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Perspectives on Technology in Aged Care

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PROGRESSIVE

Progressive Standards around ICT for Active and Healthy Ageing

- * New 'Horizon 2020' Coordination and Support Action funded by the European commission.
- * Responds to Call H2020-SC1-2016 re. Standardisation Needs in the Field of ICT for AHA
- * Through DG CNECT
(Directorate General for Communications Networks, Content and Technology)
- * Active from 1st October 2016 to 30th September 2018. Contract Sum €905,781
- * Led by De Montfort University, Leicester (UK)

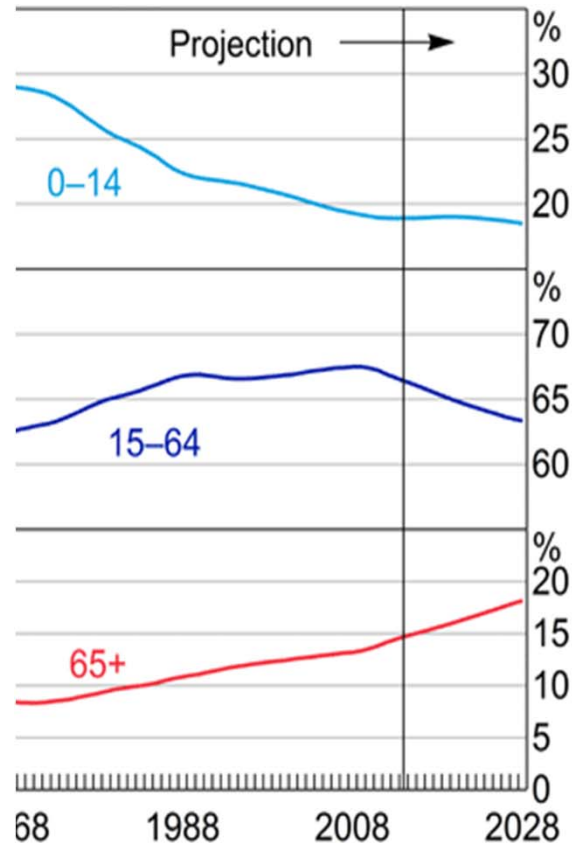


Issues and challenges

- Broad understanding of ageing and technologies
 - in UK and wider international context
 - Key Themes
 - Demographic change
 - Political and social imperatives
 - Technology developments
 - Ethical issues
 - Keypoint ...
 - Issues for older people are often for all ages



Perspective on Demographics



- Ageing population
- Increased numbers of older people with support needs
- Increased numbers of older people without support needs ...
 - living longer healthier lives
 - often outside the workplace
 - May be unnecessarily dependent
- victims of ageist views and 'negative planning'
- Think of 'age-ratios' not 'dependency ratios'
- Increasing numbers of younger people with health needs

Australian Social Trends 2014 (Australian Bureau of Statistics)

An ageing population has a higher total dependency ratio (with more older people potentially economically dependent on fewer people of working age). This poses a future challenge for government policy because the public costs associated with the aged tend to be higher than the costs of people at other ages

Old age dependency ratio is the number of people over the state pension age for every 1,000 people of working age

Perspective on Politics

- Focused on doing good for/to (needy) people
- Ageist views
- Reluctance to address pensions and retirement issues (voters)
- Generational rivalries
- Trapped by legislation framed in a different era
- Pressure from clinicians to maintain status quo
- Pressure from profit-driven 'big pharma'
- Failure to adequately recognise all-age agenda

Perspective on Patients

- Patients = people = consumers
- Technological world
- Increasing digital literacy
- Widening access to services and information
- smart telephony devices
- laptops and tablets
- interactive TV
- Changing aspirations
- Changing expectations
- Challenging old service frameworks

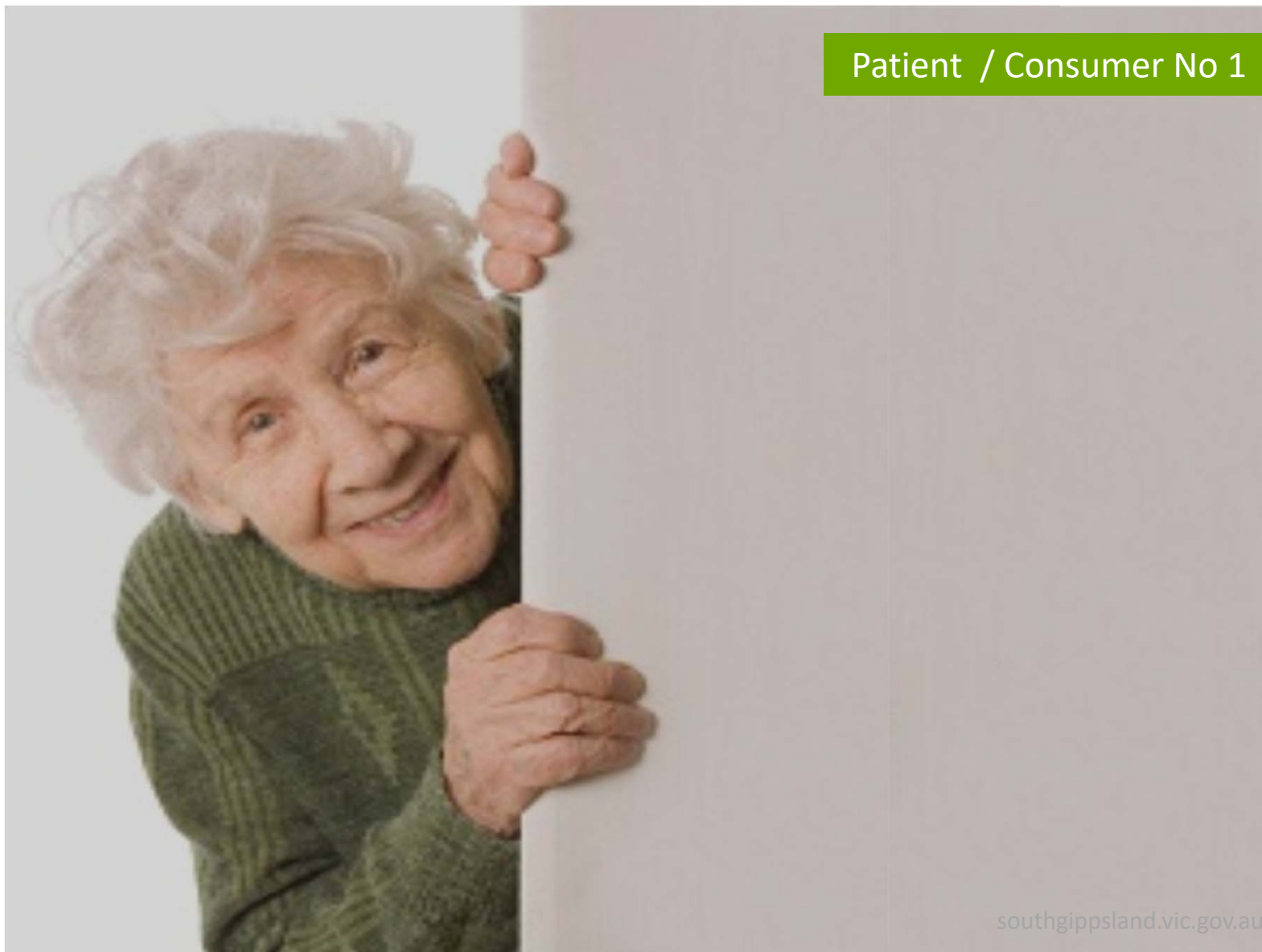
Perspective on Clinically Driven Services

- Saturated with ICT
- Driven by need for clinical outcomes (cure, management)
- medication and therapy regimes
- assumption of 'patient' compliance
- services delivered (a one-way process), not 'provided'
- Focus on hospitals and secondary (even tertiary) health care
- under-recognition of public and preventative health agenda
- insufficient attention to behaviours and lifestyles

Perspective on Ethics

- Accessibility, configurability, usability?
- services and technologies
- ownership of personal data (GDPR applies)
- privacy
- supporting self-management
- Interoperability
- services and technologies
- Matters of risk and liability
- ... more risk-sharing (links with choice)
- Reducing costs? (links with choice)

Patient / Consumer No 1





Patient / Consumer No 1

Consumer
Active and involved
Financially secure
Health literate
Decision-maker
... but not enabled to self-
manage her health?
Survivor
Digitally literate?

Patient / Consumer No 2



Patient / Consumer No 2

Future consumer
Active and involved
Learning about his health
Future decision-maker
Definitely going to be digitally literate
Definitely needs to be enabled self-manage his health?

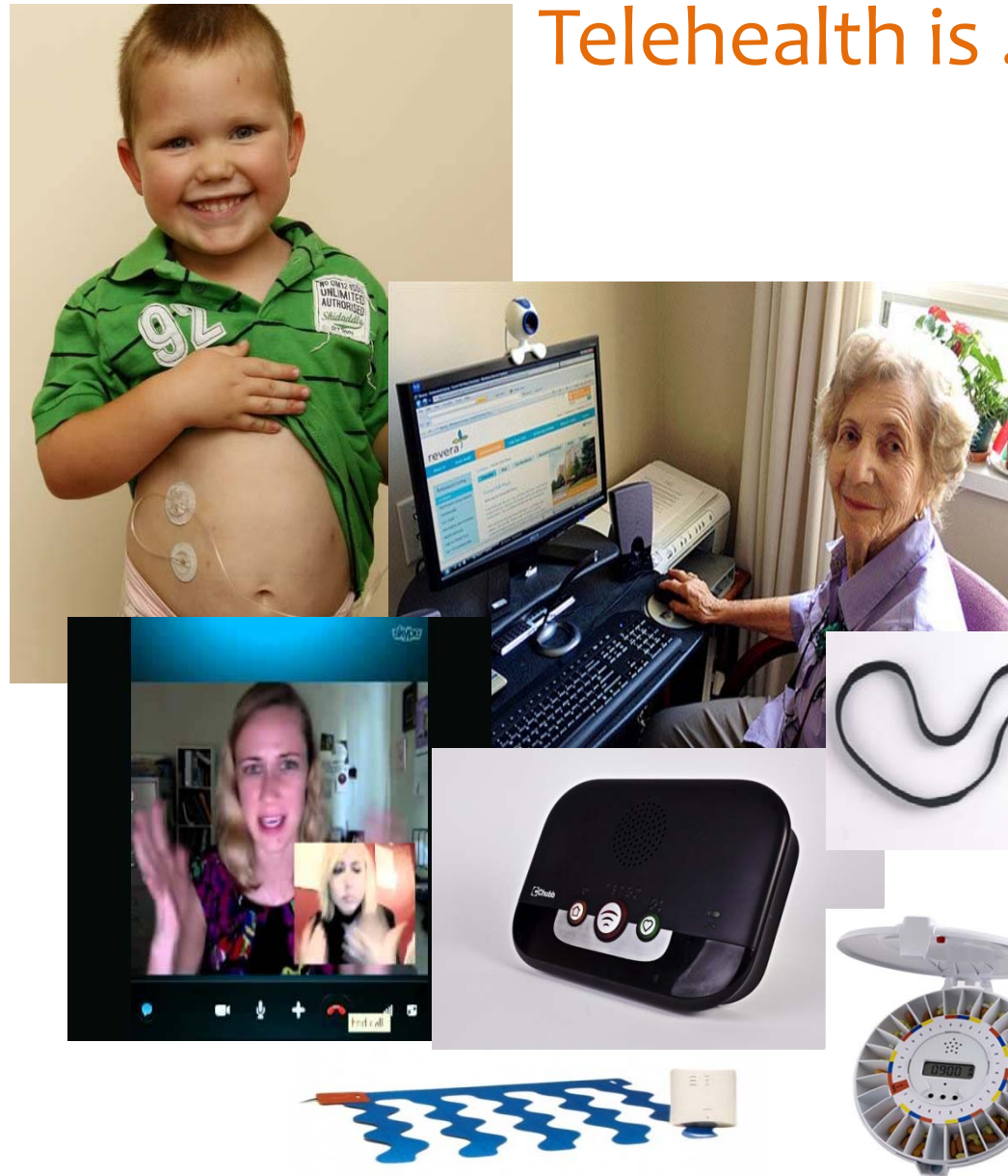


Telehealth is
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... a subset of
eHealth
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www.telehealth.global

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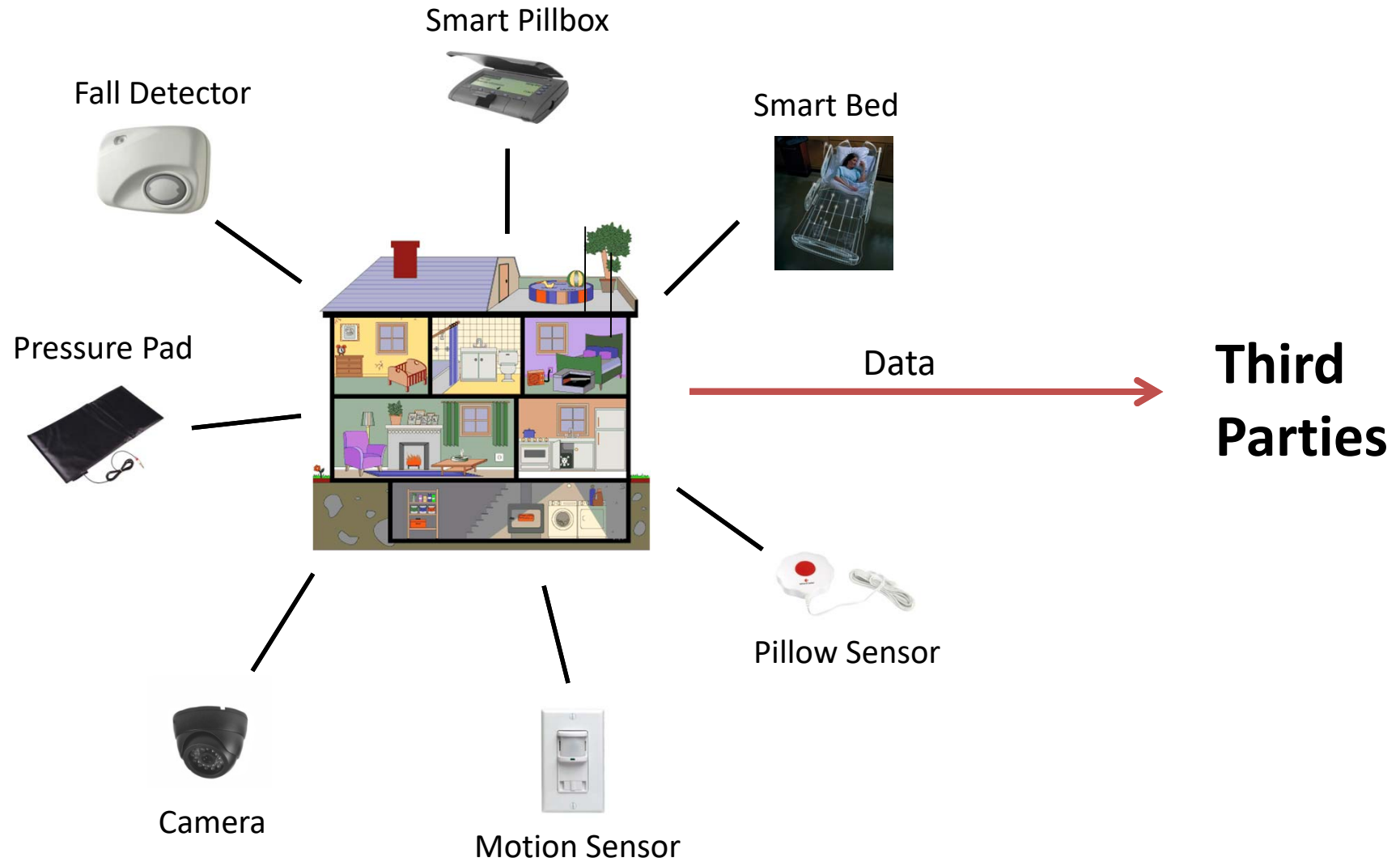
Telehealth Domains

Health and motivational coaching
Personal Health Monitoring (PHM)
Point of care testing, and support for diagnoses/decision making
Vital signs monitoring
mHealth
Prompting for medication or therapy adherence
Rehabilitation and (re)ablement
Responding to 'events'
Tele-consultation
... and (much) more

Personal Health Monitoring

- Electronic devices that:
 - Monitor any aspect of health or health-related behaviour outside a traditional medical setting
 - Records and analyses health data
 - Networked: Transmission of data to third parties
- Target audience
 - Everyone. Applications are in development for people of all ages, lifestyles and levels of health.
- Types:
 - Mobile
 - Embedded

Embedded PHM



▶ Benefits to Individuals

- *Independent living and reduced intrusion*
- *Peace of mind*
- *Control*

▶ Benefits to Health Professionals

- *Can care for more patients remotely*
- *Reduce the need for patients in hospitals*
- *Aid to Decision Making*

The Clinician

- *Tends to be top-down driven*
 - *Needs to recognise how people (=consumers) harness new technologies to access services and information*
 - *Promote greater self-management, health literacy, empowering, to create more equal partnerships in healthcare*
- *Telehealth and PHM finding its place within public and preventative as well as clinical health*
- *New ways of thinking*

Ethical Touchstones

- The rights, status, equality of (all) older people
 - *inclusion, non-discrimination*
 - *empowerment* (and control)

- Physical and sensory challenges
 - *accessibility and usability*
 - *care, protection and support*
 - *responsiveness*

- The special position of older people as consumers
 - Cost (*affordability*);
 - *interoperability* (and configurability) of goods and services
 - Commercial organisations: *responsibility (RRI)*

For Younger People

- Needs / challenges
 - *peer pressure (and social media)*
 - *social isolation and depression (self-harm)*
 - *lifestyle challenges with health implications (obesity, diabetes)*
 - *desire interact with health services in new ways (PHM)*
- Younger people are consumers through...
 - *commonplace usage of texts, emails, Skype, phone*
 - *'trust' of the same (and social media) ... less stigma, confidentiality, etc.*
 - *timely communication in relation to need*
 - *scope for better (easier and long-term) self-management*

For Older People

- Needs / challenges:
 - *greater social isolation (incl. more single households)*
 - *poor mobility, frailty, low incomes, poor digital literacy,*
 - *depression and multi-morbidity (including dementia)*
- Older people are consumers through...
 - *increasing digital and health literacy amongst them (and carers)*
 - *demand (are demanding) greater consideration of accessibility and usability*
 - *they will 'vote' (are voting) with their savings and incomes*
 - *they are increasingly engaged in work, education or training*

What does this mean for new Healthcare Systems?

- *Research Findings around telehealth and PHM*
 - *reduced admissions and more timely discharges*
 - *better self-management*

BUT

- *services often add-ons, not embedded as 'normal' practice*
- *evidence (often) flawed*

Healthcare challenges

- Medical privacy
 - *Protection from disclosure or individually identifiable data*
 - *Non consensual secondary use*
 - *Protection is not extended to information derived from data*
 - *Encryption*
- Legal Compliance
 - *May be at odds with ethical demands*
 - *May be inadequate*
 - *EU wide legal compatibility*

PROGRESSIVE Project

- Focus on Standards for 'Active and Healthy Ageing'
- Strong ethical foundation – with responsible research and innovation as a reference point
- Standards deriving from official bodies ... including quality norms, codes and benchmarks
- Standards relating to products and services
- Covers the EU 28 plus Iceland, FYR Macedonia, Norway, Switzerland and Turkey

Primary Objective...

- To set in place a ‘dynamic and sustainable framework where the contribution of standards and standardisation for ICT can be maximised for Active and Healthy Ageing (AHA)’
- Three distinct challenges:
 1. Changing attitudes and the demographics of ageing
 2. Increasing older people’s engagement and inclusion in standardisation process
 3. New ways of thinking to improve the impact and influence of standards.

Thank you!

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