

Sigmah

free software for humanitarian project management

Olivier Sarrat
Information Systems Engineer
Groupe URD
osarrat@urd.org

Véronique De Geoffroy
Director of Operations
Groupe URD
vdegeoffroy@urd.org

ABSTRACT

Sigmah is free software for the integrated management of humanitarian projects. It provides international aid organization with the following software features:

- Monitoring project progress and funding;
- Creating, sharing, analysing and mapping indicators, for monitoring and assessment;
- Centralising project documents;
- Improving schedule management and early-warning alarms for events;
- Implementing a quality assurance approach, by defining criteria and critical points linked to projects.

The Sigmah project is led by a group of humanitarian organizations, which has, at the time of writing, 12 members: Action Against Hunger (France), Aide Médicale Internationale, Comité d'Aide Médicale, Comité de Secours Internationaux, French Red Cross, Groupe Urgence Réhabilitation Développement (Groupe URD), Handicap International (France), Islamic Relief (France), Médecins du Monde, Première Urgence, Solidarités International and Triangle Génération Humanitaire.

Sigmah is developed as free software because it aims to be available to the humanitarian community as a whole.

Keywords

Project management, free software, collaborative, perennial

Reviewing Statement: This short paper has been fully double-blind peer reviewed for clarity, relevance and significance.

SIGMAH: PRESENTATION AND THE CHALLENGE OF ADOPTION

Sigmah is free software for the integrated management of humanitarian projects. This project is led by a group of humanitarian organizations who make up the 'Steering Cooperative'. At the time of writing, this Cooperative has 12 members: Action Against Hunger (France), Aide Médicale Internationale, Comité d'Aide Médicale, Comité de Secours Internationaux, French Red Cross, Groupe Urgence Réhabilitation Développement (Groupe URD), Handicap International (France), Islamic Relief (France), Médecins du Monde, Première Urgence, Solidarités International and Triangle Génération Humanitaire. These organizations are facing the following common challenges:

- They are overwhelmed by the exchange of Excel and Word documents within their organization as well as with other NGOs, donors and UN agencies;
- They are unable to keep a clear and up-to-date picture of the situation on all their organization's projects;
- They are constantly trying to track down the most up-to-date version of information which is scattered between a number of different sources;
- They find it difficult to keep on top of everything that needs to be done at headquarters for the many, diverse projects to be followed up;
- They regret not being able to use all the information that has been gathered more easily in order to learn lessons from the past.

These are all emergency relief organizations of varying sizes, ranging from 2 full-time staff for the smallest to 200 for the biggest. Initially created to manage relief projects, Sigmah could easily be used by development organizations to manage their activities.

Sigmah is a web platform which provides organizations with the following software features:

- Monitoring project progress and funding;
- Creating, sharing, analysing and mapping databases of indicators for monitoring and needs assessments;
- Centralising project documents;
- Improving schedule management and early-warning alarms for events;
- Implementing a quality assurance approach, by defining criteria and critical points linked to projects.

The Steering Cooperative was created in April 2009, and has met every 3 months since then. It came into being following a request by a group of NGOs to assess their needs in terms of information management for humanitarian projects, and analyse to what extent they shared the same, or similar, needs. Groupe URD was specifically requested to conduct this needs assessment, resulting in the conclusion that the NGOs' needs did indeed converge. Groupe URD has now been entrusted with the responsibility of leading and facilitating this project. The Steering Cooperative is responsible for the strategic management of the project. It is open to new members, both from the emergency relief and development sectors.

Before starting the project, the first step for Groupe URD was to determine whether a solution already existed which covered the shared needs of the group of NGOs. A paying solution specific to the sector did exist, but this was considered too expensive by all the NGOs taking part. Consequently, the importance of long term considerations, economic viability and the need for the software to be able to evolve guided the group in their choice of the open source software model. In the area of free and/or open source software, Enterprise Resource Planning (ERP) software was looked into. The OpenERP solution, which appeared to be the most fertile and the closest to the needs expressed, was finally ruled out: a company selling OpenERP services judged that it was technically incompatible with the development of an offline mode for users in the field. The Sahana system was also considered and ruled out for two reasons: (i) it concerns coordination following individual disasters rather than an organization's internal coordination over a number of areas of intervention; (ii) it was not designed to give flexibility which is completely managed via administration screens in the software: in order to adapt Sahana to your needs, you have to work on its source code and the needs assessment had shown that small or medium-size humanitarian NGOs almost never have IT developers in their staff. Finally, via conferences and

discussions with those who specialize in information systems for the humanitarian sector (particularly Paul Currien) it was concluded that no existing free system met more than one of the expressed needs.

Groupe URD has also been responsible for setting up and managing the 'Steering Cooperative', working in close collaboration with a number of technical partners, in particular the company Bedatadriven. This company, based in the Netherlands, is behind the indicator-monitoring software ActivityInfo, which was developed for UNICEF in the Democratic Republic of Congo. The experiences of both ActivityInfo and the Dynamic COMPAS (software developed by Groupe URD for quality monitoring of humanitarian projects) have led to the design and development of Sigmah. This new generation software, Sigmah, will replace the older two programmes. The IT development of the new software has been principally assigned to the French company Ideia, whilst an Ergonomy Consultant and a Graphic Designer have also participated in the project.

By providing the wider humanitarian sector with free software for project management, Sigmah has the overall goal of improving humanitarian practice. Any interested humanitarian worker is invited to participate in the project, as both a beneficiary and a stakeholder in that they become a member of the Sigmah community, along the same lines as other free software such as Mozilla Firefox or OpenOffice. Suggestions and feedback by the community of users are integrated into the software, under the supervision of the Steering Cooperative.

None of the organizations in the Sigmah project would have had the means to develop, on their own, this kind of software. Sigmah also would not have been able to grow without the support of its financial partners:

- (i) The French Development Agency (AFD) and the French Ministry for Foreign and European Affairs, for the initial needs assessment and leading the working group from 2008-2010;
- (ii) The European Commission, Office for Humanitarian Aid (ECHO), the Catalan Agency for Development Cooperation (CADC) and the Rhône-Alpes Region, for the development of the first version of the software, until June 2011.

However, the project which began in 2008 will not simply come to an end in mid-2011. With the financial backing of the members of the Steering Cooperative (and for this reason it is a true 'cooperative') in order to actively keep the web platform up and running (see www.sigmah.org), the project also uses the free software economic model to guarantee its long-term sustainability. Firstly, none of the members have a vested interest in the project (apart from as users) in the sense that Sigmah will always remain free software; a shared and public asset. The financial partners therefore contribute to the project in the knowledge that the software will always be freely available for the humanitarian sector. Secondly, the IT companies that are partners in the project are also available to provide technical support to organizations using Sigmah. Thirdly, its free licence (Gnu Public License, GPL) means that any changes or corrections made to the software must be shared, which contributes to Sigmah's development as a common asset. This model also allows the best possible use of project funds. Finally, the culture of voluntary technical assistance which exists within the software sector could also become a resource, enabling further cost reduction for organizations.

At the heart of the Sigmah project is the goal of organizations adopting and using this software. The project is led by these organizations, and monitored by them through a series of monthly beta-test sessions, which all the members of the community are invited to participate in. In keeping with agile software development methodology, the project therefore involves these final users as often as possible, in order to ensure that the software meets their needs and takes into account their constraints. Bearing in mind that the software's users lack significant financial means, and that in order for them to support the project it should have a viable long-term vision, Sigmah's development is therefore an essentially participatory process. This process moves forward, step-by-step, with external funding, but remains continually supported by the involvement of its user members. As the adoption of new software involves much more than the actual development of the tool, the project included a change management section and the software was made highly configurable (templates, indicators, type of information collected along the project cycle, etc.). Being so flexible, it can easily be used for any kind of projects, enforcing that way its ability to be adopted by various types of organizations.

The project began in the second half of 2008 and the first public version of Sigmah is due to be launched at the end of the first semester of 2011. This relatively long period is misleading as the project is really only in its infancy and there are many questions which have yet to be answered. What feedback will real users give about the software from June onwards, beyond the generally positive reaction during beta-tests and presentations? How will the Steering Cooperative be coordinated when it is no longer only made up of French-speaking humanitarian NGOs who can meet physically in Paris? What concrete economic conditions within the open source software model will allow operational and maintenance costs to be covered? It is on the agenda for the 2011-2012 phase of the project, for which we are currently looking for funds, to find answers to these questions. Another objective for this new phase will be to double the number of NGOs within the Steering Cooperative, initially targeting European NGOs.

In order for users and donors to come on board, Sigmah has to be ambitious, with the measured risk that this involves: the needs to be covered are very broad and significant changes need to be made to practices. Going from an email being sent to an attachment being recorded on integrated management software for a whole organization will already be a major challenge. As such, it is in its favour that this is relatively virgin territory as the user organizations are willing to be more patient and they are prepared to invest themselves more than if they had just bought a solution from an external company. This patience and this investment are the keys which will hopefully allow the project to respond in the long term to the challenge that is posed.

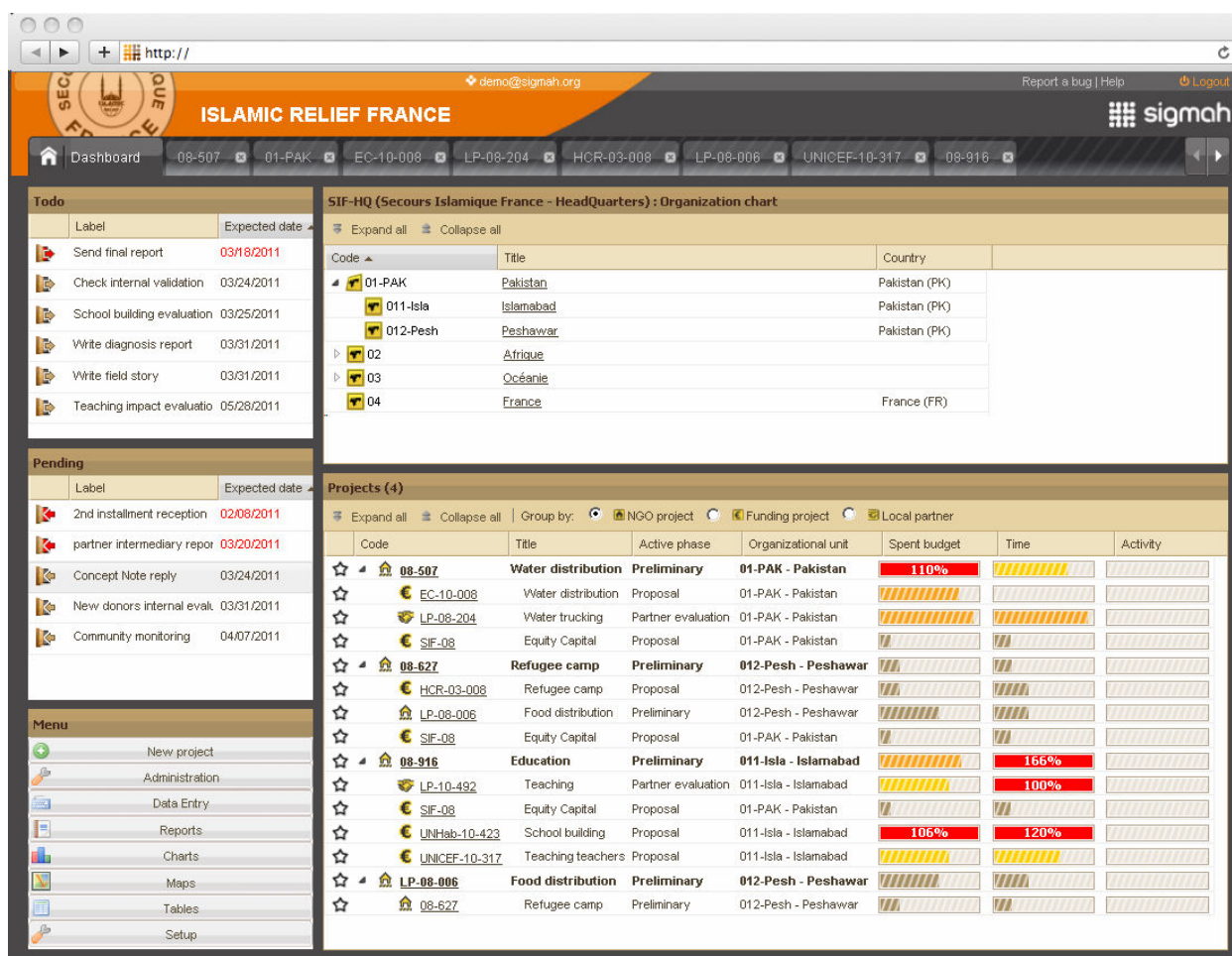


Figure 1. Sigmah dashboard mock-up

The control panel allows users to:

- Monitor all the projects in a zone: current phase, budget used, progress in terms of schedule and activities achieved, monitoring of favourite indicators;
- Monitor the different organizational units in this zone (mission, base, etc.) ;
- Review tasks to be done and on standby.

Project 2010-024 (Soutien aux populations du Nord-Kivu) : general information

Code:	2010-024	Start date:	11/01/2010	Country:	France
Title:	Soutien aux populations du Nord-Kivu	End date:	03/31/2011	Manager:	Suzette Mazuret

Dashboard | Details | Log frame | Indicators | Calendar | Reports & documents | Security incidents

Logical framework

Title of the action:

Main objective:

	Intervention logic	Indicators and Means of verification	Risks	Assumptions
Specific objectives (SO) Add Add a group	Group (SO) - 1rst group ▼ SO A. ▼			
Expected results (ER) Add Add a group	Group (ER) - sans nom ▼ ER (SO A.) ER A.1. ▼			
Activities Add	Group (A) - - ▼			

Figure 2. Sigmah logical framework screen

The logical framework screen is used to record the intervention logical framework: this matrix is the most common format used to describe the objectives, expected results and planned activities of a project.

A demo version of Sigmah is available at the following URL:

<http://demo.sigmah.org/>