

Participating in Free and Open  
Source Networks in Health  
Information Systems (FOSNHIS):  
Opportunities for UGM, Indonesia

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# Scope of the talk

- Introducing basic concepts
- Examples of FOSNHIS
- What does UGM gain through participating in an FOSNHIS?
- How can they join a FOSNHIS?
- Examples: HISP Global and HISP India
- Challenges and opportunities

# Introducing basic concepts

- Free and open source software: no licenses associated, and source code is freely available to make modifications for local use.
- Network (FOSNHIS): a collective of entities linked together and working to a common purpose – in our case strengthening public HIS
- Health Information systems: includes different systems for health sector, including HMIS, patient based systems, HR systems, etc

# Examples of OSNHIS

- ***HISP*** – Health Information Systems Programme  
– DHIS – coordinated by University of Oslo
- ***OpenMRS*** – around patient record systems –  
OpenMRS – coordinated by Indiana University
- ***iHRIS*** – around Human Resources information  
systems – coordinated by Capacity Plus
- ***ELISA*** – around Laboratory Information  
Systems – coordinated by Washington  
University
- Many others

# Characteristics of FOSNHIS

- Common purpose – design, development and dissemination of HIS
- Logic of network – learning in collectives
- Geographical focus – for developing countries
- Networks facilitated through international agencies like WHO, HMN, UN etc
- Contemporary trend to link these networks – *‘Integrated Health Information Architectures’* – promoting a health systems approach

# How FOSNHIS work?

- Guiding logic in HISP is of ‘networks of action’
- Coordinating entity promotes action to strengthen collaboration and sharing between network members around:
  - Software (in case of HISP it is DHIS)
  - Resource material – training, translations etc
  - Implementation experiences – best practices
- Action towards circulation of:
  - Funding
  - People
  - Ideas and experiences
  - Electronic mailing lists, web pages etc

# Open Source, HIS Development & Capacity Building

## - “South – South – North” Network of Action

### Health Information Systems

Integration, standards  
Use of information for action  
Health management, etc.

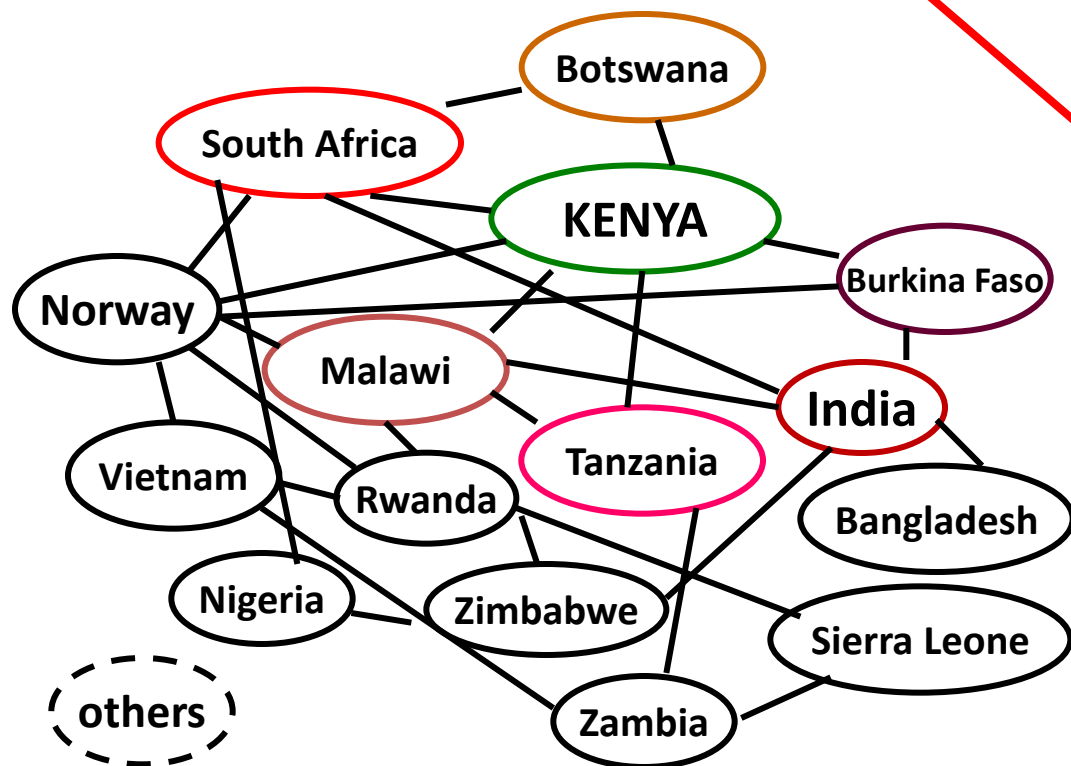
### Free & Open Source Software

Distributed DHIS development  
– Sharing across the world  
knowledge & support

### Building Capacity,

### Training, Education, Research

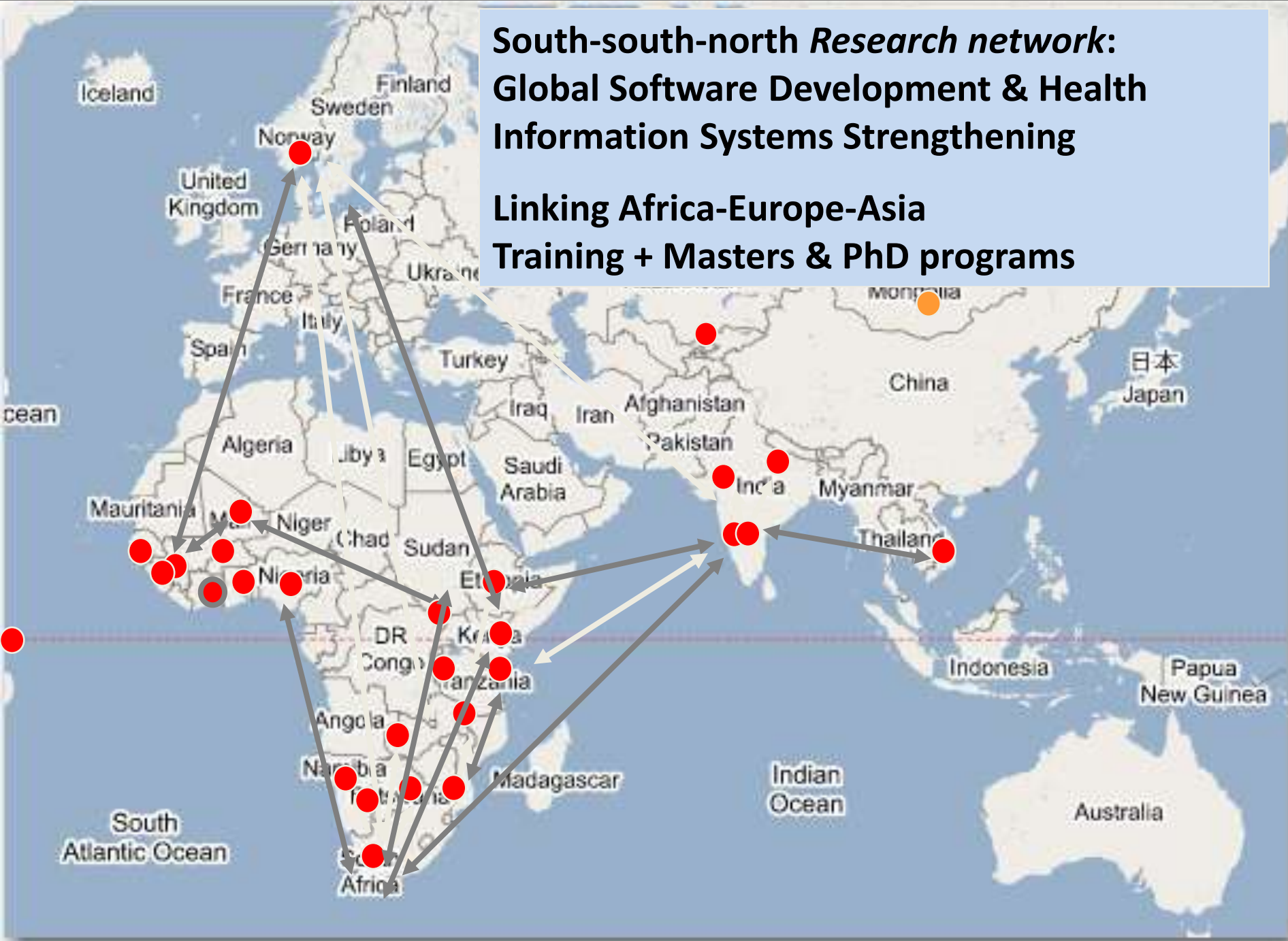
Training of health workers  
Graduate courses, Masters, PhD  
Sharing teaching /courses



*DHIS (District Health Information Software)*

**South-south-north *Research network*:  
Global Software Development & Health  
Information Systems Strengthening**

**Linking Africa-Europe-Asia  
Training + Masters & PhD programs**





# What does UGM and Ministry of Health gain by joining a FOSNHIS

- Experience – design, development, implementation of HIS
- Expertise – in these above areas
- Products – eg DHIS2, iHRIS, OpenMRS, LMIS
- Services – technical support in setting up systems, customizing, maintaining, upgrading etc
- A collective in which they can learn and grow with others in same situation
- Increased opportunities for attracting funding – aligning with Global standards

# How can they join?

- For example, in HISP
- A simple email expressing interest
- Initiate processes to establish a project, initially a pilot
- Identify an entity that will coordinate efforts from the Ministry side – can be department, NGO, university, etc
- Join electronic mailing lists – for developers, implementors, trainers etc
- Download electronic resources – build orientation and initiate learning processes
- Start to create a robust ‘national HIS network’ which can link with the global FOSNHIS

# Some examples in HISP

- Of in-country organizations
- Of NGOs – HISP India, HISP South Africa, HISP Vietnam, HISP West Africa, HISP East Africa, etc
- Of Universities – Dar-Es-Salam, Tanzania, Addis Ababa, Ethiopia etc
- Ministry of Health – Kenya, Malawi, Ghana Health Services
- Other networks – EHAS in Latin America, WAHO in West Africa – forming network of networks

# HISP Network

- Globally active in about 25 countries
- Varying models in different countries
- Different mechanisms of funding
  - Software development (NORAD)
  - Research and education (Norwegian Research Council)
  - In country implementation – agencies such as EU, USAID etc
- Different capacities of local HISP entities to contribute to global processes
- Some entities have enabled regional networks
  - HISP India in South Asia
  - HISP South Africa in Sub-Saharan Africa
  - HISP West Africa in West Africa

# Some broad steps: 'learning by doing'

- Setting up a pilot project
- Customize application jointly – local team learns through engaging in customization
- Ensure project is made a success
- Demonstrate success, make plan for scaling
- Drive the process, while drawing upon the regional network for support
- Also contribute to strengthening regional and global networks

# Opportunities

- Working together with people engaged in similar tasks ‘dont reinvent the wheel’
- Cost-effective solutions, evolves with needs
- Crucial to address integration challenge
- Exposure to cutting edge technologies
- Enable local entrepreneurship and innovation
- Address health information system challenges – contribute to improve health care delivery

# Specific opportunities

- NORAD funding
- NORHED
- Acceptance by Global Fund
- Activities ongoing in Indonesia

# Challenges

- Free software is not free: customization, capacity building, implementation efforts
- Public systems are not geared to managing procurement of open source software
- Need institutional capacity to help make the potential of open source realized in practice
- Need long term vision and guidance
- Infrastructure issues are non-trivial





