TECHNOLOGY IN HEALTH IN PANDEMIC AND POST-PANDEMIC
COVID-19 CONTEXT

4 May 2021

The Digital Health Challenges

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The main Information Governance Challenges

- Expansion of information systems within organizations

- Expansion of the use of health information

- Proliferation of medical devices that generate data and which should be integrated into the electronic clinical process of the institutions

- Increasing data volume and variety

- Interoperability issues between medical devices and IS and between intra and inter-institutional IS

- Trust in shared information

- The legal obligations inherent in the information

- Information security

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Digital Transformation in Europe

Figure 9. Variations in the percentage of clinicians using the different types of digital technologies

	Europe	Denmark	Germany	Italy	Netherlands	Norway	Portugal	UK
Electronic health record	81%	95%	77%	69%	97%	89%	74%	87%
Prescribing	62%	73%	13%	67%	97%	86%	96%	69%
Online appointment booking	54%	61%	38%	53%	67%	41%	66%	62%
Apps for Clinicians	51%	54%	44%	53%	70%	40%	55%	52%
Online access platforms/tools (for primary or hospital care)	46%	50%	23%	47%	49%	51%	68%	57%
Telemedicine	43%	61%	30%	38%	59%	40%	45%	47%
Rostering	37%	29%	52%	14%	46%	39%	23%	49%
Automation of pharmacies/ drug dispensing	30%	38%	23%	25%	62%	34%	13%	35%
Point of care diagnostics	26%	24%	31%	10%	43%	35%	9%	37%
Patients Apps/Wearables	22%	26%	21%	18%	35%	15%	17%	26%
Remote vital sign monitoring	22%	24%	22%	21%	24%	20%	13%	25%
Automation of other clinical tasks	19%	26%	25%	9%	28%	15%	12%	22%
Voice recognition tools	16%	16%	26%	8%	10%	26%	1%	20%
Robotics	8%	8%	13%	8%	5%	6%	3%	8%
Genomics data (storing or using)	8%	14%	11%	6%	1%	5%	3%	10%
Radio Frequency Identification tags (RFID)	6%	3%	8%	3%	3%	2%	5%	9%
Artificial Intelligence technologies	5%	7%	7%	5%	5%	6%	2%	5%
Virtual reality	5%	4%	4%	5%	5%	5%	0%	7%

Percentage of survey respondents

Note: Data arranged by Europe values from largest to smallest. Question: Which of the following digital technologies do you use to support care delivery?
Source: Deloitte analysis of M3 Survey of 1,781 clinicians conducted between 23rd March and 4th April 2020Survey question: Which of the following digital technologies do you use to support care delivery?
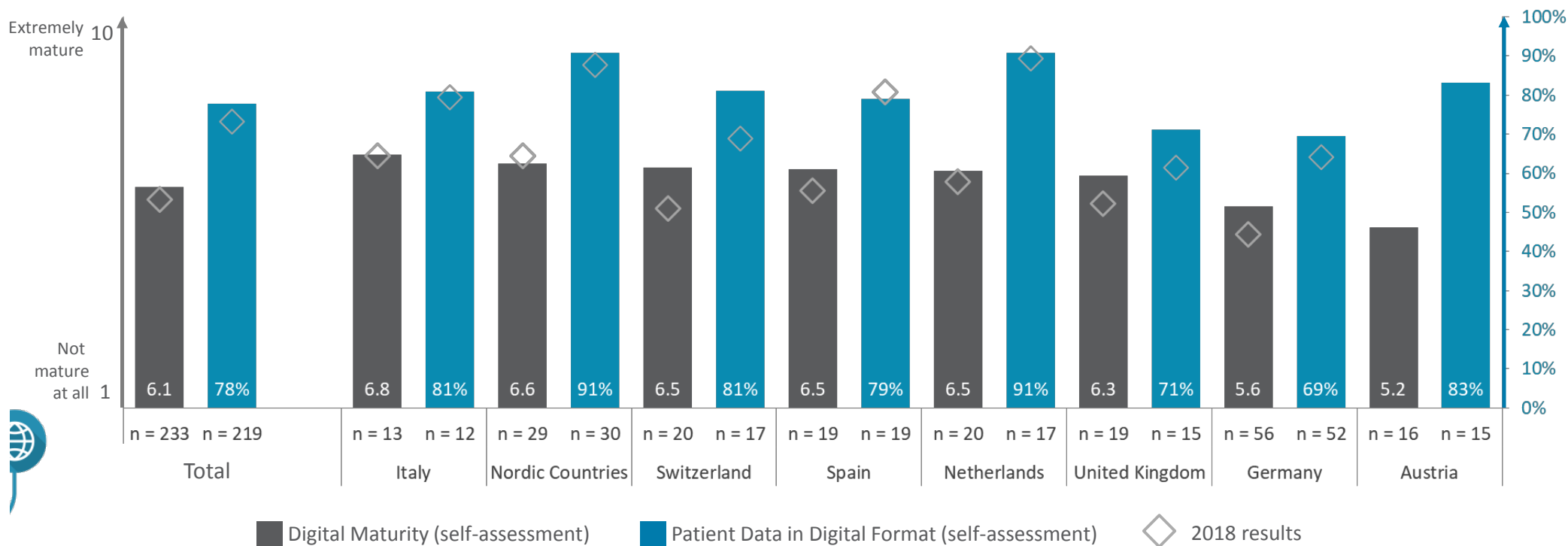
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Digital transformation in Europe

How would you rate your organisation in terms of digital maturity?

[mean values; scale from 1 "not mature at all" to 10 "extremely mature"; only participants who work in a health facility]
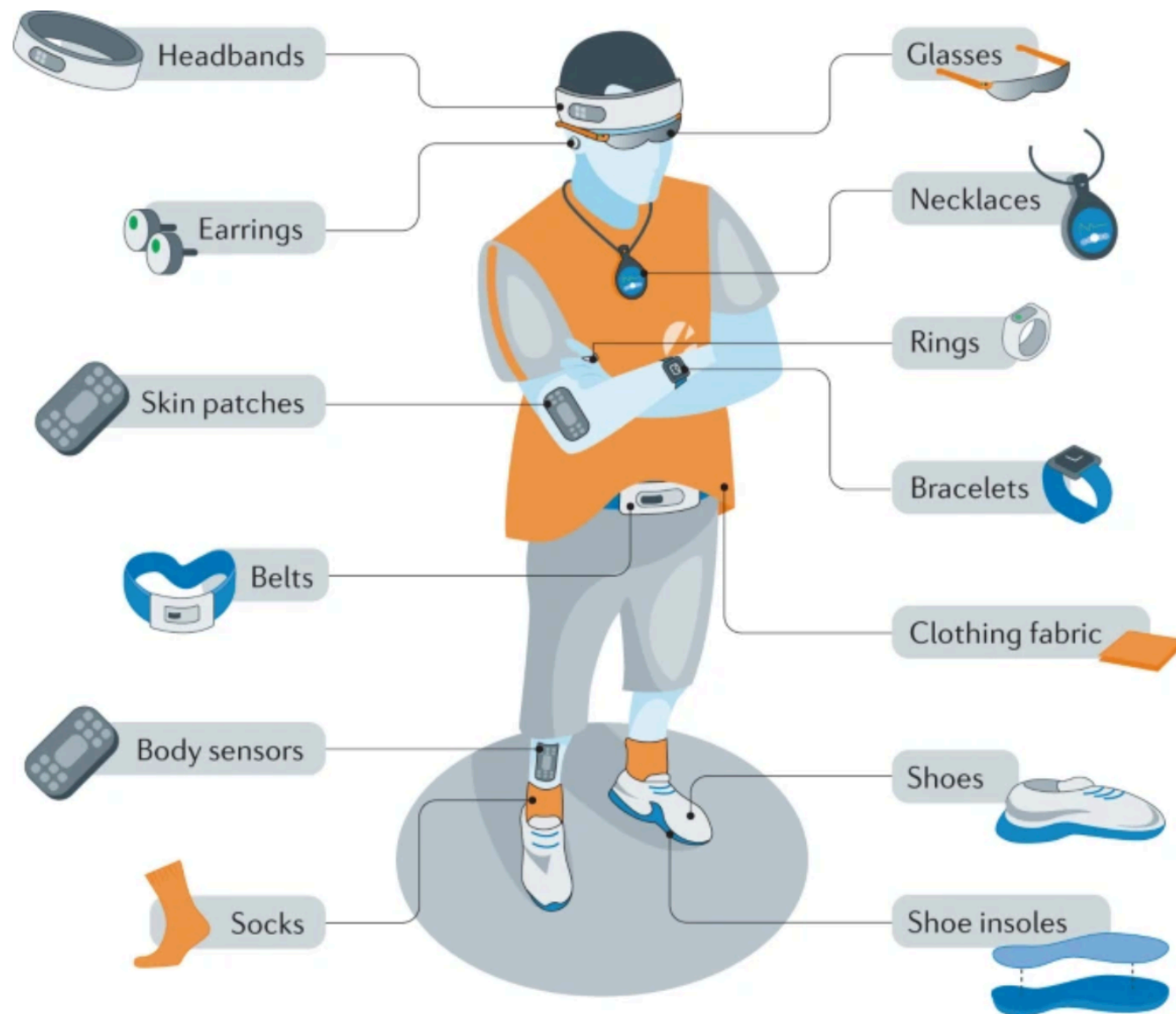
What percentage of patient data in your organisation is digitised?

[Scale from 0% - 100%; only participants who work in a health facility]

	Total	Italy	Nordic Countries	Switzerland	Spain	Netherlands	United Kingdom	Germany	Austria
Digital Maturity	6.1	6.8	6.6	6.5	6.5	6.5	6.3	5.6	5.2
Patient Data Digitised	78%	81%	91%	81%	79%	91%	71%	69%	83%
n (maturity)	n = 233	n = 13	n = 29	n = 20	n = 19	n = 20	n = 19	n = 56	n = 16
n (data)	n = 219	n = 12	n = 30	n = 17	n = 19	n = 17	n = 15	n = 52	n = 15

■ Digital Maturity (self-assessment)   ■ Patient Data in Digital Format (self-assessment)   ◇ 2018 results

Valid responses 2018: Total: n = 262*/242**; Italy: n = 19*/19**; Nordic Countries: n = 35*/33**; Switzerland: n = 30*/29**; Spain: n = 19*/18;** Netherlands: n = 20*/17**;
United Kingdom: n = 19*/15**; Germany: n = 48*/44**; *Q1: digital maturity?; **Q2: percentage of digitised patient data?; Austria: no data for 2018.
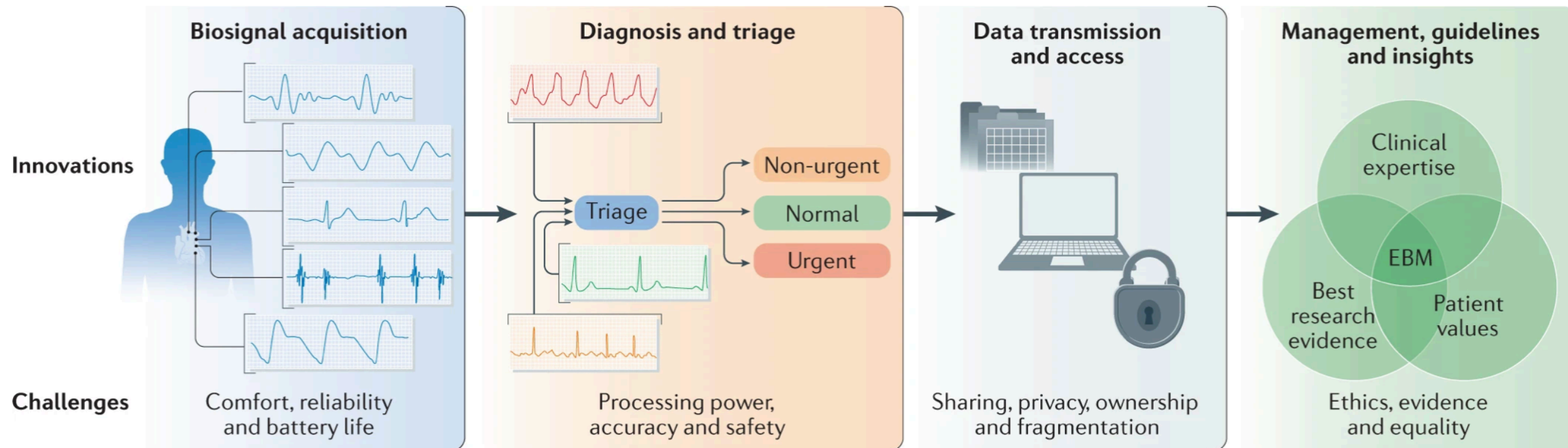
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4

Headbands
Earrings
Skin patches
Belts
Body sensors
Socks
Glasses
Necklaces
Rings
Bracelets
Clothing fabric
Shoes
Shoe insoles

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"It is not just about the sensor, you got to make sense of that"

Martin Cowie, 2021
Novas Fronteiras em Cardiologia

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Digital transformation

In a context of strong budgetary restraint and almost impossibility of hiring more human resources, technology can be the key and factor of transformation and induction of greater efficiency and optimization of the health system

André Aragão Azevedo, 8ª Conferência de Valor APAH, Out 2020

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The health system of the future - working environments driven by digital health

- Training in universities of health professionals

- Investment in the continuous development of skills

- Recourse to professionals from other countries empowered by the use of low-health and real-time data monitoring

- Patients diagnosed, reviewed and treated at home (increased home hospitalization)

- The role of clinicians will change dramatically in terms of the type of work they do, where they do it, and how they do it

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Thank you!

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