EHMA 2024

Shaping and managing
innovative health ecosystems

From Innovation to Integration: A Case Study of Digital Health Technologies in the Trentino Healthcare System

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Agenda

- Context
- Aim
- Methodology
- Results
- Discussion

Context I

The aim is to explore a possible model of care in which DHTs and DTx *complement* and *support* education, prevention, and care of the Italian NHS.

Workforce shortages
Ageing population
Lifestyles
Chronicity

Barriers to innovation

Context II: Definitions & Examples

Electronic Health Record (EHR)

Televisits, telemonitoring

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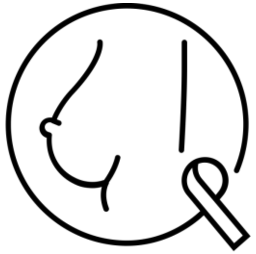
- In Italy: regional EHR

Clinical decision support



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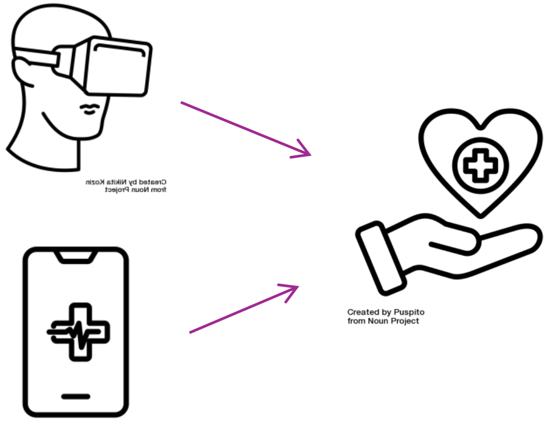
- ProFoundAi (breast cancer recognition)

Digital Therapeutics (DTx)



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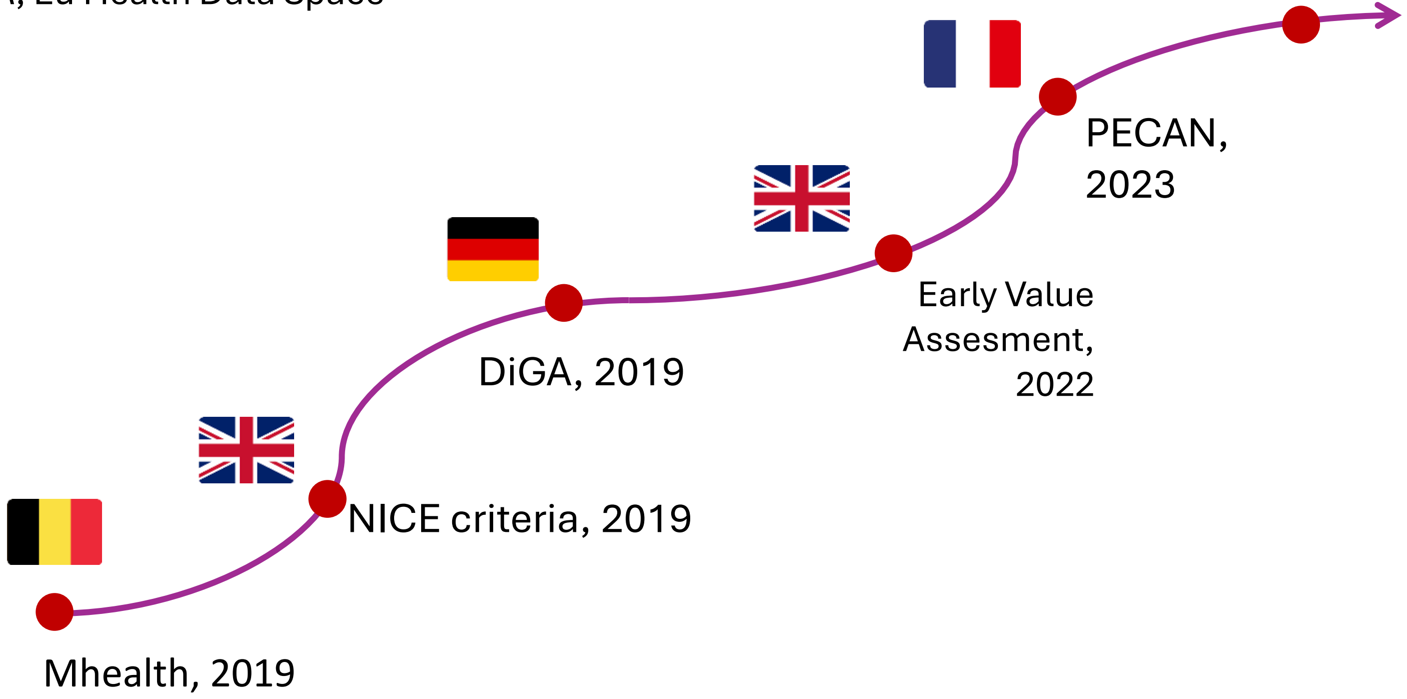
- Deprexis (mental health)
- Kaia (back pain)
- Meeva (autism)

Context III: Regulation

- Medical Devices Regulation
- General Product Safety Regulation
- Artificial Intelligence Act
- GDPR, Eu Health Data Space


Mhealth, 2019

NICE criteria, 2019

DiGA, 2019

Early Value Assesment, 2022

PECAN, 2023

ITALY

- DTx as medical devices
- Interparliamentary group on digital health and digital therapeutics
  - Law Proposal C1208[1]

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[1] Law proposal (C. 1208) 19ª legislature

Context IV: Barriers to adoption

The potential of DHTs

can only be realised

when they are

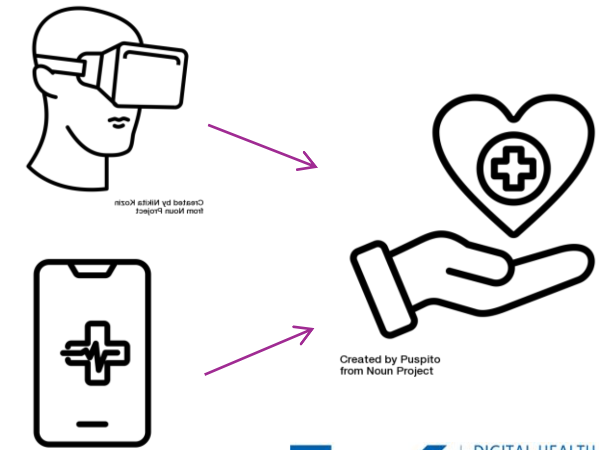
integrated

into clinical practice

- Regulatory requirements
- Reimbursement, pathways and pricing
- Organisational barriers
- Cultural and social determinants

Aim: A model for digital health uptake

The aim was to explore a possible model of care in which **DHTs** and **DTx** *complement* and *support* education, prevention, and care of the **Italian NHS**.



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DIGITAL HEALTH AND WELLBEING

FONDAZIONE BRUNO KESSLER

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Local healthcare system
Trentino, Italy

Methodology: Insider Action Research (AR)

Practitioner-scholar: research within own organisational context

Context

TrentinoSalute 4.0

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Azienda Provinciale per i Servizi Sanitari
Provincia Autonoma di Trento

Quality of relationships

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Ongoing

Quality of the AR process

REFLECT	PLAN
ACT	OBSERVE

Outcomes

Practical outcome: model	Intangible outcome: deeper understanding

Shani & Pasmore AR framework

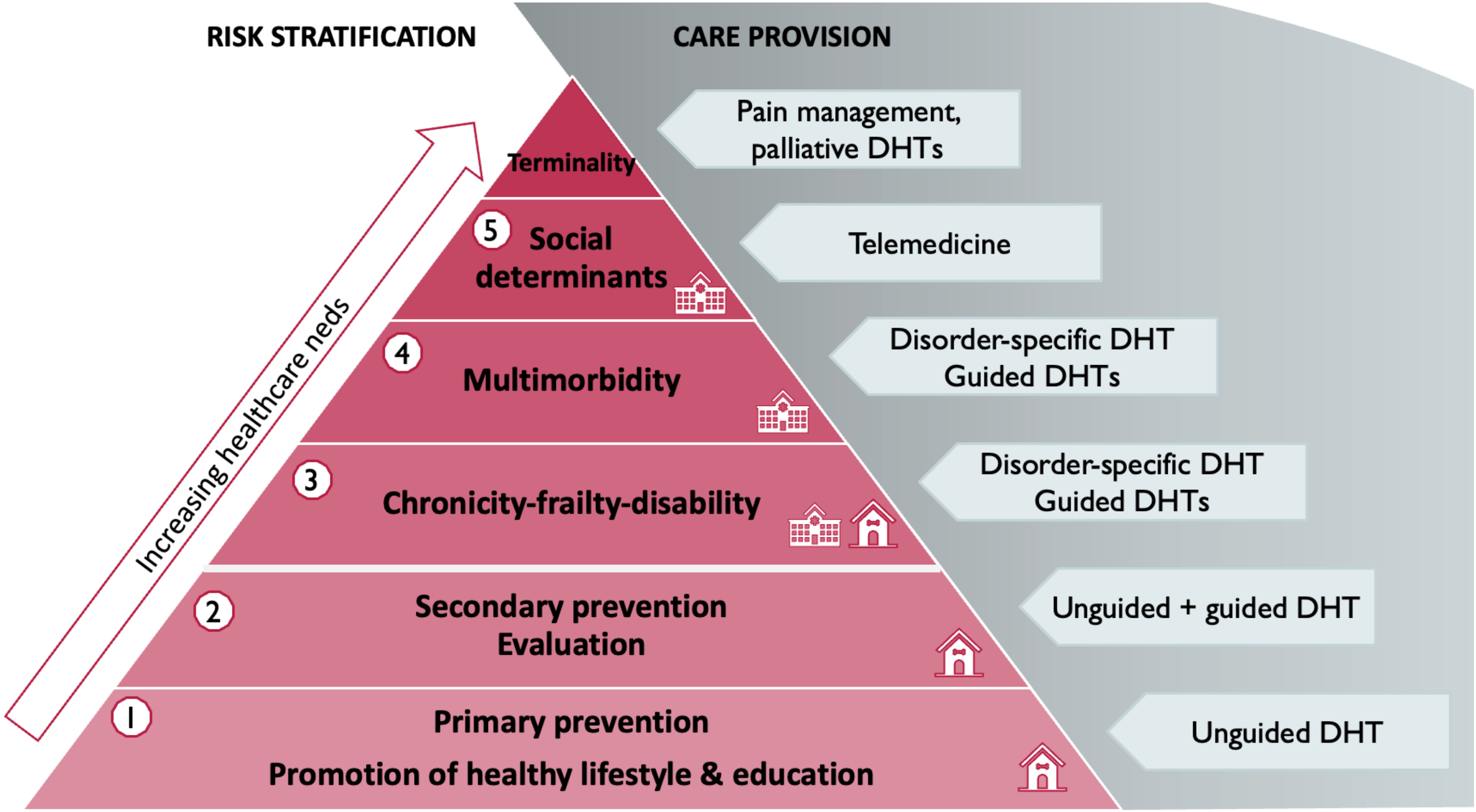
Results I

FBK framework to guide the integration of DHTs and DTx in the Italian NHS, tailored to the specific context of Trentino healthcare system.

4 attributes:

- HEALTHCARE PROFESSIONALS
- INTEGRATION INTO CARE AS USUAL
- PATIENT RISK STRATIFICATION
- GOVERNANCE

Results II



RISK STRATIFICATION

CARE PROVISION

Increasing healthcare neds

Terminality

5 Social determinants

4 Multimorbidity

3 Chronicity-frailty-disability

2 Secondary prevention
Evaluation

1 Primary prevention
Promotion of healthy lifestyle & education

Pain management, palliative DHTs

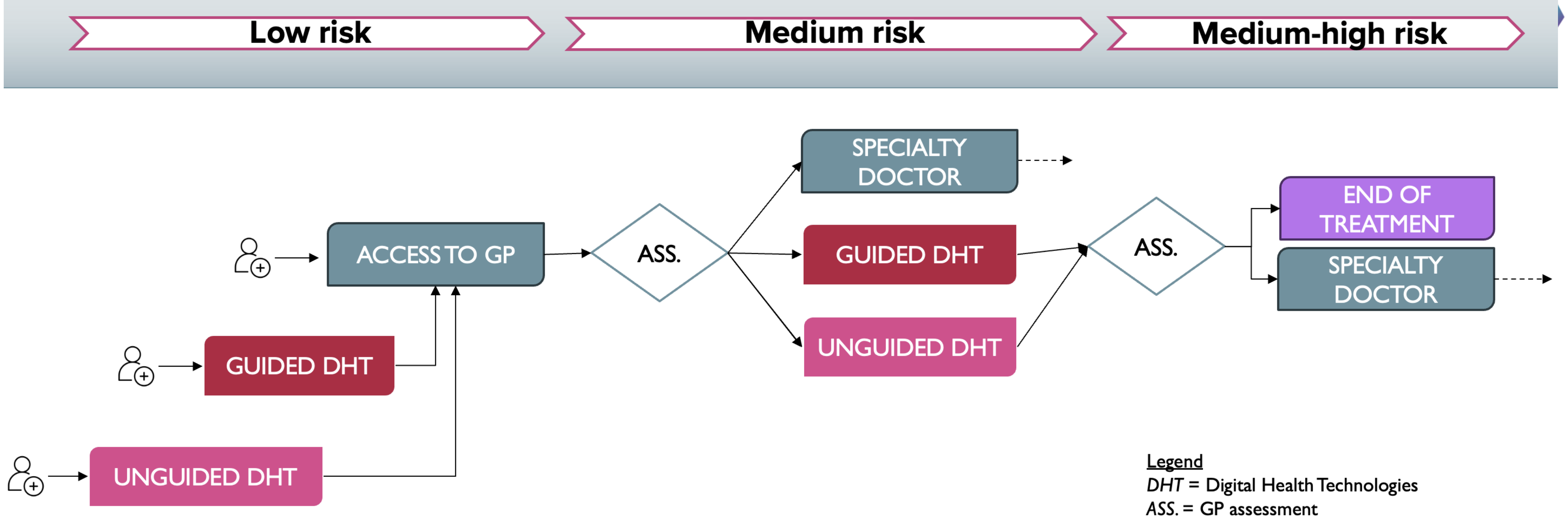
Telemedicine

Disorder-specific DHT
Guided DHTs

Disorder-specific DHT
Guided DHTs

Unguided + guided DHT

Unguided DHT


Low risk
Medium risk
Medium-high risk
ACCESS TO GP
GUIDED DHT
UNGUIDED DHT
ASS.
SPECIALTY DOCTOR
GUIDED DHT
UNGUIDED DHT
ASS.
END OF TREATMENT
SPECIALTY DOCTOR

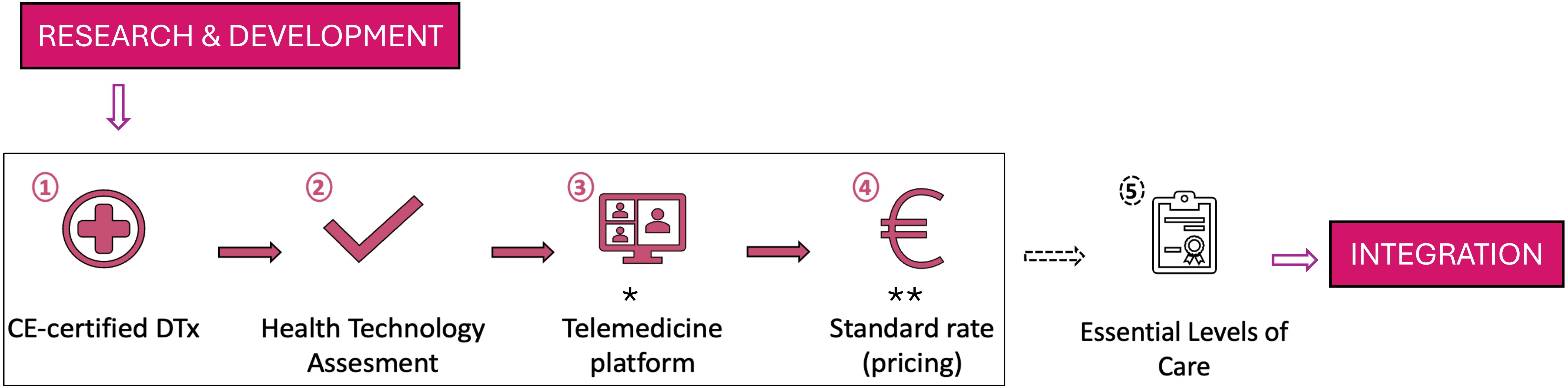
Legend
DHT = Digital Health Technologies
ASS. = GP assessment
TERP = mental health rehabilitation technician
C. Nurse= Community Nurse

GP		X		X	
Assistant	X		X		
Comm. Nurse	X		X		
Specialist physician			X		X
TREC	X	X	X		

Source: Author own elaboration

Results IV

Key milestones for DHT integration in care pathways



RESEARCH & DEVELOPMENT

① CE-certified DTx

② Health Technology Assesment

③ * Telemedicine platform

④ ** Standard rate (pricing)

⑤ Essential Levels of Care

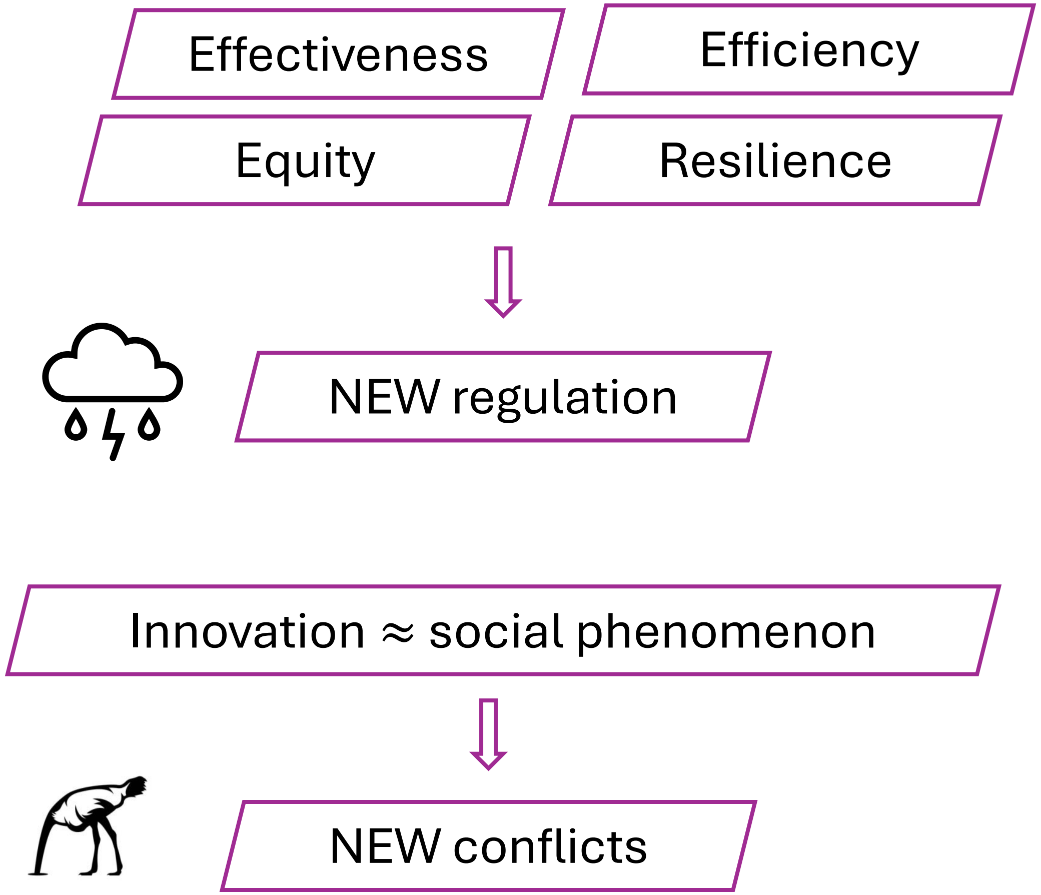
INTEGRATION

* NRRP objective - in development

** criteria to be defined

Source: Author own elaboration

Discussion & conclusion



Effectiveness

Efficiency

Equity

Resilience

⇩

NEW regulation

Innovation ≈ social phenomenon

⇩

NEW conflicts

FUTURE RESEARCH

- How to prepare clinicians?
- Do we need new healthcare professionals?
- How to ensure patient engagement & adherence?
- Who & how will assess DTx in Italy?
- What criteria to establish the pricing of DTx?
- What alternatives to the centralised DiGA model?

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Thank you

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SCAN ME