

# Can you make a difference in digital accessibility with EU policy?



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# The digital transformation is on its way and can both help and hinder accessibility

Public policy is needed to do no harm and do more good

You are key players in defining and implementing such policy

## Which EU Policy?

#### **EU** policy

- 1. Focused on digital accessibility:
  - Web Accessibility Directive 2016
  - European Accessibility Act being negotiated
- 2. Highly relevant for digital accessibility:
  - Digital policy
  - Public procurement
  - General Data Protection Regulation
  - Funding programmes: ESF, ERDF, Horizon 2020, EFSI, others
- 3. Sector policy:
  - Self-driving cars, smart energy, medical devices, banking

Strategic Investment Fund

Regional and Social Funds

Connecting Europe Facility

#### Digital Single Market

#### Online goods and services

Copyright (Marrakesh <sup>(2)</sup>)

#### Networks and services

- Telecoms 🙂
- Audio-visual
- **Platforms**
- Cybersecurity
- eIDAS 🙂

#### Digital economy

- Inclusive eSociety
- Digital Skills 🙂
- eGovernment 🙂
- Free flow of data

#### Horizon 2020

- Health, Demographic Change, Wellbeing ©
- Inclusive & Innovative Society incl COST ©
- (Energy R&I)
- (Transport R&I)
- (Cybersecurity R&I)
- ICT 🙂



European Accessibility Act (proposed)

**GDPR** 

Sectoral Policy (cars, banks, ...)

#### Web accessible for all

- EU Web Accessibility Directive provides rules to make accessible websites and mobile apps of EU public sector for:
  - Better user experience for all EU citizens, esp. 80M disabled people
  - Positive for digital products and services, stronger Digital Single Market

• **EU R&I**: Adaptability of ICT Interfaces and infrastructure by means of auto - personalisation of ICTs based on user needs and preferences, eg Cloud4All and Prosperity4all projects

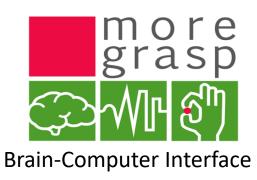
#### Assistive Technologies EU R&I

Tactile, spatial and hearing technologies for visually / hearing impaired people
Brain and Neural Computer Interfaces
Technologies for cognitive disabilities











#### Innovation initiatives





Vahakn Matossian, 2017, Europe Crafting the first hands-free musical instruments specifically designed for physically disabled musicians



#### HACKATHON: HACK 4 AGEING WELL

For 24 hours from the 30 September to the 1 October 2017, a hackathon will be taking place in the run up to the AAL Forum 2017 in Coimbra, Portugal. Hack 4 Ageing Well is one of the thrilling side events to ...

#### Innovation initiatives



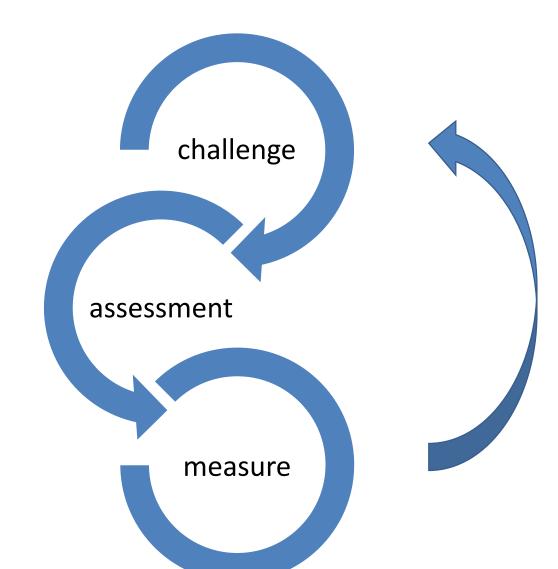
ACTIVE AND ASSISTED LIVING PROGRAMME ICT for ageing well.





## The making of EU policy

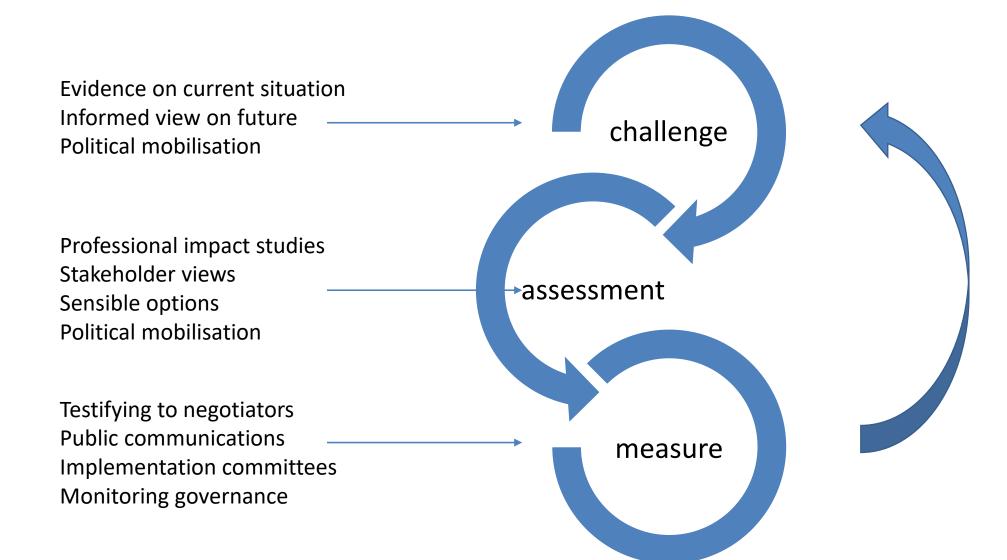
## Policymaking process



#### **Example: Web Accessibility Directive**

- Challenge: a political theme, national, EU, international (W3C, UN CRPD)
- Assessment: economic, social, human rights costs? drivers? options for action? proportional? subsidiarity? Impact? How will stakeholders react?
- Measure is a law proposed by European Commission in 2012 with decisions on:
  - Legal basis: internal market
  - Directive or Regulation or mix with soft measure: Directive including soft measures
  - Implementing measures (implementing and delegated acts)
  - Degree of being future proof and technology-neutral: PC and mobile devices
  - Compliance specifications: EU and international
  - Period for implementation and transposition: 2016-2018 (and beyond)
  - Monitoring
  - Money
  - Review: 2022
- Currently preparing for full implementation

## Policymaking process



#### Working with policy (1)

- Being part of recurring policy making eg Horizon 2020 workprogrammes, FP9
- Following specific current policy eg Web Accessibility Directive
- Being involved in emerging policy eg on data, IoT, security certification
- Considering new policy

## Working with policy (2)

- Engaging with policymaking can be very practical and two-way
  - Input to law, funding programmes, political initiatives; at any stage
  - Telling the story, lobby and innovate
  - Being creative with PPPs and 'labs' (innovation, implementation, legal)
  - Preparing the ground internationally
  - Keeping policy-designers and policy-implementers accountable
- Is it feasible? Is it worth the effort? Definitely!

All involved in and affected by policy should have 'skin in the game' (Taleb)

## Perspectives

## Thorny policy-technology questions to resolve

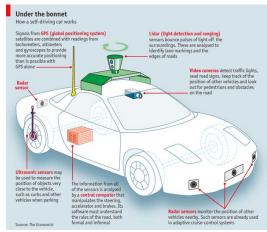
Data privacy, access, use



Security



Device data ownership



Digital for all



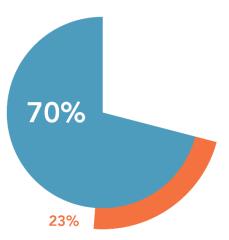
#### Digital for All:

Make today's digital infrastructure accessible

In just 40% of CRPD countries, some (not all) government websites are accessible

In just 18% of CRPD countries are the top 10 commercial and media websites accessible





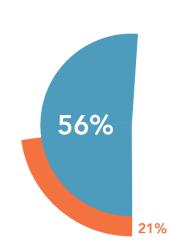
Text to Speech availability on mobile devices in:

main national language

in only 70% of countries

minority languages

in just 23% of countries



#### **Screen Reader availability in:**

main national language

in only 56% of countries

minority languages

in just **21%** of countries







# Digital for All: Making future digital infrastructure (IoT) accessible

- People with disability use ambient assistive technologies for independent living (lighting, doors, heating, entertainment, security systems,...).
- These assistive technologies have been expensive. The Internet of Things (IoT) will mean potential mainstreaming of such systems.
- But we need IoT to be interoperable with existing assistive technology.
- Internet Governance Forum in December 2017 discussed how people with disability can benefit from Internet of Things: policy, standards, innovation.

#### Thorny policy-technology questions



• The good, the bad and the ugly of the platform economy

Democratizing and humanizing AI



#### Al – the dark side



Graph 4.6 — What are the most important issues posed by Artificial Intelligence systems in the next decade?

Glo	apri 4.6 — vvriat are trie most important issue	s posed b	y Arun	iciai iiite	enigence	system	s in the	next de	caue?		
security	Security (i.e. how do we keep AI safe, and secure and how do we protect ourselves against unintended AI consequences)		-9%	80%							
stay in control	Control (i.e. how do we stay in control of AI and when is this really necessary, for instance to avoid cognitive computing replacing human expertise to an extent that we can no longer test whether these machines are		-11%	79%							
empowerment	Citizens awareness and empowerment (i.e. how do we ensure that citizens are aware of how AI is influencing their decisions and able to opt-out)		-10%	73%							
employment & inequality	Employment and inequality (i.e. how do we adjust labour and employment practices to ongoing structural changes such as automation, whilst exploring different ways of income and resource distribution and workforce		-15%	67%							
legal framework	Outting in place the right legal framework (i.e. how do we create incentive structures that allow the industry to engage in responsible innovation, levelling the playing field by engineering legal protection at the level of		-15%	65%							
Al stupidity	Artificial stupidity (i.e. how can we safeguard against AI mistakes and the unknown risks of deep learning)		-17%	59%							
humanistic	lumanity (i.e. how do machines affect our behaviour and interaction, and how do our behaviours in turn influence machines' outputs)		-18%	56%							
AI bias	Bias (i.e. how do we eliminate AI bias and ensure fairness and neutrality, and how does this relate to the selection and collection of data)		-18%	54%							
		-10%	0	10%	20%	30%	40%	50%	60%	70%	80%



## Perspective Human-centred Digital Transformation for All

- No one left behind
- Everyone respected as an individual
- Technology that is simple and addresses 'all-senses'
- Not only pursuing utility but meaningful & happy lives

Supported by public policy that is inclusive-by-design, in contents and process



## Thank you!



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