

The DHIS 2 Project

HISP

- Global network of individuals and organisations
 - Academic institutions
 - Non-governmental organisations
 - Governmental organisations / ministries
 - Software developers
 - Health professionals
- Focused on developing countries
 - South Africa, India, Vietnam, Kenya, Tanzania, Sierra Leone, Botswana, Liberia, Ghana...

HISP

- Mission: Improve health care systems by increasing the capacity of health care workers to make decisions based on accurate information
 - Facilitate planning, monitoring and evaluation
- Means: Development, training and support of the DHIS software
- Started in South Africa in 1996 on Microsoft Access platform
 - Reaction to fall of Apartheid – focus on bottom-up design
- 2004: Students at UiO started development of open-source Java and web based version
 - Completely open-source platform

DHIS 2

- Software for collection, validation, analysis and presentation of statistical, aggregate data
 - Typically monthly data reported from facilities and clinics
 - Aggregates to district, province and national level
- Focused on service delivery: ANC, immunization, infectious diseases (HIV, malaria, TB, Hep B)
- Comprehensive software package
 - GIS, reports, charts, pivot tables, validation, completeness, data entry
- Deployed and used in India, Kenya, Sierra L, Tanzania, Zambia
 - Starting up: Ghana, Uganda, Rwanda, Vietnam, Botswana, Burkina...

Development model

- Globally distributed development
 - Developers in Vietnam, India, Ireland, Tanzania, Norway
- How to succeed?
 - Skilled and independent developers
 - Clear specifications, daily communication and feedback
- Global use of software
 - All countries have different needs
- How to succeed?
 - Build general solutions to local problems
 - Have local modules
 - Say no to exotic feature requests

Development philosophy

- Build less software
 - Real requirements or innovation only – no nice-to-have!
 - Start with “no”
- Fix time – flex scope
 - Release every 8th week
 - Unfinished functionality pushed back if not finished
- Stay lean and mean
 - Change must be easy
 - No excess staff, permanent decisions, long meetings, proprietary software, long-term road-maps, long-term contracts
 - Use open-source software, small teams, simple and clean solutions

Development philosophy

- Embrace constraints
 - Less people and budget will keep you focused on what's important
- Interact with users
 - Let users guide the design
- Work incrementally
 - Build what you know - do not try to get everything right the first time
 - Focus on feedback from stakeholders
 - Web enables quick updates

Development philosophy

- It's a problem when it's a problem
 - Don't fix problems which are not there
- Use prototypes – not functional requirements specifications
 - FRS open for interpretation – leads to illusion of agreement
 - FRS forces you to make most important decisions with least information
 - FRS leads to feature overload
 - FRS don't let you evolve, change and evaluate

Collaboration and Coordination

- Code hosting: Launchpad
 - <http://launchpad.net/dhis2>
- Revision control: Bazaar
 - <http://bazaar.canonical.com>
- Software management: Maven
 - <http://maven.apache.org>
- Mailing lists
 - <http://launchpad.net/~dhis2-devs>
- Project home page
 - <http://dhis2.org>

Why open source?

- Less risk for customers and users
 - No vendor lock-in
- Easy to adapt
 - Can be customized to local needs
- No acquisition cost
 - Remember that long-term maintenance cost is mostly higher
- No conflicting commercial agenda
 - No need to sell new versions – rather focus on sound design
- Enables innovation
 - Application can be used as a platform for “eco-system”