



Transfer of the INE Statistical Yearbook to iPad

Report from a short term work for the National Statistical Institute of Mozambique, Maputo Mozambique

3 December 2012 - 1 February 2013

within the frame work of the

***AGREEMENT ON CONSULTING ON
INSTITUTIONAL CAPACITY BUILDING,
ECONOMIC STATISTICS AND RELATED AREAS***

between

INE and Scanstat

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Sumário executivo em Português

Juntamente com o Statistics Sweden Isolve anteriormente desenvolveu e publicou as versões sueca do Anuários Estatísticos de 2011, 2012 e de 2013 como aplicações para iPad.

O principal objectivo com o projecto actual tem sido a de desenvolver e publicar um aplicativo semelhante para o INE, com base na mesma funcionalidade do que o Anuário 2010.

Isolve ter tido conhecimento do fato de que a primeira transferência do Anuário do INE é importante. No entanto, as transferências futuras onde INE faz o trabalho em si são ainda mais importantes.

Este relatório resume o processo do projecto, os resultados e a colaboração entre o INE e Isolve. Veja também o relatório anterior MZ:2012:06 no www.dst.dk/mozambique.

O aplicativo resultante deste projecto pode ser baixado gratuito através <https://itunes.apple.com/app/anuario-2011/id604840717?mt=8>

Executive summary in English

Together with Statistics Sweden Isolve previously has developed and published the Swedish versions of the Statistical Yearbook for 2011, 2012 and 2013 as iPad applications.

The main objective with this project has been to develop and publish a similar application for INE based on same functionality as Anuário 2010.

Isolve have been aware of the fact that the first transfer of the INE Yearbook is important. However, future transfers where INE does the work themselves are even more important.

This paper summarizes the process of this project, results and the collaboration between INE and Isolve. See also the previous report MZ:2012:06 at www.dst.dk/mozambique.

The resulting app can be downloaded for free through <https://itunes.apple.com/app/anuario-2011/id604840717?mt=8>

The project

As stated in project overview up (Appendix 4), the process including developing and publishing an iPad application on App Store can be divided into five main objects. In this report Isolve have evaluated and summarized each objective.

In general, the project went smoothly and according to project deadlines.

- Register publisher account
- Graphical User interface (GUI)
- Development
- Testing
- Publishing
- (• App Store details)

Register publisher account

Apple tightly controls the process with register and publisher account for App Store. It involves eight separate steps which should be followed in right order otherwise it can result in delays. Isolve provided INE with guidelines on how to complete each step.

This process takes roughly 15 business days until the account is active and ready for use.

Since this process was completed for *Anuário 2010* we could re-use it and publish *Anuário 2011* from same account.

Graphical User interface (GUI)

Based on INE's visual identity/graphical profile Isolve presented GUI for the project. INE evaluated icons, interface, and navigation and provided Isolve with feedback and suggestions on how the GUI could be improved.

GUI was re-used from *Anuário 2010* and only the name of the application was changed.

Development

This process did not involve INE participation at any level. Isolve were responsible for the development but were aware of the fact that INE has the intent to develop upcoming yearbooks by themselves and for that reason documentation and notes that can be used as guidelines were taken, see appendix 1.

Testing

During the development process INE had the opportunity to test beta versions and later on also approve the final version.

Throughout the development phase INE provided good testing via test documents where they carefully pointed out bugs and suggestion on how these could be fixed, see appendix 1.

Publishing

This process did not involve INE participation at any level. Isolve were responsible for the publishing via INE's publisher account. However, for future publications notes were taken on how this process can be carried out as effective as possible, see appendix 1.

App Store details

The App Store details from *Anuário* 2010 was updated and re-used for *Anuário* 2011.

Appendix 1 – Development process, Guidelines and suggested Self-studies

Register publisher account

As stated before, this process including developing and publishing an iPad application on App Store can be divided into five main objects. One of the necessary prerequisites is the publisher account. From the publisher account one can:

- Download Xcode (software development tool developed by Apple for iPad and iPhone applications).
- Upload application to App Store
- Distribute beta versions. When application is ready for testing you are able to decide the iPad units that should have the opportunity to test. This is done by gathering the UDID (Unique Device Identifier) for each iPad and logs this information in the publisher account.
- Rate content for application. Before application approval the developer have the opportunity to rate the content for more effective approval from Apple.
- Contact with Apple. From the Developer account the developer handle all contact with Apple.
- Meta data. Via publisher account, the developer set up application Meta data such as, name of app, description, category, sub-category and screen shots.

Knowledge: No specific expertise or knowledge is needed to handle the publisher account. Since all information is stated in English the responsible person needs to be fluent in written English.

Self-studies: Most efficient way to learn the account is to login and play around with the different features.

On YouTube one can find several tutorials that are really good. Use keywords such as: “iTunes Connect”, “Introduction to Apple Developer program”, “Upload app to iTunes Store”, “Update app meta data on App Store”, “Download Xcode from Apple Developer”.

Another suggestion is to read the App Store Guidelines that can found when you login into the account.

Login: Username: ine@isolve.se, Password: xxxx

Graphical User interface (GUI)

The application design process is only needed if the developer is about launching a brand new application or updating the existing interface. Important information about size, pixels and resolution for the graphical elements is clearly stated in the iTunes Connect Developer Guide that is attached as a separate file.

If future versions of Anuário should be developed it is possible to re-use the template that already been created.

Self-studies: No self-studies needed. For better understanding about the graphical elements please read the iTunes Developer Guide.

Development

The development process is time consuming and requires expertise within the area. Xcode is the development tool that is used and can be downloaded via the publisher account or via Mac App Store. This tool is designed for mobile application development and several helpful resources can be found within the tool. For example, the Facebook integration, E-mail feature, Apple Map integration are all SDKs (software development kits) that lies within the development tool.

Xcode builds upon the programming language Objective C and knowledge in this language is required.

For upcoming versions of the yearbook it is possible to re-use same template as for Anuário 2010 and 2011 and convert the raw data from excel or word into HTML-files and update template with this files.

Knowledge: Programming language Objective C or C++.

Self-studies: There are several good tutorials on YouTube. Use keywords such as: “Xcode basics”, “Xcode tutorials”.

E learning courses for example: <http://www.lynda.com/Xcode-4-tutorials/Objective-C-Essential-Training/77860-2.html>

Testing

For this process knowledge about the publisher account and how to distribute beta versions is needed. Also a person that can administrate and follow up bug reports is to recommend.

Self-studies: Again, YouTube is great channel for learning, search for keywords such as: “How to create provision profiles” Beta testing Apple Developer”. Please also read the iTunes Connect Developer Guide for better understanding.

Publishing

A guide for publishing that is easy to follow and to recommend is to find in the developer account. The process is also well described in the iTunes Connect Developer Guide. This tutorial is also to recommend:

<http://www.youtube.com/watch?v=Xe8xx55pxLk>

Annex A - TERMS OF REFERENCE

November 20, 2012

TERMS OF REFERENCE

For a short term work

Transferring the INE Yearbook 2011 to iPad

November - December, 2012

within the

AGREEMENT ON CONSULTING IN INSTITUTIONAL CAPACITY BUILDING,
ECONOMIC STATISTICS AND RELATED AREAS
between INE and Scanstat.

Consultants from: Isolve in Sweden Adam Tapper

Counterparts: Salomão Muianga, and Paulo Matusse

Background

The INE Yearbook 2010 has successfully been transferred to iPad and is distributed for free via Apple App Store <http://itunes.apple.com/app/anoario-2010/id553809747?mt=8>, the report on the work can be found on www.dst.dk/mozambique. According to Apple iTunes Connect the app has been downloaded a little more than 100 times from a variety of countries. The most common are South Africa 26, Brazil 17, Portugal 14, Mozambique 13 and USA 9.

In the annexed original Terms of Reference and in the contract between Scanstat and iSolve there is an option that the INE Yearbook 2011 also can be converted to iPad format and exposed at Apple App Store. INE is now asking Scanstat to effectuate that option.

Source of Funding

Project: MPD-2008-0011 – Coordenação e Integração Estatística
PAAO12 – 3.1.1 Construção de Bases de Dados Integrados

Timing of the mission

The work will start within 4 weeks after the contract is signed. Development time is 4 weeks. Time plan does not include Apples publishing process (approx. 5-10 business days).

Approved by Cirilo Tembe, INE/DICRE

Day / /

Confirmed by Luis Mungamba, Contract Manager for the INE – Scanstat Contract

Day / /

April 30, 2012

ORIGINAL TERMS OF REFERENCE

For a short term work

Transferring the INE Yearbook to iPad

June-July, 2012

within the

AGREEMENT ON CONSULTING IN INSTITUTIONAL CAPACITY BUILDING,
ECONOMIC STATISTICS AND RELATED AREAS
between INE and Scanstat.

Consultants from: Isolve in Sweden Adam Tapper

Counterparts: Salomão Muianga, and _____

Background

New technologies are creating new possibilities to disseminate statistics meeting the challenges of accessibility and timeliness. In many cases these new technologies are not more expensive traditional means of distribution. An example of this is statistics distributed by SMS that in theory could be accessed by most of the more than 5 million mobile phones within Mozambique even if the devices are of the lower end of sophistication. At the other end there also is an increasing number of smartphones and other advanced reading and communicating devices used by high volume users of statistics. One of those reading devices is the iPad on which Statistics Sweden now for the second year has published its yearbook. Taking advantage of this INE now want a pre study made on how the INE yearbook can be transferred into an iPad application this year and how personnel from INE can do the work for the years to come.

Objective

This first transfer of the INE Yearbook to the iPad is important to show presence also in the digital world. If successful it will be followed by a second transfer where INE staff does the work themselves is even more important and will be further discussed when the data for the yearbook of this year is available¹.

Expected outputs

Referring to the Isolve Statistical Yearbook – Pre Study 2012-04-25

Proposal 1– Isolve transfers the most recent INE Yearbook 2010 to iPad Isolve is responsible for:

- Conversion of the raw data for INE Yearbook 2010
- Development and test

¹ Various models are possible for this second step, ranging from building a learning module, be a sounding board to offer on-site training. One possibility is to learn the development from scratch. Another is to let Isolve develop a simple model where INE easily can insert images and text, and from this create the future yearbooks

- Distribution and publishing of the iPad application in App Store.

Functional requirements:

The application has identical functionality as SCB Årsbok 2012 (<http://itunes.apple.com/se/app/arsbok-2012/id490939451?mt=8>).

- Live search in text
- Menu search
- Possibility to browse chapter by chapter and article by article
- History over last viewed articles
- Possibility to bookmark articles
- Favourite articles
- Share article via mail
- Share application via Facebook
- 10 Interactive diagrams (INE Mozambique chooses and provides data)
- 10 Interactive maps (INE Mozambique chooses and provides coordinates)
- Support for both landscape and portrait mode
- Support for first, second and third generation of iPads
- Support iOS 4.2 or later

Interaction design and Graphical design

The interaction design will be identical to the SCB Årsbok 2012 except for the addition of the:

- Possibility to go to next/previous page by swiping up/down
- Possibility to go to next/previous chapter by swiping right/left

Graphical design will be updated based on INE Maputo graphical profile (http://www.dst.dk/en/consulting/projects/Mozambique/Reports_all.aspx)

Text strings are translated.

Isolve is also handling the administration and first-line contact with Apple during the App Store registration process and set up developer account.

Options

If the work of above (Isolve Proposal 1) turns out satisfactorily INE has the option to ask for the transfer also of the Yearbook that will be compiled later this year as specified in Isolve Proposal 2.

During the work the content of a learning component will be further specified by INE and specified in a separate contract.

Beneficiaries of the mission

The target group is composed of users using the iPad to access the SEN Statistical Yearbook.

Tasks to be done by INE to facilitate the mission

- Prepare and supply the consultant with necessary data files, documents and information, like the new visual identity of INE
- Supply good communication conditions for the consultant
- During the work the content of the learning component will be further studied by INE and specified in a separate ToR.

Source of Funding

Project: MPD-2008-0011 – Coordenação e Integração Estatística

PAAO12 – 3.1.1 Construção de Bases de Dados Integrados

Timing of the mission

The work will start within 4 weeks after the contract is signed. Development time is 4 weeks.

Time plan does not include Apples publishing process (approx. 5-10 business days).

Place

The premises of contractor.

Language

English.

Report

The consultant will prepare a short final report to be discussed with INE before ending assignment. Statistics Denmark as Lead Party will publish the final version on www.dst.dk/mozambique within 3+ weeks of the end of the mission. The structure of the report should be according to Danida format.