INTEROPERABABBLE

aka..The Great Interoperability Crisis

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Who am I?

- Lead Application Design Architect,
  NHS Wales Informatics Service
- Technical Architect for Welsh Diabetes Solution
- 13 years NHS informatics experience

- PhD Researcher,
  University of Wales Trinity St David's

- I do Twitter @johnmeredith
- I blog at http://www.archetextur.es

#INTEROPERABABBLE

British Journal of General Practice
bringing research to clinical practice

oking for something?
anced Search

Editorials

Information flow to enable integrated healt re: integration or interoperability

Rob Meaker, Simi Bhandal and C Michael Roberts

Br J Gen Pract 2018; 68 (668): 110-111. **DOI:** https://d

Integrated care systems, supported by electronic information exchange, are seen as ke rs to the future of the NHS.[1,2] The failure of a centralised NHS IT programme[3,4] has been by a move to local and regional solutions that provide an opportunity for clinicians to infl rategy and design. However, although primary care has been at the forefront of electron ecord use, connectivity outside the practice environment remains challenging internationall cent World Health Organization report on digital connectivity highlights the need to inform clini ns by sharing experiences of developing electronic information exchanges if we are to come to an understanding of what is needed and what is possible.[6]

Successful information flow requires that information be recorded electronically, managed, governed, regulated, linked via a master index, and be made available to users through one or more interconnected software applications. Clinician input has helped provide solutions to most of these

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The Definition of Interoperability

after Meaker, Bhandal & Roberts (2018)

> “where one software application makes use of data that have been **stored** in a separate software application and the data transferred have a common meaning, for example, transactions between a bank and an online vendor.

The Definition of Integration

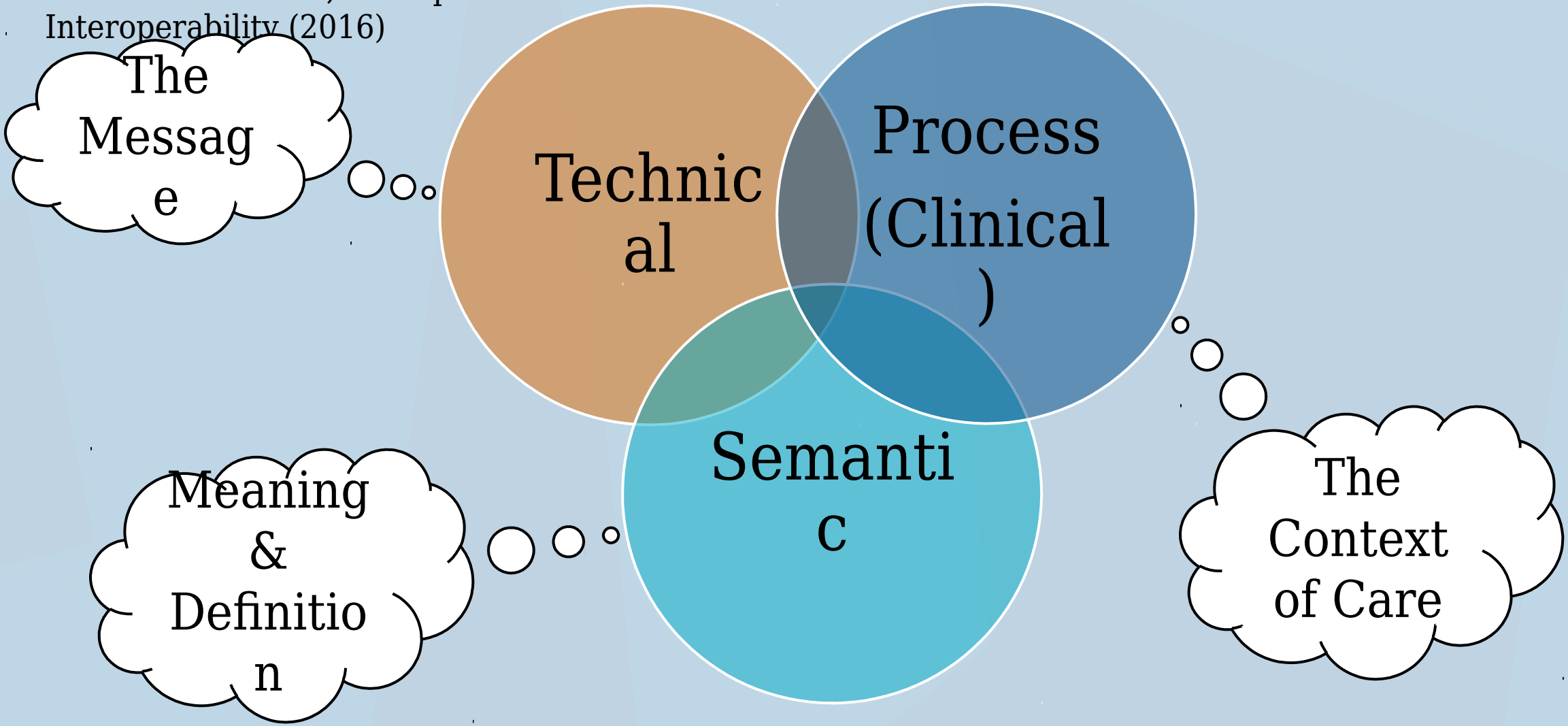
after Meaker, Bhandal & Roberts (2018)

> “a single software system has been developed to cover all activities occurring in an organisation or healthcare system, such as that used by Kaiser Permanente.

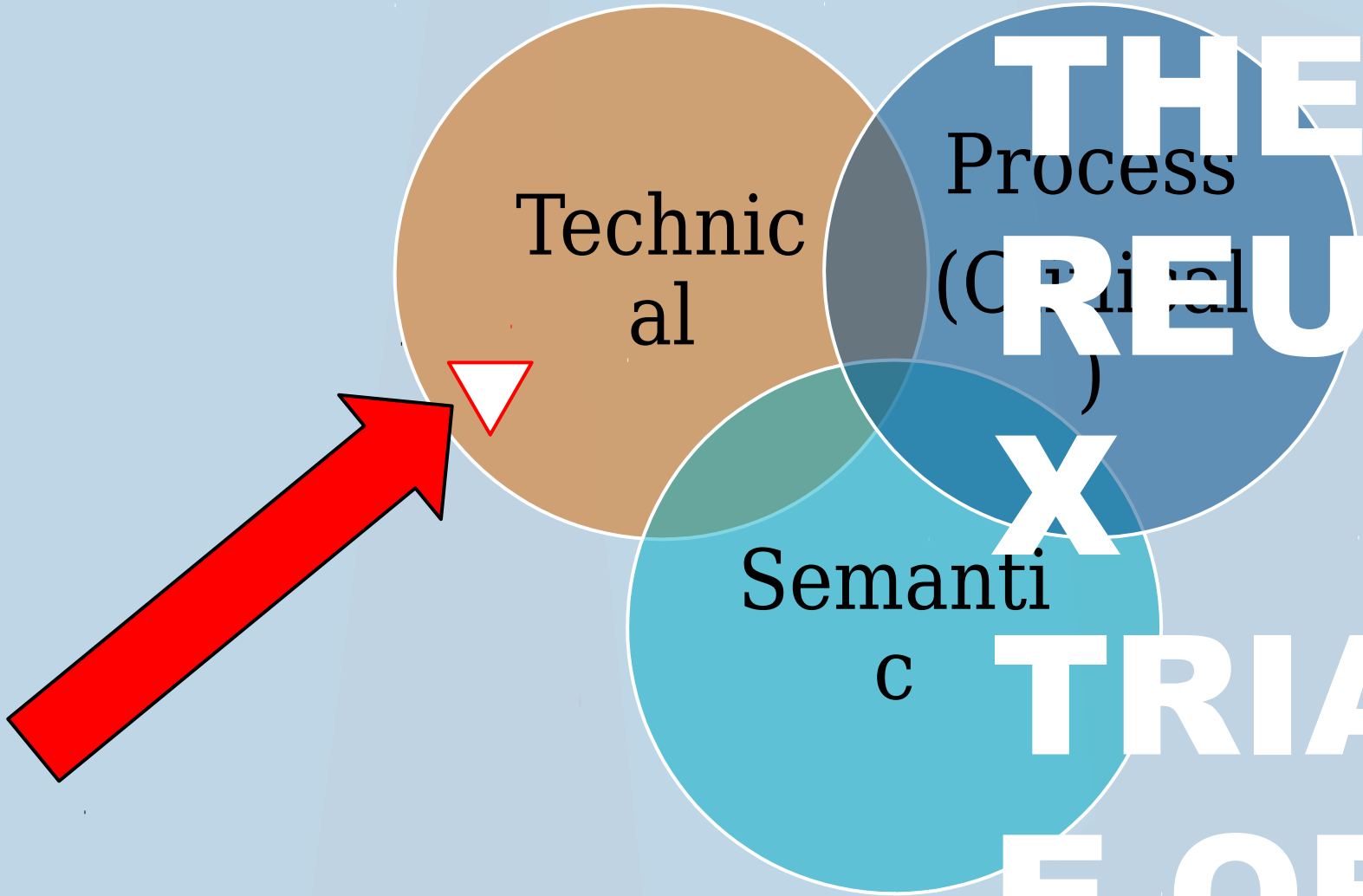
ONE DOES NOT SIMPLY
DEFINE INTEROPERABILITY

A better definition?

Benson and Grieve, Principles of Health Interoperability (2016)



A better definition?



THE RÉSEAU X TRIANGLE OF

AUDIENCE PARTICIPATION TIME

TECHNICAL INTEROPERABILITY

The message.

SEMANTIC INTEROPERABILITY

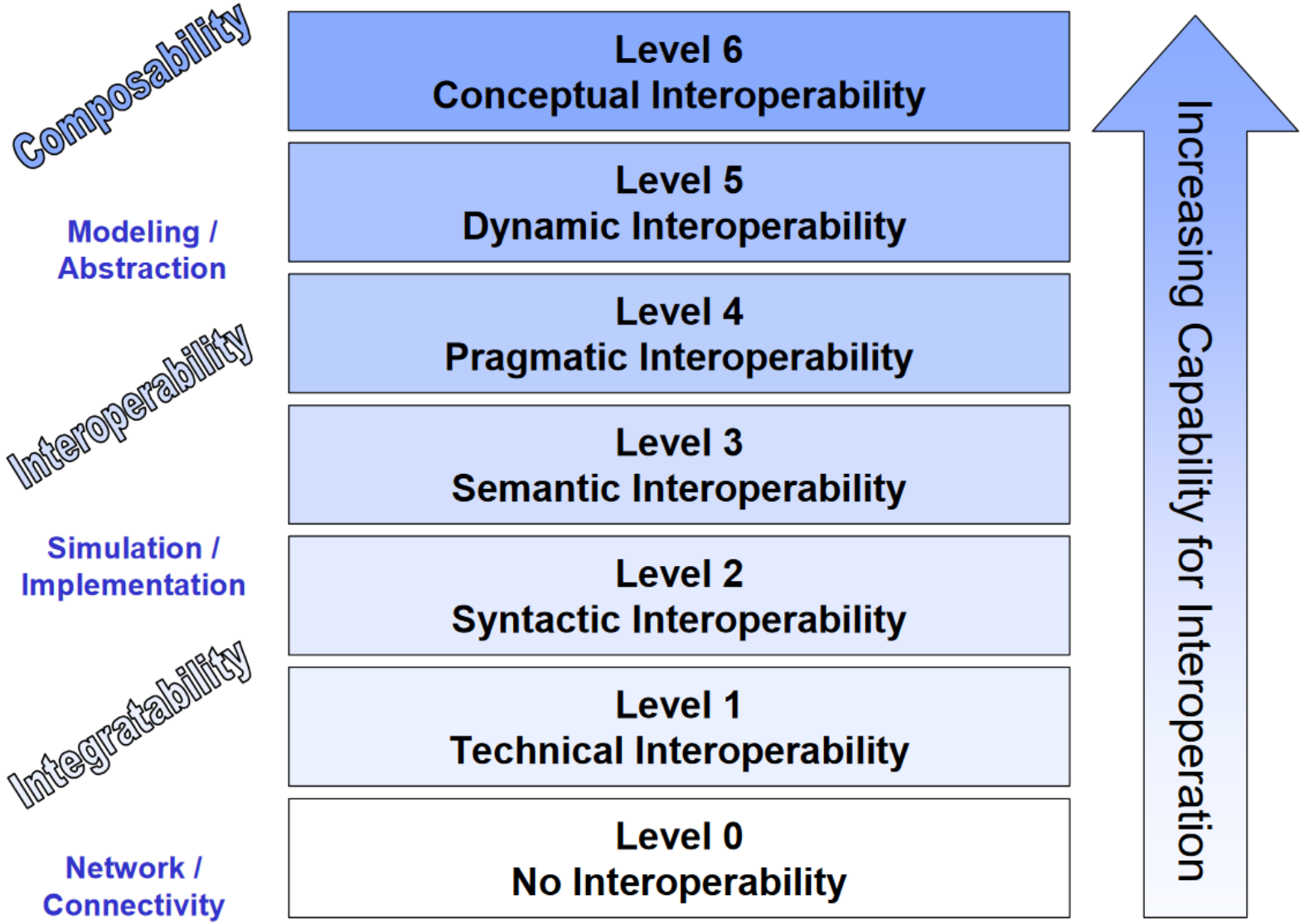
The meaning and definition.

PROCESS INTEROPERABILITY

The context of clinical care.

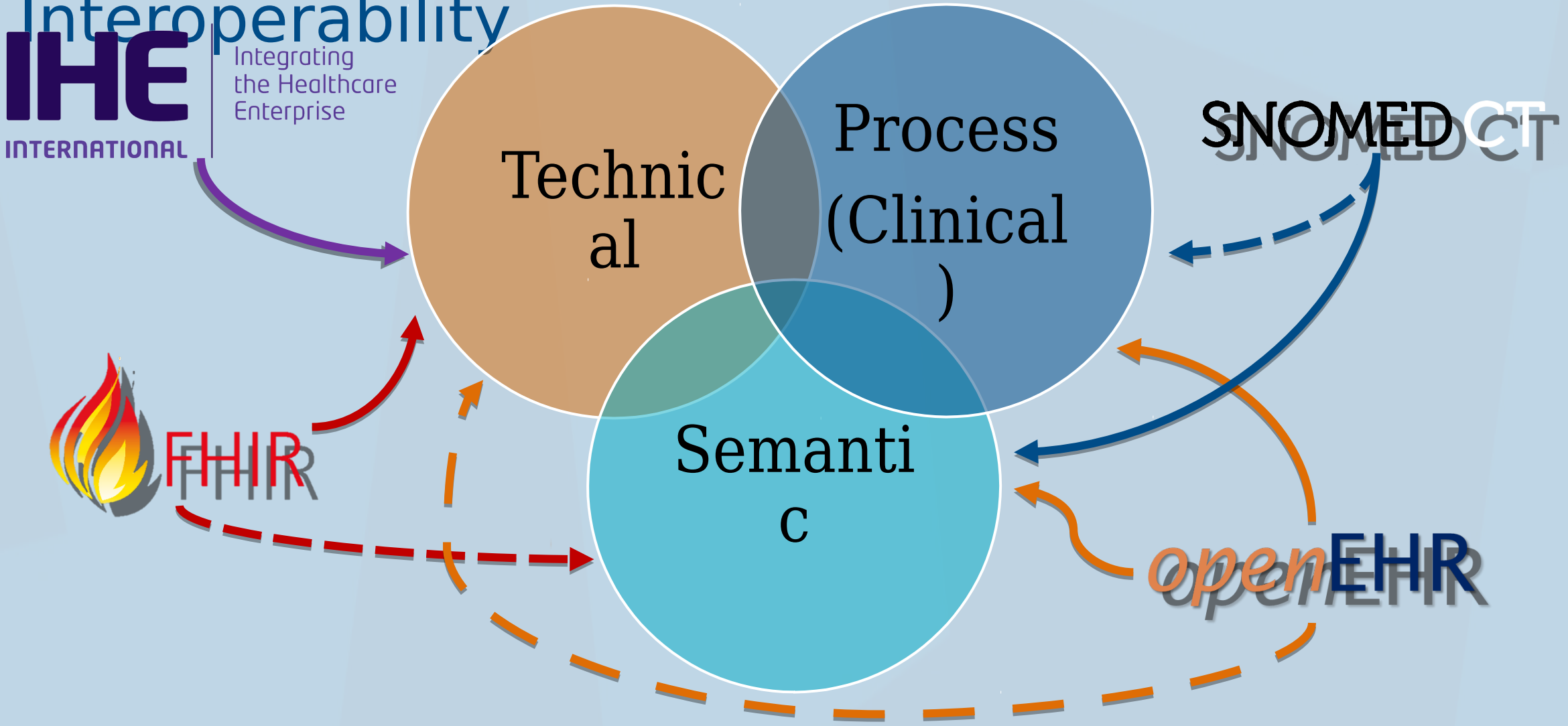
Systems Engineering Interoperation

evels of Conceptual Interoperability Model (LCIM), Tolk *et al* (2009)



I'LL BE BACK...FOR YOUR
& DISCHARGE ADVICE LETTERS

The Technological Fit for Health Interoperability



So where’s that silver bullet gone?

VENDOR NEUTRALITY

VENDOR NEUTRALITY

FREE
THE
DATA!

Definition of interoperability

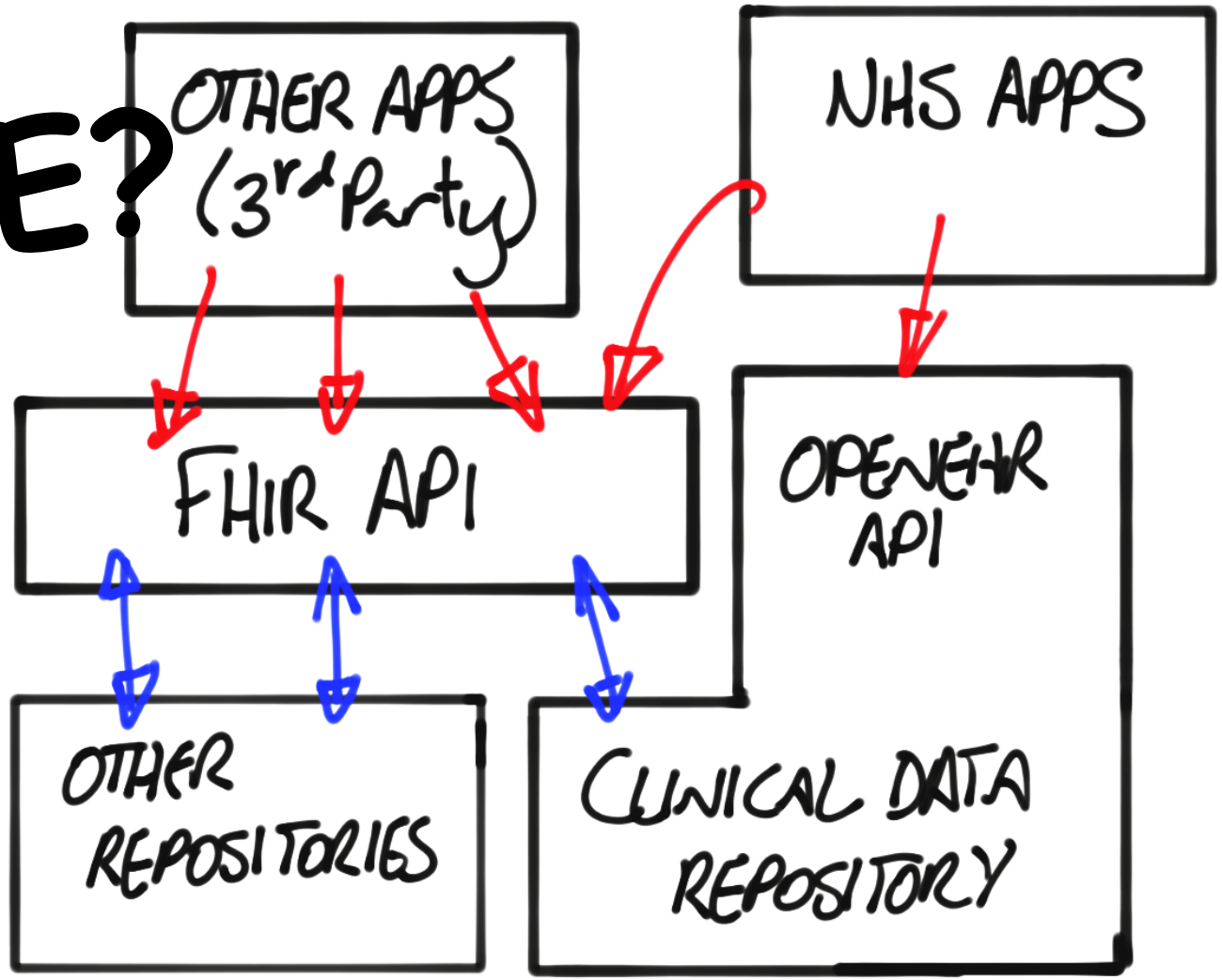
"(10) INTEROPERABILITY.—The term 'interoperability', with respect to health information technology, means such health information technology that—

- "(A) enables the secure exchange of electronic health information with, and use of electronic health information from, other health information technology without special effort on the part of the user;
- "(B) allows for **complete** access, exchange, and use of **all** electronically accessible health information for authorized use under applicable State or Federal law; and
- "(C) does not constitute information blocking as defined in section 3022(a).".

"interoperability requires legislation because the market failed" ouch!

@NHSDigital @AppertaUK @Andy_Kinnear @HealthCION @AdeByrne @SarahFWilkinson
@NHSCCIO "interoperability requires legislation because the market failed" ouch!

THE FUTURE?



GIG CYMRU NHS WALES
Gwasanaeth Gwybodeg
Informatics Service

noun: interoperababble

The confused sound of a group of people talking simultaneously…

…about the subject of interoperability without describing the full meaning and sub-categorisation within the specialist domain such as health.

“It was exceptionally difficult to understand how I could connect to my data, above the din of interoperababble”

#INTEROPERABABBLE
#SCATA2018

www.wales.nhs.uk/nwis

@NWISUpdates

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