Partner van de NL AIC



Al for HealthCare

From research and innovation to implementation

Claudine Lamoth (UMCG) Ronald Hesse (Triade)

De Al-hub Noord-Nederland wordt mede mogelijk gemaakt door de subsidiepartners:







Europees Fonds voor Regionale Ontwikkeling. Mede gefinancierd in het kader van de respons an de Unie on de COVID-19-nandemi





provincie Drenthe

Applications of AI for Health: A trend shift

- From a reactive to a proactive (prevention) healthcare system
- Faster, better, predictive diagnoses
- Personalised treatments
- Predict health progression & treatment impacts at a collective level (cohorts) and at the individual level (personalised care)
- Support better self-management of chronic patients
- •







Emphasis action and impact.



Interactive break-out session

- During this interactive break-out session, experiences and challenges towards implementation will be discussed
 - from the perspective of four experienced entrepreneurs
 - Audience
- Two 'use-cases' examples



Healthy living as a service

Collaboration across domains, citizens, scientists, technology, healthcare, artists, business and industry

The results will be citizens that have ownership over their health by:

- health, technology and data literacy;
- healthy and involved communities;
- a monitoring system with wearables and nearables;
- motivational feedback and coaching supported by an AIbased Decision Support System

Realize healthy lifestyle, supported by technology and Artificial Intelligence (AI)-healthy living services





Predictive Diagnostics



The Life Cooperative is a Northern Netherlands-based SME association (coöperatie u.a.) with 45 member-businesses in the Life Sciences and Health sector, generating over € 500 million turnover with close to 4.500 employees.

Its aim is to facilitate **next generation innovation** by and between membercompanies, together with knowledge and health institutes in the region.

www.lifecooperative.nl



Predictive Diagnostics (2023-2027)

Predictive Diagnostics is a platform for innovation and implementation of AI in Healthcare, serving innovators (TRL 3-8) by providing access to all relevant expertise, facilities, funds and talent in the region. It operates like a **business-run** platform focused on effective, personalized service delivery: from scouting & intake, screening and advice, to business case building and servicing, demonstrations and pilotting, and finally (scale-up) investor readiness and intro.





Scout 100+ leads

accept 40 into the program



generate 10+ investable BC's

To get there, the platform needs to build competences and track-record, as well as a comprehensive infrastructure (network, collaborations and additional services and facilities).

Total budget will be around € 8M







Chandler Hatton CTO











Real-world applications for AI & computer vision





Market leader in products and services that **analyze huge amounts of visual data** to fight sexual abuse of children, used in 50+ countries worldwide









VizX2

2nd generation,

first product

launch 2006



ApolloZ 3rd generation, _ first product launch 2009 Market leader in automated visual checking of medicine pouches, checking 12 million pouches in 17 countries each day







ZiuZ Medical Imaging & LIMIS



A medical device that offers surgeons a **real-time** heatmap of microvascular **blood flow** using **laser speckle contrast imaging**

PerfusiX-Imaging

First product launch 2023





ALESSANDRO GRILLINI, PhD, CEO/CTO

- Background in Computer Science, Psychophysics, Computational Neuroscience
- Solo founded Reperio Medtech in 2020
- CEO/CTO, team of 6
- From "idea in the lab" to "product on the market"



REPERIO MEDTECH Objectify neuro-visual diagnostics with Eye-Tracking and Deep Learning



100

20



More info? Please send an e-mail to <u>r.g.pleijhuis@evidencio.com</u> or visit <u>www.evidencio.com</u>

Standardized algorithm creation

Evidencio offers tools for researchers to create functional prediction algorithms in a standardized manner.



Compliance with European law (MDR)

Evidencio enables cost-effective and time-efficient CE-certification of (pooled) prediction algorithms through:

- Standardization
- Established QMS
- Reuse of platform components







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Traditional Healthcare: co-location of patient, doctor, diagnostic procedures and data



The rise of Distributed Healthcare (DH) including AI:



Life2Ledger

- Large amount of distributed datasets
- Increasing application of Io(M)T & AI
- Minimized human surveillance

Requires Blockchain Technology for:

- Network Trust by Authenticity & Provenance monitoring
- Scalability
- Audit trails
- Automated payments





Statement 1: Clinical Trial Services

"Current offer of professional services (clinical research) from Healthcare institutes hinders valorization of AI in Healthcare and thus the transition."



Statement 2: Al Training Sandbox

"The lack of access to retrospective (anonymized) clinical patient data – on which AI can be modeled and trained – is slowing down the transition."



Statement 3: Regulatory landscape

"Current regulatory framework is harmful for startups who want to put innovative AI and predictive algorithms into clinical practice."



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