ICT-601102 STP TUCAN3G

Wireless technologies for isolated rural communities in developing countries based on cellular 3G femtocell deployments

D22

Operational technical handbook

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Participant(s):	**EHAS, URJC, FITEL, UPC, URJC, PUCP, UCAU, KiNNO**
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Abstract:

This document shows a detailed plan for the work required to accomplish the objectives of TUCAN3G. All partners have contributed to this document by defining tasks and subtask, in coordination with the technical coordinator and the leader of each work package. Mechanisms for technical supervision are described, and the organizational chart presented.

Keyword list: Work plan, technical supervision, project organization chart

Document Revision History

DATE	ISSUE	AUTHOR	SUMMARY OF MAIN CHANGES
10-05-2013	a	Ignacio Prieto	
24-05-2013	b	Ignacio Prieto	- Description of risk management protocol. - Common format for the work plans. - Actual dates for the start and end fields. - Definition of tasks for each milestone. - Refine coordination between WP3 and WP6.
30-05-2013	C	Ignacio Prieto	- Definition of two subtasks in 3A2.5.

Executive Summary

This document results from a detailed planning of the required work to accomplish the objectives of this project. All partners have contributed to this document by defining the tasks and subtask to be performed, in coordination with the technical coordinator and the leader of each work package.

The technical coordinator has also defined the mechanisms that will be used to supervise the project. The first mechanism is to appoint a responsible for each task, subtask and activity. The contact information of the activity leaders has been summarized in an organizational chart. The second mechanism is to install an online tracking tool based on Redmine that will allow the technical coordinator to monitor the evolution of the project. Every partner will have access to the tracking tool and will be in charge of updating the information about its tasks.

A basic mechanism for quality supervision will be also applied. Trying to avoid overloading partners with additional work, they will only be required to send a preview of their work when the task time reaches 50%. This preview will serve to evaluate if the objectives are clear and the methodology is adequate to achieve quality results.

In case a fine deviation is detected the work package leader will be informed, and the mechanisms defined in the Consortium Agreement will be applied if necessary.

The relation between work packages has been analysed to identify the information requirements and the information of the activity leaders has been summarized in the project organizational chart.

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List of abbreviations & symbols

3GPP	3rd Generation Partnership Project
BRAN	Broadband Radio Access Network
CA	Consortium Agreement
CAPEX	Capital Expenditures
CREP	CREPIC- Cauca Regional Centre for Productivity and Innovation, Colombia.
DIRESA	Regional Direction of Health, Peru
DoW	Description of Work
EC	European Commission
EDCA	Enhanced Distributed Channel Access
EHAS	Foundation Hispano-American Health Connection
ETSI	Engineering Technical School
FITEL	Telecommunications Fund, Latin America
GOREL	Regional Government of Loreto, Peru.
HSPA	High-Speed Packet Access
HW	Hardware
IP.ACCESS	IP.Access Ltd., UK
IPA	International Phonetic Alphabet
ITU-D	International Telecommunication Union- Development Sector
KINNO	KINNO Consultants Ltd.- Knowledge and Innovation Consultants, Greece
LTE/LTE-A	Long Term Evolution / Long Term Evolution Advanced
MAC	Media Access Control
MIMO	Multiple-input and multiple-output
MTC	Ministry of Transport and Communications
OPEX	Operating Expense
OSIPTEL	Supervising Organization for Private Investments on Telecommunication
PCC	Project Coordinator Committee
PM	Person-Month
PtP	Point to Point
PUCP	Pontifical Catholic University of Peru
QoS	Quality of Service
SG2	Software Solutions
SME	Small-Medium Enterprise
SoA	Service-oriented Architecture
SW	Software
TBC	Technology-Based Company
TdP	Telefonica del Peru, Co.
TIWS	Telefonica International Wholesale Services
TN-AN	Transport Network-Access Network
UCAU	University of Cauca, Colombia
UPC	Polytechnic University of Catalonia
URJC	University Rey Juan Carlos, Spain
VSAT	Very Small Aperture Terminal
Wifi	Wireless Fidelity
WiLD	Wifi Long Distance
WIMAX	Worldwide Interoperability for Microwave Access
WP	Work package

1 INTRODUCTION

In the project proposal submitted to the EC (European Commission) the objectives of TUCAN3G were explained in detail, and a brief explanation of the activities to be done and the resources to be used (time, personnel and equipment) was included. This description was intended to show the relevance and coherence of the proposal, but not the concrete tasks and subtasks that would be carried out. In order to guarantee a correct development of the project, a detailed planning aimed to clarify timing, responsibilities, and tasks is required. This planning, together with some basic supervision mechanisms, is collected in the current document, which is meant to become the internal reference for the project management.

2 MECHANISMS FOR TECHNICAL SUPERVISION

This section will describe the mechanism to be used in order to guarantee that the activities of this project are fulfilled on time, and with the expected accuracy and quality.

One of the most important supervision tasks is to check that activities are being carried out as expected. The project will apply two mechanisms to check this up. The first one is to define a responsible for each work package, activity, tasks and subtask, and declare that every responsible should monitor the work under the level below in this hierarchy. The second one regards to the technical coordinator of the project, who will monitor the activities by means of the Redmine online tracking tool available at http://193.147.53.162:8080/. In order to do so, every task responsible is committed to update the information about their work progress in the online project tracking tool before the 5th day of each month. Each member is required to login to the project-tracking page with given username and password from *Connection* menu. After first login, project *Tucang3G* should be selected to see all details of the project. Then issues with their project calendar can be seen in *Gantt* tab, or individually in *Issues* tab. The project-tracking tool allows the members to filter the defined issues through some useful parameters such as assignee, assigned group, task number etc. Once the related issue is selected, member can click on *Update* button to update the issue. Then, items that the member is required to update such as S*tatus*, *%Done*, *Priority*, etc. will be available for further actualizations depending on the actual status of the task.

In case that any fine deviation is detected through one of these mechanisms, the first action will be to inform the WP leader, who will negotiate with the responsible partner of the subtask a way to redirect the work and develop a new calendar if needed. If this negotiation process is not successful, the WP leader will notify to the coordinator and the PCC (Project Coordinator Committee) and they will follow the procedures defined in the Consortium Agreement (CA).

It is also very important to define mechanisms to look after the quality of the work. The technical coordinator will review the quality of deliverables and milestones, but additional mechanisms should be applied to ensure that tasks, as basic unit of work, also reach the expected quality. In order to avoid overloading partners with excessive coordination tasks, the technical coordinator will only ask them to send a preview of their work when the task time reaches the 50%. The task preview should be sent within the 5 working days after receiving the technical coordinator's email, and it should briefly describe the work progress, the methodology that is being used, and the objectives that will be reached. This preview will be reviewed by the partner depending on that activity, in order to ensure that dependencies between activities are correctly covered. Once the reviewing partner has received the task preview, it will have 5 working days to send its comments and reach an agreement with the responsible of the task. Past this time, the coordinator and PCC will be informed.

Reviewing the milestones and deliverables of a work package is a duty of the members that work in that package. However, the technical coordinator of the project will review the milestones and

deliverables of every work package in order to ensure coherence among them. The technical coordinator will not review internal reports, and that task will be responsibility of the partner who receives that document.

If some partner fails on following these mechanisms or is not able to carry out expected activities with the required quality, it could be considered as a breach of its responsibilities. In that case, the CA defines the procedures that would be applied.

Finally, another important issue to be addressed by this document is technical risk management. In the project proposal, some risks were identified, and the PCC was identified as the natural forum where contingencies are identified discussed and solved. Risk management is a process that analyzes and mitigates the uncertainties of a project trying to reduce its probability or impact. This process is continuous and cyclic as shown in Figure 1, where the main sub-processes are identified:

- Risks identification.
- Risks assessment.
- Decision making based on risk mitigation criteria.
- Risk mitigation.

Risk identification implies to describe the doubts and uncertainties of a project in a clear and meaningful sentence. It is a continuous process through the project lifetime that will be carried out by the PCC. The second step will be to assess the probability of that risk to happen and its expected impact. The expected impact will be analyzed from 4 perspectives: project quality, project objectives, activity deadlines and costs.

After assessing the risk, the PCC will decide if the risk should be mitigated, accepted or if the best chance is to redefine the project. Risk mitigation implies to define an action plan that will include a list of actions and the risk monitoring. The mitigation plan will contain a schedule of activities, a responsible, together with mechanisms and indicators to monitor and evaluate mitigation results periodically. The coordinators of the project will be in charge of monitoring existing risks to ensure that the PCC discuss them if needed.

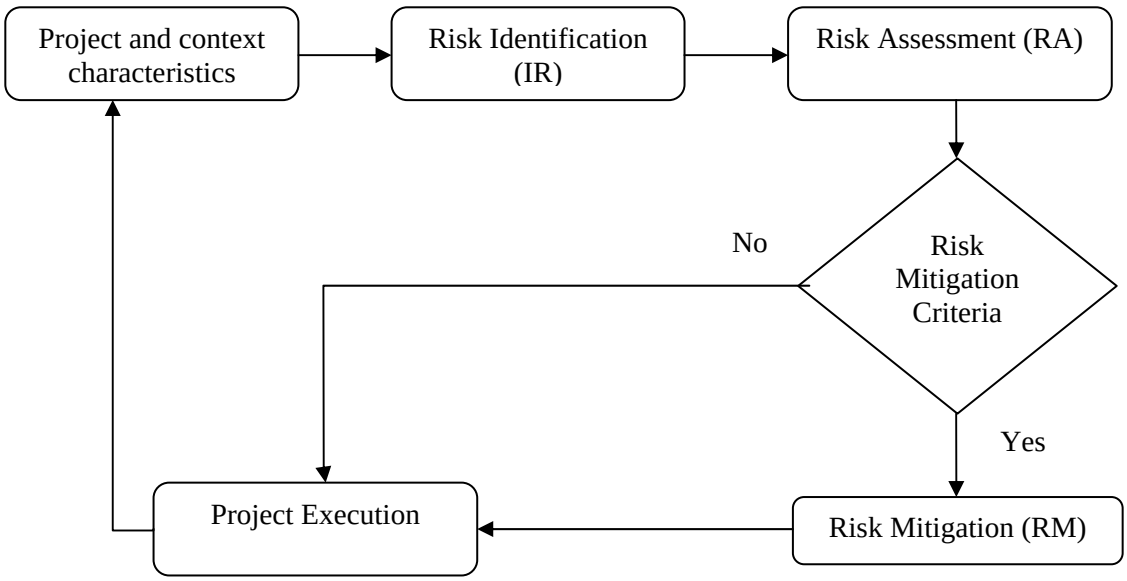

Figure 1. Risk management process.

3 INTERACTIONS BETWEEN WORK PACKAGES

Each partner of this consortium has a slightly different background (four education institutes, one manufacturer, one operator, one governmental agency, one SME and two research centres), which becomes a very complementary work team with different points of view, but also involves a certain risk of divergence regarding expectations and methodologies. The main objective of WP2 has been to establish a common start point for all partners, defining and collecting the basic information to be exchanged. This basic information can be classified in two groups: the information regarding scenarios and context, and the information regarding the work plans (as general methodology). The first group of information has been integrated in D21 and D23, and will provide basic information to WP3, WP4, WP5, WP6 and WP7. The second group has been collected and analyzed in this document (D22), where special attention to relations among WPs has been paid.

When analyzing the work plan available in section 5, the interactions among WPs are the most important sources of divergences, and therefore, where WP2 has make a more important effort to detail and clarify the planning. In this section the most important interactions will be identified and described in order to facilitate the monitoring process.

The demonstration platform deployed in WP6 should serve to test some of the research results of the project, but it will be not possible to replicate all the simulations performed in the laboratory test bed. Regarding technical activities, WP6 leader should negotiate with WP4 and WP5 leaders about the validation tests to be performed in the demonstration platform. The participation of UPC an URJC in the deployment design and in the definition of validation test is present in WP6 work plan. Regarding the business model, the demonstration platform will consider the validation criteria defined in WP3, and WP3 partners should analyze this validation results during its last activity.

Another crucial aspect is the installation of the network controller deployed in WP6. The network controller should be accessible from URJC laboratory to allow performing tests on the backhaul network (between the femtocells and the network controller) in the starting months of the project. It is not necessary to implement the connection with the core network in this first phase, but it is important to check that the network controller will work properly without that connection. Engineers from Peru and URJC will be trained on the configuration and use of the network controller in IP Access headquarters. After that, IP Access will help to connect the network controller to the core network of TdP.

Finally, another important interaction is the gathering of all the WPs outputs that WP7 will carry out, in order to systemize the research results achieved by the project and proceed to its proper dissemination and standardization. Therefore, the work of all partners in this work package is very important, and the coordination for joint publications, congress and workshops will be crucial.

4 PROJECT ORGANIZATION CHART

In order to facilitate the communication with the responsible of each activity and work package, an organization chart has been summarized in Table 1. The responsible for each task or subtask have not been collected in this table in order to reduce complexity, but that information is available in the respective work plans in section 5.

GENERAL PROJECT COORDINATION			Josep Vidal UPC	josep.vidal@upc.edu
GENERAL TECHNICAL COORDINATION			Andrés Martínez URJC	andres.martinez@urjc.es
Work package	**WP Leader**	**Activity**	**Responsible and entity**	**Contact**
WP1	Josep Vidal UPC josep.vidal@upc.edu	1A1. Administrative Management	Josep Vidal UPC	josep.vidal@upc.edu
		1A2. Technical Management	Andrés Martínez URJC	andres.martinez@urjc.es
WP2	Ignacio Prieto EHAS ignacio.prieto@ehas.org	2A1. Technical and socio-economic scenarios	Ana García EHAS	ana.garcia@ehas.org
		2A2. Requirements and specifications for transport and access networks	Ignacio Prieto EHAS	ignacio.prieto@ehas.org
		2A3. Parameters and scope of market research and business models	Ana García EHAS	ana.garcia@ehas.org
		2A4. Architecture of the demonstration platform	Ignacio Prieto EHAS	ignacio.prieto@ehas.org
WP3	Marcos Orlando Amaya FITEL Oamaya@mtc.gob.pe	3A1. Market Research	Konstantinos Fouskas KINNO	kf@kinno.org
		3A2. Demand Side Analysis	Yuri Castillo CREPIC	yuricastillo@unicauca.edu.co
		3A3. Supply Side Analysis	Omar Tupayachi Telefónica del Perú	omar.tupayachi@telefonica.com
		3A4. Business Model Design and Verification	Ernesto Sánchez FITEL	esanchezc@mtc.gob.pe
WP4	Adrián Agustín UPC adrian.agustin@upc.edu	4A1. Network dimensioning	Adrián Agustín UPC	adrian.agustin@upc.edu
		4A2. Femtocell network optimization and monitoring	Adrián Agustín UPC	adrian.agustin@upc.edu
		4A3. Access and transport network interoperability	Antonio Pascual UPC	antonio.pascual@upc.edu
		4A4. Beyond 3G-based access	Adrián Agustín UPC	adrian.agustin@upc.edu
WP5	Javier Simó URJC javier.simo@urjc.es	5A1. Usage terms of WiFi, WiMAX and VSAT links	Javier Simó URJ	javier.simo@urjc.es
		5A2. Heterogeneous transport network architecture for the backhaul	Javier Simó URJ	javier.simo@urjc.es
		5A3. Transport network optimization	Javier Simó URJ	javier.simo@urjc.es
WP6	Juan Paco PUCP jpaco@pucp.edu.pe	6A1. Technical and operational design	Leopoldo Liñan PUCP	linan.el@pucp.edu.pe
		6A2. Compatibility tests	Darwin Auccapuri PUCP	dauccapuri@pucp.pe
		6A3. Pilot network deployment	River Quispe PUCP	riquispe@pucp.edu.pe
		6A4. Interconnection to the operator's network	Juan Paco PUCP	jpaco@pucp.edu.pe
		6A5. Validation	Juan Paco PUCP	jpaco@pucp.edu.pe
WP7	Álvaro Rendón UCAU arendon@unicauca.edu.co	7A1. Dissemination	Álvaro Rendón UCAU	arendon@unicauca.edu.co
		7A2. Standardization	Álvaro Rendón UCAU	arendon@unicauca.edu.co
		7A3. Use of knowledge	Konstantinos Fouskas KINNO	kf@kinno.org

Table 1. Organizational chart of the project

5 WORK PLAN FOR EACH WORK PACKAGE

The work plan for each package is detailed in this section. One of the main activities of the WP2 has been to disaggregate activities into tasks and subtasks, and provide a detailed description for each one. The criteria for this disaggregation process are assigning each task to one only partner, in such a way that limits between the work and responsibilities of each partner are clearly identified. Technical criteria have also been considered, evaluating the background of each partner and looking always for the coherence of the whole project. Each work package leader was in charge of negotiating the tasks distributions and planning with its respective partners of package and with the technical coordinator of the project.

The work plan identifies each activity, tasks or subtask by a number, and includes its description, the required input, the expected output, its start and end date, the partner and person in charge of each task, and the number of person-month that will require.

In order to match the quality requirements and create synchronization between partners, an online project tracking tool (http://193.147.53.162:8080/) will be used. Before selecting this tool, many other tools had been also considered, tested and discarded depending on fundamental criteria for TUCAN3G. For instance, tool deployment must be online as different groups in different time zones have to work together. It also requires online team collaboration such as change alerts, requirement agreements or even online forums. However, the tool should be also ease of use and shouldn´t increase the work load. Obviously, task management, issue handling and time tracking are crucial items which we are all seeking for in such tool.

When we started to check possible tools within those fundamental criteria, we realized that the cost of the tool per person should be considered too, as many tools put limits on the number of users, number of projects, the size of the shared documents, etc., changing the pricing with these limits. On the other hand, many tools are quite expensive because they offer a project hosting service, where project leaders are barely allowed to have administrative control.

After a brief analysis on endless number of tools with those criteria, we decided that we require an open source, web based and flexible project management tool, so we can change or add new items or collaborators when needed without limits, independently from the scale of the project. On this process, the tools that we selected for the final stage were GanttProject, OpenProject and Redmine. Finally we concluded that Redmine is the one that better fits our requirements. It was selected due to its flexibility, friendly framework, ability to create custom fields and especially because it provides administrative capabilities not available in other tools.

5.1 WP1 work plan

TASK	DESCRIPTION	INPUT (FROM)	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
1A1	**Administrative management**	**EC guides**	**Management Reports**	**All, EC**	**1-FEB-2013**	**31-JUL-2015**		**UPC**	**Josep Vidal**
1.1	Coordination of cost statements and reporting to the EC		Cost statements and reports	EC	1-FEB-2013	31-JUL-2015	1	UPC	Josep Vidal
1.2	Preparation of Consortium Agreement	EC guides	Consortium Agreement	ALL	1-FEB-2013	30-ABR-2015	1	UPC	Josep Vidal
1.3	Preparation of Grant Agreement	EC guides	Grant Agreement	ALL	1-FEB-2013	30-ABR-2015	1	UPC	Josep Vidal
1.4	Participation in events organized by the EC: cluster meetings and FuNeMS		Events minutes		1-FEB-2013	31-JUL-2015	1	UPC	Josep Vidal
1.5	Schedule of plenary meetings	DoW, D22	Plenary meetings schedule	ALL	1-FEB-2013	31-JUL-2015	0.5	UPC	Josep Vidal
1.6	Management of contract amendments		Contract amendments	ALL	1-FEB-2013	31-JUL-2015	0.5	UPC	Josep Vidal
1.7	Preparation of Management Reports (quarterly, periodic and final)	EC guides	Management Reports	EC	1-FEB-2013	31-JUL-2015	1	UPC	Josep Vidal

TASK	DESCRIPTION	INPUT (FROM)	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
1.8	Creation, maintenance and update of TUCAN3G website	WPs	TUCAN3G website	ALL	1-FEB-2013	31-JUL-2015	1	UPC	Josep Vidal
1.9	Unique contact point with EC for any issue over the project lifetime			EC	1-FEB-2013	31-JUL-2015	0.5	UPC	Josep Vidal
1.10	Editorial review and delivery of documents to the EC	WPs		EC	1-FEB-2013	31-JUL-2015	1	UPC	Josep Vidal
1A2	**Technical management**	**DoW**	**Section 2 of D22**	**WP2**	**1-FEB-2013**	**31-JUL-2015**		**URJC**	**Andrés Martínez**
1A2.1	Definition of technical management responsibilities	DoW	Section 2 of D22	WP2	1-FEB-2013	31-MAY-2013	0.05	URJC	Andrés Martínez
1A2.1.1	Definition of activity tracking mechanisms	DoW	Section 2 of D22	WP2	1-FEB-2013	31-MAY-2013	0.05	URJC	Andrés Martínez
1A2.1.2	Definition of deviation detecting and mitigation mechanisms	DoW	Section 2 of D22	WP2	1-FEB-2013	31-MAY-2013	0.05	URJC	Andrés Martínez
1A2.2	**Quality/On-track management**	**D22**	**Comments for all partners**	**ALL**	**1-FEB-2013**	**31-JUL-2015**		URJC	Andrés Martínez

TASK	DESCRIPTION	INPUT (FROM)	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
1A2.2.1	Activity monthly checks	D22	Regular check for each activity, 5th of each month. Progress report check for the activities on 50% progress	ALL	1-FEB-2013	31-JUL-2015	2	URJC	Andrés Martínez
1A2.2.2	Deliverables and milestones tracking	D22	Deliverable and milestone review – only the activities with scheduled deliveries/milestone	ALL	1-FEB-2013	31-JUL-2015	2.85	URJC	Andrés Martínez
1A2.3	**Risk management**	**D22**	**Decisions on risk management**	**ALL**	1-FEB-2013	31-JUL-2015		URJC	Andrés Martínez
1A2.3.1	Monitoring defined risks	D22	Progress check on each possible risk	1A2.3.3 [URJC]	1-FEB-2013	31-JUL-2015	1	URJC	Andrés Martínez
1A2.3.2	Detecting new risks through defined deviation detecting mechanisms	D22	List of risks	1A2.3.3 [URJC]	1-FEB-2013	31-JUL-2015	1	URJC	Andrés Martínez
1A2.3.3	Discuss possible risks and take necessary actions in the monthly PCC meeting	List of risks	Risk evaluation and mitigation decisions	ALL	1-FEB-2013	31-JUL-2015	1	URJC	Andrés Martínez
1A2.4	**Reporting**	**DoW**	**Periodic reports for the EC**	**UPC**	1-FEB-2013	31-JUL-2015		URJC	Andrés Martínez
1.2.4.1	Perform Quarterly report	DoW	Quarterly report	UPC	1-FEB-2013	31-JUL-2015	1.5	URJC	Andrés Martínez

TASK	DESCRIPTION	INPUT (FROM)	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
1.2.4.2	Perform Annual report	DoW	Annual report	UPC	1-FEB-2013	31-JUL-2015	1.5	URJC	Andrés Martínez
1A2.5	**Technical Coordination**	**D22**	**PTC minutes**	**ALL**	**1-FEB-2013**	**31-JUL-2015**		**URJC**	**Andrés Martínez**
1A2.5.1	Quarterly Project technical committee meeting	D22	Minutes of the meeting	ALL	1-FEB-2013	31-JUL-2015	1	URJC	Andrés Martínez

5.2 WP2 work plan

TASK	DESCRIPTION	INPUT (FROM)	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
2A1	**Technical and socio-economic scenarios**	**DoW**	**Reference scenarios**	**WP2 leader**	**1-FEB-2013**	**31-MAR-2013**		**EHAS**	**Ignacio Prieto**
2A1.1	As WP2 leader, coordinate WP2 participants in order to define the tasks that will be performed in this WP, the information that will be exchanged, and its expected results. This information will be gathered in the D22.	DoW	Detailed work plan (Including interactions, detailed Gantt and deadlines).	2A4.9 [EHAS]	1-FEB-2013	04-mar-2013	0,25	EHAS	Ignacio Prieto

TASK	DESCRIPTION	INPUT (FROM)	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
2A1.2	Define, together with the rest of partners, the contents of D21 and D22. Reach an agreement on which partners will generate each section. Detail how information will be structured.	DoW	D21, and D22 tables of contents.	All	1-FEB-2013	04-mar-2013	0,25	EHAS	Ignacio Prieto
2A1.3	Describe the operational scenarios for rural areas of developing countries, specifying the case of Latin America.	State of the art	Scenarios of rural isolated areas of developing countries (Section 1.1 of D21) Scenarios of Latin America (Section 1.2 of D21)	2A2.5 [EHAS]	1-FEB-2013	12-abr-2013	1,25	EHAS	Ana Garcia
2A1.4	Contribute to the description of the operational scenarios for rural areas of Peru, identifying and describing potential target localities and end users (for different regions of Peru) based on the information of previous projects funded by FITEL.	data about projects funded by FITEL	Potential target localities and end users in rural Peru (Section 2.4.1 of D21)	2A2.5 [EHAS]	1-FEB-2013	05-abr-2013	0,25	FITEL	Ernesto Sánchez
2A1.5	Contribute to the description of the operational scenarios for rural areas of Peru, describing the services provided by operators in rural Peru and the issues related with these services.	TdP data and reports	Cellular Telephony and Internet accessing rural areas of Peru (Section 2.4.2 of D21)	2A2.5 [EHAS]	1-FEB-2013	05-abr-2013	0,5	TdP	Omar Tupayachi

TASK	DESCRIPTION	INPUT (FROM)	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
2A1.6	Provide realistic models of the deployed network (location, architecture, technologies, network elements, etc.).	PUCP and EHAS data	Description of Napo, Putumayo and Balsa Puerto Networks (Section 2.4.3 of D21)	2A2.5 [EHAS]	1-FEB-2013	05-abr-2013	1	PUCP	Juan Paco
2A1.7	Define the technological limits imposed by the access network.	State of the art about femtocells	Technological limits for access network (Section 3.1 of D21)	2A2.5 [EHAS]	1-FEB-2013	05-abr-2013	0,2	UPC	Adrián Agustín
2A1.8	Define the technological limits imposed by the transport network.	State of the art about transport technologies	Technological limits for transport networks (Section 4.1 of D21)	2A2.5 [EHAS]	1-FEB-2013	12-abr-2013	0,2	URJC	Javier Simó
2A2	**Requirements and specifications for transport and access networks**	**DoW**	**Technological perspectives**	**WP2 Leader**	**1-APR-2013**	**31-MAY-2013**		**EHAS**	**Ignacio Prieto**
2A2.1	Define, together with WP4 and WP5 leaders, the parameters that will be used to define the requirements and specifications for access and transport networks.	2A1.7 and 2A1.8	Detailed structure of section 2 and 3 of D21	2A2.2 [UPC] 2A2.3 [URJC]	1-MAR-2013	08-mar-2013	0,25	EHAS	Ignacio Prieto
2A2.2	Define technical requirements, the network elements, the laboratory simulation framework and the link characteristics for WP4.	2A1.7 and 2A2.1	Access networks perspectives (Sections 3.2, 3.3 and 3.4 of D21)	2A2.5 [EHAS]	1-MAR-2013	19-abr-2013	0,25	UPC	Adrián Agustín

TASK	DESCRIPTION	INPUT (FROM)	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
2A2.3	Define the technical requirements, the laboratory simulation framework and the link characteristics for WP5 (regarding WiLD and WIMAX technologies).	2A1.8 and 2A2.1	WiLD/WIMAX transport networks perspectives (Sections 4.2, 4.3 and 4.4 of D21)	2A2.5 [EHAS]	1-MAR-2013	19-abr-2013	0,25	URJC	Javier Simó
2A2.4	Define the technical requirements, the laboratory simulation framework and the link characteristic for backhauling through the satellite.	2A1.8 and 2A2.1	Satellite transport networks perspectives (Sections 4.2, 4.3 and 4.4 of D21)	2A2.5 [EHAS]	1-MAR-2013	19-abr-2013	0,25	TIWS	Mari Carmen Gómez / Enrique Gil
2A2.5	Gather the information regarding D21, coordinate its integration, and generate the draft version.	2A1	D21 draft	ALL	1-MAR-2013	10-may-2013	1	EHAS	Ignacio Prieto
2A2.6	Review of D21 draft version.	2A2.5	D21 2nd version	UPC	W1M4	24-may-2013	0,25	EHAS	Ignacio Prieto
2A2.7	Provide the work plan for WP4, first proposal should be submitted by 1th March. Special attentions should be paid to information needs from other WPs.	DoW	Detailed work plan (Including interactions, detailed Gantt and deadlines).	2A4.9 [EHAS]	1-FEB-2013	08-mar-2013	0,05	UPC	Adrián Agustín
2A2.8	Provide the work plan for WP5, first proposal should be submitted by 1th March. Special attentions should be paid to information needs from other WPs.	DoW	Detailed work plan (Including interactions, detailed Gantt and deadlines).	2A4.9 [EHAS]	1-FEB-2013	08-mar-2013	0,05	URJC	Javier Simó

TASK	DESCRIPTION	INPUT (FROM)	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
2A3	**Parameters and scope of market research and business models**	**2A1**	**Structure of the market research and business model**	**WP3**	**1-APR-2013**	**31-MAY-2013**		**EHAS**	**Ignacio Prieto**
2A3.1	Contribute to the description of the operational scenarios for rural areas of Colombia, identifying and describing potential target localities and end users based on existing studies.	existing studies of CREP	Potential target localities and end users in rural Colombia (Section 2.3.1 of D21)	2A2.5 [EHAS]	1-FEB-2013	12-abr-2013	0,25	CREP	Yuri Castillo
2A3.2	Contribute to the description of the operational scenarios for rural areas of Colombia, describing the services provided by operators in rural Colombia and the issues related with these services (based on existing studies).	existing studies	Cellular Telephony and Internet access in rural areas of Colombia (Section 2.3.2 of D21)	2A2.5 [EHAS]	1-FEB-2013	12-abr-2013	0,2	UCAU	Gustavo Ramírez
2A3.3	Identify, together with KINNO and FITEL, the information that will be required for defining the market research and business model, and what data is required for an adequate analysis of actors.	DoW	D23 table of contents and set of questions to be addressed	2A3.2 [UCAU] 2A3.4 [FITEL] 2A3.6 [TdP] 2A3.7 [IPA]	1-FEB-2013	08-mar-2013	0,25	EHAS	Ana García

TASK	DESCRIPTION	INPUT (FROM)	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
2A3.4	Provide public sector perspective and the analysis of public investment funds in telecommunication. Identify the research questions for the public sector actors.	2A3.3	Public sector perspective (Section 1.1.1 of D23) Research Questions for Public Sector (Section 2.1.1 of D23)	2A3.7 [KINNO] 2A3.12 [EHAS]	1-FEB-2013	22-mar-2013	0,45	FITEL	Ernesto Sánchez
2A3.5	Analyse the private and business users perspective. Identify the research questions for these groups.	2A3.3	Private and Business Users perspective (Section 1.1.2 of D23) Research Questions for private and business users (Section 2.1.2 of D23)	2A3.7 [KINNO] 2A3.12 [EHAS]	1-FEB-2013	22-mar-2013	0,25	TdP	Omar Tupayachi
2A3.6	Analyse the operators perspective. Identify the research questions for this group.	2A3.3	Operators perspective (Section 1.1.3 of D23) Research Questions for Operators (Section 2.1.3 of D23)	2A3.7 [KINNO] 2A3.12 [EHAS]	1-FEB-2013	22-mar-2013	0,25	TdP	Omar Tupayachi
2A3.7	Provide manufacturers perspective. Identify the research questions for this group.	2A3.3	Manufacturers perspective (Section 1.1.4 of D23) Research Questions for Manufacturers (Section 2.1.4 of D23)	2A3.7 [KINNO] 2A3.12 [EHAS]	1-FEB-2013	22-mar-2013	0,25	IPA	Kit Kilgour
2A3.8	Investigate and analyze similar initiatives worldwide in order to get some conclusions for this project	State of the art and online information on similar initiatives	Similar initiatives worldwide (Section 1.2 of D23)	2A3.7 [KINNO] 2A3.12 [EHAS]	1-MAR-2013	05-abr-2013	1	EHAS	Ana García

TASK	DESCRIPTION	INPUT (FROM)	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
2A3.9	Choice the quantitative and qualitative tools per target group (methodology to answer the research questions).	From 2A3.3 to 2A3.8	Research questions per target group (Section 2.2 of D23)	2A3.8 [KINNO] 2A3.11 [EHAS]	1-MAR-2013	12-abr-2013	0,25	KINNO	Konstantinos Fouskas
2A3.10	Perform the market research plan	2A3.9	Market research plan (Section 2.3 of D23)	2A3.11 [EHAS]	1-MAR-2013	03-may-2013	0,5	KINNO	Konstantinos Fouskas
2A3.11	Design the Business Model structure plan	2A3.10	Business Model Structure plan (Section 3.1 of D23)	2A3.12 [KINNO]	1-MAR-2013	26-abr-2013	0,25	CREP	Yuri Castillo
2A3.12	Design the Business Model development plan	2A3.11	Business Model development plan (Section 3.2 of D23)	2A3.13 [FITEL]	1-MAR-2013	03-may-2013	0,25	KINNO	Konstantinos Fouskas
2A3.13	Design the Business Model validation plan	2A3.13	Business Model validation plan (Section 3.3 of D23)	2A3.14 [EHAS]	1-APR-2013	03-may-2013	0,25	FITEL	Ernesto Sánchez
2A3.14	Gather the information of 2A3, integrate it in D23, and generate the draft version.	2A3.14	D23 Draft	ALL	1-MAR-2013	10-may-2013	0,5	EHAS	Ana García
2A3.15	Review of D22 draft version.	2A3.14	D22 2nd version	UPC	1-MAR-2013	24-may-2013	0,25	EHAS	Ana García
2A3.16	Provide the work plan for WP3, first proposal should be submitted by 1th March. Special attentions should be paid to information needs from other WPs.	DoW	Detailed work plan (Including interactions, detailed Gantt and deadlines).	2A4.9 [EHAS]	1-FEB-2013	08-mar-2013	0,05	FITEL	Ernesto Sánchez

TASK	DESCRIPTION	INPUT (FROM)	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
2A3.17	Provide the work plan for WP7, first proposal should be submitted by 1th March. Special attentions should be paid to information needs from other WPs.	DoW	Detailed work plan (Including interactions, detailed Gantt and deadlines).	2A4.9 [EHAS]	1-FEB-2013	08-mar-2013	0,05	UCAU	Álvaro Rendón
2A4	**Architecture for the demonstration platform**	**DoW**	**Proposal for the demonstration platform**	**WP6**	**1-APR-2013**	**31-MAY-2013**		**EHAS**	**Ignacio Prieto**
2A4.1	Mark the current and future limits of the access systems, and coordinate with TdP in order to define the process to interconnect the femtos controller to TdP's core network.	IPA background	current and future limits of IPA femtos, installation and configuration of NOS	2A4.2 [TdP]	1-MAR-2013	05-abr-2013	0,25	IPA	Kit Kilgour
2A4.2	Define the final compatibility tests that should be performed in the deployment scenarios, the protocol for NOS (femtos controller) connection, and provide the list of locations where connection to TdP’s core network is available.	Information about IPA NOS and TdP core network	Compatibility tests for pilot deployment (Section 5.2 of D21)	2A2.5 [EHAS]	1-MAR-2013	03-may-2013	0,25	TdP	Omar Tupayachi
2A4.3	Identify the limits of the deployed networks and propose a list of actions aimed to reinforce the sections of the networks used in the demonstration platform (including tentative budgets).	Description of networks and of technological limits performed in 2A1	Network reinforcement proposal (Section 5.4 of D21)	2A2.5 [EHAS]	1-MAR-2013	03-may-2013	1	PUCP	Juan Paco

TASK	DESCRIPTION	INPUT (FROM)	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
2A4.4	Define the deployment scenarios analyzing the different options (plan A and B), and reach an agreement on which localities will be selected and on which test will be carried out and which won't, and on the distribution of equipment.	2A4.1 and 2A4.3	Architecture of the proof of concept and proposal of target localities (Section 5.1 of D21)	2A4.5 [PUCP]	1-MAR-2013	03-may-2013	1,25	EHAS	Ignacio Prieto
2A4.5	Identify the test that will be performed on the demonstrative platform, based on the laboratory tests defined by 2A2.3 [UPC] & 2A2.3 [URJC] & 2A2.4 [TIWS]	laboratory simulation frameworks defined in 2A2	Performance tests for the demonstration platform (Section 5.3 of D21)	2A2.5 [EHAS]	1-MAR-2013	03-may-2013	0,45	PUCP	Juan Paco
2A4.6	Provide the work plan for WP6, first proposal should be submitted by 1th March. Special attentions should be paid to information needs from other WPs.	DoW	Detailed work plan (Including interactions, detailed Gantt and deadlines).	2A4.9 [EHAS]	1-FEB-2013	08-mar-2013	0,05	PUCP	Juan Paco
2A4.7	Analyze the interactions between WPs and check that are clearly defined and that timing is suitable. Describe the project organization chart based on the information provide by all partners.	Work plan from all work packages	INTERACTIONS BETWEEN WPS (Section 3 of D22)	2A4.9 [EHAS]	1-FEB-2013	05-abr-2013	0,5	EHAS	Ignacio Prieto

TASK	DESCRIPTION	INPUT (FROM)	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
2A4.8	Work with the technical coordinator to define the mechanism for technical supervision and the methodology to be used in case of deviations	2A4.7	Mechanisms for technical supervision and methodology in case of deviations (Section 5 of D22)	2A4.9 [EHAS]	1-FEB-2013	03-may-2013	0,25	EHAS	Ignacio Prieto
2A4.9	Gather the information regarding coordination, integrate it in D22, and generate the draft version.	2A4.7	D22 draft	ALL	1-MAR-2013	10-may-2013	0,5	EHAS	Ignacio Prieto
2A4.10	Review of D22 draft version.	2A4.9	D22 2nd version	UPC	1-MAR-2013	24-may-2013	0,25	EHAS	Ignacio Prieto

5.3 WP3 work plan

TASK	DESCRIPTION	INPUT (FROM)	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
3A1	**Market Research**	**D23**	**D3.1 Market Research**	**3A2 [CREPIC], 3A3 [TdP]**	**1-JUN-2013**	**30-SEP-2013**		**KiNNO**	Konstantinos Fouskas
3A1.1	**Design of Market Research**	**D23**	**Market research design**	**3A1.2 [FITEL]**	**1-JUN-2013**	**15-JUL-2013**		**KiNNO**	Konstantinos Fouskas
3A1.1.1	Collection of data for possible localities (economic sectors, potential applications, socioeconomic structure of population)	D21	Summary of data for possible localities	3A1.1.2 [KiNNO]	1-JUN-2013	15-JUL-2013	0,25	FITEL	Ernesto Sánchez
3A1.1.2	Criteria for localities selection	3A1.1.1	List of criteria	3A1.1.3 [KiNNO]	1-JUN-2013	15-JUL-2013	0,25	KiNNO	Konstantinos Fouskas
3A1.1.3	Development of Methodological Tools (questionnaires and focus group questions)	3A1.1.2	questioner and group interview guides	3A1.1.4 [UCAU]	1-JUN-2013	15-JUL-2013	1	KiNNO	Konstantinos Fouskas
3A1.1.4	Testing and localization of Methodological Tools	3A1.1.4	Evaluation of the methodological tools	3A1.2 [FITEL]	1-JUN-2013	15-JUL-2013	0,25	UCAU	Gustavo Ramírez
3A1.2	**Execution of Market Research**	**3A1.1**	**Market research data**	**3A1.3 [KiNNO]**	**16-JUL-2013**	**31-AUG-2013**		**FITEL**	Ernesto Sánchez
3A1.2.1	Market Survey of potential users in Colombia (private and institutional)	3A1.1.4	Results of market survey in Colombia	3A1.3.1 [FITEL]	16-JUL-2013	31-AUG-2013	1	CREPIC	Yuri Castillo

TASK	DESCRIPTION	INPUT (FROM)	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
3A1.2.2	Market Survey of potential users in Peru (private and institutional)	3A1.1.4	Results of market survey in Peru	3A1.3.2 [CREPIC]	16-JUL-2013	31-AUG-2013	1	FITEL	Ernesto Sánchez
3A1.2.3	Focus groups / Interviews with other Demand Side Stakeholders	3A1.1.4	Forms with the information collected in demand side interviews	3A1.3.2 [EHAS]	16-JUL-2013	31-AUG-2013	0,5	EHAS	Ana García
3A1.2.4	Focus groups / Interviews with Supply Side Stakeholders	3A1.1.4	Forms with the information collected in supply side interviews	3A1.3.2 [EHAS]	16-JUL-2013	31-AUG-2013	0,5	TdP	Omar Tupayachi
3A1.3	**Analysis of results**	**3A1.4**	**D3.1 Market Research**	**3A2 [FITEL]**	**1-SEP-2013**	**30-SEP-2013**		**KiNNO**	Konstantinos Fouskas
3A1.3.1	Analysis of market surveys in Colombia and Peru (private and institutional)	3A1.1.4	Statistical Analysis for Colombian Market Survey	3A1.3.4 [KiNNO]	1-SEP-2013	31-AUG-2013	0,5	FITEL	Ernesto Sánchez
3A1.3.2	Analysis of market surveys in Colombia and Peru (private and institutional)	3A1.4.1	Statistical Analysis for Peruvian Market Survey	3A1.3.4 [KiNNO]	1-SEP-2013	31-AUG-2013	0,5	CREPIC	Yuri Castillo
3A1.3.3	Analysis of focus groups	3A1.2.3 & 3A1.2.4	Statistical Analysis of focus groups	3A1.3.4 [KiNNO]	1-SEP-2013	31-AUG-2013	0,75	EHAS	Ana García
3A1.3.4	Synthesis and presentation of results - Input to pilot testing	3A1.3.1, 3A1.3.2 & 3A1.3.3	**D3.1 Market Research**	3A2 [FITEL] WP6 [PUCP]	1-SEP-2013	30-SEP-2013	1	KiNNO	Konstantinos Fouskas
3A2	**Demand Side Analysis**	**3A1**	**Analysis of demand for D34**	**3A4 [FITEL]**	**1-SEP-2013**	**30-APR-2014**		**CREPIC**	**Yuri Castillo**

TASK	DESCRIPTION	INPUT (FROM)	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
3A2.1	**Development of value proposition**	**3A1**	**Proposal for adding value**	**3A4 [FITEL]**	**1-SEP-2013**	**30-APR-2014**		**EHAS**	Ana García
3A2.1.1	Development of value proposition	3A1	Value proposition for D34	3A2.2.1 [CREPIC]	1-SEP-2013	30-APR-2014	0,25	EHAS	Ana García
3A2.1.2	Development of value proposition	3A1	Value proposition for D34	3A2.2.1 [CREPIC]	1-SEP-2013	30-APR-2014	0,25	KiNNO	Konstantinos Fouskas
3A2.2	**Customer Segmentation. Relationships and Channels**	**3A1.3.4**	**Explanation of the relationship with customers (D34)**	**3A4 [FITEL]**	**1-SEP-2013**	**30-APR-2014**		**CREPIC**	**Yuri Castillo**
3A2.2.1	Identification of customer segmentation (private and institutional)	3A1.3.4	Customer segmentation for D34	3A2.2.2 [FITEL]	1-SEP-2013	30-APR-2014	0,5	CREPIC	Yuri Castillo
3A2.2.2	Identification of customer relationships	3A1.3.4	Customer relationships for D34	3A2.2.3 [EHAS]	1-SEP-2013	30-APR-2014	0,5	FITEL	Ernesto Sánchez
3A2.2.3	Identification of customer channels	3A1.3.4	Customer channels for D34	3A2.3.1 [TdP]	1-SEP-2013	30-APR-2014	0,5	EHAS	Ana García
3A2.3	**Revenue and Funding Model**	**3A1**	**Identification of revenue and funding models (D34)**	**3A2.4.1 [FITEL]**	**1-SEP-2013**	**30-APR-2014**		FITEL	Ernesto Sánchez
3A2.3.1	Identification of Revenue Model	3A1	Revenue model for D34	3A2.3.2 [FITEL]	1-SEP-2013	30-APR-2014	1	TdP	Omar Tupayachi

TASK	DESCRIPTION	INPUT (FROM)	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
3A2.3.2	Identification of additional funding Models	3A1	Additional funding models for D34	3A2.4.1 [FITEL]	1-SEP-2013	30-APR-2014	0,75	FITEL	Ernesto Sánchez
3A2.4	**Vision and Mission**	**3A1**	**Vision and mission for the business model (D34)**	**3A4 [FITEL]**	**1-SEP-2013**	**30-NOV-2013**		**FITEL**	Ernesto Sánchez
3A2.4.1	Identification of Mission and Vision Peru	3A1	Mission and Vision for Peru (D34)	3A2.4.3 [EHAS]	1-SEP-2013	30-NOV-2013	0,25	FITEL	Ernesto Sánchez
3A2.4.2	Identification of Mission and Vision Colombia	3A1	Mission and Vision for Colombia (D34)	3A2.4.3 [EHAS]	1-SEP-2013	30-NOV-2013	0,25	CREPIC	Yuri Castillo
3A2.4.3	Identification of Mission and Vision Worldwide	3A1	Mission and Vision Worldwide (D34)	3A4.2 [KiNNO]	1-SEP-2013	30-NOV-2013	0,25	EHAS	Ana García
3A2.5	**Portfolio of products and services**	**3A1 and 3A2**	**Milestone 32**	**UPC**	**1-MAY-2013**	**31-DIC-2013**	**0,25**	**KiNNO**	**Konstantinos Fouskas**
3A2.5.1	Information for developing the proposal of products and services	3A1, 3A2, and KINNO requirements	Input and feedback for developing the proposal of products and services	3A2.5 KiNNO	1-MAY-2013	31-DIC-2013	0,25	FITEL	Ernesto Sánchez
3A2.5.2	Information for developing the proposal of products and services	3A1, 3A2, and KINNO requirements	Input and feedback for developing the proposal of products and services	3A2.5 KiNNO	1-MAY-2013	31-DIC-2013	0,25	CREPIC	Yuri Castillo

TASK	DESCRIPTION	INPUT (FROM)	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
3A3	**Supply Side Analysis**	**3A1**	**Analysis of supply for D34**	**3A4 [FITEL]**	**1-SEP-2013**	**30-APR-2014**		**TdP**	**Omar Tupayachi**
3A3.1	**Identification of Critical Success Factors**	**3A3.1.1 and 3A3.1.2**	**Description of Critical success (D34)**	**3A4 [FITEL]**	**1-SEP-2013**	**30-APR-2014**		**KiNNO**	**Konstantinos Fouskas**
3A3.1.1	Identification of Business Critical Success Factors	3A.1	Business Critical Success Factors (D34)	3A3.1 [KiNNO]	1-SEP-2013	30-APR-2014	1	KiNNO	Konstantinos Fouskas
3A3.1.2	Identification of Technical Critical Success Factors	D21	Technical Critical Success Factors (D34)	3A3.1 [KiNNO]	1-SEP-2013	30-APR-2014	0,5	UCAU	Gustavo Ramírez
3A3.2	**Cost structure**	**D21**	**Description of cost structure for D32**	**3A4 [FITEL]**	**1-SEP-2013**	**30-APR-2014**		TdP	Omar Tupayachi
3A3.2.1	Identification of Cost Structure CAPEX	D21	Description of CAPEX for D32	3A3.2 [TdP]	1-SEP-2013	30-APR-2014	0,5	EHAS	Ana García
3A3.2.2	Identification of Cost Structure OPEX	D21	Description of OPEX for D32	3A3.2 [TdP]	1-SEP-2013	30-APR-2014	0,25	TdP	Omar Tupayachi
3A3.3	**Identification of Key resources**	**3A3.1**	**Description of key resources for D34**	**3A4 [FITEL]**	**1-SEP-2013**	**30-APR-2014**		**IPA**	Kit Kilgour
3A3.3.1	Identification of Key Technical resources (Devices, Networks etc.) required	D21	Description of key technical resources for D34	·3A3.3 [IPA]	1-SEP-2013	30-APR-2014	0,5	IPA	Kit Kilgour
3A3.3.2	Identification of Key Business resources required	3A.1	Description of key business resources for D34	3A3.3 [IPA]	1-SEP-2013	30-APR-2014	0,5	TdP	Omar Tupayachi

TASK	DESCRIPTION	INPUT (FROM)	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
3A3.4	**Identification of Key activities**	**3A3.1**	**Description of key activities**	**3A3.5 [TdP]**	**1-SEP-2013**	**30-APR-2014**		**FITEL**	**Ernesto Sánchez**
3A3.4.1	Identification of Key Technical activities required	4A2.4, 5A1.11	Description of key technical activities for D34	3A3.5.1 [IPA]	1-SEP-2013	30-APR-2014	0,5	TdP	Omar Tupayachi
3A3.4.2	Identification of Key Business activities required	WP3A.1	Description of key business activities for D34	3A3.5.2 [EHAS]	1-SEP-2013	30-APR-2014	0,5	FITEL	Ernesto Sánchez
3A3.5	**Identification of Key partners**	**3A3.4**	**Description of key partners**	**3A4 [FITEL]**	**1-SEP-2013**	**30-APR-2014**		**TdP**	Omar Tupayachi
3A3.5.1	Identification of Key Technical partners required	4A2.4, 5A1.11	Description of key technical partners for D34	3A4.2 [KiNNO]	1-SEP-2013	30-APR-2014	0,5	IPA	Kit Kilgour
3A3.5.2	Identification of Key Business partners required	WP3A.1	Description of key business partners for D34	3A4.2 [KiNNO]	1-SEP-2013	30-APR-2014	0,5	EHAS	Ana García
3A3.6	**Costs budget, financial models and key indicators**	**3A3**	**Milestone 33**	**UPC**	**1-JAN-2014**	**30-APR-2014**	**0,25**	**FITEL**	**Ernesto Sánchez**
3A4	**Business Model Design and Verification**	**3A2, 3A3, WP4 & WP5**	**D34 - Tucan Business Model**	**[FITEL]**	**30-APR-2014**	**31-MAY-2015**		**FITEL**	**Ernesto Sánchez**
3A4.1	**Design of the Business Model**	**3A2, 3A3**	**Preliminaryu Tucan3g Business Model**	**3A4.2 [KINNO]**	**30-APR-2014**	**1-OCT-2014**		**KiNNO**	Konstantinos Fouskas
3A4.1.1	Design of the Business Model	3A2, 3A3	Preliminaryu Tucan3g Business Model	3A4.2 [KINNO]	30-APR-2014	31-MAR-2015	1	KiNNO	Konstantinos Fouskas
3A4.2	**Refinement of supply side analysis according to pilot results**	**4A2.4,** 5A1.11 **&** 6A5.4.1	**Modifications for the supply side analysis for D34**	**3A4.3 [KiNNO]**	**1-OCT-2014**	**31-MAR-2015**		**FITEL**	Ernesto Sánchez

TASK	DESCRIPTION	INPUT (FROM)	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
3A4.2.1	Refinement of supply side analysis according to WP4, WP5 and WP6 results	**4A2.4,** 5A1.11, 6A5.4.1	Modifications for the supply side analysis for D34	3A4.3.1 [KINNO]	1-OCT-2014	31-MAR-2015	1	**FITEL**	Ernesto Sánchez
3A4.3	**Refinement of demand side analysis according to pilot results**	6A5.4.1	**Refinement of demand side analysis (D34)**	**3A4.3 [KiNNO]**	**1-OCT-2014**	**31-MAR-2015**		**KiNNO**	Konstantinos Fouskas
3A4.3.1	Refinement of demand side analysis according to WP4 & WP5 results	6A5.4.1	Refinement of demand side analysis	3A4.3.1 [KINNO]	1-OCT-2014	31-MAR-2015	1	**KiNNO**	Konstantinos Fouskas
3A4.5	**Verification of Business Model through dissemination to relevant stakeholders**	**M33**	**D34 - Verification of Business Model**	**3A4.6**	**1-NOV-2014**	**31-MAR-2015**		**FITEL**	Ernesto Sánchez
3A4.5.1	Validation of the Business Model through dissemination to Institutional Stakeholder	3A4.3.1	D34 - Business Model Institutional validation	3A4.6.1 [FITEL]	1-NOV-2014	31-MAR-2015	0,75	**EHAS**	Ana García
3A4.5.2	Validation of the Business Model through dissemination to Operators and technical Stakeholder	3A4.3.1	D34 - Business Model stakeholder validation	3A4.6.1 [FITEL]	1-NOV-2014	31-MAR-2015	0,25	**TdP**	Omar Tupayachi
3A4.5.3	Validation of the Business Model through dissemination to governmental and business stakeholders (Colombia)	3A4.3.1	D34 - Business Model stakeholder validation in Colombia	3A4.6.1 [FITEL]	1-NOV-2014	31-MAR-2015	0,75	**CREPIC**	Yuri Castillo
3A4.5.4	Validation of the Business Model through dissemination to governmental and business stakeholders (Peru)	3A4.3.1	D34 - Business Model stakeholder validation in Peru	3A4.6.1 [FITEL]	1-NOV-2014	31-MAR-2015	0,25	**FITEL**	Ernesto Sánchez
3A4.6	**Development of the Final Tucan 3g Business Plan**	**3A4.5**	**D34 - Tucan Business Model**	**WP3 [FITEL]**	1-APR-2014	31-MAY-2015		**FITEL**	Ernesto Sánchez

TASK	DESCRIPTION	INPUT (FROM)	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
3A4.6.1	Development of the Final Tucan3g Business Plan	3A4.3	D34 - Tucan Business Model	3A4.6.2 [KiNNO]	1-APR-2014	31-MAY-2015	1	**FITEL**	Ernesto Sánchez
3A4.6.2	Presentation of the Final Tucan3g Business Plan	3A4.6.1	D34 - Tucan Business Model	3A4.6 [FITEL]	1-APR-2014	31-MAY-2015	0,25	**KiNNO**	Konstantinos Fouskas
3A4.7	**Description of business model methodology**	**3A4**	**Milestone 34**	**UPC**	**1-APR-2014**	**31-JAN-2015**	**0,25**	**KiNNO**	**Konstantinos Fouskas**

5.4 WP4 work plan

TASK	DESCRIPTION	INPUT (FROM)	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
4A1	**Network dimensioning**	**D21**	**D41**	**WP6 [PUCP]**	**1-APR-2013**	**31-JUL-2013**		**UPC**	**Adrián Agustín**
4A1.1	Provision of local traffic models and long haul traffic models	TdP data	Traffic evolution forecast in a 4 years period. Traffic Evolution along the day	WP3 [FITEL]	1-APR-2013	31-JUL-2013	1	TdP	Omar Tupayachi
4A1.2	Network dimensioning/planning study of 3G access networks in TUCAN3G assuming no specific energy consumption models	WP2	Recommendations for deployment using conventional energy management strategies	WP6 [PUCP]	1-APR-2013	31-JUL-2013	1	TdP	Omar Tupayachi

TASK	DESCRIPTION	INPUT (FROM)	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
4A1.3	Develop a comprehensive HBN-based network planning tool including energy consumption constraints	WP2	Recommendations for deployment using energy-aware management femtos.	WP6 [PUCP]	1-APR-2013	31-JUL-2013	2,5	UPC	Adrián Agustín
4A2	**Femtocell network optimization and monitoring**	**D21**	**D42**	**WP6 [PUCP]**	**1-APR-2013**	**31-MAR-2014**		**UPC**	**Adrián Agustín**
4A2.1a	Search and Review/Definition/ Development of unsupervised methods to collect network connectivity information	Specifications of NOS (IPA). Traffic load. Available energy at every BS	Definition and implementation of procedures	WP6 (if procedures are supported by the current HW)	1-APR-2013	31-MAR-2014	1,5	UPC	Adrián Agustín
4A2.1b	Search and Review/Definition/ Development of unsupervised methods to collect network connectivity information	Specifications of NOS (IP.Access). Traffic load. Available energy at every BS	Definition and implementation of procedures	WP6 (if procedures are supported by the current HW)	1-APR-2013	31-MAR-2014	1	IPA	Kit Kilgour
4A2.2a	Development of unsupervised methods to manage interference and coverage. Frequency planning, Switch on/off HNB, Selection of fraction of power associated to pilots	Specifications of NOS (IP.Access). Traffic load. Available energy at every BS	Definition and implementation of procedures	WP6 (if procedures are supported by the current HW)	1-APR-2013	31-MAR-2014	4	UPC	Adrián Agustín

TASK	DESCRIPTION	INPUT (FROM)	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
4A2.2b	Development of unsupervised methods to manage interference and coverage. Frequency planning, Switch on/off HNB, Selection of fraction of power associated to pilots	Specifications of NOS (IP.Access). Traffic load. Available energy at every BS	Definition and implementation of procedures	WP6 (if procedures are supported by the current HW)	1-APR-2013	31-MAR-2014	1	IPA	Kit Kilgour
4A2.3	Comprehensive joint network optimization	TBC	TBC	WP6 (if procedures are supported by the current HW)	1-APR-2013	31-MAR-2014	2	URJC	Antonio Marques
4A2.4	**Procedures for UMTS/HSPA network optimization and control**	**4A2**	**M42**	**UPC**	**1-MAR-2013**	**30-SEP-2013**		**UPC**	**Adrián Agustín**
4A3	**Access and transport network interoperability**	**WP2**	**D43**	**WP6 [PUCP], WP7 [UCAU]**	**1-JUL-2013**	**31-JUL-2014**		**UPC**	**A. Pascual**
4A3.1	Benefits of traffic offloading	Local traffic demand models and long haul traffic demand models (4A1)	Evaluation of backhaul congestion and recommendations of per-hop backhaul capacity needs as a function of traffic evolution	WP4 LEADER [UPC]	1-JUL-2013	30-JUN-2014	1,5	URJC	Antonio Marques

TASK	DESCRIPTION	INPUT (FROM)	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
4A3.2a	Proposal of traffic offloading techniques and architecture elements	Procedures and evaluation results of 4A3.1	Recommendations for implementation and standardization	WP6 [PUCP], WP7 [UCAU]	1-JUL-2013	30-JUN-2014	1	IPA	Kit Kilgour
4A3.2b	Proposal of traffic offloading techniques and architecture elements	Procedures and evaluation results of 4A3.1	Recommendations for implementation and standardization	WP6 [PUCP], WP7 [UCAU]	1-JUL-2013	30-JUN-2014	1	TdP	Omar Tupayachi
4A3.3	Single-HNB channel state-aware packet scheduling	Local traffic demand, state of the network (short term)	Procedures to be fed to task 4A3.4 and possibly to WP6	WP7 [UCAU]	1-JUL-2013	30-JUN-2014	1	UPC	A. Pascual
4A3.4a	Multiple-HNB channel state-aware packet scheduling	Local traffic demand, state of the network (short term)	Possibly, procedures to be fed to WP6	WP7 [UCAU]	1-JUL-2013	30-JUN-2014	1	URJC	Antonio Marques
4A3.4b	Multiple-HNB channel state-aware packet scheduling	Local traffic demand, state of the network (short term)	Possibly, procedures to be fed to WP6	WP7 [UCAU]	1-JUL-2013	30-JUN-2014	1,75	UPC	A. Pascual
4A3.5	Influence of transport network over the access network	TBC	TBC	WP7 [UCAU]	1-JUL-2013	30-JUN-2014	1	URJC	Antonio Marques
4A3.6	Multiple flows control management	4A3	M43	UPC	1-JUL-2013	31-DIC-2013	0,25	UPC	A. Pascual

TASK	DESCRIPTION	INPUT (FROM)	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
4A4	**Beyond 3G-based access**	**4A2, 4A3**	**D44**	**WP7 [UCAU]**	**1-APR-2014**	**31-NOV-2014**		**UPC**	**Adrián Agustín**
4A4.1	Beyond 3G-based access	TBC	TBC	WP7 [UCAU]	1-APR-2014	31-DIC-2014	1	IPA	Kit Kilgour
4A4.2a	Extension of 4A2 techniques to LTE/LTE-A	4A4, 4A2	network optimization and monitoring with LTE/LTE-A (D44)	WP7 [UCAU]	1-APR-2014	31-DIC-2014	1,5	UPC	Adrián Agustín
4A4.2b	Extension of 4A2 techniques to LTE/LTE-A	4A4, 4A2	network optimization and monitoring with LTE/LTE-A (D44)	WP7 [UCAU]	1-APR-2014	31-DIC-2014	1,5	URJC	Antonio Marques
4A4.3a	Extension of 4A3 techniques to LTE/LTE-A	4A4, 4A3	Access and transport network interoperability with LTE/LTE-A (D44)	WP7 [UCAU]	1-APR-2014	31-DIC-2014	1,25	UPC	Adrián Agustín
4A4.3b	Extension of 4A3 techniques to LTE/LTE-A	4A4, 4A3	Access and transport network interoperability with LTE/LTE-A (D44)	WP7 [UCAU]	1-APR-2014	31-DIC-2014	1,5	URJC	Antonio Marques
4A4.4	Specification of features for the reference LTE access network	4A4	M44	UPC	1-APR-2014	30-JUN-2014	0,25	UPC	Adrián Agustín

5.5 WP5 work plan

TASK	DESCRIPTION	INPUT (FROM)	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
5A1	**Usage terms of WiFi, WiMAX and VSAT links**	**D21**	**D51**	**[UPC] 5A2 [URJC]**	**1-MAY-2013**	**31-AUG-2013**		**URJC**	**Javier Simó**
5A1.1	EHAS provides URJC with requirements from WP5. URJC disseminates the info to partners. corresponding to their roles in WP5	Reqs (EHAS)	Specifications for WP5 completely defined	WP5 PARTNERS	1-FEB-2013	1-MAR-2013	0,25	URJC	Javier Simó
5A1.2	URJC recovers and analyses all the information available about 802.11 (a/b/g/e/n), MIMO in 11n, wifi-bonding and alternative MACs	State of the Art (URJC)	Chapter describing systematically WiLD alternatives in detail; advantages, limitations, expected performance and tests	5A1.13 [URJC], 5A1.10 [URJC]	1-MAR-2013	30-JUN-2013	1,5	URJC	Javier Simó
5A1.3	URJC recovers and analyses all the information available about 802.16-2009 applied to long-distance links	State of the Art (URJC)	Chapter describing systematically how WiMAX can be applied for rural transport networks; advantages, limitations, expected performance and tests	5A1.13 [URJC], 5A1.10 [URJC]	1-MAY-2013	31-MAY-2013	0,75	URJC	Eduardo Morgado

TASK	DESCRIPTION	INPUT (FROM)	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
5A1.4	TIWS prepares a systematic study based on their experience and knowledge and on the SoA about what technologies, standards and commercial products are available and usable that may fit into an heterogeneous wireless broadband backhaul for femtocells	Previous experience and knowledge & State of the Art (TIWS)	Chapter describing systematically VSAT alternatives in detail, advantages, limitations, performance and tests	5A1.13 [URJC], 5A1.10 [URJC]	1-MAR-2013	30-JUN-2013	1	TIWS	Mari Carmen Gómez / Enrique Gil
5A1.5	URJC obtains a space and prepares it for the laboratory tests in WP5.	Authorization of use, furniture, installations (URJC)	Laboratory available and ready to install equipment	5A1.7 [URJC]	1-MAR-2013	30-APR-2013	0,5	URJC	Javier Simó
5A1.6	Prepare a server with UBUNTU/Linux and with the NS-3 simulator installed and working in it. Learn how to use it properly. Documentation and templates that facilitate its use. Test with PtP links using VSAT, WiLD and WiMAX.	Person trained & Server available (URJC)	Server with simulator and documentation ready	5A1.7 [URJC]	1-MAY-2013	30-JUN-2013	1	URJC	Lorena Fernández

TASK	DESCRIPTION	INPUT (FROM)	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
5A1.7	Hardware tests with WiLD and WiMAX in point to point links. Results compared with simulation results and with theoretical expectations.	Channel emulator and hardware available (URJC). Software tools ready (5A1.9)	Results from tests	5A1.13 [URJC], 5A1.10 [URJC]	1-JUL-2013	31-JUL-2013	1,25	URJC	Researcher #1 to be hired
5A1.8	Measurements in real PtP links using WiLD and/or WiMAX for comparison with laboratory tests, simulations and calculations.	Available real networks with WiLD and/or WiMAX links (PUCP). Specifications for measurements (URJC)	Results from measurements (URJC)	5A1.13 [URJC], 5A1.10 [URJC]	1-MAY-2013	30-JUN-2013	0,75	PUCP	River Quispe
5A1.9	Study how IP traffic control may contribute with required functionality for QoS support that provides, together with WiLD or WiMAX, the expected service level to upper layers.	State of the Art	Chapter describing proposed techniques and expected results	5A1.13 [URJC], 5A1.10 [URJC]	1-APR-2013	30-JUN-2013	0,75	UCAU	Iván Hernández

TASK	DESCRIPTION	INPUT (FROM)	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
5A1.10	One or two day's seminar where PUCP, UCAU, TIWS and URJC meet and share their knowledge and findings in these activities.	All previous tasks completed in this activity (WP5)	Each partner has a better understanding about all the technologies	WP5 [URJC]	1-JUL-2013	31-JUL-2013	0,25	URJC, PUCP, TIWS, UCAU	Javier Simó
5A1.11	PUCP takes all the results in this activity and prepares a report addressed to non-technical readers that may prepare a business model based on the advantages, disadvantages, costs, limitations, conditions, etc. of VSAT, WiLD and WiMAX as transport technologies for the backhaul of rural femtocells.	Partial achievement of 5A1.13 (URJC)	Document presenting relevant information from 5A1 to WP3	FITEL	1-JUL-2013	31-JUL-2013	0,5	PUCP	Juan Paco
5A1.12	PUCP takes all the results in this activity and prepares a report addressed to the partners in charge of WP6 aiming to guide the decisions related to selection of technologies and network design for the real test beds.	Partial achievement of 5A1.13 (URJC)	Document presenting relevant information from 5A1 to WP6	PUCP	1-AUG-2013	31-AUG-2013	0,5	PUCP	Juan Paco

TASK	DESCRIPTION	INPUT (FROM)	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
5A1.13	URJC takes the results from this activity and prepares the first deliverable D51.	All previous tasks completed in this activity (WP5) and chapters written and data from all other partners (UCAU, TIWS and PUCP)	**D51**	UPC	1-JUL-2013	31-AUG-2013	0,5	URJC	Javier Simó
5A2	**Heterogeneous transport network architecture for the backhaul**	**D51**	**D52**	**[UPC] 5A3 [URJC]**	**1-MAY-2013**	**30-APR-2014**		**URJC**	**Javier Simó**
5A2.1	Define how VSAT, WiLD and WiMAX may be combined in heterogeneous backhaul networks. Role of each technology, limitations, high-level description of interfaces and interactions.	D51 (URJC)	Chapter describing the architecture	5A2.12, 5A2.5	1-MAY-2013	31-JUL-2013	0,5	URJC	Javier Simó

TASK	DESCRIPTION	INPUT (FROM)	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
5A2.2	Define how WiMAX+IP and WiFi-EDCA+IP must be put together in order to provide a well defined end-to-end QoS support. Interactions, configuration mappings, limitations, etc.	PFM by Nydia Mendiola (URJC) and previous SoA and work by Iván Hernández (UCAU)	Chapter describing the W2W interface	5A2.12, 5A2.5	1-MAY-2013	30-SEP-2013	0,75	UCAU	Iván Hernández

TASK	DESCRIPTION	INPUT (FROM)	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
5A2.3	Define how the access network interfaces the transport network, what information exchanges are needed for the access network to take the right access control decisions.	Info on from IPA about femtos: management interface, low-level configurable parameters, info required by the femto controller (IPA). SoA. Info from TIWS about their experience with VSAT as backhaul (TIWS)	Chapter describing the formal interface TN-AN	5A2.12, 5A2.5	1-AUG-2013	31-EN-2014	0,75	URJC	Carlos Figuera

TASK	DESCRIPTION	INPUT (FROM)	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
5A2.4	Define how VSAT systems acting as gateways from the rural transport network to the Internet and the operator's core network should interface WiLD/WiMAX/femtos for optimal QoS support.	Specifications and info about WiLD and WiMAX (URJC). Formal interface TN-AN (URJC)	Chapter describing the functionality and interface provided by VSAT for adaptation to WiLD or WiMAX, or for direct backhaul to femtos	5A2.12 [UCAU], 5A2.5 [URJC]	1-SEP-2013	31-EN-2014	1	TIWS	Mari Carmen Gómez / Enrique Gil
5A2.5	Transport network architecture and interface to the access network	Results from previous activities (URJC, TIWS and UCAU)	**M52**	5A2.12 [UCAU], UPC	1-NOV-2013	30-NOV-2013	0,5	URJC	Javier Simó
5A2.6	Planning the laboratory test bed with VSAT, WiMAX and WiLD systems in collaboration with UCAU and TIWS.	DoW, info from providers, evaluation by TIWS of VSAT terminals in URJC.	List of required new hw equipment, clearly identifying models, quantities and prices	PUCP	1-MAY-2013	31-MAY-2013	0,5	URJC	Eduardo del Arco

TASK	DESCRIPTION	INPUT (FROM)	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
5A2.7	Coordinate with PUCP the purchase of hardware equipment's for the laboratory	Funds from FITEL available or advanced by PUCP (PUCP). 5A2.6	HW purchased, received and installed in laboratory	URJC	1-JUN-2013	31-JUL-2013	0,5	URJC	Javier Simó
5A2.8	Coordinate with URJC the purchase of hardware equipment for the laboratory	Funds from FITEL available, 5A2.6	HW purchased and sent	URJC	1-JUN-2013	31-JUL-2013	0,5	PUCP	Juan Paco
5A2.9	Collaborate with URJC in the installation of the laboratory test bed, specifically contributing with the software tools for traffic injection, and document it.	Previous work with traffic injectors (UCAU, URJC) and SoA. 5A2.7 achieved.	Traffic injectors installed in laboratory, tested and documented	URJC	1-JUL-2013	30-NOV-2013	0,25	UCAU	Iván Hernández

TASK	DESCRIPTION	INPUT (FROM)	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
5A2.10	Purchase and install a femtocell in the laboratory in URJC, and configure it to work with the femto controller in Telefonica-Peru	Femto controller installed & operating in Peru (TdP, IPAS). Information about how femtos are installed, linked to the controller & operated (TdP, IPA). Femto purchased (URJC, PUCP)	Femto operating and tested	URJC	1-DIC-2013	31-EN-2014	0,75	URJC	Researcher #1 to be hired
5A2.11	Design and execute systematic tests in laboratory.	Laboratory ready (HW and SW) (URJC, UCAU)	Tests designed and documented. Results recovered and analyzed (UCAU, URJC)	5A2.12 [UCAU]	1-NOV-2013	31-MAR-2014	1,5	URJC	Researcher #1 to be hired

TASK	DESCRIPTION	INPUT (FROM)	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
5A2.12	Take the different document parts produced by previous tasks in this activity and compose D52.	All previous tasks completed in this activity (WP5)	**D52**	UPC	1-MAR-2014	30-APR-2014	0,5	UCAU	Iván Hernández
5A3	**Transport network optimization**	**5A2**	**D53**	**UPC**	**1-DIC-2013**	**31-NOV-2014**		URJC	Javier Simó
5A3.1	Characterization of VSAT systems in terms of performance restricted to given QoS parameters. Provide the information as a document part to URJC.	Strategy for performance characterization (URJC)	Characterization	5A3.4 [URJC], 5A3.10 [URJC]	1-FEB-2014	31-MAR-2014	1	TIWS	Mari Carmen Gómez / Enrique Gil
5A3.2	Characterization of VSAT systems in terms of power consumption restricted to given QoS parameters. Provide the information as a document part to URJC.	Strategy for power consumption characterization (URJC)	Characterization	5A3.4 [URJC], 5A3.10 [URJC]	1-APR-2014	30-JUN-2014	0,5	TIWS	Mari Carmen Gómez / Enrique Gil

TASK	DESCRIPTION	INPUT (FROM)	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
5A3.3	Define optimization problems that permit to maximize throughput and minimize energy consumption with restrictions that ensure the QoS guarantees required for a high quality backhaul. Define the different variables that can be considered in the optimization and establish optimization strategies.	Optimization methodology (URJC) and extensive info about transport technologies (M51)	Description of optimization problems to be solved. (URJC)	5A3.4 [URJC], 5A3.10 [URJC]	1-FEB-2014	31-MAY-2014	0,75	URJC	Eduardo Morgado
5A3.4	Produce M53: Strategies for the optimization of communications resources under energy constraints.	CAPEX/ OPEX study about WiFi and WiMAX in M51 (URJC). VSAT characterization (TIWS).	**M53**	UPC, WP5 partners	1-MAY-2014	31-MAY-2014	0,5	URJC	Javier Simó

TASK	DESCRIPTION	INPUT (FROM)	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
5A3.5	Describe formally femto traffic that goes through the backhaul (audio, data and signaling) in terms of QoS requirements and resources used.	Information about the femtos (IPACCESS), experience with backhauls (TdP and TIWS), SoA. WP4.	Traffic characterization documented	5A3.10 [URJC]	1-DIC-2013	28-FEB-2014	1	PUCP	Juan Paco
5A3.6	Characterization of CAPEX-to-energy-consumption and CAPEX-to-throughput relationships for WiLD and WiMAX systems, provided that systems are powered with photovoltaic solar panels and that appropriate towers, grounding and additional structures are also considered in the CAPEX.	M53 (URJC)	Results of characterization	5A3.9 [URJC]	1-MAR-2014	30-JUN-2014	1	PUCP	Juan Paco
5A3.7	Characterization of the OPEX-to-energy-consumption and OPEX-to-throughput relationships for WiLD and WiMAX systems.	M53 (URJC)	Results of characterization	5A3.9 [URJC]	1-MAR-2014	30-JUN-2014	0,5	URJC	Javier Simó

TASK	DESCRIPTION	INPUT (FROM)	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
5A3.8	Replicate Task 5A3.6 and 5A3.7 for VSAT systems.	M53 (URJC)	Results of VSAT characterization	5A3.9 [URJC]	1-MAY-2014	30-JUN-2014	0,75	TIWS	Mari Carmen Gómez / Enrique Gil
5A3.9	Find optimal or suboptimal solutions to optimization problems defines in 5A3.3 task and find the way to optimize the performance and power-consumption as needed in real deployments.	Results from 5A3.3 (URJC)	Results to optimization problems proposed	5A3.10 [URJC]	1-JUL-2014	31-OCT-2014	0,75	URJC	Eduardo Morgado
5A3.10	Produce D53: Transport network optimization solutions.	All previous tasks completed in this activity (WP5)	**D53**	UPC	1-OCT-2014	31-NOV-2014	0,5	URJC	Javier Simó

5.6 WP6 work plan

ITEM	TASK	INPUT	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
6A1	**Technical and operational design**	**D21**	**D61**	**Project Coordinator [UPC]**	**1-FEB-2013**	**31-JUL-2013**		**PUCP**	**Leopoldo Liñan**
6A1.1	**Ensuring legal and institutional viability of the Network**	**Peruvian legislation**	**Legal Viability report**	**6A31.1 [PUCP]**	**1-FEB-2013**	**31-JUL-2013**		**PUCP**	**Leopoldo Liñan**
6A1.1.1	a. - Review of existing legal and regulatory framework	Peruvian legislation	Review of Peruvian regulatory framework	6A1.1.2 [PUCP]	1-FEB-2013	1-MAR-2013	0,5	FITEL	Ernesto Sánchez
6A1.1.2	b. - Coordinate with government agencies (MTC; OSIPTEL, etc.)	Peruvian legislation	Letter of agreement	6A1.1 [PUCP]	1-MAR-2013	1-MAR-2013	0,5	FITEL	Ernesto Sánchez
6A1.1.3	c. - Precisely identification of resources and services to be shared with the new telecommunications system	Information about networks	List of services and resources (D61)	6A1.1.4 [PUCP]	15-JUN-2013	31-JUL-2013	0,75	EHAS	Ignacio Prieto
6A1.1.4	d.- Coordination with current users (GOREL; DIRESA)	6A1.1.3	Agreement with users	6A1.1 [PUCP]	1-APR-2013	31-MAY-2013	0,5	PUCP	Leopoldo Liñan
6A1.1.5	e.- Ensure legal physical healing (Coordination with municipalities and communities)	6A1.2	Agreement with local authorities	6A1.1 [PUCP]	1-APR-2013	30-JUN-2013	0,5	PUCP	Leopoldo Liñan
6A1.1.6	f. - Get formal approval within TdP	DoW	Agreement with TdP	6A1.1 [PUCP]	1-APR-2013	30-APR-2013	0,25	TdP	Omar Tupayachi

ITEM	TASK	INPUT	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
6A1.2	**Activities for increasing awareness of local institutions and end users**	**D21**	**increasing awareness Results (D61)**	**6A3.1.1 [PUCP]**	**1-MAR-2013**	**31-MAY-2013**		**PUCP**	**Leopoldo Liñan**
6A1.2.1	a. - Prepare information and sensitization materials	DoW	Offprints / materials	6A1.2.2 6A1.2.3 [PUCP]	1-MAR-2013	1-MAR-2013	0,25	PUCP	Leopoldo Liñan
6A1.2.2	b. - Perform Sensitization workshops for local government bodies (municipalities and others)	6A1.2.1	Workshop Report (D61)	6A1.2 [PUCP]	1-APR-2013	31-MAY-2013	0,25	PUCP	Leopoldo Liñan
6A1.2.3	c. - Perform Sensitization workshops in targeted communities	6A1.2.1	Workshop Report (D61)	6A1.2 [PUCP]	1-APR-2013	31-MAY-2013	0,25	PUCP	Leopoldo Liñan
6A1.3	**Gathering of information about the current state of target networks and / or its deployed services**	**D21**	**Network state report (D61)**	**6A1.4.1 [PUCP]**	**1-MAR-2013**	**31-MAY-2013**		**PUCP**	**César Córdova**
6A1.3.1	a. - Gather information from indirect sources (DIRESA, Health Centers, GOREL, etc.)	Actors of previous projects	Users perspective	6A1.3 [PUCP]	1-MAR-2013	30-APR-2013	0,25	PUCP	Leopoldo Liñan
6A1.3.2	b. - Perform field visit to review the network	Description of networks (D21)	Field visit report	6A1.3 [PUCP]	1-APR-2013	31-MAY-2013	0,25	PUCP	César Córdova
6A1.4	**Definition of modifications to be made in target networks**	**Network reinforcement proposal (D21)**	**Final reinforcement proposal**	**6A2.2.1 [PUCP]**	**1-MAY-2013**	**31-JUL-2013**		**PUCP**	**River Quispe**
6A1.4.1	a. - Designing in detail the telecommunications subsystem	6A1.3 5A2 5A3	Final design	6A1.4.2 [PUCP]	1-MAY-2013	30-JUN-2013	0,5	PUCP	River Quispe

ITEM	TASK	INPUT	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
6A1.4.2	b. - Designing in detail the power supply subsystems	6A1.3 5A2 5A3	Design of the power supply system (D61)	6A1.4.3 [EHAS]	1-MAY-2013	30-JUN-2013	0,25	PUCP	River Quispe
6A1.4.3	c. - Review and validation of network design	6A1.4.1 6A1.4.2	Validation report	6A1.4 [PUCP]	1-JUL-2013	31-JUL-2013	0,5	EHAS	Ignacio Prieto
6A2	**Compatibility tests**	**D21**	**Results of compatibility tests (D62)**	**PUCP**	**1-AUG-2013**	**28-FEB-2014**		**PUCP**	**Darwin Auccapuri**
6A2.1	**Agreements approved between PUCP and FITEL regarding the funds engaged between them**	**DoW**	**Final Agreement**	**6A2.4 6A2.8 [PUCP]**	**1-FEB-2013**	**1-MAR-2013**		**FITEL**	**Ernesto Sánchez**
6A2.1.1	a.- Coordination between PUCP and FITEL.	DoW	Meeting minutes	6A2.1.2 [FITEL]	1-FEB-2013	1-MAR-2013	0,5	FITEL	Ernesto Sánchez
6A2.1.2	b.- Signature the agreement or service	6A2.1.1	Agreement	6A2.1 [PUCP]	1-MAR-2013	1-MAR-2013	0,5	FITEL	Ernesto Sánchez
6A2.2	**List of equipment and materials approved by the URJC for the testing laboratory**	**DoW**	**List of equipment**	**6A2.3.1 [PUCP]**	**1-MAY-2013**	**30-JUN-2013**		**EHAS**	**Ignacio Prieto**
6A2.2.1	a.- Revision of list of lab equipment	5A2.4	List of equipment	6A2.2.2 [EHAS]	1-MAY-2013	31-MAY-2013	0,25	UPC	Adrián Agustín
6A2.2.2	b.- Quotation of the equipment and materials for the test lab	6A2.2.1	pro forma invoice	6A2.2 [PUCP]	1-JUN-2013	30-JUN-2013	0,5	EHAS	Ignacio Prieto

ITEM	TASK	INPUT	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
6A2.3	**Buying and delivering the equipment to URJC for the testing laboratory**	**6A2.2**	**Delivery minutes**	**WP5 [URJC]**	**1-JUN-2013**	**31-JUL-2013**		**PUCP**	**Darwin Auccapuri**
6A2.3.1	a.- Purchasing the equipment and materials for the lab test and deliver to URJC	6A2.2.2	Delivery minutes	6A2.3 [PUCP]	1-JUN-2013	31-JUL-2013	0,5	PUCP	Darwin Auccapuri
6A2.4	**Elaboration of detailed list of equipment for the deployment of the demonstration network.**	**6A1.4**	**List of equipment**	**6A2.5.1 [PUCP] 6A2.6.1 [PUCP]**	**1-JUL-2013**	**31-AUG-2013**		**PUCP**	**Darwin Auccapuri**
6A2.4.1	a.- Preliminary list for demonstration network	DoW	List of equipment	6A2.4.2 [PUCP]	1-JUL-2013	31-JUL-2013	0,25	URJC	Javier Simó
6A2.4.2	b.- Quotation of the equipment and materials for demonstration network	6A2.4.1	pro forma invoice	6A2.4.3 [PUCP]	1-AUG-2013	31-AUG-2013	0,5	PUCP	Darwin Auccapuri
6A2.4.3	c.- Final list for buying for the equipment and materials	6A2.4.2	Final list	6A2.4 [PUCP]	1-AUG-2013	31-AUG-2013	0,5	PUCP	Darwin Auccapuri
6A2.5	**Homologation of the equipment**	**6A2.4**	**Homologation certificate**	**6A2.6** [PUCP]	**1-SEP-2013**	**31-OCT-2013**		**PUCP**	**Darwin Auccapuri**
6A2.5.1	a.- Require the homologation and follow the process	5A2 6A2.4.3	Homologation certificate	6A2.5.1 [PUCP]	1-SEP-2013	31-OCT-2013	0,25	PUCP	Darwin Auccapuri
6A2.6	**Buying and delivering the equipment to PUCP for deploying the network**	**6A2.5**	**Delivery minutes**	**6A3.1** [PUCP]	**1-SEP-2013**	**31-OCT-2013**		**PUCP**	**Darwin Auccapuri**
6A2.6.1	a.-Purchasing equipment and materials	6A2.4.3	Delivery minutes	6A2.6 [PUCP]	1-SEP-2013	31-OCT-2013	1	PUCP	Darwin Auccapuri

ITEM	TASK	INPUT	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
6A2.7	**Test Protocols for assessing the compatibility and functionality of the interconnection of the access network and the transport network**	**D43**	**Test protocols (D62)**	**6A2.8.1** [PUCP]	**1-SEP-2013**	**31-OCT-2013**		**PUCP**	**River Quispe**
6A2.7.1	a.- Protocols for assessing the compatibility of interconnection between the transport network WiFi / WiMax and femtocells	WP5 6A2.4.3	Compatibility Protocols fetmos-Wifi/Wimax	6A2.7.4 [EHAS]	1-SEP-2013	30-SEP-2013	0,25	URJC	Javier Simó
6A2.7.2	b.- Protocols for assessing the compatibility of interconnection between the transport network VSAT and femtocells	WP4 6A2.4.3	Compatibility Protocols Transport network - VSAT	6A2.7.4 [EHAS]	1-SEP-2013	30-SEP-2013	0,25	TIWS	Mari Carmen Gómez / Enrique Gil
6A2.7.3	c.- Protocols for assessing the compatibility of interconnection regarding the billing service and mobile services between the transport networks and femtocells	WP5, WP4	Compatibility Protocols billing service	6A2.7.4 [EHAS]	1-SEP-2013	30-SEP-2013	0,75	TdP	Omar Tupayachi
6A2.7.4	d.- Integration of all test protocols to evaluate the compatibility and functionality of the interconnection of the access network and transport network	6A2.7.1 6A2.7.2 6A2.7.3	Compatibility Protocols integration	6A2.7 [PUCP]	1-OCT-2013	31-OCT-2013	1	EHAS	Ignacio Prieto
6A2.8	**Report of the compatibility and functionality of the interconnection of the access network and the transport network**	**6A2.7.4**	**D62**	**WP5 [URJC]**	**1-NOV-2013**	**30-NOV-2013**		**PUCP**	**River Quispe**

ITEM	TASK	INPUT	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
6A2.8.1	a. Evaluation of the compatibility and functionality the interconnection of the access network and transport network	6A2.7.4	**D62**	6A2.8 [PUCP]	1-NOV-2013	30-NOV-2013	0,5	PUCP	River Quispe
6A3	**Pilot network deployment**	**6A2**	**D63**	**ALL**	**1-DIC-2013**	**31-NOV-2014**		**PUCP**	**Leopoldo Liñan**
6A3.1	**Developing of installation plan**	**6A1.3**	**Installation Plan**	**6A3.2.1 [PUCP] 6A3.3.1 [PUCP] 6A3.4.1 [PUCP]**	**1-SEP-2013**	**31-OCT-2013**		**PUCP**	**Leopoldo Liñan**
6A3.1.1	a.- Coordination with partners, beneficiaries and users of existing networks	6A1.3	List of actors	6A3.1.2 [PUCP] 6A3.1.3 [TdP]	1-SEP-2013	30-SEP-2013	0,5	PUCP	Leopoldo Liñan
6A3.1.2	b.- Developing a detailed plan for networks upgrading	6A3.1.1	Preliminary plan	6A3.1.4 [PUCP]	1-SEP-2013	30-SEP-2013	0,5	PUCP	Leopoldo Liñan
6A3.1.3	c.- Developing a detailed plan for installation of femtocells and interconnection	6A3.1.1	Preliminary plan	6A3.1.4 [PUCP]	1-SEP-2013	30-SEP-2013	0,5	TdP	Omar Tupayachi
6A3.1.4	d.- Integration the installation plans	6A3.1.1	Final Plan	6A3.1 [PUCP]	1-SEP-2013	31-OCT-2013	0,25	PUCP	Leopoldo Liñan
6A3.2	**Adaptation and configuration for installation the equipment**	**6A2**	**Configuration scripts**	**6A4.1.1** [PUCP]	**1-OCT-2013**	**30-NOV-2013**		**PUCP**	**Darwin Auccapuri**
6A3.2.1	a.- Adaptation and physical preparation of materials and supplies	6A3.1.4 6A2	Adaptation report	6A3.2 [PUCP]	1-OCT-2013	31-OCT-2013	0,5	PUCP	Darwin Auccapuri

ITEM	TASK	INPUT	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
6A3.2.2	b.- Device configuration for installation of the transport network	6A3.1.4 6A2 WP2 WP5	Configuration protocol	6A3.2.4 [URJC]	1-OCT-2013	31-OCT-2013	0,5	PUCP	River Quispe
6A3.2.3	c.- Configuration of femtocells for installation	6A3.1.4 6A2 WP2 WP4	Configuration protocol	6A3.2.5 [IPA]	1-OCT-2013	30-NOV-2013	0,5	PUCP	River Quispe
6A3.2.4	d.- Revision of transport network (VSAT /WiFi/WiMAX) configuration	6A3.2.2	Review Report	6A3.2 [PUCP]	1-OCT-2013	30-NOV-2013	0,25	URJC	Javier Simó
6A3.2.5	e.- Support and Revision in femtocells configuration procces	6A3.1.4 6A2 WP2 WP5	Review Report	6A3.2 [PUCP]	1-NOV-2013	30-NOV-2013	1,25	IPA	Kit Kilgour
6A3.3	**Transportation of equipment and materials**	**6A3.1**	**Delivery minutes**	**6A3.4.1** [PUCP]	**1-NOV-2013**	**30-NOV-2013**		**PUCP**	**Darwin Auccapuri**
6A3.3.1	a.- Deliver the cargo from Lima to Iquitos	6A3.1.1	Delivery minutes	6A3.3 [PUCP]	1-NOV-2013	30-NOV-2013	0,5	PUCP	Darwin Auccapuri
6A3.3.2	b.- River transport IQUITOS - Napo/Putumayo	6A3.1.2	Delivery minutes	6A3.3 [PUCP]	1-NOV-2013	30-NOV-2013	0,5	PUCP	Darwin Auccapuri
6A3.4	**Installation of the transport network**	**6A3**	**Installation report**	**6A4.1.1** [TdP]	**1-DIC-2013**	**30-APR-2014**		**PUCP**	**Leopoldo Liñan**

ITEM	TASK	INPUT	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
6A3.4.1	a.- Training of installer and staff travels	Equipment handbook	Installation report	6A3.4.2 [PUCP]	1-DIC-2013	31-DIC-2013	0,25	PUCP	Leopoldo Liñan
6A3.4.2	b.- Upgrade Napo/Balsapuerto/Putumayo networks	6A2 6A3.3	**M61**	6A3.4.3 [PUCP]	1-DIC-2013	31-EN-2014	1	PUCP	Leopoldo Liñan
6A3.4.3	c.- Installation of transport network equipment in Iquitos	6A3.1 6A3.3	Installation report	6A3.4.6 [URJC]	1-FEB-2014	28-FEB-2014	0,5	PUCP	Leopoldo Liñan
6A3.4.4	d.- Installation of transport network equipment in Bajo Napo/Balsapuerto	6A3.1 6A3.3	Installation report	6A3.4.6 [URJC]	1-FEB-2014	31-MAR-2014	1,5	PUCP	Leopoldo Liñan
6A3.4.5	e.- Installation of transport network equipment in Alto Napo/ Balsapuerto	6A3.1 6A3.3	Installation report	6A3.4.6 [URJC]	1-MAR-2014	30-APR-2014	2,5	PUCP	Leopoldo Liñan
6A3.4.6	f.- Commissioning of transport network	6A3.4.2 6A3.4.3 6A3.4.4	Minutes	6A3.4 [PUCP]	1-APR-2014	30-APR-2014	0,25	URJC	Javier Simó
6A3.5	**Installation of femtocells**	**6A3.3**	**Installation report**	**6A4.1.1 [TdP]**	**1-APR-2014**	**31-JUL-2014**		**PUCP**	**Leopoldo Liñan**
6A3.5.1	a.- Training of installer and staff travels	Equipment handbook	Installation report	6A3.5.2 [PUCP]	1-APR-2014	30-APR-2014	0,25	PUCP	Leopoldo Liñan
6A3.5.2	b.- Installation of the equipment in Iquitos	6A3.1 6A3.3	Installation report	6A3.5.5 [UPC]	1-APR-2014	30-APR-2014	1	PUCP	Leopoldo Liñan
6A3.5.3	c.- Installation of the equipment in Bajo Napo /Balsapuerto	6A3.1 6A3.3	Installation report	6A3.5.5 [UPC]	1-MAY-2014	30-JUN-2014	1,5	PUCP	Leopoldo Liñan

ITEM	TASK	INPUT	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
6A3.5.4	d.- Installation of the equipment in Alto Napo/ Balsapuerto	6A3.1 6A3.3	**M62**	6A3.5.5 [UPC]	1-JUN-2014	31-JUL-2014	2	PUCP	Leopoldo Liñan
6A3.5.5	e.- Commissioning of femtocells	6A3.1 6A3.3	Report	6A3.5 [PUCP]	1-JUL-2014	31-JUL-2014	0,5	UPC	Adrián Agustín
6A3.6	**Stabilizing the network**	**6A3.5**	**D63**	**6A4.1.1 [TdP]**	**1-AUG-2014**	**31-NOV-2014**		**PUCP**	**River Quispe**
6A3.6.1	a.- Definition of performance test for transport network	6A3.4 WP5	Definition of performance tests	6A3.6.3 [PUCP]	1-AUG-2014	30-SEP-2014	0,5	URJC	Javier Simó
6A3.6.2	b.- Definition of performance test for access network	6A3.5 WP4	Definition of performance tests	6A3.6.3 [PUCP]	1-AUG-2014	30-SEP-2014	0,5	UPC	Adrián Agustín
6A3.6.3	c.- Perform of tests	6A3.4.1	Tests resutls	6A3.6 [PUCP]	1-OCT-2014	31-OCT-2014	0,5	PUCP	River Quispe
6A3.6.4	d.- General revision of the installations	6A3.4.1 6A3.4.2	**D63**	6A3.6 [PUCP]	1-NOV-2014	31-NOV-2014	0,5	PUCP	Leopoldo Liñan
6A4	**Interconnection to the operator's network**	**6A3**	**Interconnection report**	**6A5.5.1** [PUCP]	**1-APR-2014**	**28-FEB-2015**		**PUCP**	**Juan Paco**
6A4.1	**Interconnection with the operator network**	**Operator procedures**	**Interconnection report**	**6A4.2.1** [TdP]	**1- APR -2014**	**30-SEP-2014**		**TdP**	**Omar Tupayachi**
6A4.1.1	a.- Configuration of Operator's Network Equipment	6A3	Configuration Report	6A4.1.2 [IPA]	1- APR -2014	30-SEP-2014	0,5	TdP	Omar Tupayachi

ITEM	TASK	INPUT	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
6A4.1.2	b.- Physical installation of femtocell controller in TdP	6A4.1.1	Installation Report	6A4.1.3 [TdP]	1- APR -2014	30-SEP-2014	1,25	IPA	Kit Kilgour
6A4.1.3	c.- Physical interconnection of networks	6A4.1.1	Interconnection Report	6A4.1 [PUCP]	1- APR -2014	30-SEP-2014	0,5	TdP	Omar Tupayachi
6A4.2	**Interconnection testing**	**6A4.2**	**Test report**	**6A4.3.1** [PUCP]	**1-MAY-2014**	**31-DIC-2014**		**PUCP**	**River Quispe**
6A4.2.1	a.- Validation of coherent and comprehensive functional testing of the interconnection from the point of view of the mobile service	6A4.1 5A3 2A4	Test protocol	6A4.2.4 [PUCP]	1-MAY-2014	31-NOV-2014	1	TdP	Omar Tupayachi
6A4.2.2	b.- Define parameters to be monitored in the Transport Network WiLD / WiMAX for validating the tests to be performed	5A3 2A4	Parameters identification for WiLD / WiMAX	6A4.2.4 [PUCP]	1-MAY-2014	31-NOV-2014	1	EHAS	Ignacio Prieto
6A4.2.3	c.- Define parameters to be monitored in the Transport Network VSAT for validating the tests to be performed	5A3 2A4	Parameters identification for VSAT	6A4.2.4 [PUCP]	1-MAY-2014	31-NOV-2014	0,5	TIWS	Mari Carmen Gómez / Enrique Gil
6A4.2.4	d.- Perform tests of functionality	6A4.1.1 6A4.1.2 6A4.1.3	Test Report	6A4.2 [PUCP]	1-JUL-2014	31-DIC-2014	1	PUCP	River Quispe
6A4.3	**Quality and usability testing**	**6A4.2**	**M63**	**6A5.5.1 [PUCP]**	**1-JUL-2014**	**28-FEB-2015**		**PUCP**	**Juan Paco**

ITEM	TASK	INPUT	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
6A4.3.1	a.- Define the parameters to be monitored in the quality test and usability test, and the related indicators	4A3 2A4	Parameters identification	6A4.3.4 [PUCP]	1-JUL -2014	31-DIC-2014	1	TdP	Omar Tupayachi
6A4.3.2	b.- Identify the users for developing the quality test and usability test in field work		Users identification	6A4.3.3 [PUCP]	1-JUL-2014	31-EN-2015	0,5	PUCP	Leopoldo Liñan
6A4.3.3	c.- Ensure the participation of the users	6A4.2.2	Agreements / contracts	6A4.2.4 [PUCP]	1-AUG-2014	31-EN-2015	0,5	PUCP	Leopoldo Liñan
6A4.3.4	D.- Perform of quality and usability test in field work	6A4.2.3	**M63**	6A4.3 [PUCP]	1-AUG-2014	28-FEB-2015	1	PUCP	Juan Paco
6A5	**Validation**	**6A4**	**D64**	**UPC**	**1-OCT-2014**	**31-AUG-2015**		**TdP**	**Omar Tupayachi**
6A5.1	**Definition of criteria for the technical validation of the research.**	**6A4**	**Criteria definition**	6A5.3.1 **[PUCP]**	**1-OCT-2014**	**30-APR-2015**		**URJC**	**Javier Simó**
6A5.1.1	a. Development of criteria for the validation of the research regarding WiFi / WiMAX	D53	Criteria to validate WiLD / WiMAX	6A5.1 [PUCP]	1- OCT -2014	30-APR-2015	0,25	URJC	Javier Simó
6A5.1.2	b. Development of criteria for the validation of the research regarding femtocell	M43	Criteria to validate femtocells	6A5.1 [PUCP]	1- OCT -2014	30-APR-2015	0,25	UPC	Adrián Agustín
6A5.1.3	c. Development of criteria for the validation of the research regarding VSAT	D53	Criteria to validate VSAT	6A5.1 [PUCP]	1- OCT -2014	30-APR-2015	0,25	TIWS	Mari Carmen Gómez / Enrique Gil

ITEM	TASK	INPUT	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
6A5.1.4	d. Development of criteria for the validation of the mobile service	6A4	Criteria to validate mobile service	6A5.1 [PUCP]	1- OCT -2014	30-APR-2015	0,25	TdP	Omar Tupayachi
6A5.2	**Definition of criteria for the validation of the market research and the proposal of business model**	**3A3.6, M33**	**Criteria to validate market research and business model**	**6A5.4.1 [TdP]**	**1-OCT-2014**	**1-NOV-2014**		**UCAU**	**Gustavo Ramírez**
6A5.2.1	a. Development of criteria for the validation of the market research and the proposal of business model	**3A3.6, M33**	Criteria to validate market research and business model	6A5.2 [UCAU]	1-OCT-2014	31-NOV-2014	0,5	UCAU	Gustavo Ramírez
6A5.3	**Technical validation**	**6A5.1**	**Technical validation report**	**6A5.5.1 [PUCP]**	**1-DIC-2014**	**31-MAY-2015**		**PUCP**	**River Quispe**
6A5.3.1	a. Development of technical validation	6A5.1	Validation data	6A5.3.2 [EHAS]	1-DIC-2014	31-MAY-2015	0,5	PUCP	River Quispe
6A5.3.2	b. Report Review	6A5.3.1	Validation Report	6A5.3 [PUCP]	1-DIC-2014	31-MAY-2015	0,5	EHAS	Ignacio Prieto
6A5.4	**Validation of market research and business model**	**6A5.2**	**validation report**	**6A5.5.1 [PUCP]**	**1-DIC-2014**	**31-MAR-2015**		**FITEL**	**Ernesto Sánchez**
6A5.4.1	a. Development of market research and case of business validation	6A5.2	Validation data	6A5.4.2 [TdP]	1-DIC-2014	31-MAR-2015	0,5	FITEL	Ernesto Sánchez
6A5.4.2	b. Report Review	6A5.4.1	Validation Report	6A5.4 [PUCP] 3A4	1-DIC-2014	31-MAR-2015	0,25	TdP	Omar Tupayachi
6A5.5	**Integration of validations reports**	**6A5.1, 6A5.2**	**D64**	**ALL**	**1-JUN-2015**	**30-JUN-2015**		**PUCP**	**Juan Paco**

ITEM	TASK	INPUT	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
6A5.5.1	a. Development of integrated report	6A5.3 6A5.4 6A4.3	**D64**	6A5.5 [PUCP]	1-JUN-2015	30-JUN-2015	0,5	PUCP	Juan Paco

5.7 WP7 work plan

TASK	DESCRIPTION	INPUT (FROM)	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
7A1	**Dissemination**	**DoW**	**D71**	**ALL**	**1-FEB-2013**	**31-AUG-2015**		**UCAU**	**Álvaro Rendón**
7A1.1	Creation of the project web site	DoW	web site	7A1.2 [UPC]	1-FEB-2013	1-FEB-2013	0,2	UPC	Josep Vidal
7A1.2	Maintenance of the project web site	All	web site updated	All	1-MAR-2013	31-AUG-2015	0,8	UPC	Josep Vidal
7A1.3	Review, negotiation and final decision about the possible events to co-locate the workshop	Review of events on the area	Selected event	7A1.4 [EHAS]	1-FEB-2013	31-EN-2014	1,15	EHAS	Ignacio Prieto
7A1.4	Workshop organization following the protocol defined by the selected event.	7A1.3	workshop program	ALL, 7A1.5 [EHAS]	1-FEB-2014	31-EN-2015	1,5	EHAS	Ignacio Prieto
7A1.5	Event logistics and performing	7A1.4	Workshop	ALL	1-OCT-2014	31-EN-2015	2	EHAS	Ignacio Prieto
7A1.6	Elaboration of the dissemination and standardization plan	All	Dissemination Plan	7A1.7 [UCAU], 7A1.8 [URJC]	1-FEB-2013	1-JUL-2013	0,6	UCAU	Álvaro Rendón
7A1.7	Deployment of a strategy for disseminating project results in LA and outside Europe	D21, D31, D34, D42, D43, D64	Presentations, meetings	7A1.2 [UPC]	1-FEB-2013	31-AUG-2015	3,75	UCAU	Álvaro Rendón

TASK	DESCRIPTION	INPUT (FROM)	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
7A1.8	Divulgation in scientific journals and in academic and industrial events	D34, D42,D43, D44, D53, D64	papers, journals, conferences, books, chapter books, technical reports	7A1.2 [UPC]	1-FEB-2013	31-AUG-2015	3,5	URJC	Javier Simó
7A2	**Standardisation**	**Standardisation groups**	**D72, D73**	**ALL**	**1-APR-2013**	**31-AUG-2015**		**UCAU**	**Álvaro Rendón**
7A2.1	3GPP: Check working items for 3GPP 3G, HSPA, HSPA+ and keep track of 3GPP LTE activities	3GPP	3GPP agenda analysis	M712	1-JUL-2013	31-AUG-2015	0,75	UPC	Mariana Goldhamer
7A2.2	3GPP: Contribution to 3GPP in relevant work items	3GPP	Submission to standard	3GPP LTE / D73	1-EN-2014	31-AUG-2015	0,75	UPC	Mariana Goldhamer
7A2.2bis	If 7A2.2 is not possible: ETSI-BRAN: Open a WI in ETSI BRAN (4 endorsing members needed) and contribute to a technical report	ETSI-BRAN	Tech report	ETSI BRAN / D73	1-EN-2014	31-AUG-2015		UPC	Mariana Goldhamer
7A2.3	802.11: Keep track of activities	802.11	802.11 updated specifications	M712	1-MAY-2013	31-AUG-2015	0,5	UCAU	Álvaro Rendón
7A2.4	ITU-D SG2: Keep track of activities and opportunities for contribution	ITU-D	ITU-D agenda analysis	M712	1-MAY-2013	31-AUG-2015	0,75	UPC	Olga Muñoz, Josep Vidal
7A2.5	ITU-D SG2: Contribution to ITU-D in relevant aspects of question 10-3/2	ITU-D	Submission to standard	ITU-D / D73	1-EN-2014	31-AUG-2015	0,75	UPC	Olga Muñoz, Josep Vidal

TASK	DESCRIPTION	INPUT (FROM)	OUTPUT	DELIVER TO	START	END	PM	PARTNER	RESPONSIBLE
7A3	**Use of knowledge**	**Previous deliverables**	**D74**	**ALL**	**31-EN-2015**	**31-AUG-2015**		**KiNNO**	**Konstanstinos Fouskas**
7A3.1	Identification of research sectors of Sub-products produced by the TUCAN3G Project	DoW	Plan for targeted sectors	7A3.6 [KiNNO]	1-EN-2015	28-FEB-2015	0,25	KiNNO	Konstanstinos Fouskas
7A3.2	Identification of applicable areas of Sub-products produced by the TUCAN3G Project to new products	D34, D41-44, D51-53, D64	Plan for new products	7A3.6 [KiNNO]	1-MAR-2015	30-APR-2015	0,5	TIWS	Enrique Gil, Mari Carmen Gómez
7A3.3	Identification of applicable areas of Sub-products produced by the TUCAN3G Project to new business services	D34, D41-44, D51-53, D64	Plan for new business services	7A3.6 [KiNNO]	1-MAR-2015	30-APR-2015	0,5	TdP	Emerson Carbajal
7A3.4	Identification of applicable areas of Sub-products produced by the TUCAN3G Project to new public services	D34, D41-44, D51-53, D64	Plan for new public services	7A3.6 [KiNNO]	1-MAR-2015	30-APR-2015	0,5	FITEL	Ernesto Sánchez
7A3.5	Identification of applicable areas of Sub-products produced by the TUCAN3G Project to new research ideas	D34, D41-44, D51-53, D64	Plan for new research	7A3.6 [KiNNO]	1-MAR-2015	30-APR-2015	0,5	IPA	Kit Kilgour
7A3.6	Synthesis of results and input for D7.74	73A.1-73A.4	Synthesis of plans	D7.74 [UCAU]	M28	30-JUN-2015	0,25	KiNNO	Konstanstinos Fouskas