

# Free Software Macedonia

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## Work plan recommendations

### for UNDP Project:

*Support to e-Governance initiatives based on Free/Open Source Software at the local level in FYR Macedonia*

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## **Abstract (Executive summary?)**

*To do*

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# 1. Introduction

## 1.1. The issue at hand

Good governance and Free Software seem to be the new buzzwords as far as use of ICT in government or establishing e-government is concerned. This project aims to exploit them both.

We at Free Software Macedonia want to make sure that (at least) three key points are kept in mind at all time:

1. E-governance is about delivering on-line services to business or citizens. Mere computerization of government or use of back-end applications only, does not qualify as e-government.
2. Good e-governance is a strong possibility when using Free Software, as it allows a lot of strategic, economic and social benefits.
3. Any Free Software related activities strongly rely on the support of the local or international community of Free Software users, developers and advocates. Sidestepping the community in any way would probably slim down the success and sustainability of the project.

Having these in mind, first we suggest that the motto of this project be:

*“Give a man a fish, he'll eat for a day. Teach him how to fish, he'll eat for life.”*

We believe that the only way this project will bring long term benefits to Macedonian citizens is by strong citizen driven demand for services that will push the local government towards constant improvement of services based

on Free Software. We also believe that the only way the local government will be able to keep the technological pace is to make sure that the staff responsible for ICT related issues takes early and active participation in the local and/or international Free Software community.

## **1.2. The role of Free Software Macedonia**

Since the project proposes a lot of Free Software related activities, the role and participation of Free Software Macedonia is one of the key success factors. The reason for this is simple: we are the only organization in Macedonia that has extensive knowledge and hands-on experience with Free Software applications and their capabilities, licensing issues related to Free Software, as well as the social and ethical values that Free Software is based on; We are the only organization that “eats its own dog food” - we really use the software we promote in our day to day activities, at home and at work; We are the principal organization responsible for the localization of all major Free Software products into Macedonian; Finally, we love what we do.

This is why we feel that there are number of activities that would require our immediate involvement. This document presents our view on those activities, as presented in the work plan of the project document, and provides proposals for their implementation.

## **2. Overview of activities**

The project work plan has the activities divided into four major groups:

1. Assessment of the municipal potential and development of adequate FOSS applications adapted to the local context;
2. Capacity building, training and competency development for the

municipal employees with the new environment;

3. Implementation of FOSS based open e-governance solutions in pilot municipalities;
4. Increasing awareness and knowledge about FOSS benefits on a local and national level.

The first group includes selection of FOSS tools to be implemented and adaptation of FOSS tools to local needs. These are the two activities where we feel that our contribution is necessary. However, we can provide an expert opinion on other activities as well: the selection of municipalities and the needs assessment for application requirements might be crucial for the future direction of the project. For one, we suggest that in the selection process the community factor should be added to the already stated criteria – municipalities where local Free Software groups exist would be better candidates. The planned budget for this group of activities has an entry on equipment. We believe that equipment spending should be down to minimum. Less spending can often mean good governance, and municipalities should learn that in the Free Software world many tasks can be done with older hardware. We think that only the necessary replacement and upgrade parts for the current ICT infrastructure should be purchased. The remaining funds should be redirected into the training education and support of the ICT staff. By simply buying hardware we for one feel that we are avoiding the key principle of local capacity building, as the only beneficiaries are the hardware company outside our country and their partners in Macedonia.

The second group is all about training and capacity building. Our knowledge and expertise in Free Software and past experience in training easily enables us to hold traditional courses. However we feel that this is the perfect place to follow the motto stated above. It is more important for the ICT staff to learn the ways of the Free Software world, rather than to learn some point-and-click tasks that in any way are done in similar way on most software platforms. The members of the ICT Foundations are ICT literate people and adjusting to the new environment should be an easy task for them. While formal training might be presented in some kind of a short crash course, we think that most of the

activities should be Free Software community-style – events such as install fest that will allow hands-on experience and immediate dissemination of knowledge. We should note that there are traditional courses for certain GNU/Linux distributions in Macedonia provided by local companies. The fee for these usually is between 60 000 and 100 000 MKD for one person.

The third group of activities is about providing e-governance solutions. Some of the activities listed in this group can be easily taken by the ICT Foundations staff. Training for the municipal employees is one of them. The activities here can be expanded to schools, as they already have Free Software in their computer labs. We can hold some basic lectures and workshops there as well, but the ICT Foundations staff could provide long-term support, hopefully in cooperation with the local community. As for the e-governance solutions, we think that in cooperation and support from ZELS the project should focus on providing a single solution, a local government one-stop-shop, similar to the one provided by the central government, on a national level. This would allow easy access to all local government services to all citizens and businesses and eliminate practical problems such as keeping track of different local government web sites. Also it will make a clear distinction between the services provided by the local government and other web presentations that municipalities may implement (by using Free Software), like portals or informational web sites.

The fourth group of activities includes awareness and promotional activities. These will probably have a big role in shaping public opinion and understanding of Free Software. With our limited experience in organizing promotional and awareness events of this size, we hope that more experienced organizations such as UNDP itself will take care of most of the logistics. However, our presence here is required as the information materials, workshops and other events should use proper terminology and avoid ambiguities is of the utmost importance. Having in mind that even the mainstream media sometimes have problems in grasping the major points when it comes to software, licensing and similar issues, precise wording should be the first priority in these PR activities. Also, we would like to see that materials that might be handed out on these events or presentations

given to the public are prepared in Free Software – there is no better way to promote tools of any kind than using those tools.

The project should also set measurable overall targets that ought to be achieved. Example: 80% of ICT Foundation staff will know what is Free Software and what are the benefits from using it; 25% of all employees in the municipalities will be Free Software literate; All servers will run GNU/Linux; All web pages will be standards compliant.

### **3. Work plan recommendations**

#### ***3.1. Selection and adaptation of Free Software to local needs***

The existence of too many choices is often noted as one of the problems when starting to use Free Software. To avoid any such problems, users should make an inventory of the tasks the computer does for them prior to the selection process. Users should know what each piece of software is actually doing and why do they need such a tool, not what is its name or vendor. This will make much easier for the project staff to select the proper tools.

On the project side, the selection process should focus on two things:

1. Making sure that the applications taken into account are actually Free Software. There are many applications that are said to be free, but they might not be Free Software. Licensing check should be applied in accordance with Free Software Foundations Free Software license list;
2. If there is more than one suitable application for a given task, the maturity and the activity of the project, as well as its local user base and ongoing or planned localization/adaptation process must be

taken into account.

The adaptation of the selected applications should be done in coordination with local teams – if such teams exist for the given application. If the adaptation/localization for an application is to be started from scratch, proper activities must be undertaken to insure the sustainability of the project. The start-up of new localization projects can be an easy task for the existing community. It also can be a great opportunity for other people to join in, especially some of the ICT Foundations staff.

### ***3.2. Capacity building, training and competency development***

As with all new tools, achieving a certain level of knowledge and understanding is required. However, we believe that Free Software is not just a new tool. To have a long term success with the use of Free Software in local government the responsible staff should do more than just learn how the new software works. That is why we think that a traditional training approach is not suitable for the project. After all, providing full and extensive training is not one of the project goals. Still, if standard training cannot be avoided, we can prepare a short curriculum for the ICT Foundations staff that will cover most of the basics on running Free Software, developing applications and building web sites that are standards based as well as using Open Standards for documents. The lectures can be carried out by members of Free Software Macedonia who have teaching experience and hold certificates such as RHCE.

However, we strongly believe that capacity building and competency development should be done in the spirit and in the ways of Free Software community. Events such as install fests and workshops will provide useful and practical knowledge. They can introduce Free Software in a working environment and follow a problem solving approach, and they can provide practical challenges for ICT Foundations staff who are IT professionals. They can also be a good guide on non-computer skills that are needed for successful coping with challenges, problems or tasks that users or administrators are

facing when using Free Software. On the long run, knowledge of where to search for answers, how to ask questions and how to work with the community will be much more useful than distribution and version tied training. Also, capacity building and competency development should include lectures and/or workshops on non-technical issues related to Free Software, such as the basic philosophy behind Free Software, copyright and licensing issues, ethics etc.

It is prudent to note that we are proposing to take on a different approach for section 3.2.

That the training of ICT foundation personnel should be done in parallel with the activities of assessment, selection and developing of the solutions for e-governance. This way we can use this extra time and dedicate it to training and educating the ICT personal how to use, configure and deploy free software in the municipalities ICT infrastructure, so that the transition from proprietary to Free Software, would pass seamlessly.

We propose that right after the end of the selection process for the participating communities, the training of the ICT staff personal should commence. This way when the developed application is finished the ICT staff will be trained and ready to begin implementation and specific training for the user's of the free application in question.

Last but not least, the ICT Foundation staff and/or municipalities officials should learn the difference between Free Software and software that is available free of charge. Every institution should be aware that while most of the problems can be solved in-house with the help from the local or international community, sometimes it is more efficient to hire local companies or individuals who will provide support or services for a fee. This fee based approach insures a high level quality of service while avoiding vendor lock-in and stimulating local ICT companies.

### **3.3. Implementation of e-governance solutions based on Free Software**

Most of the activities listed under section 3 are straight forward. At that point the project hopefully will be moving on the right track. Activities that require expertise in Free Software can be provided by the local community. The ICT Foundation staff hopefully will be deeply involved as well. The key point here is the actual implementation of e-governance solutions based on Free Software and Open Standards.

This is where the project should go further than similar projects conducted in the region (example Bulgaria) - simply duplicating the work done elsewhere would be underachieving. The project should recommend implementation of a real e-governance solution (government to businesses, government to citizens). The current trend of building separate web pages for municipalities should be avoided, or relocated downwards on the priority list. Also, while municipalities might state their need for certain back-office applications, project officials should explain that e-governance is about providing e-services to the outside world.

From a citizen point of view, we think that a single place for local government e-services is the way to go. Local government provides a know set of services. Citizens shouldn't keep track of different individual web sites to access the same services in different municipalities. The web based e-governance solution will be based on Free Software and will follow Open Standards. If its implementation is requested through a public tender, the documentation should include precise information on these two crucial points. There are many Free Software tools that can be used as a backbone for building this e-service and the project should recommend using and expanding on existing code-base instead of starting from scratch.

For municipalities' web sites that will present other (non-service related) information, Free Software solutions could be introduced as well. Standards compliant (example viewable in any browser) solutions should be recommended. Documents made available there should also follow Open Standards.

In order for the developed system to be open and free the following key principles should be applied.

- Interoperable – allowing, through the use of open standards, the exchange, reuse, interchangeability and interpretation of data across diverse architectures.
- User-Centric – fulfilling the user requirements over perceived hardware or software constraints,
- Collaborative – permitting governments, industry, and other stakeholders to create, grow and reform communities of interested parties that can leverage strengths, solve common problems, innovate and build upon existing efforts.
- Sustainable – maintaining balance and resiliency while addressing organizational, technical, financial and legal issues in a manner that allows an ecosystem to thrive and evolve.
- Flexible – adapting seamlessly and quickly to new information, technologies, protocols and relationships while integrating them as warranted into market-making and government processes.

There is a complementary relationship between free software and open standards, open standards implemented through free software, promote the standard, which finally leads to its adoption and use.

Open standards are created by standards-setting organizations including consortia like the Internet Engineering Task Force (IETF), World Wide Web Consortium (W3C), and the Organization for the Advancement of Structured Information Standards (OASIS), and formal standards bodies such as the International Organization for Standardization (ISO). For these organizations, openness allows any interested party to contribute to proposals and thereby makes it possible to base decisions on a near consensus. Users often emphasize access to documentation and free usage as key features of open standards. Care is needed by these bodies when developing open standards to ensure that they do not build upon or reference a closed proprietary standard. Applications that conform to standards are usually independent of operating

system platform, and can be used by anyone. Documents created using the OASIS Open document format (ODF) can be edited and modified using different applications that are available at the moment for the user, that do not require you to purchase special proprietary software that works only with proprietary document formats. Information stored in documents and saved in proprietary document formats, introduces vendor lock-in and dependency on proprietary formats controlled solely by one company. If the vendor changes the specification of the format or the software that is used for accessing, creation and edition of these documents , then the information stored in that document is practically lost.

### **3.4. Spreading awareness and knowledge about Free Software**

The final piece of the puzzle is informing the public of the past (and hopefully future) activities. Use of Free Software in all these activities should be preferred. Presentations and information materials should be prepared with Free Software. Documents and other materials that will be shared with the public should be available under a Free Documentation License.

The ignorance or the fight for more readers by the media should be taken into account. We don't want for example to see the media reporting on Free Software as some anti-Microsoft or anti-copyright issue. Precise terminology should be used. Information materials intended for the media might be considered, a media-kit for Free software and open standards is really a very good starting point to help and alleviate this potential curl pit.

Community building activities should also be considered. Workshops and, lectures for young people (example primary or high school students) could prove useful on the long run.

Promotion of the new local government e-services will be crucial for the sustainability of the project. In the end, the new e-services should be used by citizens. Cooperation with projects who promote decentralization and the role

of the municipalities might be considered. Training for IT illiterate people for the use of the e-services could be on the priority list as well.

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## Resources

United Nations Development Programme, Support to e-Governance initiatives based on Free/Open Source Software at the local level in FYR Macedonia Project Document

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