

openIMIS

Gumzo ya Mwezi 02/12/2019



# Agenda

- Bluesquare:
  - who we are
  - our engagement towards openIMIS community
  - our methodology
- Achieved
  - what we delivered this month
- Roadmap
  - what we will deliver and what are our dependencies





**BLUESQUARE**

[www.bluesquarehub.com](http://www.bluesquarehub.com)

Delivering  
innovative  
technology for  
better lives.

Fall 2018 —

# what we do

## COUNTRY LEVEL DATA SYSTEMS 24 COUNTRIES

We build technologies that enhance governmental health data systems with a focus on three markets:

### **HEALTH FINANCING DATA SYSTEMS**

- Data systems for purchasers, health insurance, Ministries of Health
- Example: Develop a Pay for Performance data system in Kyrgyz hospitals

### **GOVERNMENT HEALTH DATA WAREHOUSES**

- Example: The health data warehouse in Morocco

### **DISEASE OR THEMATIC DATA SYSTEMS**

- Diabetes
- HIV
- Tuberculosis
- Malaria
- Immunization systems
- Vector Borne eradication systems (i.e. sleeping sickness)
- Family Planning
- Emergency Obstetric Care

Bluesquare develops these data systems based on a suite of in-house software products connected to DHIS2 a popular open source data management platform used by over 40 governments.

# How we do IT products and data services

We deliver technologies and services that strengthen governmental health data systems, mainly:

## **Hesabu (aka ORBF)**

- An open sourced rule engine that allows complex calculations in DHIS2, a popular open source data management platform. This is particularly useful for health financing data systems.

## **Data Viz**

- A public web dashboard that allows showcasing results.

## **Modeling and data science**

- Statistical analysis, Data cleaning, Modeling & machine learning and analysis automation to help customers bring value out of their health data.

Bluesquare suite of in-house software products and services allow collecting, computing, analyzing and visualizing data in a intelligent and friendly manner.



## **Bluesquare:** our engagement towards openIMIS community

We believe that health insurance will be at the heart of the UHC agenda in many countries.

openIMIS modular transformation is an opportunity to develop code that can be used at scale to help provide health services “for the global good” (i.e. exact DNA of Bluesquare).

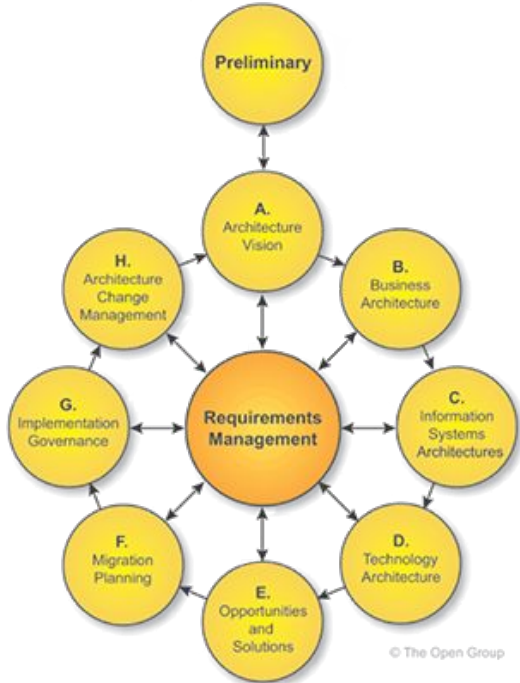
Creating synergies with our existing and future health-financing portfolio, promoting the tool in the countries where we operate.



# Bluesquare: our methodology

Our approach to deliver the openMIS modules borrows several concepts from TOGAF, most important one being the ADM (Architecture Development Method):

- Iterative, ensuring pragmatism and responsiveness in delivered solution
- We strive to keep things simple: we aim to use the TOGAF framework as a guide not a rule book. Where we feel it will serve this project we will make use of it. However, our proposed approach is much lighter than a traditional TOGAF implementation effort.
- It helps any community member to find/contribute to the appropriate part of the system.



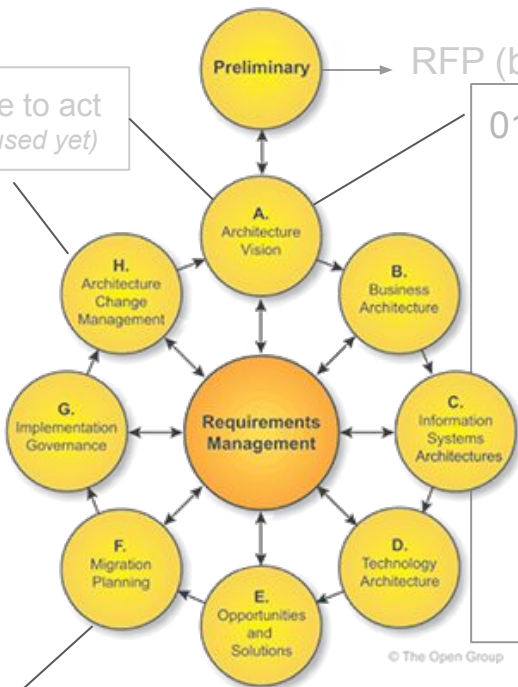


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# Achieved (Iteration 1): FHIR API



No architecture change to act  
*(but deliverable not really used yet)*

01/2019: start of work

- Brainstorming (blsq internal)
- Conceptual architecture documentation (in openMIS wiki)
- Architecture Presentations (16/01 and 23/01 + follow-up calls) 6 m/d
- Technology stack proposal
- Migration strategy & roadmap
- PoC on proposed technology stack  
(preparation 'hands on' session at Bonn Workshop) 14 m/d

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## Under progress:

Objective iteration 1: FHIR API

- 03/2019: 13 m/d
- 04/2019: 12 m/d
- 05/2019: 4 m/d
- 06/2019: 0,5 m/d
- 07/2019: 0 m/d
- 08/2019: 1,5 m/d
- 09/2019: 1 m/d
- 10/2019: 0,5 m/d
- 11/2019: -

## TODO (Bluesquare):

follow up, bug fix and adaptations

**Bonn Workshop**

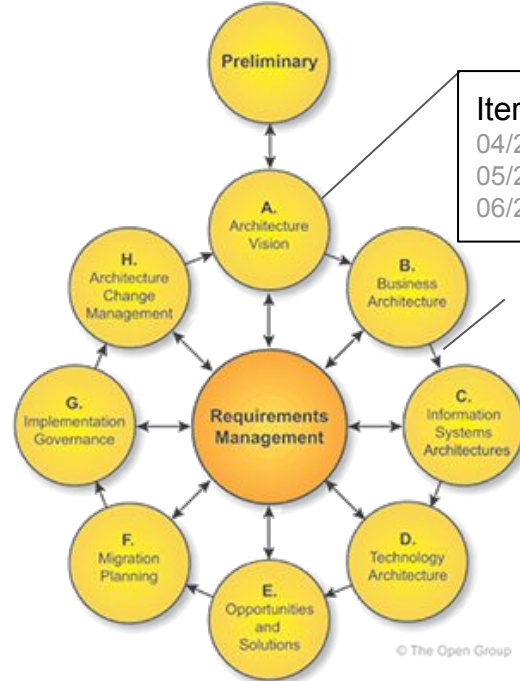
- Demonstrated technology stack and migration strategy
- Agenda alignments

4 m/d





# Achieved (Iteration 3): Claim Module



**Iteration 3:**  
 04/2019 : Claim module scope document (draft) 2 m/d  
 05/2019 : Mapping attempt to JLN business processes 0.5 m/d  
 06/2019 : Claim main screen mockups 4,5 m/d

06/2019: Django Dynamic Rest > (GraphQL) 4 m/d

- 07/2019: 12 m/d (scope, design & Enquiry)**
  - Enquiry Screen
  - Claim scope & Design
- 08/2019: 34 m/d (Claim implementation)**
- 09/2019: 29 m/d (Claim refinement)**
- 10/2019: 22,5 m/d (Nepali cust., Install & debug)**
- 11/2019: 12 m/d**
  - Addis Abeba
  - Tests & Bugfixes Claim module
  - Deployment demo.openimis.org
- TODO Bluesquare (already 32 m/d over budget !!)**
  - Batch *(relative prices)* stored proc

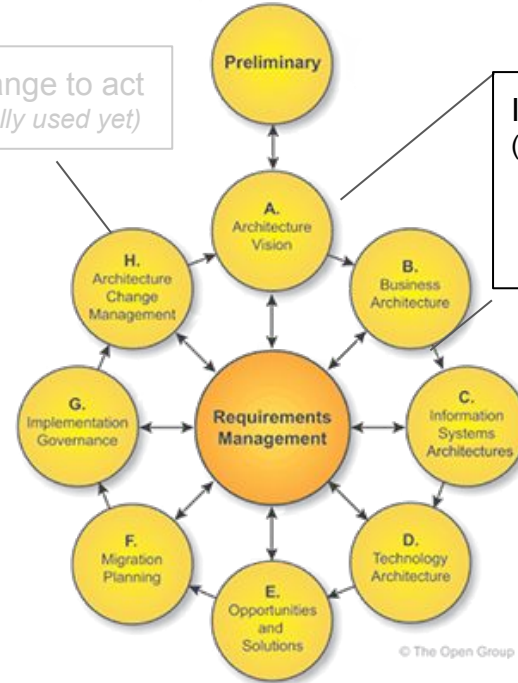
>> Estimate ~10 m/d still necessary for the Batch Processing stored proc



# Iteration 4: Locations & Health Facilities Module

No architecture change to act  
(but deliverable not really used yet)

Iteration 4: [Locations & HF Administration](#)  
(should be ~ 30-40 m/d)



10/2019: 1,5 m/d (scope & 'analysis')  
11/2019: 5 m/d Initial version Locations

**TODO Bluesquare**  
- Health Facilities

Implementation progress much faster than expected,  
We estimate the remaining to:

- ~3 m/d to complete Locations
- ~10 m/d for Health Facilities

**The total cost for this module should be around 20 m/d**  
... and we should be finished by December / early January

Once module implementation done, we will be reassessing the (global) project budget remainings and make suggestions for its best usage: support for implementation, technical documentation, training material,... (please suggest!)

**Current estimates:**

I1: 56.5 m/d + I2: 18.5 m/d + I3: 120.5 m/d + I4: 6.5 m/d + I5: 13 m/d = 225 m/d (on 240 m/d)

>> about 15 m/d left



# Iteration 4: Locations demo

The screenshot displays the openIMIS 1.0.0 interface. The top navigation bar includes the logo, version number, and menu items: Insurees and Policies, Claims, Administration, Tools, and Profile. A search bar on the right contains the text "Insuree enquiry...".

The main content area is divided into four panels, each representing a different level of the location hierarchy:

- Regions:** Contains two items: "R1 - Ultha" and "R2 - Tahida".
- Districts:** Contains three items: "R1D1 - Rapta", "R1D2 - Jambero", and "R1D3 - Uptol".
- Municipalities:** Contains five items: "R1D1M1 - Achi", "R1D1M2 - Jamu", "R1D1M3 - Adhi", "R1D1M4 - Jobber", and "R1D1M5 - Radler".
- Villages:** Contains three items: "R1D1M1V1 - Rachla", "R1D1M1V2 - Darbu", and "R1D1M1V3 - Agdo".

Each item in the lists has a search icon and two action icons (edit and delete). The "R1D1M1V2 - Darbu" item is highlighted in the Villages panel.

# Iteration 4: Adding/Update a location

R1D2 - Jambero ✕ 🗑️ R1D1M2 - Jamu ✕ 🗑️ R1D1M1V3 - Agdo

R1D3 - Uptol

### New Municipality of R1D1 - Rapta

Code  
R1D1M6

Name  
TEST

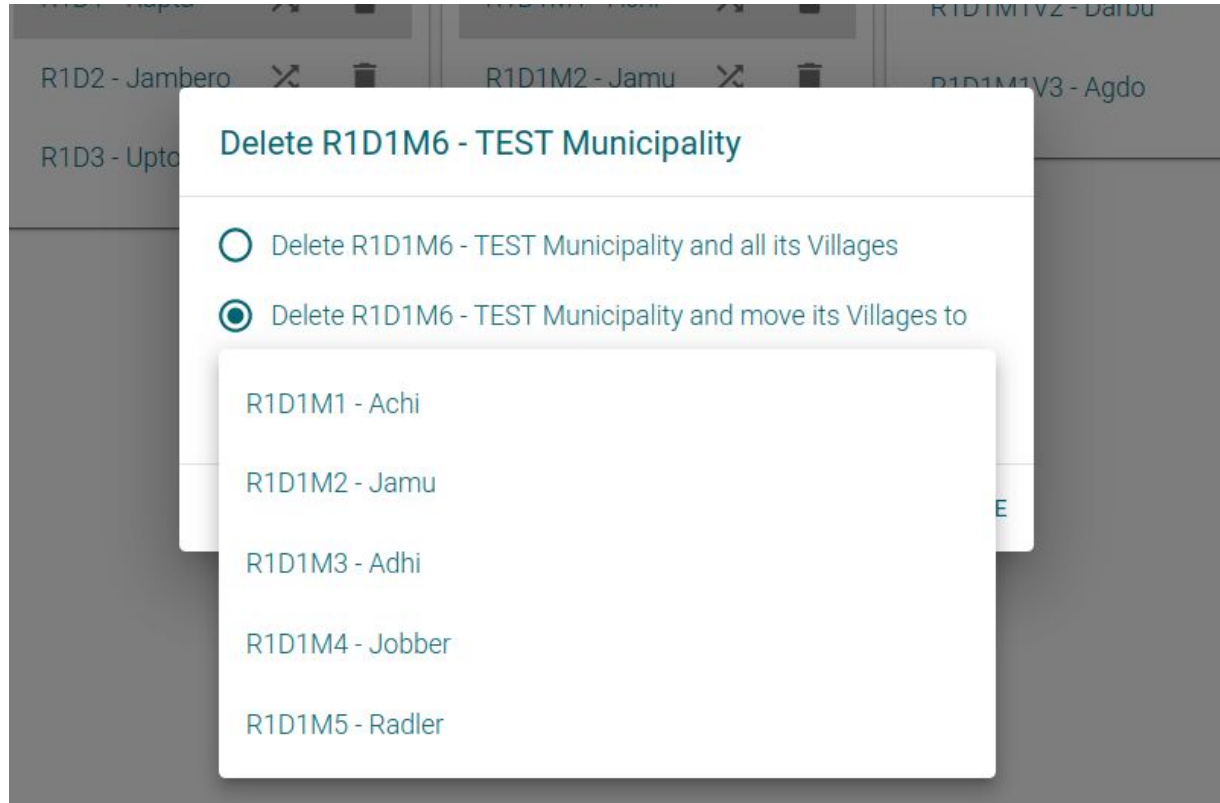
CANCEL SAVE

All Locations changes (create, move,...) are using the asynchronous mutations mechanism of openIMIS

IS 1.0.0 Insurees and Policies Claims Administration Tools Profile Insuree enquiry...

Districts	Municipalities	Villages
R1 - Ultha ✕ 🗑️	R1D1M1 - Achi ✕ 🗑️	R1D1M1V1 - Rachla ✕ 🗑️
R2 - Tahida ✕ 🗑️	R1D1M2 - Jamu ✕ 🗑️	R1D1M1V2 - Darbu ✕ 🗑️
	R1D1M3 - Adhi ✕ 🗑️	R1D1M1V3 - Agdo ✕ 🗑️
	R1D1M4 - Jobber ✕ 🗑️	
	R1D1M5 - Radler ✕ 🗑️	
	R1D1M6 - TEST ✕ 🗑️	

# Iteration 4: Delete a Location (and re-assign)



# Iteration 4: Move a Location

