



Innovation: considerations for Health and Public Health

Walter Ricciardi

**President
Italian National Institute of Health**

Health Systems already evolved. There is a need for another wind of change

20 th CENTURY HEALTHCARE	21 ST CENTURY HEALTHCARE
Doctor centred	Patient centred
Patient as passive complier	Patient as co-producer
Hospital	System
Bureaucracy	Network
Driven by finance	Driven by knowledge
High carbon	Low carbon
Focussed on effectiveness	Focussed on value and waste
Challenges met by growth	Challenges met by transformation

Gray M., Ricciardi W., Better value health care, 2014

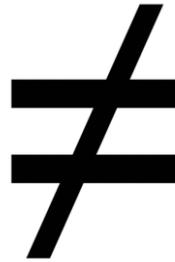
Innovation

INVENTION

Innovation refers to the use of a better and, as a result, novel idea or method

whereas

invention refers more directly to the creation of the idea or method itself



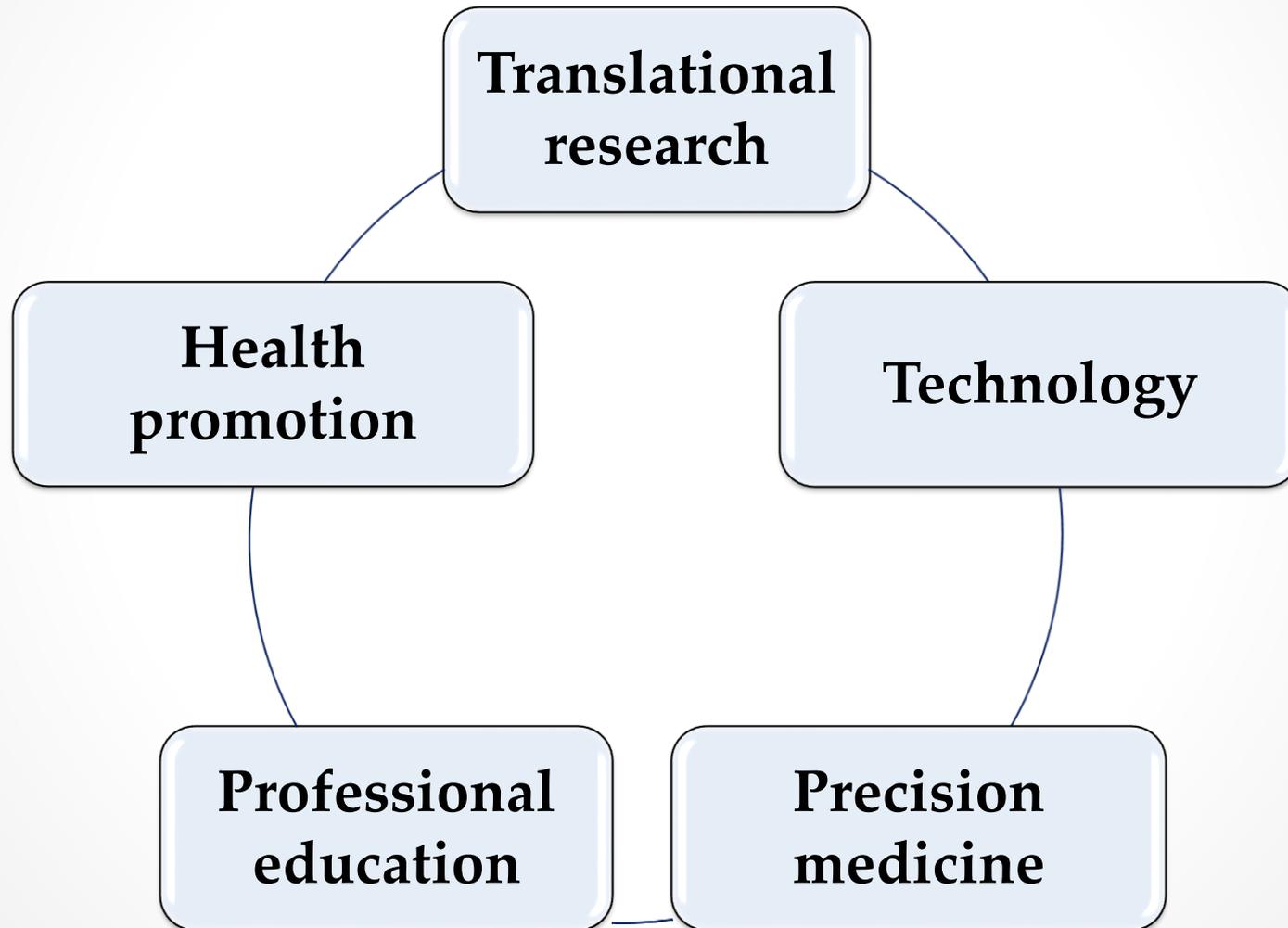
IMPROVEMENT

Innovation refers to the notion of doing something different

rather than

rather than doing the same thing better

5 strategic areas for innovations



Health promotion

The introduction of new health promotion approaches has brought a **transformational change** in how population health is understood and the range of mechanisms and strategies that can be used to promote health and well-being and reduce health inequities.



- Further capacity development in implementing evidence-informed actions into routine everyday practice is needed for disruptive innovations in health promotion to reach their full potential

Health and care professional education



- At the beginning of the 20th century - **first generation of innovations**: more science-based curriculums for bio-medical sciences and public health related sciences
- After World War II - **second generation of innovations**: new pedagogic approaches such as student-centred learning and the use of "standardised patients" to train and assess students in practice
- Nowadays - **third generation of innovations**: focuses on patient and population centeredness, competency-based curricula, inter-professional and team-based education, IT-empowered learning (internet data-bases for knowledge exploration, interactive e-learning for problem-solving using virtual cases/simulation, game-based learning, etc.), policy and management leadership skills.

Health systems as translators of innovation

All biomedical innovations to come (and those already here) - for both prevention and treatment – from basic science to clinical science, need to be “**translated**” to our citizens, who represent the ultimate beneficiaries of our work.

The “translators” are... our **health systems**.

High value in some innovations

SOME INNOVATIONS COULD BE CHARACTERIZED BY THE FACT THAT THEY ALSO PRESENT **HIGH VALUE**



In health care, high value can be defined as **meeting patient expectations at the level of the individual or providing the better outcomes in the most cost-effective way in the short or long-term at the population level.**

In an era in which resources often do not increase in step with increasing need and demand, when they increase at all, it is essential to **promote only innovations that present high value.**



Examples illustrating high value innovations

<p><u>TECHNOLOGICAL</u></p> <ul style="list-style-type: none">• Antibiotic development• Anti-ulcer drugs• Minimal invasive surgery• New and more effective treatment for HCV	<p><u>ORGANISATIONAL</u></p> <ul style="list-style-type: none">• Community-based mental health• Population based accountable organisations• Integrated care
<p><u>PRODUCT AND SERVICES</u></p> <ul style="list-style-type: none">• Development of palliative care• Patient-centred care	<p><u>HUMAN RESOURCES</u></p> <ul style="list-style-type: none">• Diabetic patient self-management

How

- **To support evidence-informed decision by focusing those domains that will dominate policy agendas in the next years and decades to come?**
- **To answer the fundamental question about the conditions and contextual factors that are required for a given solution working in one setting to also work in other settings, and therefore inform the transferability, absorptive capacity, and scalability of innovation.**

**Successful health innovation:
from the 'what' to the 'how'**

to-reach

transferring innovation in health systems

Born to identify the European Health Care common challenges and organizational needs, and to propose possible solutions to improve health system performance and to identify the most effective ways to organize, manage, finance, and deliver high quality, sustainable, and equitable care to our citizens.

The consortium

Europe



28 partners
20 countries

USA and Canada



Israel



The TO-REACH consortium

Chaired by Prof Walter Ricciardi, President of the Istituto Superiore di Sanità, the EU-funded TO-REACH project consists of 27 partners, clustered around three main types:

- At the core are **Ministerial and funding bodies from 15 EU Member States and 5 non-EU countries**, all seeking to fund research that has the potential to change how care is being provided in the near or distant future.
 - a. the Istituto Superiore di Sanità (the Italian National Institute of Health), coordinator,
 - b. Ministero della Salute, Italy
 - c. Agenas, national Agency for regional health services, Italy;
 - d. ZonMw (Netherlands Organisation for Health Research & Development), the Netherlands;
 - e. Austrian Public Health Institute (GÖG), Austria
 - f. Academy of Finland, Finland;
 - g. IReSP/ITMO santé publique, France;
 - h. Health Research Board, Ireland;
 - i. Latvian Council of Science, Latvia;
 - j. Research Council of Norway, Norway;
 - k. Foundation for Science and Technology (FCT) Portugal;
 - l. National Institute of Public Health, Slovenia;
 - m. Forte, Swedish Research Council for Health, Working Life and Welfare, Sweden;
 - n. Federal Office of Public Health (FOPH), Switzerland;
 - o. Health and Care Research Wales, UK;
 - p. Regional Agency for Public Health and Social Well-being (PHA) HSCNI, Northern Ireland UK;
 - q. CIHR Institute of HSPR, Canada;
 - r. Israeli Ministry of Health, Israel;
 - s. Agency for Healthcare Research and Quality (AHRQ), United States.
- **National research organisations**, able to identify methodological guidance for a future research programme and mapping shared priority areas between countries and stakeholders in those countries.
 - a. NIVEL, Netherlands organisation for health services research, the Netherlands;
 - b. National Institute for Health and Welfare (THL), Finland;
 - c. University of Riga (RSU), Latvia;
 - d. University of Malta (UoM), Malta;
 - e. Babeş-Bolyai University (UBBCU), Romania;
 - f. Catholic University of Sacred Heart (UCSC), Italy.
- **European level bodies**, able to contribute to part of the scientific preparations as well as well-positioned to identify fellow bodies and initiatives which require alignment.
 - a. European Observatory on Health Systems and Policies;
 - b. European Health Management Association (EHMA);
 - c. European Public Health Association (EUPHA).



to-reach

*agenda for health services
and systems research*

identifying new solutions able to respond to rising challenges

understanding and predicting whether such solutions can be **implemented and transferred effectively** in other settings.

“I am in favor of progress; it's change I don't like.”

–Mark Twain¹

Barriers to innovations

1. Workforce barriers

Opposition, reluctance to change; Cultural barriers, workforce silos; Lack of training and motivation; Communication between care providers and harmonisation of care often inadequate

2. Patients / persons barriers

Cultural barriers; Lack of training of end-users/strategy towards health literacy; Mobility support

3. Organisational/institutional barriers/inadequate networks and processes

Lack of realistic business model; Procurement process; Lack of adequate technical analysis and planning; Lack of managerial support; Inadequate information systems; No strategy to decommission services; Lack of interoperability between technological solutions; Difficulty to coordinate different authorities; Organisational model of our institutions (mainly based on a traditional "bureaucratic management"-principle with a command-and-control approach

4. Economic and legal barriers

Investment on infrastructure, technology and maintenance; Prices;; Economic context; Corruption and economic incentives for vested interests; Lack of retail market; Regulatory barriers that obstruct the emergence of new professions, products and services; Reimbursement controls; Payment models.

5. Lack of political support

Lack of political buy-in / leadership

6. Lack of evaluation

Lack of monitoring and evaluation techniques, tools and methodologies

Innovation triggers

Factors that trigger innovation in health care systems can be:

Drivers



Factors that cause a particular innovation to happen or develop and are commonly due to existing problems, difficulties or inefficiencies

Enablers



People/things that make the innovation possible

Incentives

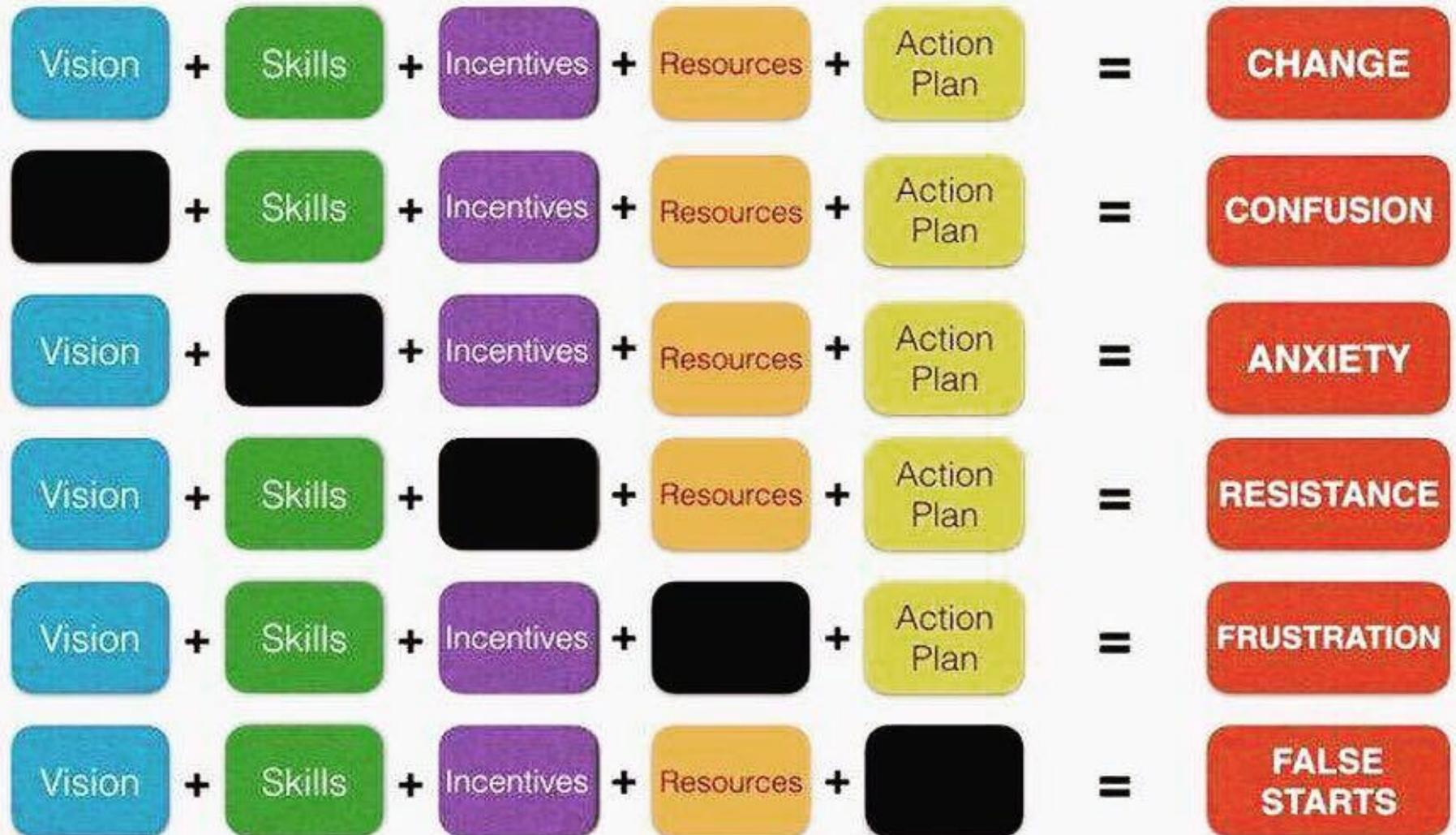


Factors that motivate or encourage someone to do something.

Incentives can be

- positive or negative (as in disincentives)
- financial (e.g. research funding programs in Europe) or non-financial (e.g. setting up pilot projects)
- tangible or intangible.

Managing Complex Change



Conclusions

Innovations...

can be an important instrument in European policies

provide a new and different perspective that tends to reduce complexity in favour of the empowerment of the citizen/patient

should be seen by policy makers as possible new methods of dealing with old issues

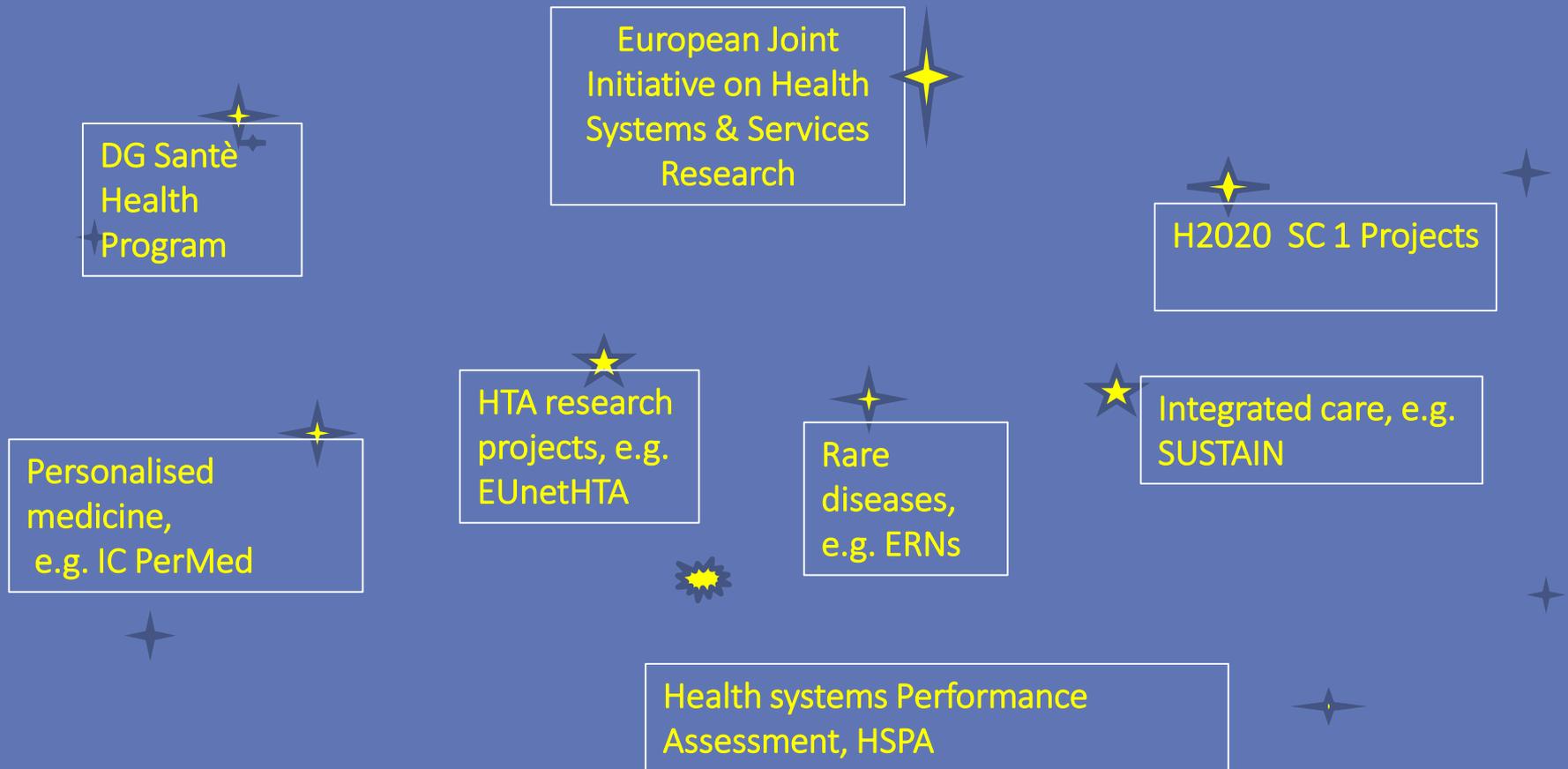
Health systems should be responsive to innovations and allow promising innovations to be tested, evaluated, and implemented. This requires the presence of responsive and open-minded systems

There may not be a “one size fits all” solution for monitoring, managing and stimulating the adoption of innovations



**THERE ARE NO
“ONE-SIZE-FITS-ALL”
SOLUTIONS**

How it should work: of course capturing the light of other stars



In short: Two sister initiatives

One more advanced than the other

IC PerMed



TO-REACH

But both aimed to enhance health systems sustainability and responsiveness to patient and population needs

Thanks for your attention