

Pilot research project for P4 Medicine

Atherosclerosis: Reducing heart attack and stroke

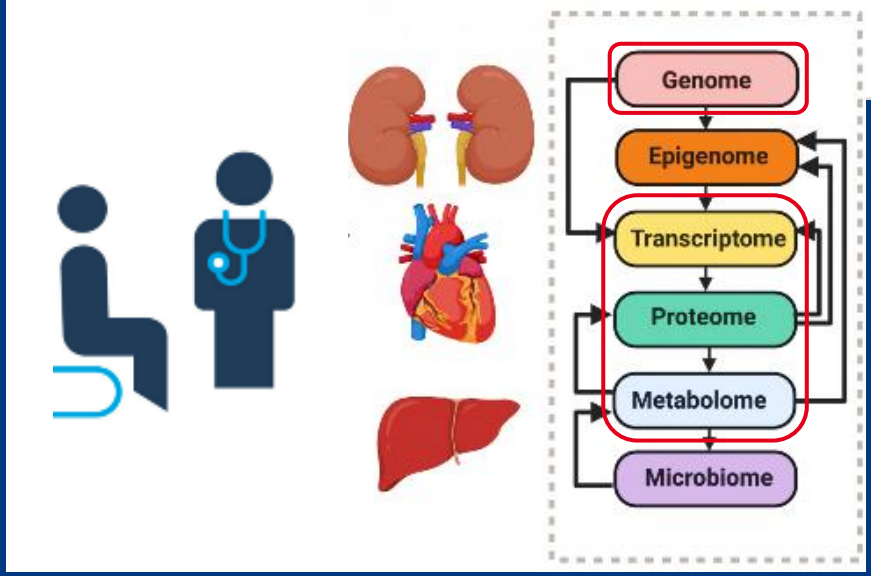
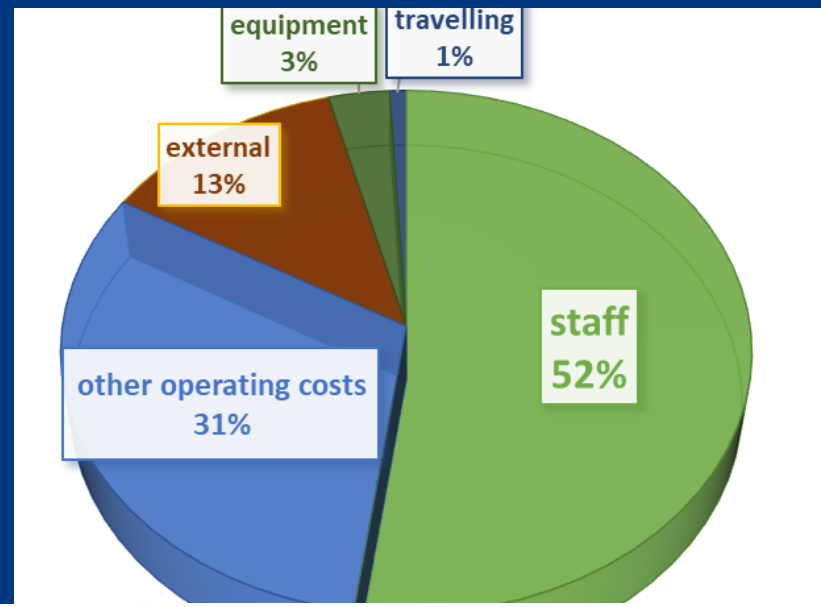
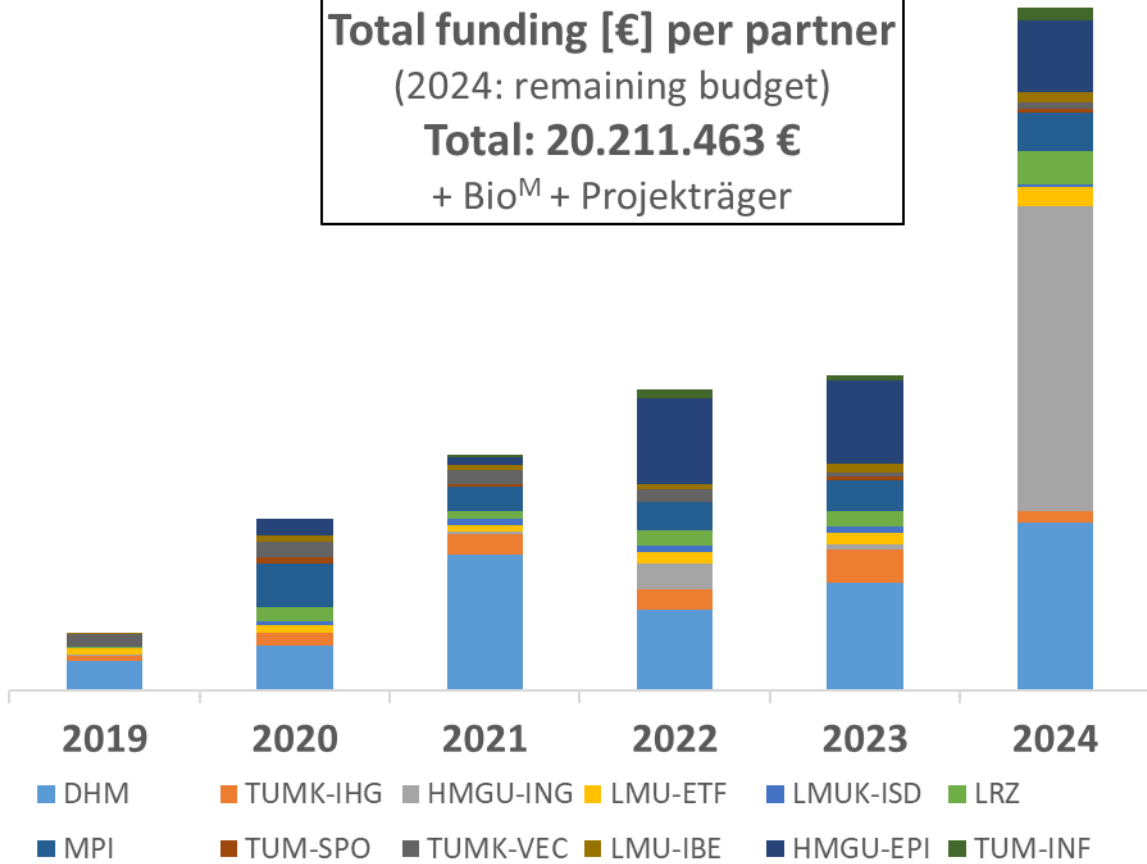


Predictive
Preventive
Personalized
Participatory

- ✓ Holistic & Translational
- ✓ Okt 2018 – Nov 2024
- ✓ 14 Partners / ~24,5 € Mio

Invest

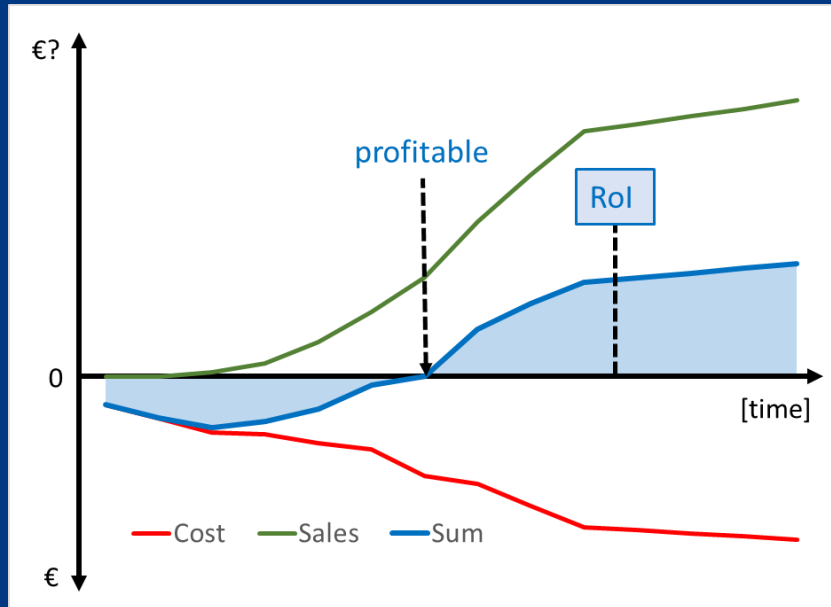
Total funding [€] per partner
 (2024: remaining budget)
Total: 20.211.463 €
 + Bio^M + Projektträger



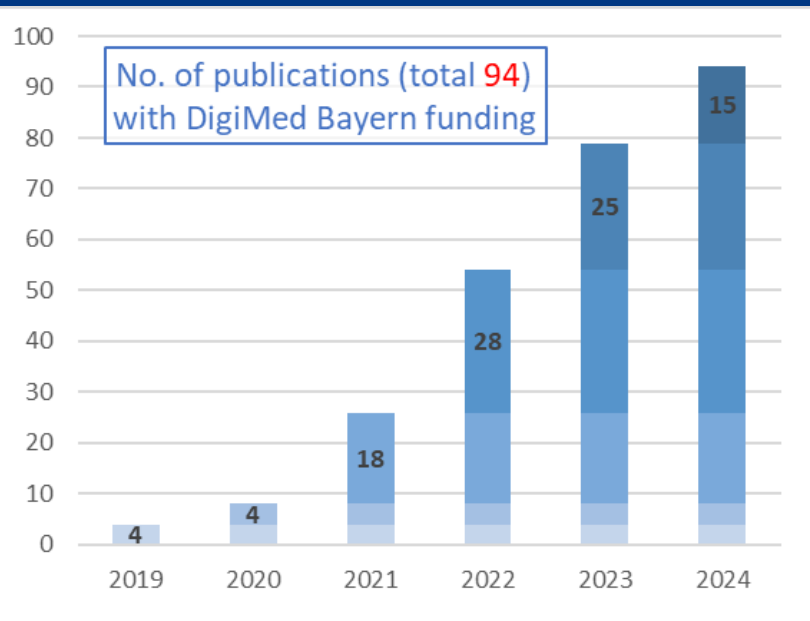
Kick-off Meeting October 2018 @ German Heart Centre Munich



Benefit = Return on Invest



Predictive
Preventive
Personalized
Participatory



1. Benefit = RoI should still be assessed in best way
2. RoI grows with FAIR* data over time – far beyond project end

*Found, Accessed, Interoperated, Reused

Work Packages

WP1: Coronary Heart Disease

WP2: Carotid Stenosis & Stroke

WP3: Familial hypercholesterolemia

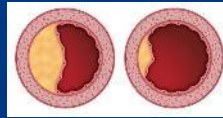
WP4: Bavarian Population

WP5: Multi-Omics Platforms

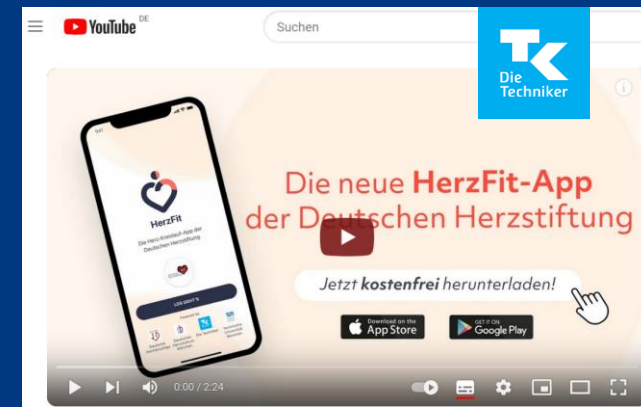
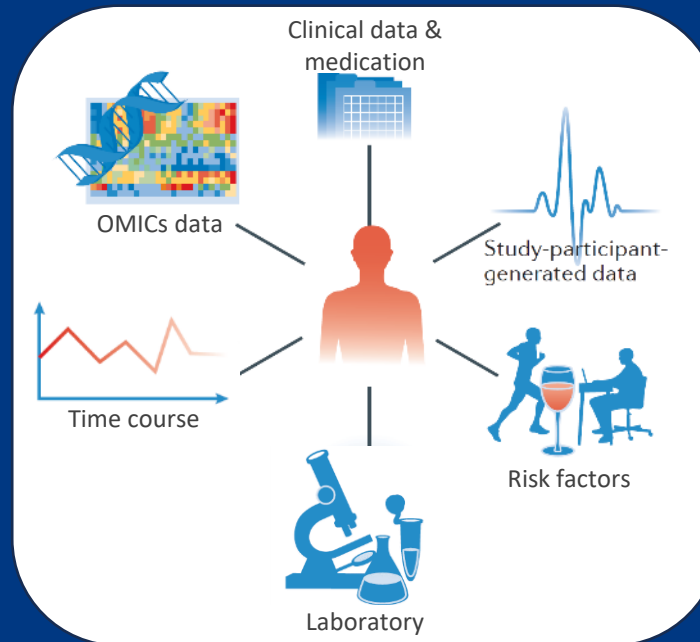
WP6: IT-Concept & Infrastructure

WP7: ELSI (Legal & Society)

WP8: Management & Communication



Kooperative Gesundheitsforschung
in der Region Augsburg
KORA



Bayerischer
Beauftragter für
Landesdatenschutz



Goal Nr. 3: ... In particular, it is intended to create an exemplary and transferable integrated digital infrastructure...

TRE-supported data FAIRification – bottleneck

- 2018: Collaborative Big Data project with 12 bio-medical partners
 - No collaborative data infrastructure available „Trusted Research Environment, TRE“
 - Leibniz Supercomputing Centre LRZ onboarded for own TRE (pilot, research)
 - DigiMed Secure Cloud launched end of 2023
 - **Status**
 - Big Data with long-term value made available and used
 - DigiMed Secure Cloud 1.0 in pilot use
 - Data generation ongoing to 30. November 2024
 - Still no „TRE as a Service“ available
1. Problem applies to many big-data projects / institutions
 2. Such required TRE should be „*infrastructure*“, not „*project*“



DigiMed Bayern Secure Cloud V2.0

– planned (bridge) solution

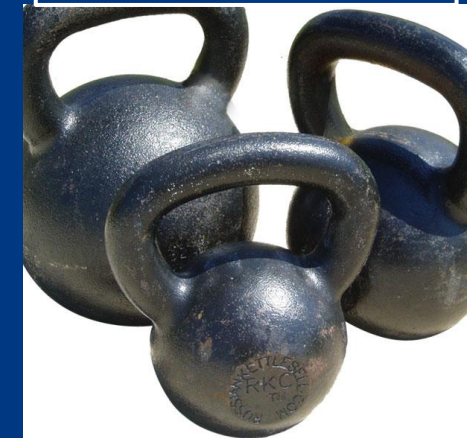
Bayerisches Staatsministerium für
Gesundheit, Pflege und Prävention



- Continuous operation with extension (12.2024 to 11.2027)
- Data treasure available / FAIR with collaborative compute resources
- Latest 2027 transfer to Bavarian Cloud for Health Research, BCHR
- Contribute to BCHR
- Basis for future Bavarian Genome Computing Centre “Genomrechenzentrum“
of national “Modellvorhaben Genomsequenzierung SGB V”
Research through GHGA / Nationale Forschungsdateninfrastruktur (NFDI)
Own resources and contributions to DigiMed in return
One physical infrastructure @LRZ - more want to join



E.g. 12 PB secure
storage end of 2025



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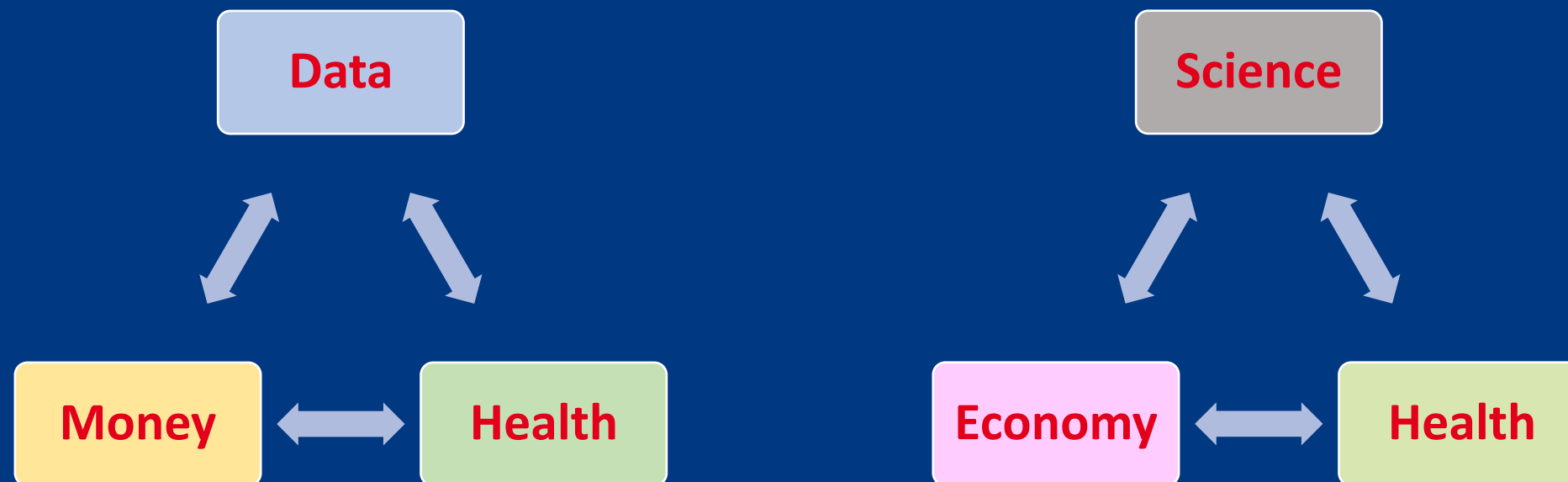


Klinikum rechts der Isar
Technische Universität München

Big Money → Big Data → Big Health?

Conclusions:

1. Yes, seems to work in above directions
2. RoI can be maximised with long-term FAIR data, (TRE as a Service with public control still missing, but problem better understood and addressed – EHDS helped)
3. Let's think holistic and sustainable (less silos)!



DigiMed Meeting November 2024@ Leibniz Supercomputing Centre



gefördert durch

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