

# HL7 FHIR adoption in European health systems: A look at the Netherlands

Webinar, 3 July 2024  
12.00-13.00 CEST

Online on Teams



in collaboration with



# HL7 FHIR adoption in European health systems: A look at the Netherlands

## Speaker introductions

- Alexander Henket, Nictiz
- Panel:
  - Esther Peelen, Nictiz
  - Bert Kabbes, HL7 Nederland
  - Giorgio Cangioli, HL7 Europe
- Facilitator: Michael Strübin, HL7 Europe



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## Audience introductions

Tell us in the chat who you are, what country you're from, and ...

are you **Team P** (policy)

or **Team T** (technical)



# Housekeeping



- Your facilitator: Michael Strübin, HL7 Europe
- The webinar will be recorded, slides will be shared.
- To help ensure a successful webinar please:
  - Stay muted
  - Feel free to use reactions/emojis during the presentations
  - Use the chat to make comments or raise your questions
  - Raise your hand if you'd like to speak
  - If you are invited to speak, please turn on your video and say who you are

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## Agenda

- Welcome and introductions
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- Discussion and Q&A
- End

# FHIR in The Netherlands

Alexander Henket  
Interoperability Specialist

| 3-7-2024 |



# Alexander Henket

## Interoperability Specialist



[alexander.henket@nictiz.nl](mailto:alexander.henket@nictiz.nl)

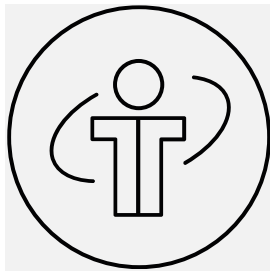
Over 25 years of experience

Interoperability Specialist at Nictiz, competence centre for digital information management in healthcare

Active member of HL7 Netherlands, HL7 Europe and HL7 International

Member of IHE NL

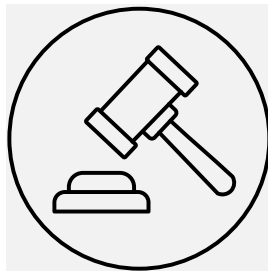
# Agenda



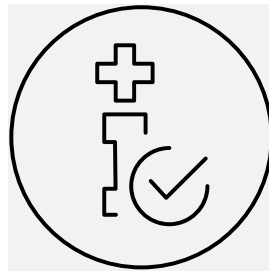
Nictiz



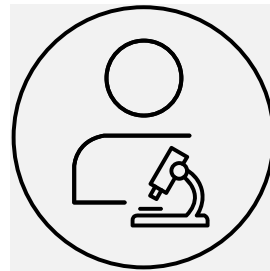
Why



Legislation



Information  
Standard

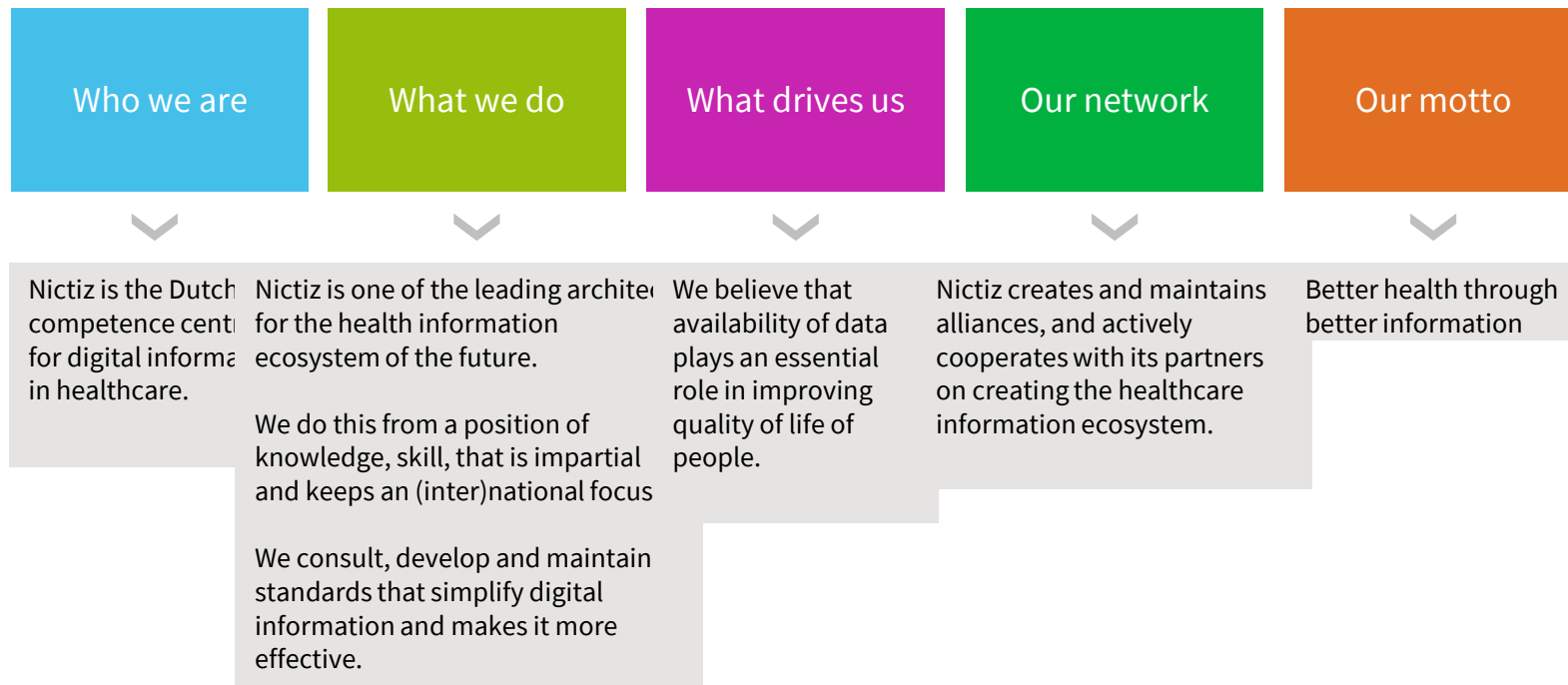


Lab

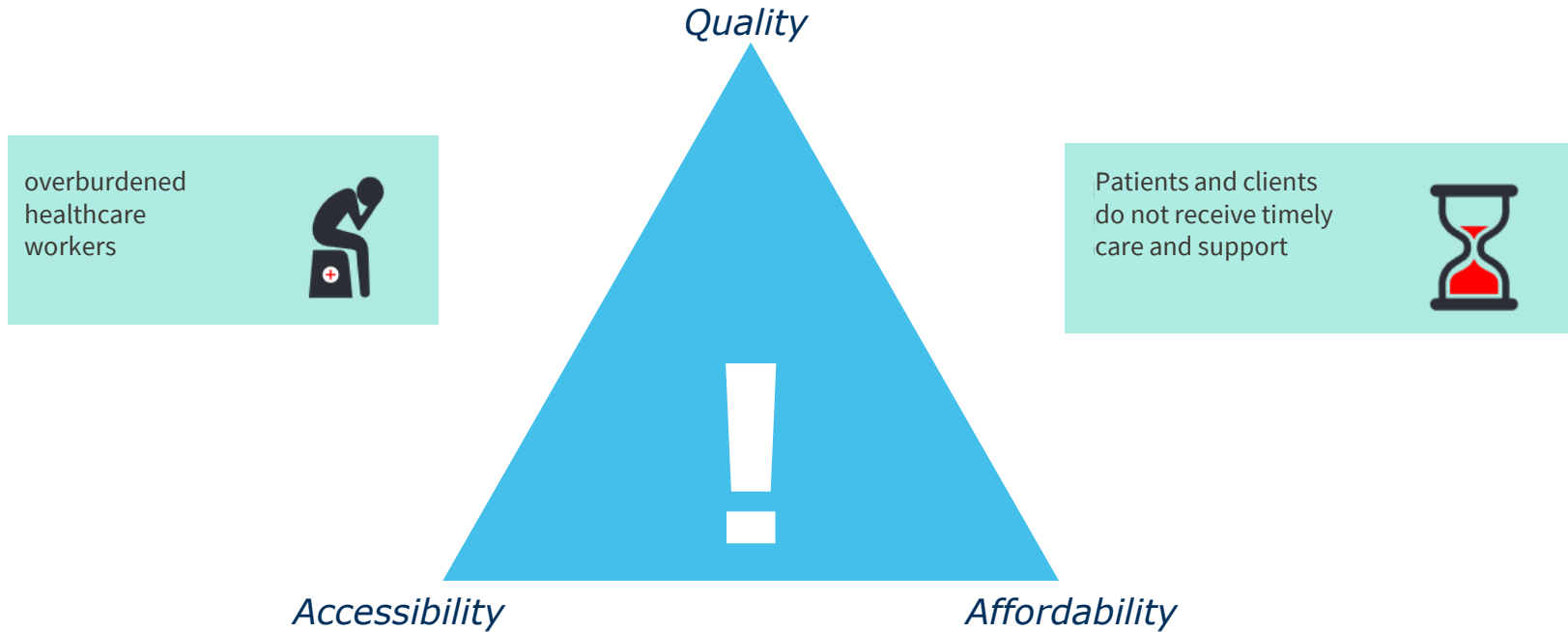


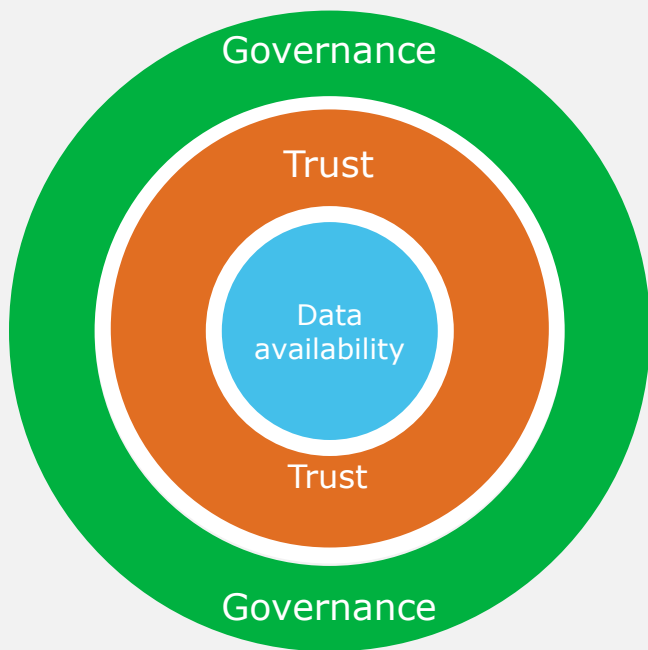
FHIR

# About Nictiz



# Healthcare is under pressure





## A National Vision and Strategy

- **Availability of Data**  
for primary care and secondary use  
for patients and care providers
- **Trust**  
in quality of data
- **Governance**  
helps building trust by binding  
agreements
- Created with “all” stakeholders in  
healthcare under leadership of Ministry of  
Health

## Status of Wegiz\*

- Dutch legislation stating that all data interchange in healthcare must be done digitally. Aligned with the European Health Data Space (EHDS) priorities for cross-border exchange.
- Came into effect on July 1, 2023 – with a multi-year (2023-2028) adoption plan affecting:
  - Patient Summary (medical specialist referral)
  - Nursing Discharge Report
  - Medical Imaging (images and reports)
  - Medication (prescription and dispensation, medication overview, **lab results for medication**, adverse event monitoring)
  - Emergency Care



+



Equivalent to  
“Implementation Guide” or IG

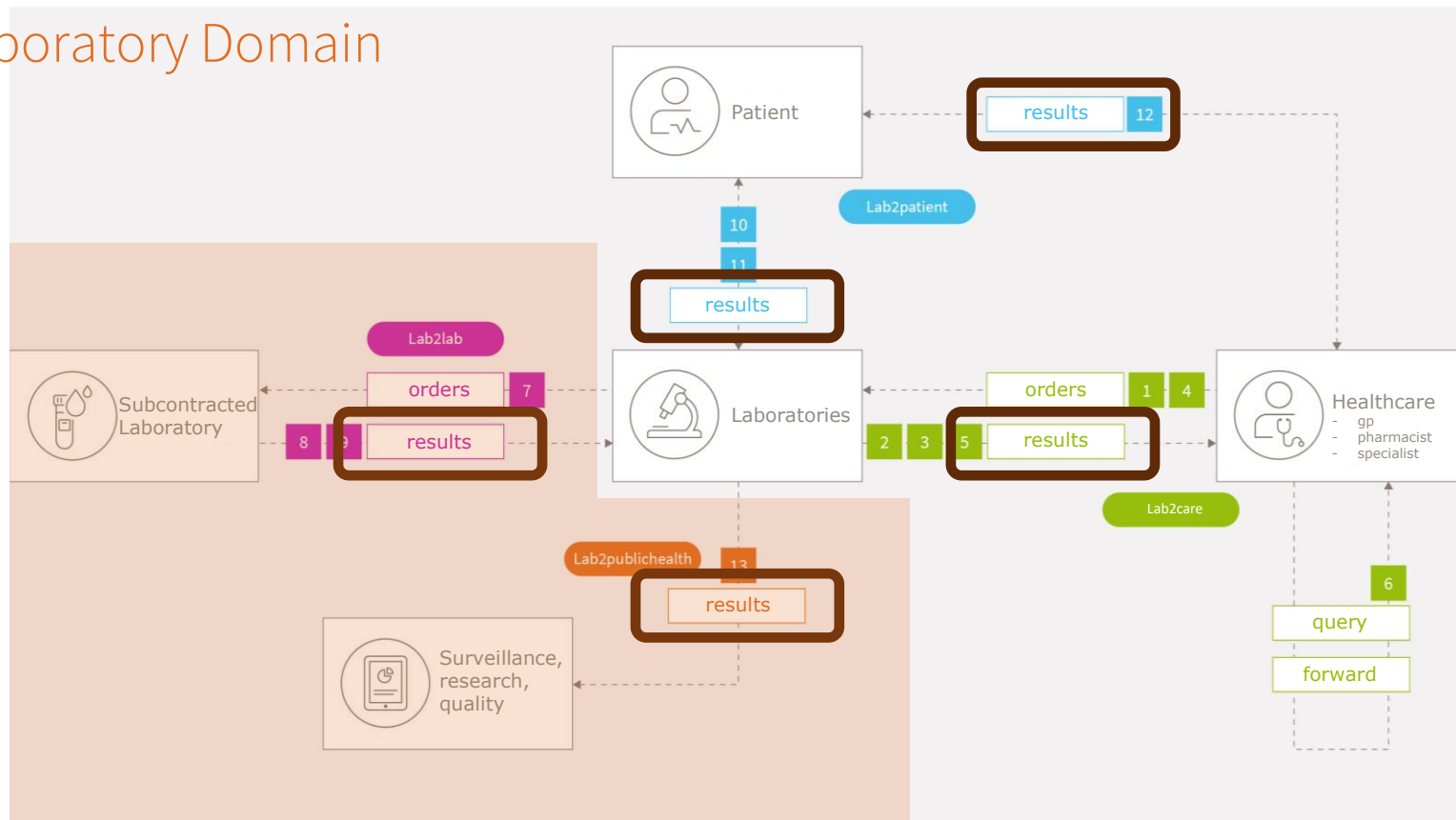
# Information Standard or “IG”

Published and maintained by Nictiz under NEN7522 governance with all relevant health care stakeholders around one or more use cases.

Takes the Quality Standard, NEN Norm(s) and EU eHealth Network Guidelines as input and defines the Functional and Technical Design of the information exchanged for the healthcare domain under consideration.

[https://health.ec.europa.eu/ehealth-digital-health-and-care/eu-cooperation/ehealth-network\\_en#ehealth-network-guidelines](https://health.ec.europa.eu/ehealth-digital-health-and-care/eu-cooperation/ehealth-network_en#ehealth-network-guidelines)

# Laboratory Domain





## State of lab implementation in NL

All GP results based on Edifact MEDLAB since 1989. Orders possible through intermediary. Push only.

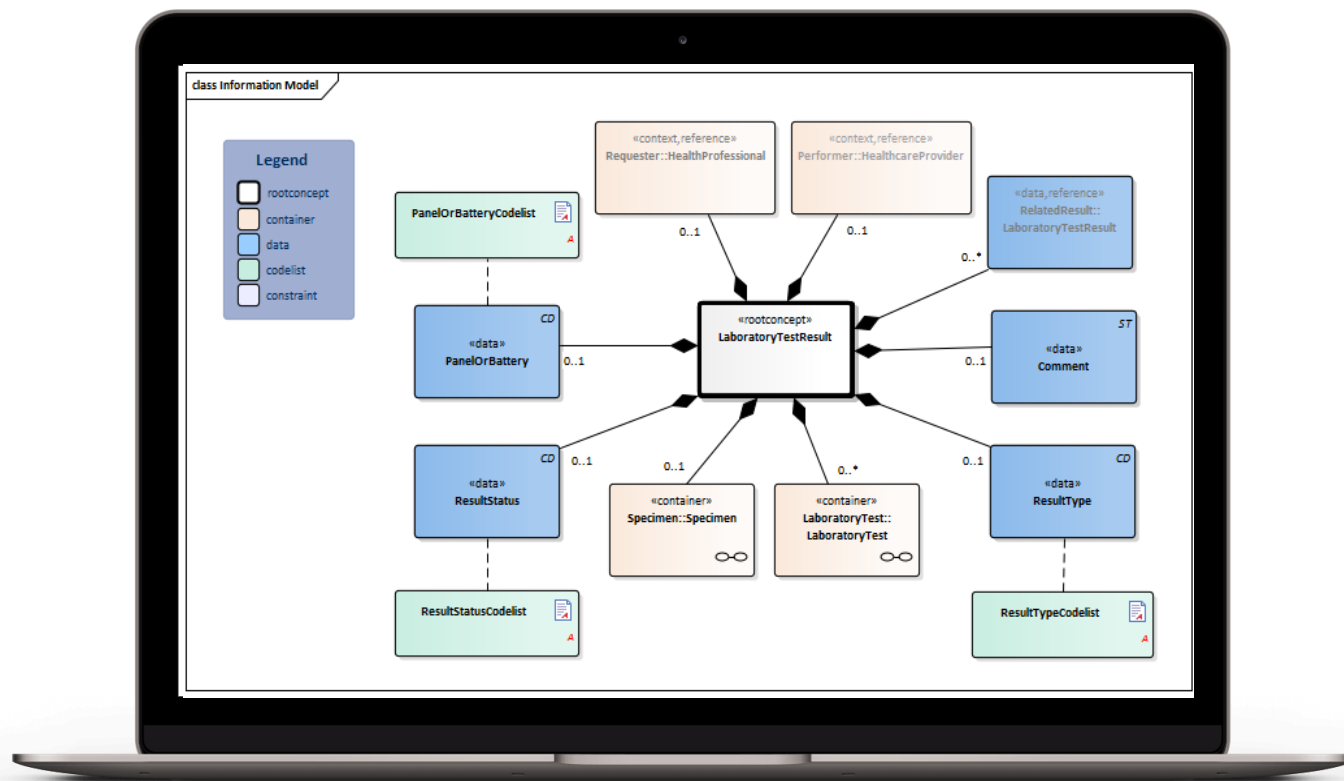
All hospital care orders/results based on HL7 V2(.xyz) since > 199x. Mostly push, query possible.

GP and secondary care on HL7 V3/CDA since 2004 for specific use cases including exchanges in community-based care, out of hour services, patient summary, emergency care, maternal/birth care. Both push and query.

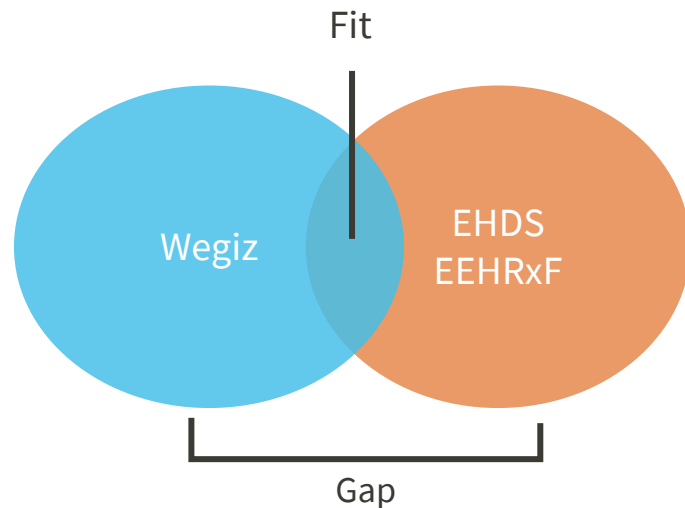
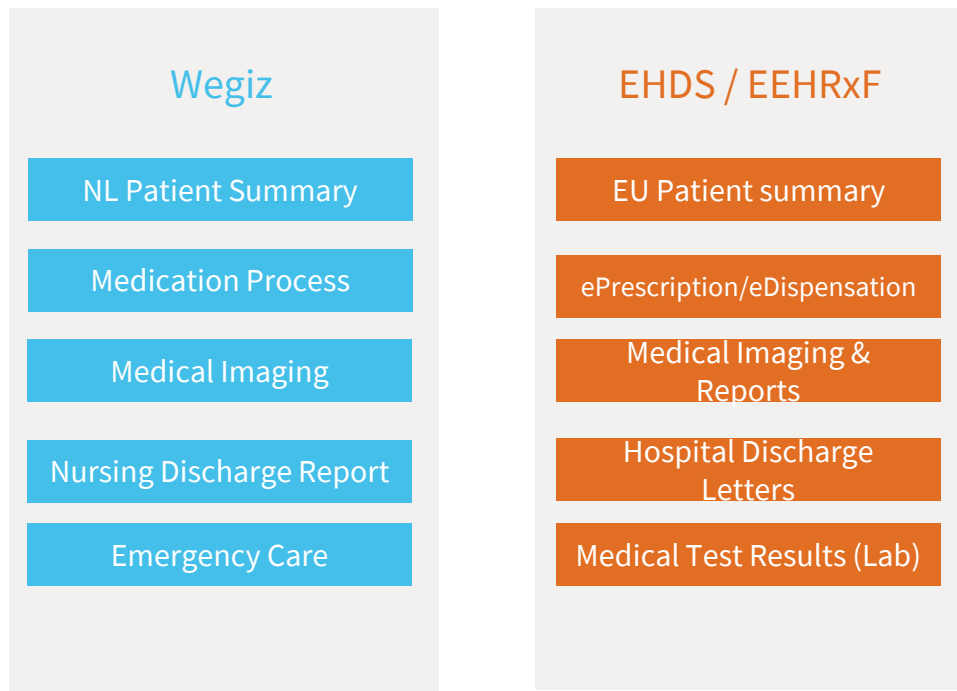
Patient access to results through GP\* and limited submission [vital signs/blood sugar] since 2017 based on FHIR STU3. Access query only, submission push only

Almost all efforts of the past few years go into upgrading and replacing all reporting to ordering providers and patients with FHIR R4, so we have a single baseline

# LaboratoryResult (zib)



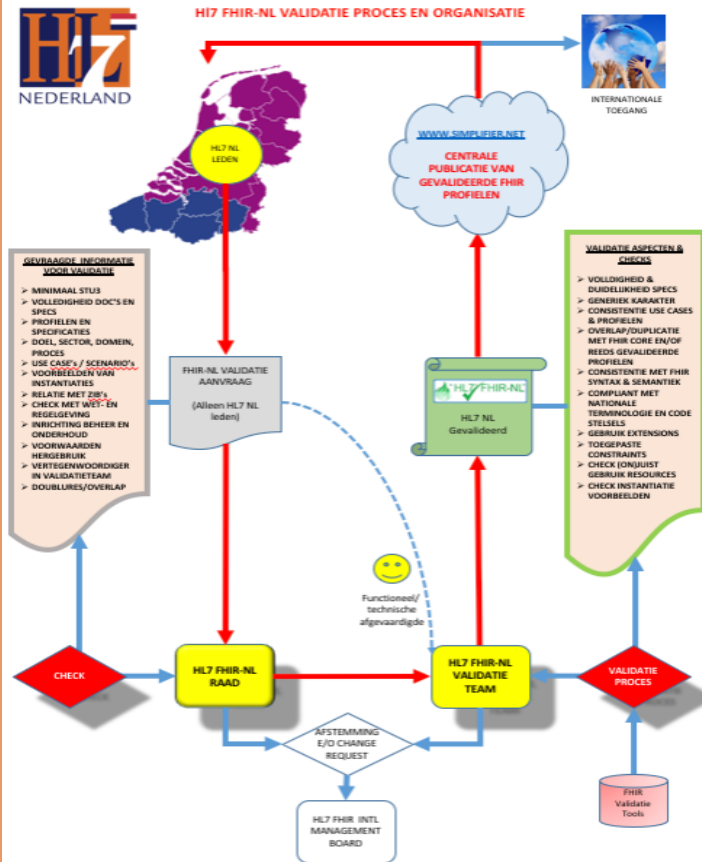
# Fit-gap analysis Netherlands/Europe



# Current status of FHIR in NL

\* This list is by no means complete

- **Mental Health** around autism - since 2015 – FHIR <= DSTU1– upgraded IG to FHIR R4 in 2023
- **MedMij** – patient facing network since 2016. Mostly STU3, some R4
  - Patient Summary, General Practitioner, Vital Signs, Medication, PDF/A document exchange
- **Medication** new style incl everything medication safety in R4 (hybrid with V3/CDA)
- **Vaccination/immunization** in R4
- **nl-core** profile/terminology set for STU3 (production) and R4 (beta)



## FHIR NL Governance

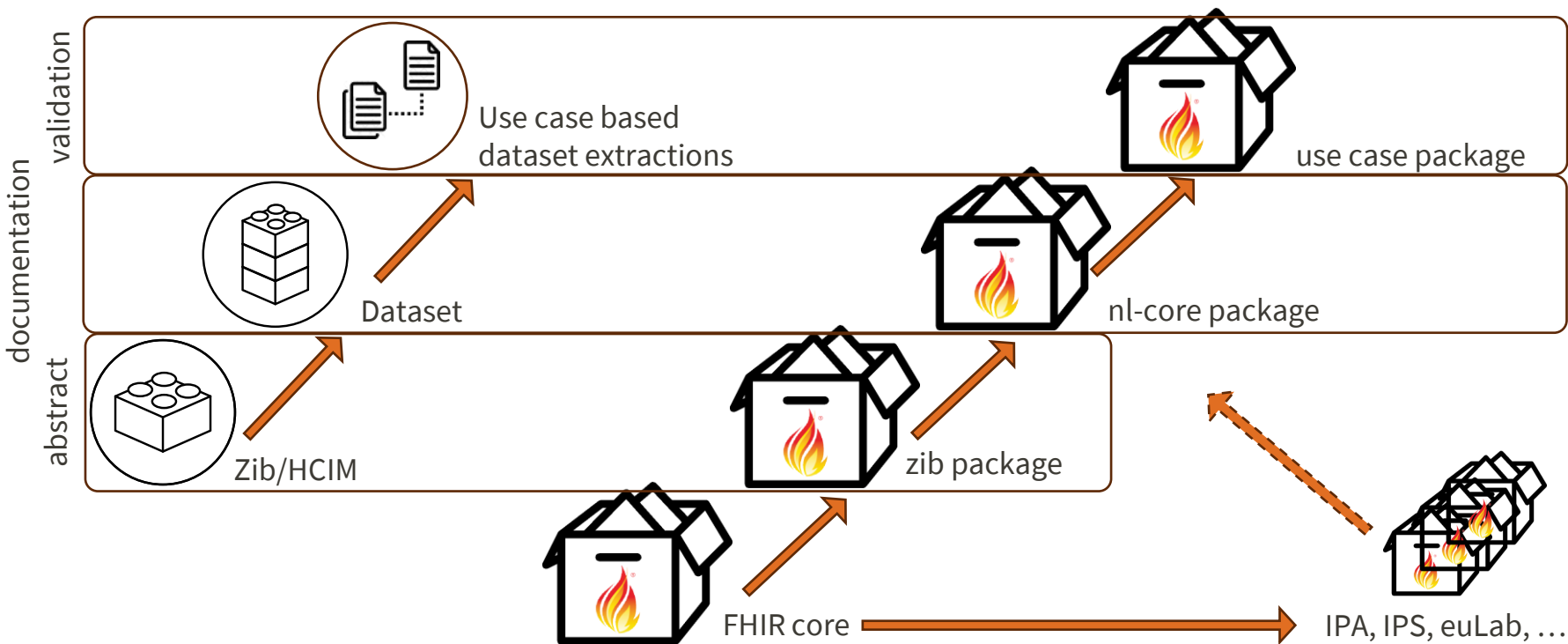
HL7 Netherlands FHIR Council + Validation team for national vetting of third party works with representation of all stakeholders

Basic nl-core set and growing set of domain profiles available on Simplifier

Extensive FHIR profiling guidelines\*



# Building use cases



# Learnings

- Aligning timelines helps greatly
- Participate internationally, engage nationally
  - HL7 Europe is able to produce quality in a timely fashion
- Have national governance and set up rules
  - To increase scalability
- Terminology server is a key component
  - National terminology support, translation, mapping, value sets
- Qualification/certification testing is important, but generally test as much as possible
  - Continuous integration, scenarios, designathon, hackathon, connectathon ...



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## Esther Peelen - Nictiz

International Advisor & coordinator International team



[Esther.peelen@nictiz.nl](mailto:Esther.peelen@nictiz.nl)

- eHealth Network Subgroup on Technical Interoperability member
  - Chair TF Medical Imaging under SG on Tech IOP
- Participant in Xt-EHR: Co-chair team Medical Imaging and Reports Implementation Guide
- Participant in XpanDH
- Participated in X-eHealth and UNICOM

## Focus on

- Cooperation within Europe setting up EU specifications (eHN Subgroups, Xt-EHR, IHE-Europe, HL7 Europe, XpanDH, X-share, ...)
- Listening to stakeholders needs in complying to the EHDS
- Aligning national developments/needs with the EHDS

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- Chair HL7 NL FHIR Migration Team
- Co-chair FHIR-NL Validation Team
- HL7 NL Rep - National FHIR Migration Coordination Team - Ministry Health
  
- Co-founder HL7 NL (1991/1992)
- Past Chair HL7 NL (2x)
- Past Board Member HL7 International

**National Law April 2023** : FHIR mandatory for healthcare information exchange in all health sectors/domains

## **New roles of HL7 NL :**

- Technical level : knowledge sessions, migration options, NL-Core profiles, localization, validation
- Policy level : migration strategy, project approach, national architecture, adoption, \$\$\$, vendor issues

## **HL7 NL roles on Policy level (Ministry Health, Nictiz, vendors) :**

- Advice on future baseline standards (currently : zibs, FHIR STU3/R4 and Snomed)
- Participate in Expert Team : Standards selection criteria for admittance to national information architecture
- Advice on National Release Policy
- Participate in developing dedicated NEN (CEN/ISO) norms : identification, authentication, authorization, consent, source address
- Advice on National Migration Strategy : how 26+ organizations should migrate their standards to FHIR
- Participate in design of National Healthcare Information System : conceptual, technical, info & Infra structure

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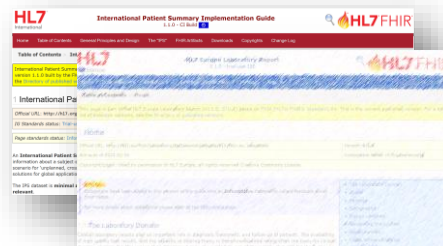


# Giorgio Cangioli

- Co-facilitator of the HL7 EU Laboratory Report FHIR IG
- eHMSEG STF Architecture WG chair
- XpanDH and xShare Tech Specs WP leader (WP2)
- Technical Lead, Board member HL7 Europe
- Board member, CDA MG co-chair, AEC member at HL7 International



ePrescription



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## Next steps

- Slides and recording on [www.HL7.tv](http://www.HL7.tv), notification to all registered attendees

## SUMMER BREAK

- September: another webinar on “labs on FHIR”
- ... and more to come in Q4

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Thank you!

