

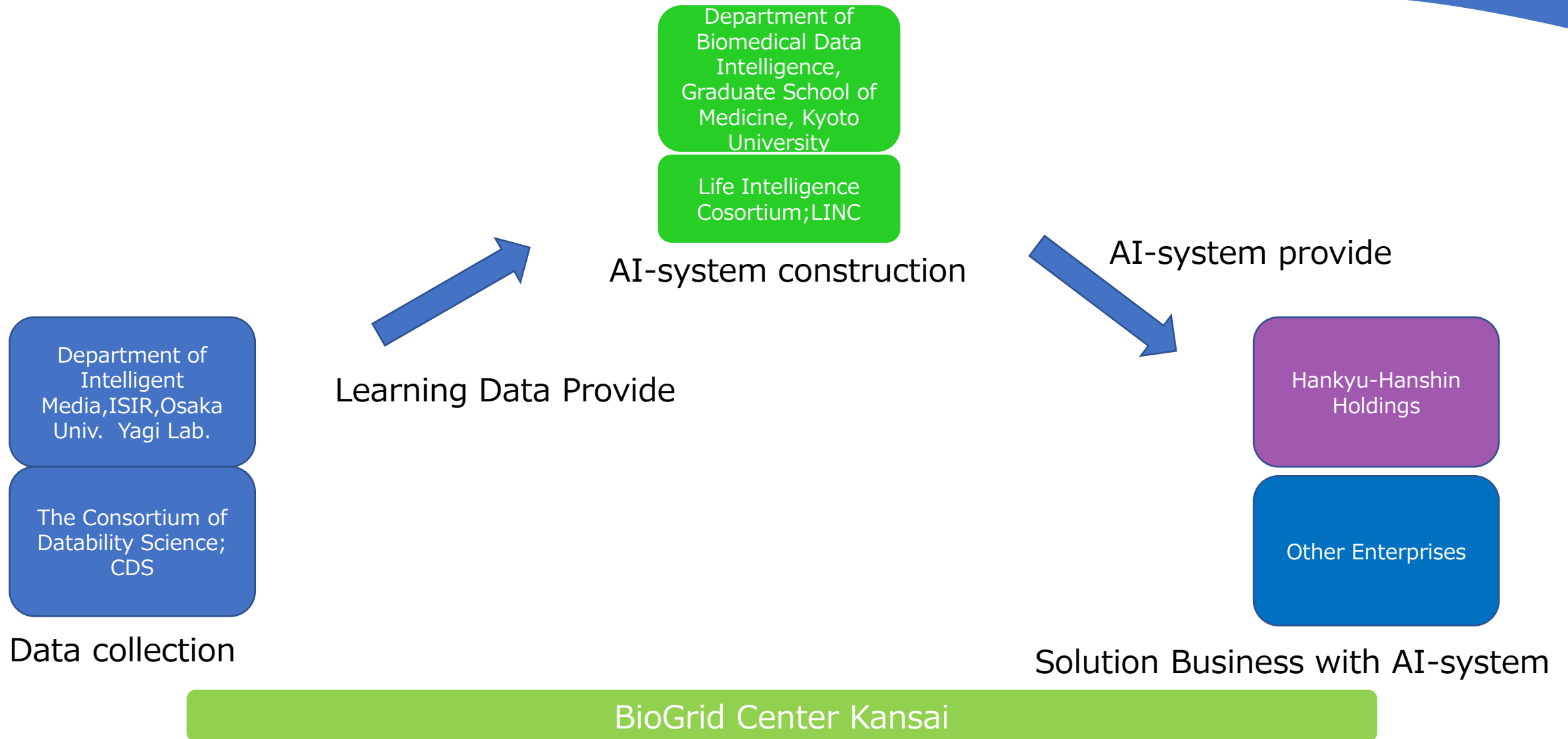


Big Data Healthcare Subcommittee

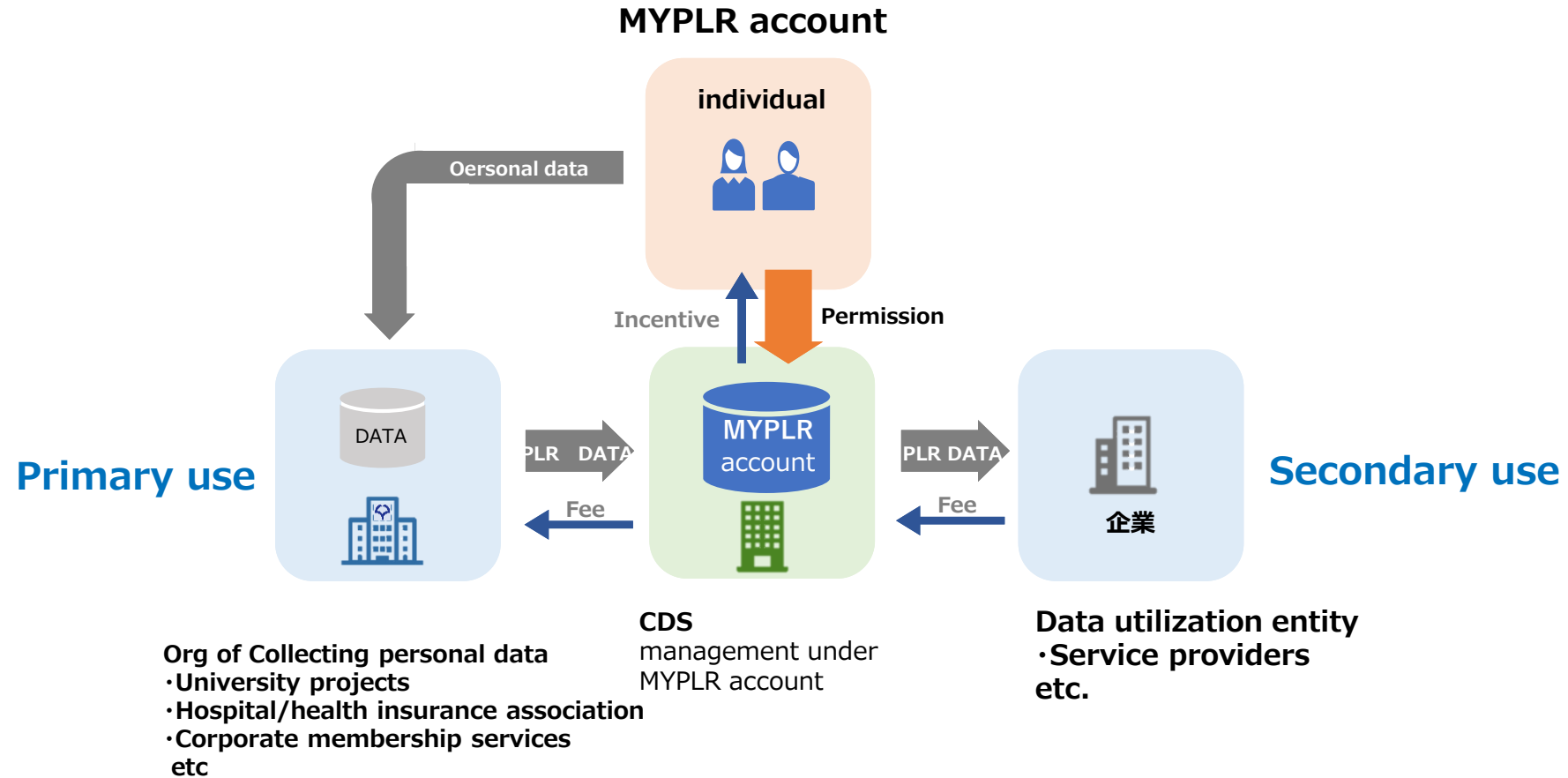
Overall Biodigital

- Biogrid Center Kansai (non-profit)
- Shimojo Shinji

Big Data Healthcare Subcommittee



About Personal Life Record Base System(MYPLR)



Disease onset prediction AI Algorithm overview



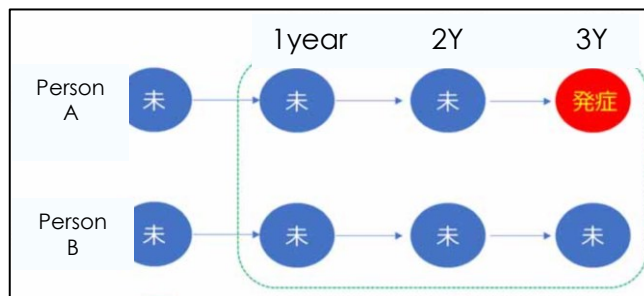
input variable

(Data in chronological order)

- Health checkup result
Blood test
Daily life interview
- Stress check result
- Medical fee statement information
Prescription, treatment data
- Attribute information
Age, gender, etc.

Developed prediction AI-system by Kyoto Univ.,JST,Hirosaki-COI

AI Model



Predict probability of disease onset

predictable disease
hypertension, diabetes, dyslipidemia, anemia, chronic kidney disease, metabolic syndrome, Liver dysfunction, hyperuricemia, ischemic heart disease

output variable
(onset probability)



25%

Present disease risk

health self-management Supporting PHR App



PDS

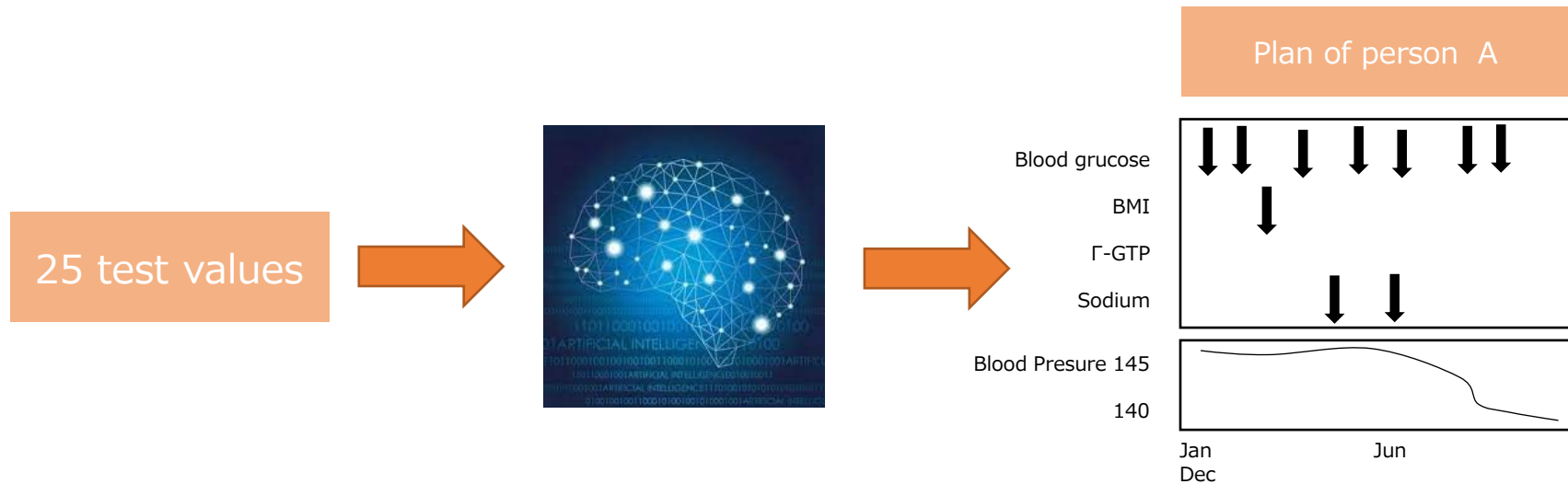
Personal Data Store

*Healthcare data distribution managed by companies, local governments, etc. are aggregated and managed in PDS based on individual requests.

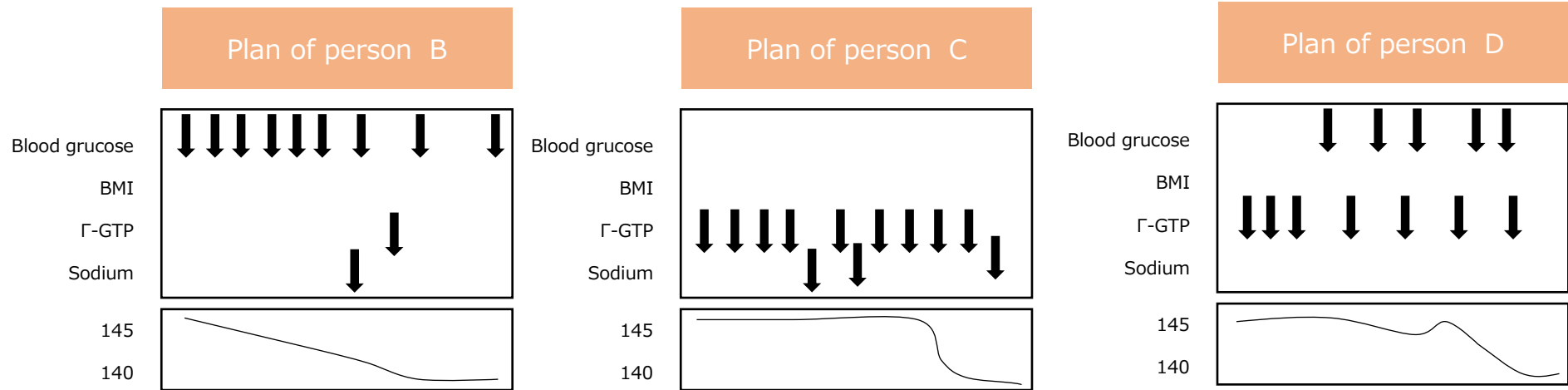
(Scheduled to link with Myna-portal)

Supports improvement and continuation of lifestyle habits by visualizing changes in health conditions using graphs, etc., and providing points for step counts and health checkup visits.

Individual health improvement plan presentation AI overview



The plans proposed by the subjects are different



PDS
Personal
Data Store

Nakamura K, et al. *Nat Commun.* 2021;12(1):3088.

Schedule of Healthcare support by predicting probability of diseases AI by Hankyu-Hanshin HD



Item	2022	2023	2024	2025	2026
Disease onset prediction AI	Pharmaceutical approval ethical review	Demonstration experiment	Service start at Osaka Japan Umekita area	Service start at Company in Kansai Area	Service start at Company in all Japan
Individual health improvement plan presentation AI		Demonstration experiment	Service start at Kansai local Gov		
Healthcare support business		Demonstration experiment	Service start at Kansai local Gov		
App on smartphone		Link with my number portal	Launch		

Subcommittee

As of August 1, 2022



Name of the subcommittee	Social Issues Area	Content of Efforts	Leadership organization	Remarks
Biomethane Subcommittee	Environment and energy	Carbon neutralization of energy	Osaka Gas Co., Ltd.	
Plastic subcommittee	Environment and energy	Bioplastic	Saraya Co., Ltd.	
Mental Health Subcommittee	Healthcare	Improving social productivity	Shionogi & Co., Ltd.	
Personal Data Subcommittee	Healthcare	Use of personal data	Nippon Telegraph and Telephone West Corporation	
Wellbeing Subcommittee on Aspergillus (National Bacteria)	Lifestyle modification healthcare	Elucidation of health and cosmetic effects of Aspergillus oryzae	Gekkeikan Sake Co., Ltd.	
Smart Cultivation Subcommittee	Continuous primary production system	Maximizing the use of biotechnology in the primary industry	Yanmar Holdings Co., Ltd.	
Biofoundry Cluster Subcommittee	Manufacturing Value Chain	Bio manufacturing	Baccus Bio innovation Co., Ltd.	
Start-up subcommittee	Support for start-up	Support for start-up in Kansai	Sumitomo Mitsui Banking Corporation (SMBC)	
Big Data Healthcare Subcommittee	Overall	Biodigital	Biogrid Center Kansai (non-profit)	
Well-Being with Bright Eyes Subcommittee	Healthcare	Social implementation of happy lifestyles through digital health big data with a focus on ophthalmology	Tohoku University	
Subcommittee on Digital Green	Continuous primary production system / Digital Healthcare/ Bio production system	Realization of a sustainable society in which Keihanna Science City and nearby rural villages complement each other	NARA INSTITUTE of SCIENCE and TECHNOLOGY	
Subcommittee on Digital Biohealth	Healthcare	General health industry city	National Cerebral and Cardiovascular Center	Field of JST co-creation
Subcommittee on Photonics Life Engineering	Healthcare	Photonics biotechnology	Osaka University	Field of JST co-creation
Food Loss Subcommittee	Continuous primary production system	Innovative Low Food Loss Co-creation Base	Osaka University	Field of JST co-creation
Future urban subcommittee	Sustainable society	Dissemination of Future Intellectual Infrastructure Models	Osaka University	Field of JST co-creation
Biomass subcommittee	Carbon neutral	Realization of carbon zero emissions through biomass technology	Tokyo University of Agriculture and Technology (TUAT)	Field of JST co-creation
Subcommittee on Cell Production	Regenerative medicine	Construction of an ecosystem for cell production	Osaka University	AMED
Subcommittee on Modality	Healthcare	Manufacture of antibodies, gene therapy products, and vaccines	Manufacturing Technology Association of Biologics (MAB)	AMED·NEDO
White Bio-industry Subcommittee	White bio-industry	Biofoundry business	Osaka University (representative sponsor)	NEDO

Many research institutions from industry, government, and academia are scheduled to participate

Companies" and "Industry-Academia-Government Collaboration Projects" that will play a central role in the new subcommittee are now being recruited.