakeholders in Europe.
2		**13. Broad adoption**: Promote understanding of e-leadership and widespread adoption of the Guidelines	Promote widespread use of the e-leadership curriculum guidelines in EU28 member states. Initiate the preparation of a CEN CWA (CEN Workshop Agreement) to prepare for Europe-wide standardisation.
2		**16. Online presence**: Support the setting up online services for e-leadership skill development, for learners and for education and training institutions	Enable use / emulation of prototypes currently (2016) under development for e-leadership content, user dialogue and general functionality.
2		**15. Governance**: Encourage stakeholders to establish governance for e-leadership development, quality assessment and recognition	Propose suitable governance model for e-leadership education and training supply and motivate and encourage stakeholders to take active and efficient government roles.
2		**14. Certification**: Foster appropriate certification structures for e-leadership skill documentation and transparency	Establish and propagate best practice in the certification of e-leadership skills and define common certification principles across the EU.
2		**10. Adapt education and training**: Adapt education and training to the digital age	National and regional authorities should ensure that primary and secondary school curricula embed ICT use and digital literacy throughout the learning process, with a focus on creative ICT applications for real-world challenges.
2	**New KET skills training**	**26. Embedding technical multidisciplinarity in the curriculum**: training students in various disciplines simultaneously so that they can work 'at the crossroads' of those disciplines (e.g. mechatronics combining	Designing adjustments in the curricula for VET/Bachelor/Master/PhD programmes (pilot projects); development and promotion of pan-European MOOCs training multidisciplinarity in KETs; development of European Multidisciplinary Master Programmes.

	GROUP	RECOMMENDATIONS	ACTIONS 2016-2020
		mechanics, electrics and systems engineering)	
2		**27. Embedding non-technical courses in technical curricula**: offering non-technical courses for technical students in the areas of quality, risk & safety; management & entrepreneurship; communication; innovation-related competences and emotional intelligence skills	Stimulating educators to introduce this change to the educational system by means of providing financial support to design new teaching strategies and to implement those to practice; incentivising educational institutions to adopt this change; supporting training to teachers to introduce this change
2		**28. Updating the skills of teachers/professors:** sending the educational personnel to companies to get insights into the latest developments, while inviting people from companies to regularly teach in the classroom	Promoting and funding dedicated training programs for teachers implying their exchange with industry
2		**29. Promoting innovation in teaching:** rewarding educational institutions and teachers/professors for introducing innovative approaches; these aspects need to be embedded in the assessment schemes for both organisations and individuals.	- Adjusting the reward system; - Adjusting regulation to provide the educational institutions with sufficient flexibility to change the curriculum; - Providing educators with additional financial means to introduce change; - Specifically, continuing to offer funding support for cooperation projects between business, education and training institutions to try out new approaches (currently offered by DG EAC Erasmus+ programme); - Increasing awareness of educators about the existence of programmes mentioned in the point above
2		**30. Convincing companies that the return on training and skills development investment is sufficient to offset the costs**: encouraging employers to invest in up-skilling of their personnel by offering them factual evidence and by	Collecting evidence of benefits of personnel training in KETs and to disseminate existing good practices

	GROUP	RECOMMENDATIONS	ACTIONS 2016-2020
		showcasing good practices.	
2		**18. e-CF**: Further enrich the European e-Competence Framework	Maintain the use of the e-CF as standard competence framework for all e-leadership curriculum profiles, encourage convergence of disparate related competence frameworks in the realm of e-leadership and e-skills and ensure that new e-leadership skills requirements are incorporated in the future version 4.0 of the e-CF.
2		**12. ICT professionalism**: Foster ICT professionalism and quality	National and EU-level initiatives should be fostered to strengthen ICT professionalism, to steer professional skills to where there is demand for ICT practitioners using the e-Competence Framework (e-CF) and online tools for career support and lifelong learning, and to counsel job seekers on re-skilling and certification.
3	**e-leadership and digital entrepreneurship policy and education and training alignment**	**5. Align e-Leadership and entrepreneurship actions**: Align actions to develop e-leadership skills with efforts to foster entrepreneurship across the EU.	Align both e-leadership and digital entrepreneurship types of policies and actions and develop common approaches.
3		**6. Integrate e-Leadership skills development in entrepreneurship programmes**: Foster e-leadership in the context of entrepreneurship and self-employment.	Include and integrate e-leadership skills development in/with entrepreneurship programmes and innovation incubators in all EU28 member states.
4	**Promotion and awareness raising for e-leadership, KET and e-skills**	**7. Awareness raising**: Build awareness of e-leadership skills for innovation, competitiveness, and employability	All stakeholders to continue to play an active role in awareness creation of e-skills in general and e-leadership skills in particular using multiple formats.
4		**19.SME leaders**: Extend concept of e-leadership to SMEs, consulting, entrepreneurial activity and	Continue awareness creation and promotion of e-leadership skills addressed to SMEs, consulting, entrepreneurial activity and self-employment.

	GROUP	RECOMMENDATIONS	ACTIONS 2016-2020
		self-employment	
4		**23.Stakeholder coordination**: Foster cooperation activities on e-leadership	Coordinate stakeholders to foster promotion, governance and cooperation activities on e-leadership in a coherent and efficient manner.
4		**31. Developing a targeted communication strategy to increase awareness on KETs:** mobilising mainstream media and social media	Developing targeted national communication plans for KETs; developing targeted national communication plans for KETs with a particular emphasis on girls, with an objective to inspire them to join the world of KETs; implementing the abovementioned communication plans on MS level
5	**Longer-term national EU28 member state policy commitment and action towards e-leadership, KETs and e-skills**	**9. Longer-term policy commitment**: Scale up effort through longer term policy commitment	All European national governments should continue to put in place a long-term strategy with clear goals, targets and measures to ensure sustainability of successful activities and partnerships that can address the e-skills challenge.
5		**17.EU Member States**: Strengthen cooperation and capitalise on Member State initiatives and best practices	Encourage action by EU28 member states national governments, stakeholders and associations to strengthen current policy initiative to create a more ambitious approach to e-leadership skill development focusing on innovation.
5		**25. Policy commitment**: National policy makers to demonstrate commitment towards e-leadership skills	National policy makers to demonstrate commitment towards e-leadership skills and scale up their efforts in a longer term perspective, and where appropriate using European funding opportunities to invest in training and lifelong learning projects.
5		**8. National initiatives**: Launch initiatives in countries lagging behind	Governments in countries with low levels of e-skills activity should continue to establish comprehensive strategies, foster multi-stakeholder partnerships and engage in related measure and activities.
5		**33. Digital competence centres**: Establish digital competence centres in all NUTS2 regions	Establish digital competence centres in all NUTS2 regions to support and incentivise the adoption of digital technology in local companies and engage with local stakeholders to promote the development of basic digital and e-leadership skills of individuals located in disadvantaged regions and urban areas, which would involve promoting exposure to digital technology. Importantly, by sharing technological knowledge with local businesses, and training the local workforce, these centres should help boost local productivity.

	GROUP	RECOMMENDATIONS	ACTIONS 2016-2020
5		**32. Raising the quality of infrastructure and improving working conditions**: makes KETs an attractive field to work in	Building well-equipped laboratories; offering workers safe working environment; offering flexible project budgets; offering attractive remuneration.
6	**Innovative platform-based online career support, recruitment and job search services**	**11. Advise on future job opportunities**: Build bridges for students, graduates and workers	National governments should offer access to high quality information and career-support services for young people, providing advice on existing and future job opportunities and industry demand, and demonstrating that they could quickly find a job.
6		**34. Platform-based talent markets for 'disruptive' online recruitment and job search**: Explore avenues for exploiting big data analytics in job search and recruitment processes	Explore avenues for exploiting big data analytics and information generated on online job/talent, job advertising platforms and job-matching sites.The European Commission to work with national employment agencies to ensure that national systems are aligned with Europe-wide initiatives.To facilitate workers' shifting into new types of jobs, training providers should exploit labour market intelligence to offer relevant learning opportunities that allow workers to plug skill gaps as they emerge over the course of work life.The e-CF to be used as the common 'language' in this online mapping and matching process.

3.2 Workshop no. 1 agenda and participants

The Workshop no. 1

Disruptive Digital Economy Trends and the Implications for the Workforce, Skills and Policy Initiatives on e-Leadership Skills

22 January 2016; 10:30 – 17:00 h; EU Liaison Office of the German Research Organisations (KoWi); Rue du Trône 98, B - 1050 Bruxelles (Belgium)

Agenda

10:30 | **Welcome and Introduction**

- European Commission Policy Background
- The service contract 'Promotion of e-Leadership Skills in Europe'

André Richier, European Commission DG GROW
Werner B. Korte (Director), empirica GmbH

11:00 | **DIGITAL ECONOMY: The Digital Economy: Implications for the Workforce**

Results from academic research and analysis:

- The changing composition of labour markets
- Competing for talent: skill requirements in the global economy
- Bridging the skills gap
- Conclusions

Discussion

Carl Frey, Oxford Martin School at Oxford University

12:30 | **LUNCH**

13:30 | **TRENDS: Business, Industrial and Technology Trends and Impact on e-Leadership Skills**

- Towards Digital transformation
- Overview of main ICT trends
- Main KET trends
- General conclusions

Discussion

Gabriella Cattaneo (Vice President), IDC

14:30 | **REPOSITORY: EU Member State policies and initiatives on e-leadership skills education and training including those related to e-leadership skills in KET and AMT**

- Interim results from an analysis of more than 300 policy initiatives throughout Europe
- Best practices
- Transferability

Discussion

Werner B. Korte (Director), empirica GmbH and Mark Lengton (Consultant), PwC

15:30 | **SURVEY: Assessment of e-Leadership Skills Policies, Initiatives and Partnerships including those related to e-leadership skills in KET and AMT at European and National Level in the EU**

Selected results from a Europe-wide Survey of experts (with a net response rate of 700+) on the following topics:

- e-leadership policy and initiatives assessment
- Challenges to be addressed
- Technology trends impact and new skill requirements
- Stakeholder contributions to a European e-Leadership Agenda 2016-2020
- Trends regarding e-leadership skills in KETs and liberal professions, and the related challenges

Discussion

Tobias Hüsing (Senior Research Consultant), Eriona Dashja (Research Consultant), empirica GmbH and Mark Lengton (Consultant), PwC

16:00	*Plenary discussion*	
16:45	Conclusions and Next steps	
	André Richier, European Commission DG GROW	
	Werner B. Korte (Director), empirica GmbH	

Participants

First Name	Surname	Role	Organisation	Country
Gabriella	Cattaneo	Vice President	IDC European Government Consulting	IT
Eriona	Dashja	Research Consultant	empirica	DE
Roger	De Keersmaecker	Senior Consultant, em. Prof. KU Leuven	IMEC	BE
Emir	Demircan	Project coordinator	European Association of the Machine Tool Industries	BE
Julia	Dous	Senior Consultant	Kienbaum Executive Consultants	DE
Birgit	Eiber	Head of Organisational Development	Bundesagentur für Arbeit	DE
Carl	Frey	Co-Director of the Oxford Martin Programme on Technology and Employment	Oxford Martin School at Oxford University	UK
Stefan	Heumann	Programmleiter "Europäische Digitale Agenda"	stiftung neue verantwortung	DE
Tobias	Hüsing	Senior Resrach Consultant	empirica	DE
Nelly	Kernevez	Partnership Director	SOITEC	FR
Werner B.	Korte	Director	empirica	DE
Mark	Lengton	Consultant	PwC	NL
Giulia	Perini	Consultant Generation Spain project	McKinsey & Company	
Chris	Phethean	Research Fellow	European Data Science Academy and University of Southampton	UK
André	Richier	Principal Administrator	Europen Commission DG GROW	BE
Konstantin	Scheller		European Commission, DG EAC	BE
Carol	Stanfield	UK Futures Programme, Assistant Director: Research	UK Commission for Employment and Skills	UK
Eckhard	Störmer	Project Manager Foresight Projects	z-punkt	DE
Niels	van der Linden	Senior Consultant	Capgemini Consulting	NL
Andy	Westwood	Professor	GuildHE	UK