Network Effects
Plone for Belgium and beyond

Abstract

CommunesPlone originated as an initiative to promote software cooperation between local governments in Belgium. Since its start in 2005, it has grown rapidly, with now 41 members. Organised like a FLOSS community, the group develops applications in Plone. Taking this idea to the international level, the PloneGov project, started in June 2007, brings together 72 public bodies on four continents to produce Plone-based software that fits their needs.

I. Introduction

CommunesPlone started with a problem. In 2005 Joel Lambillotte, the IT manager of the town of Sambreville in the French-speaking southern part of Belgium, needed an Intranet solution for his municipal administration which could manage documents, schedule appointments and do a variety of other things. "We were looking mainly in the direction of proprietary solutions from the big IT providers, such as Microsoft", he recalls. "So we put out a public tender, but all the offers we got were far too expensive and didn't really fit our requirements."

At that time, he started looking at FLOSS solutions as well. He quickly hit upon Plone. Plone is a layer of software applications that functions on top of the Zope application server. "Plone makes it very easy to quickly build a website. All the functions are there in Zope, but Plone lets you access them in an easy way. Zope, on the other hand, provides a lot of functions such as security", explains Lambillotte. Though most often used as a content management system, Plone is very flexible and can be put to use for a large number of other applications.

II. Vendor independence

An important motivation for CommunesPlone members, almost all of whom hail from the French-speaking part of Belgium, is to become independent from the IT providers for the Walloon public sector

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that form a local duopoly. "They didn't want to learn to cooperate with us. They even put pressure on the government to stop our project. But we really try to work them. We want to spend money with IT providers, but not in the same manner. We'll pay for services, but we won't buy licenses", explains Lambillotte.

Together with the town of Seneffe, which — like Sambreville — was using Plone for its website, Lambillotte's department started to develop on their own the Intranet solution that they had been looking for. They were still spending their IT budgets, but now in a different way.

In the beginning, the towns in CommunesPlone worked on two applications. One was a facility to easily let municipalities build their own websites. The other was an application that automates the management of town meetings. With this application, participants can submit topics for the agenda before the meeting; the meeting manager can decide whether to accept them. The application also makes it easy to publish meeting reports.

III. The CommunesPlone community

The group is always open to new collaboration. It now has 41 "communes" (municipalities) as members, amounting to 16% of the French-speaking municipalities in Belgium, who are working together to develop the software they need. The Plone community inspired the project's structure. Like with most other FLOSS communities, there are few formal governance structures, no membership fee and no formal association.

When Lambillotte first made contact with the Belgian Plone community in 2005, what struck him was what he calls the "human aspect" of the community. Today, CommunesPlone works hard to

build social connections between its members: "We have a meeting almost every month." This human aspect, in his view, is an important element of success.

Xavier Heymans, the CEO of Zea Partners, an international network of SMEs working with Plone and Zope, says that new towns and people join CommunesPlone because they see the advantage of being able to re-use the code and share the risk of software development with others. CommunesPlone provides a way for towns to do more things with their limited skills, Heymans argues: "Most small towns only have one person in charge of IT. Each one of these persons alone doesn't have the full range of skills to create a new application; but in a team, they can do it." Another plus is the vibrant community, lead by a highly motivated team: "CommunesPlone constantly attracts new potentials. People get trained faster, and they can develop applications faster", he says.

IV. Going live

Since June 2007, CommunesPlone has released its first finished applications, such as a meeting manager and a module that allows citizens to file documents and submit requests online. The fact that CommunesPlone is now "in production" has quickly attracted more municipalities to the group: "Since June of this year, our central server in Brussels is running our online applications. Since then, we've had ten new members", says Lambillotte. He emphasises that municipalities join the group of their own accord: "They see what we're doing, and they see that they could profit from joining CommunesPlone and sharing development effort". The Walloon Regional Government and the French-speaking parliament in Brussels are both looking into using the CommunesPlone meeting manager application.

V. Cooperative development style
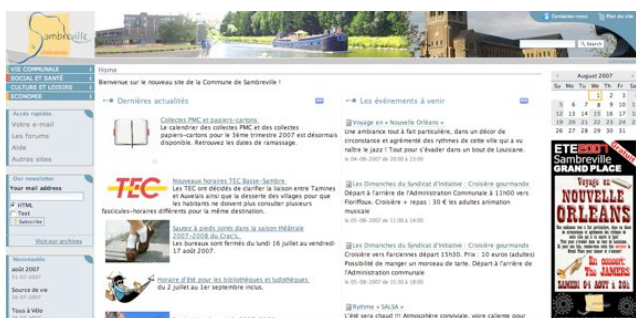
Screenshot of Sambreville's website

Developing in Plone means dealing with individuals around the globe, rather than with a traditional organisation. "Municipal administrations aren't very good at that, you know", he says. "We hired a local SME to coach us on this way of collaboration for a year."

Much of the software development within CommunesPlone happens in "sprints", a popular concept in the Plone community. Programmers get together for a few days, and focus on building a particular subsystem.

This different way of working is one of CommunePlone's challenges. "It takes about a year for a developer to learn how to work within the community", Lambillotte says. There are currently five developers working full-time on the project. Three of them are employed in municipalities, one at the Union of Walloon Municipalities, and one at the administration of the Walloon Region. Another group of about ten developers contribute from time to time.

VI. PloneGov - growing international

Going beyond the borders of the Walloon region, the first Flemish town became involved with CommunesPlone in mid-2006, as well as two French municipalities. At this point, Heymans pushed for an internationalisation of the project and contacted Zea members in different countries.

The key event for international collaboration came at the end of May 2007. At the first Plone e-government workshop, which took place in Brussels on May 30 and June 1 2007, public sector workers and SMEs from many countries got together to find out what kind of software already existed, what collaborations are possible, and how to avoid duplicating effort. They created PloneGov as an international community for Plone-based e-government tools.

CommunesPlone is one of the members of PloneGov, which by now reaches 72 public organisations in 15 countries. Through PloneGov, CommunesPlone is cooperating with other initiatives in Europe, such as Plonegov.ch in Switzerland or UdalPlone in the Basque Country, Spain: "The needs were much the same for all European regions, but that there was no coordination between these initiatives", says Heymans.

Another member is the Bungeni project, a suite of applications that provide a solution for drafting, managing, consolidating and publishing legislative and other parliamentary documents. It is being developed within the context the "Africa i-Parliaments Action Plan" of the United Nations Department of Economic and Social Affairs (UNDESA).

A similar effort is taking place in Belgium, where the Tabellio suite is being deployed in two French-speaking parliaments.

"Through this cooperation, everybody can re-use existing code, and put their effort into developing new applications. There are big economics of scale for all of them", says Heymans. For example, the Swiss group Plonegov.ch was building a meeting management tool as well, but the Belgian application proved more advanced. On the other hand, a Swiss tool for managing electronic documents is more mature than what CommunesPlone has for this purpose. Swiss and Belgian programmers have gotten together to improve and integrate both tools in a "sprint", a short, intense meeting of a few days. (Such sprints are typical for the Plone community's way of working.)

VII. Managing different cultures and languages

But aren't the administrative processes different in every country, so that it is hard to re-use an application from another state? Heymans: "That's what everybody thinks. But once you look into it, it's really not that difficult. When the Swiss saw CommunesPlone's town meeting application, it was just what they needed. The French changed a few words — they have a different name for the town assembly — but the process is about the same."

He emphasizes that the advantages of re-use are far greater than possible difficulties: "There are many possibilities for collaboration. In some cases you have to adapt the tool to fit the processes in another country, but at least you have a working application as a starting point."

Naturally, public administrations in different countries also work in different languages. Though administrations from French-speaking regions and countries (Wallonia, France, francophone Switzerland) currently make up a significant share of PloneGov's members, other languages are

also present. Translations are done by the body that wants to re-use a particular application. When, for example, an English-speaking public body in South Africa wants to make use of a program that was originally written in the French-speaking part of Belgium, it needs to translate the user interface. Again, the application might not be a perfect fit from the beginning, but it will usually offer a convenient starting point for local adaptations.

Moreover, Plone is available in 40 languages. The CMS was designed from the ground up for multilingual content management. It handles Chinese, Japanese, and even right-to-left languages as Arabic and Hebrew with ease.

VIII. Management and marketing: Zea Partners

Zea Partners, a network of SMEs working with Plone and Zope, is coordinating PloneGov, currently on a pro bono basis. It handles the strategic and international aspects of PloneGov, as well as marketing and communications. Zea Partners' network of SMEs has been key to the international growth of the PloneGov project. However, Zea Partners' work for PloneGov is currently not funded. Heymans leaves little doubt that this question will soon need to be addressed.

He agrees with Lambillotte that the international growth of the PloneGov network is driven by SMEs working with Plone. "The public sector's mission is local government. It's not in their mission to develop collaboration with other countries. Through the Zea Partners network, we reach 15 countries in four continents", says Heymans.

By participating in the PloneGov project, SMEs can more easily reach the market. "We get a lot of interest from SMEs. They see a huge business opportunity here", says Heymans.

IX. PloneGov as a brand

"By now, PloneGov has become a brand", says Heymans. "If an SME talks about PloneGov as a project that's already reaching 72 public organisations in 15 countries, it is much easier for them than starting from scratch. The project is gaining momentum." The PloneGov brand also makes it easier for those promoting PloneGov to get support for the project from politicians.

Joël Lambillotte, IT manager of the town of Sambreville, presenting the PloneGov project
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PloneGov already received two international awards and was finalist of the European e-Government Awards 2007. PloneGov won the biggest French award for open source projects on June 13 during a ceremony held in the town hall of the city of Paris. This award, called "Grand prix du jury des Lutèce d'Or 2007", demonstrated PloneGov work quality. The project has been also awarded the "Good Practice label 2007" in November 2007 by the European Commission. PloneGov received this prestigious label based on the recommendation from the 2007 European eGovernment Awards consortium.

X. Convincing the accountants

While many IT people find working together in CommunesPlone productive and inspirational, their employers sometimes struggle to understand the concept. Joel Lambillotte recalls that at the start of the project, it was not easy to convince his superiors to let him work on CommunesPlone. "They have a short-term view. We could only do it because we didn't have to spend money in the beginning", he says.

This problem of justifying a way of working that is unusual in the public sector exists in all municipalities. PloneGov deals with this by frequently releasing small pieces of software, rather than spending a long time working on a big program. "We have to come up with concrete results every three months", says Lambillotte.

With CommunesPlone, Lambillotte now spends his IT budget differently than before. "My boss sometimes thinks I'm doing nothing, because I have no public procurements for software licenses running", he jokes. Now, his resources go into personnel for programming applications. He also contracts firms, usually SMEs, to coach the developers both in working with Plone, and in open collaboration with the community.

Lambillotte emphasises that it is not the goal of CommunesPlone to develop software with public sector developers. "We believe that the goal is to set up rules for the development of public sector applications, and to let SMEs and IT providers apply those rules. We've asked the Walloon region to finance the hiring of more services from SMEs."

XI. Distributing the cost between the members

Since it is not a legal entity, CommunesPlone doesn't have a budget for itself. Individual members finance its developments. Lambillotte explains: "If a certain town wants a functionality, they pay to develop it, and share it with the rest of CommunesPlone." At the frequent meetings, more complex developments are coordinated: "If you pay to develop this functionality, we'll do the other one — that's how it works", says Lambillotte. "We'll then together write the papers for the public procurement."

According to Lambillotte, 1.3 million Euro were spent within CommunesPlone since 2005. Most of the money pays for the time of developers employed by the municipalities. Another large chunk goes to SMEs that provide coaching for CommunesPlone developers. The rest has been spent on meetings and related travel.

XII. Local money spent locally

The early members of CommunesPlone have borne much of the cost, but still saved money compared with proprietary solutions. Lambillotte says: "If I had bought licenses for proprietary software for our Intranet, they would have cost me 100.000 Euro. Instead, we spent 70.000 on developing the solution in Plone — 30.000 for staff time, and 40.000 to a local SME for coaching." Newer members of CommunesPlone have far greater savings. "Where they would have spent 100.000 Euro on a proprietary Intranet solution, they now only need 10.000 Euro to customise the CommunesPlone application."

Although the FLOSS-based approach costs the municipalities far less than licenses for proprietary software, Lambillotte is quick to point out that saving money is not the idea behind CommunesPlone. The towns in PloneGov now spend their IT budgets on staff effort and on services, rather than on software licenses.

This means that a much larger share than before goes to local SMEs. They either work on adapting the CommunesPlone applications for a certain municipality and develop new functionalities, or on training developers and users. "We recently had a meeting with a representative of OSOSS / ICTU from the Netherlands. He was interested by PloneGov, and they asked us, 'so if the City of Amsterdam decide to use your software, will you come to Amsterdam and help them install it?" he recounts. "And I said, 'of course not!' That's a job for a local company. We would help them to find an SME in the Netherlands that could provide what they need."

XIII. Different skill levels

In the beginning, CommunesPlone consisted only of towns, each with their own IT departments and skilled technical staff. The newer members tend not to have the same IT capabilities. For this reason, the Union of Walloon Municipalities provides support, together with other towns that have the adequate staff.

Small municipalities without an IT department of their own can make use of CommunesPlone's products on a server at the Union of Walloon

Xavier Heymans, CEO of Zea Partners, presenting the PloneGov project at the European eGovernment awards exhibition.

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Municipalities, paying a small hosting fee. The software produced by CommunesPlone is available to all its members. PloneGov works to make all its members' applications available to the general public. As Plone itself is distributed under the GPL version 2, most applications are published under the same conditions.

XIV. Strict coding rules

In order to develop reliable code of high quality, CommunesPlone follows strict coding rules. The code is written in small units, and the group builds its own software for testing the code. "We really enforce these rules. Otherwise, you write some code, and the next developer adds something and breaks it. That's something that we can't let happen", says Lambillotte.

One of the great advantages of developing their own tools, he says, is that the applications are closely in line with the needs of their users. "I've worked here in the Sambreville IT department for 16 years, and I know my users. Big IT suppliers usually come up with solutions that are technically great, but difficult to use — sometimes you need whole days of training to teach people to do very simple things." In CommunesPlone, this is different. The group develops its applications to be easy to use and understand. "Two hours. That's our goal: If you can't teach someone to use a tool within two hours, they will never learn it."

Until now, CommunesPlone has generated concrete and usable tools such as a module to order administrative documents on the Internet, a business directory and Communal websites (e.g. www.seneffe.be). Other tools are being currently developed including a certification module (through the eID card) and a documentary management tool. CommunesPlone is supported by the Union of (Walloon) Cities and Municipalities, which takes actively part in development.

XV. No legal obstacles

Lambillotte says there are no legal problems for CommunesPlone. The public administrations that finance the development of a piece of software still own the copyright to it, making it a routine matter to deal with. But he points out another problem. Public administrations do not like to take risks when developing software, so they ask for guarantees which a FLOSS community can hardly provide: e.g. the timely delivery of an application, or a certain range of features. Paying a company to provide those guarantees is of course possible, but can make a FLOSS project more expensive than proprietary software at least for the first user.

XVI. Tailor-made government services

Both CommunesPlone and PloneGov have significant effects on government services provided by their participants. Since they make a growing number of specialised e-government applications available, participating public bodies find it much easier and cheaper than before to provide their citizens with digital services that are secure and easy to use. Programs such as the meeting manager help to make the internal workings of government much more efficient.

XVII. Future challenges: Growth and structure

Both CommunesPlone and PloneGov want to grow. PloneGov is trying to reach more countries, and set up more successful collaborations between them. It seeks to connect people who already

have a strong base of Plone applications and are active in the sector. This is why Zea Partners is working to bring several eGovernment projects under the PloneGov umbrella.

As CommunesPlone grows, there is a debate among its members whether the group should have a legal structure, something that is currently not the case. Personally, Lambillotte is skeptical: "We are a little afraid of that structure. If you set up a structure, politics might start to play a bigger role."

PloneGov is faced with the same question. In Heymans' view, PloneGov will need a global structure to continue to grow, though "there's no need for too much centralisation. But we need at least one organisation that can be trusted by the others." He says there will need to be more coordination between countries, so that synergies can be fully exploited. This coordination will need funding, which most public sector decision makers are currently reluctant to give.

According to Heymans, people in the public sector are used to paying for traditional software development. But with a model such as PloneGov's, a significant part of the cost is for coordination. He says that if PloneGov is to grow into a more solid structure, it will need technical coordinators in different countries. They would ensure that applications fit the needs of the participating government bodies. This task could either be handled by an SME, or by a person from a public body. The Zea Partners CEO argues that potential funders currently do not recognise the importance of coordination and management: "They just won't fund that part of the work." As PloneGov (and FLOSS in general) becomes better known, this problem is diminishing.

XVIII. CommunesPlone and PloneGov: Success built on cooperation

Both CommunesPlone and PloneGov show something that hackers of FLOSS in the public sector have long talked about: Public bodies only stand to gain from cooperating in software development and procurement. Though developing applications is obviously not the remit of most public bodies, free licenses provide a highly efficient tool to share development cost and mutualise risks. But the success of CommunesPlone and PloneGov also rests on a number of other factors.

The attendants of the First Plone e-Government international Workshop 2007
© Town of Seneffe. Used by permission.

One key element of CommunesPlone's success is what Lambillotte calls its "human dimension". There are meetings on a monthly basis, and most members attend at least occasionally. This way, they have a chance to get to know each other and develop trust relationships.

As in many projects, people are much more important than structures. The fact that CommunesPlone has a committed and enthusiastic core team and a vibrant community has turned a network of municipalities into a successful project with an international reputation.

PloneGov, in its turn, is a young project with great promise. Notably, the push towards international cooperation comes from SMEs pursuing their own business interests, rather than from public bodies that might just see such activities as an additional task they may not consider essential. Yet it is easy to see for public bodies that there is added value for them in joining the network: a living community, tailor-made applications at lower cost, and a push to the local economy. It is precisely this constellation of individual interests that is likely to make PloneGov sustainable and successful in the long term.

Both CommunesPlone and PloneGov profit from their close ties to the Plone community. This large, established group provides them with models for their way of working. Heymans predicts that as PloneGov grows, the ties to the Plone community will become even stronger.

XIX. Links

- CommunesPlone : www.communesplone.org

- PloneGov : www.plonegov.org

- Zea Partners : www.zeapartners.org

- The Bungeni project: www.bungeni.org

- The Tabellio project: www.tabellio.org

- Websites of Sambreville: www.sambreville.be, and Seneffe: www.seneffe.be

- The OSSI study: www.publicsectoross.info