



Process Manual
Information and Communication Technologies

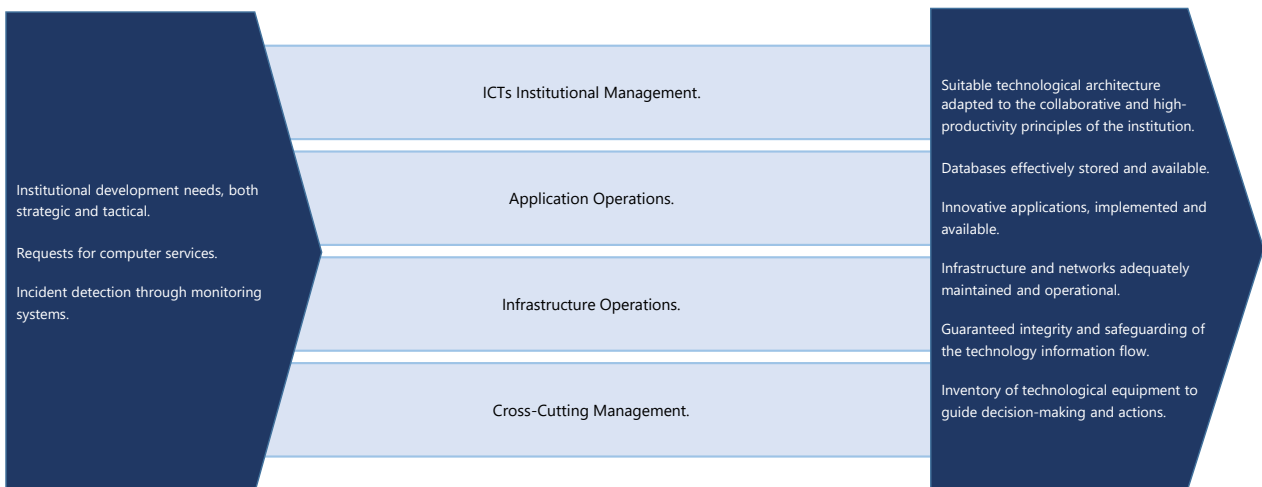
MPR-10-002

Version: 05.07.19

Macroprocess**10 Information and Communication Technologies (ICTs).**

Objective	Ensure that the Institute has access to the best information technology, to carry out effective institutional and technical cooperation processes, promoting collaborative work, applying innovative criteria and optimizing the available resources.
Scope	Hemispheric level. Technical-regulatory actions at a hemispheric level. Centralization at strategic levels and at Headquarters. Partial decentralization at tactical and operational levels, per region and country.

Inflows	Processes	Outflows
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Process	
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10.1 ICTs Institutional Management.	
Objective	Ensure that all the strategic, core and support macroprocesses of the Institution employ information and communication technologies in keeping with a principle of efficiency, innovation and continuous improvement.
Scope	Hemispheric level. Technical-regulatory actions at a hemispheric level. Centralization at strategic levels and at Headquarters. Partial decentralization at tactical and operational levels, per region and country.
Specific policies and rules	<ol style="list-style-type: none"> The ICT Tactical Plan (ICTTP) shall be valid for a period of no more than four years and must be validated by the Institutional Strategic Committee or its equivalent. The ICTTP must be revised every two years in order to reassess its validity or make any necessary amendments or updates. The follow-up of projects executed under the responsibility of the Information and Communications Technologies and Digital Agriculture Division must comply with the requirements set forth in the Project Master Plan, the ICTTP and the ICTAAP. The Information and Communication Technologies and Digital Agriculture Division must guarantee that all policies and regulations regulating the development and use of Information and Communication Technologies are correctly updated. The Information and Communication Technologies and Digital Agriculture Division must ensure the continuity of all services aimed at supporting operational and cross-cutting management processes.
Computer systems	Office applications - Project control - E-mail, Web browsers.
Indicators	<ul style="list-style-type: none"> Ongoing projects and Plans: Percentage of actual progress in relation to percentage of programmed progress lower than or equal to 5%. Actual execution time in relation to programmed execution time. Executed budget in relation to estimated budget. No incidents resulting from inconsistencies in current policies or regulations.

Process	Subprocess
10.1 ICT Institutional Management.	10.1.1 Definition and Follow-Up of the ICT Tactical Plan.
	10.1.2 ICT Project Management.
	10.1.3 ICT Contract Management.
	10.1.4 Maintenance of ICT Policies and Guidelines.



Process Manual Information and Communication Technologies	MPR-10-002
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Subprocess

10.1.1 Definition and Follow-Up of the ICT Tactical Plan.

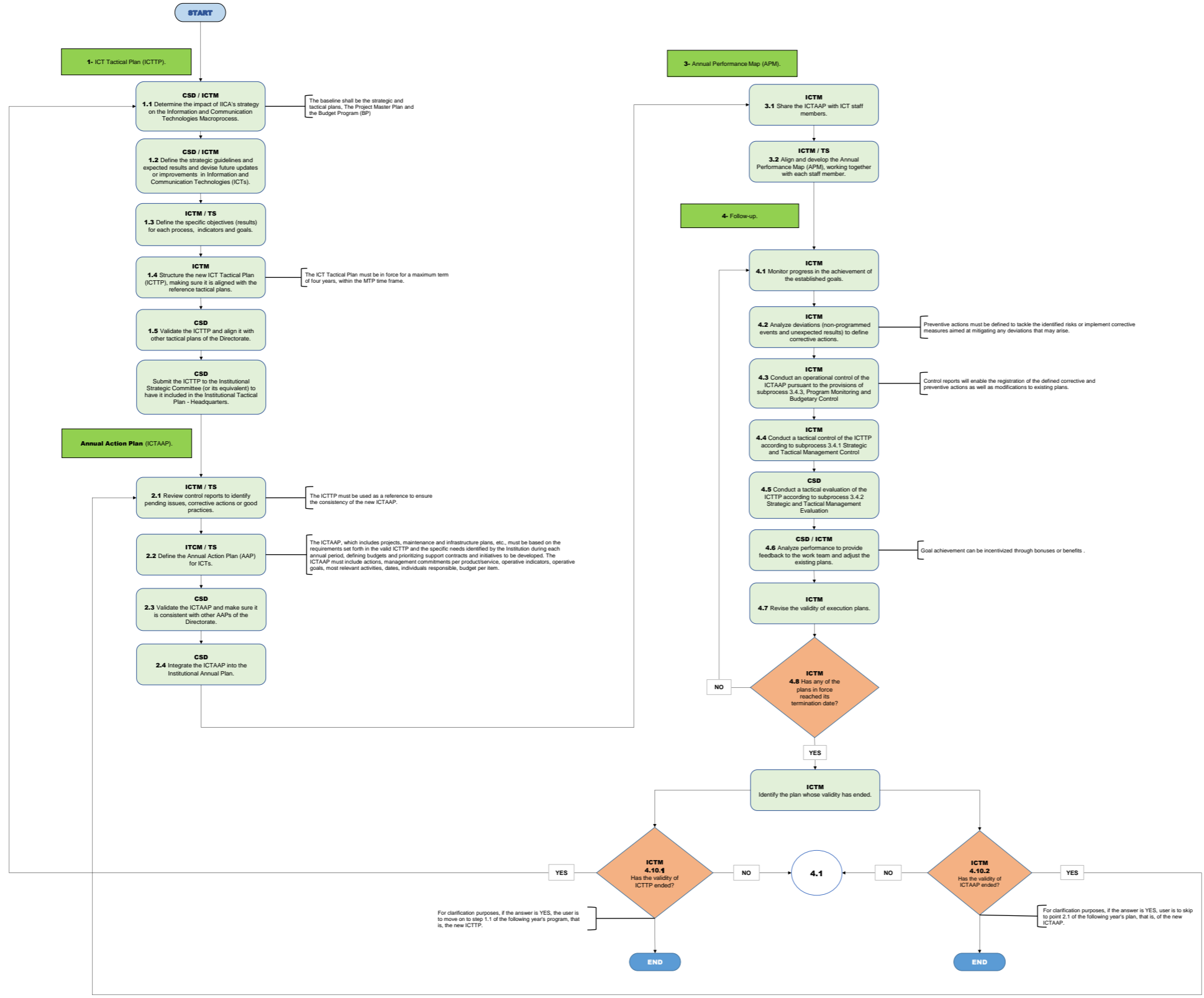
Objective	Define the Information and Communication Technologies vision in keeping with the institutional strategy, to ensure that the defined actions guarantee the provision of value-added products.	
Inputs	Background Information	Reference Material
	<ul style="list-style-type: none"> Existing ICT Tactical Plan. Existing Annual Action Plan. 	<ul style="list-style-type: none"> Strategic Plans (10-year Strategic Plan, 4-year Medium-term Plan MTP) Tactical Plans (Regional, National, Institutional at Headquarters, Budget Plan) Project Master Plan Reference control reports. Applications inventory. Infrastructure inventory. Reference documents defined by the subprocess support systems.
Outcomes	Updated ICT Tactical Plan, integrated into the Institutional Tactical Plan - Headquarters. Updated Annual Action Plan. Defined Annual Performance Maps.	

10.1 ICT Institutional Management.

10.1.1 Definition and Follow-Up of the ICT Tactical Plan.

PARTIES INVOLVED

Corporate Services Director (CSD)
Information and Communication Technologies and DA Manager (ICTM)
ICT Technicians and Specialists (TS)





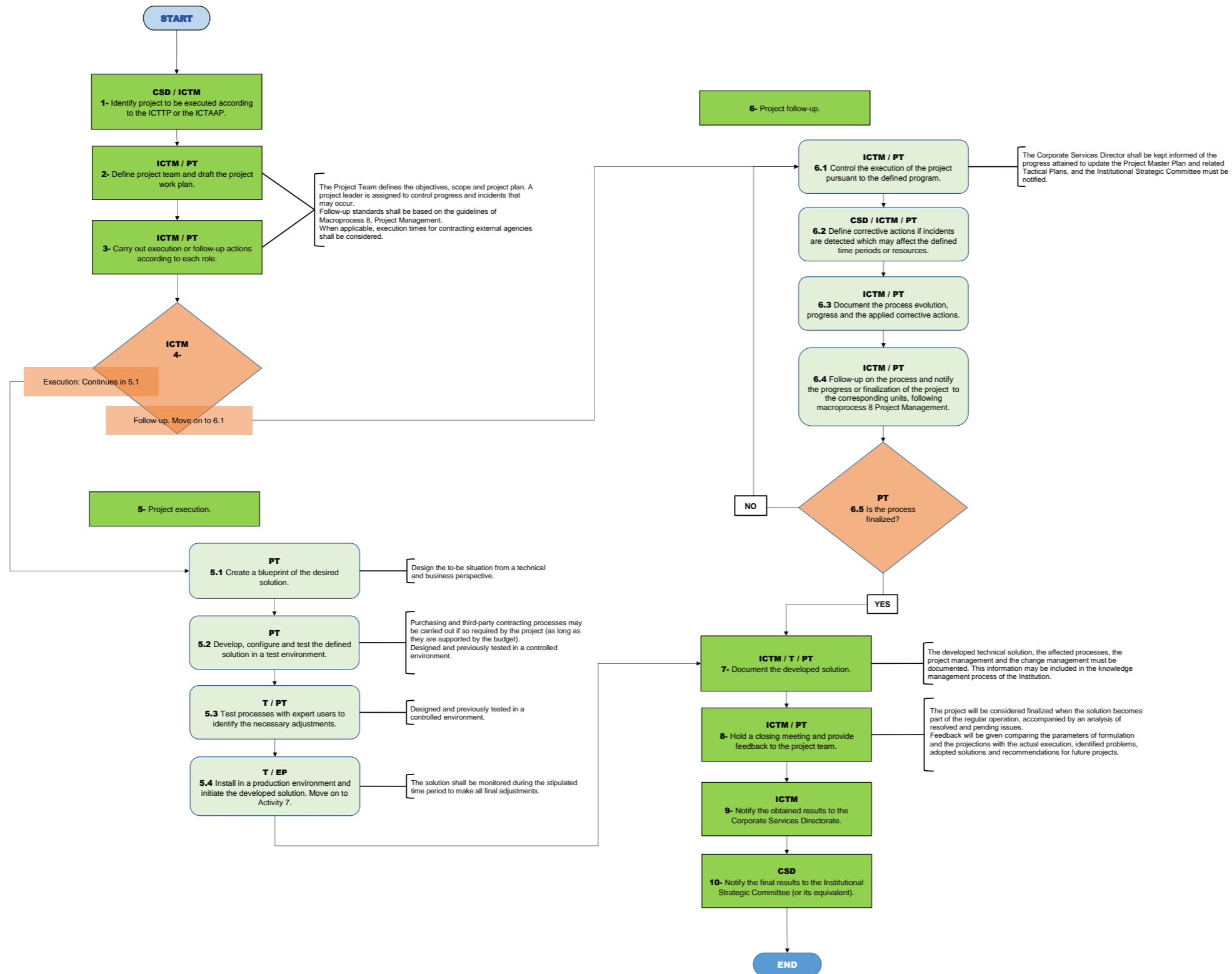
Subprocess		
10.1.2 ICT Project Management.		
Objective	Provide IICA with Information and Communication Technologies aligned with the institutional strategy, developed through adequately created and controlled projects.	
Inputs	Background Information	Reference Material
	<ul style="list-style-type: none"> • Projects based on the ICTTP and ICTAAP. • Needs identified through institutional operations. 	<ul style="list-style-type: none"> • Tactical Plan - ICTTP. • Reports generated through the cross-cutting management process. • Procedures Manual for the Procurement of Goods and Services. • Annual Action Plan – ICTAAP. • Financial regulations. • Reference documents defined by the subprocess support systems.
Outcomes	Technological architecture in keeping with the collaborative, high-productivity principles of the Institution. Innovative applications, implemented and available.	



10.1 ICT Institutional Management.

10.1.2 ICT Project Management.

PARTIES INVOLVED	Corporate Services Director (CSD)
	Information and Communication Technologies and DA Manager (ICTM)
	ICT Technicians (T)
	Project Team (PT)





Subprocess

10.1.3 ICT Contract Management.

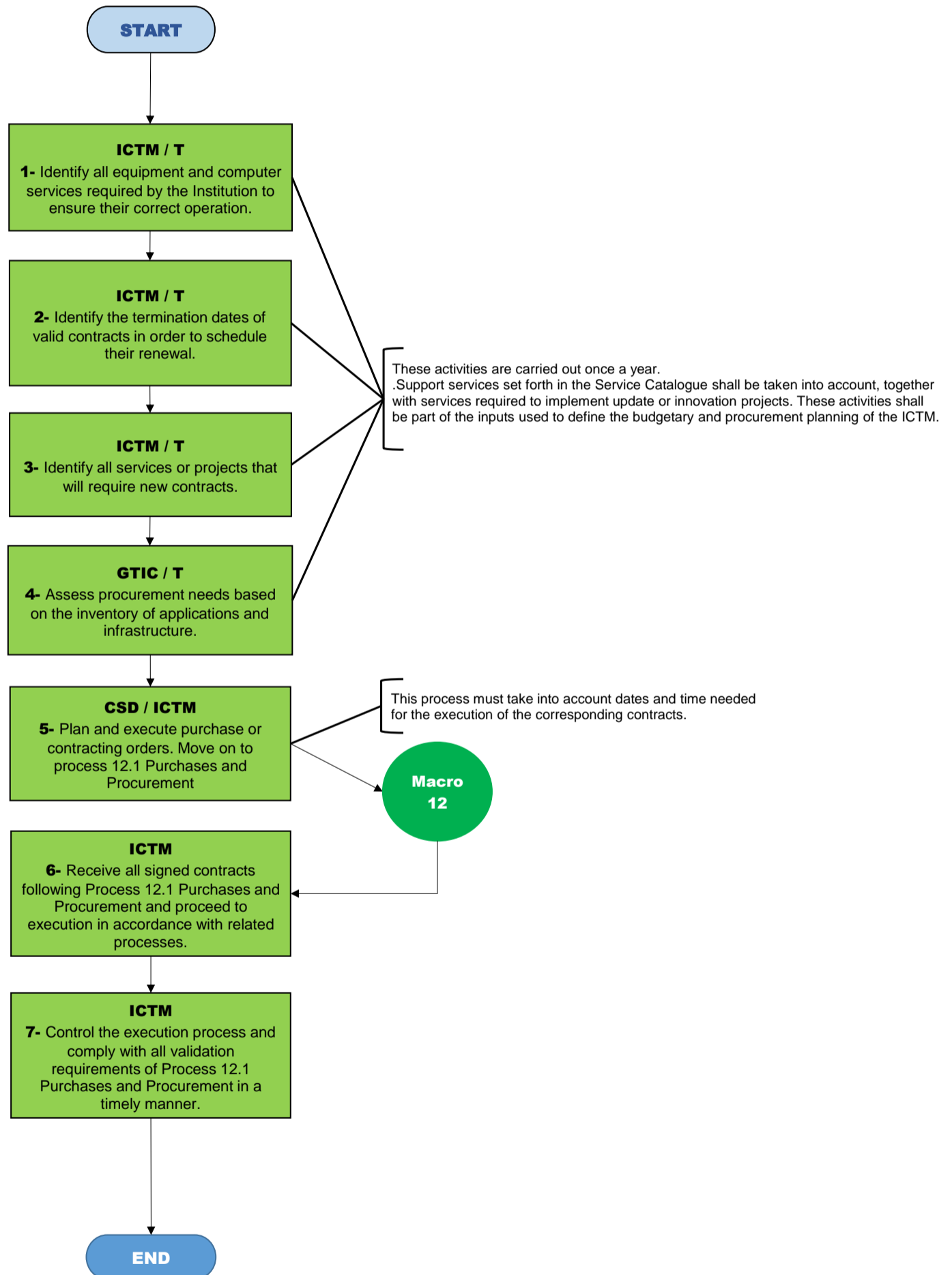
Objective	Ensure that all Information and Communication Technologies equipment and services required by IICA are readily available, in order to guarantee the continuous operation of the Institution's applications and infrastructure.	
Inputs	Background Information	Reference Material
	<ul style="list-style-type: none"> Equipment and service requirements identified in the ICT Tactical Plan. Equipment and service requirements identified through institutional operations. 	<ul style="list-style-type: none"> ICT Tactical Plan. Reports generated through the cross-cutting management process. Procedures Manual for the Procurement of Goods and Services. Project Master Plan. Service catalogue. Reference control reports. Application inventory. Infrastructure inventory. Reference documents defined by the subprocess support systems.
Outcomes	Support equipment and services adapted to institutional needs.	

10.1 ICT Institutional Management.

10.1.3 ICT Contract Management.

PARTIES INVOLVED

Corporate Services Director (DSC)
Information and Communication Technologies and DA Manager (ICTM)
ICT Technicians (T)





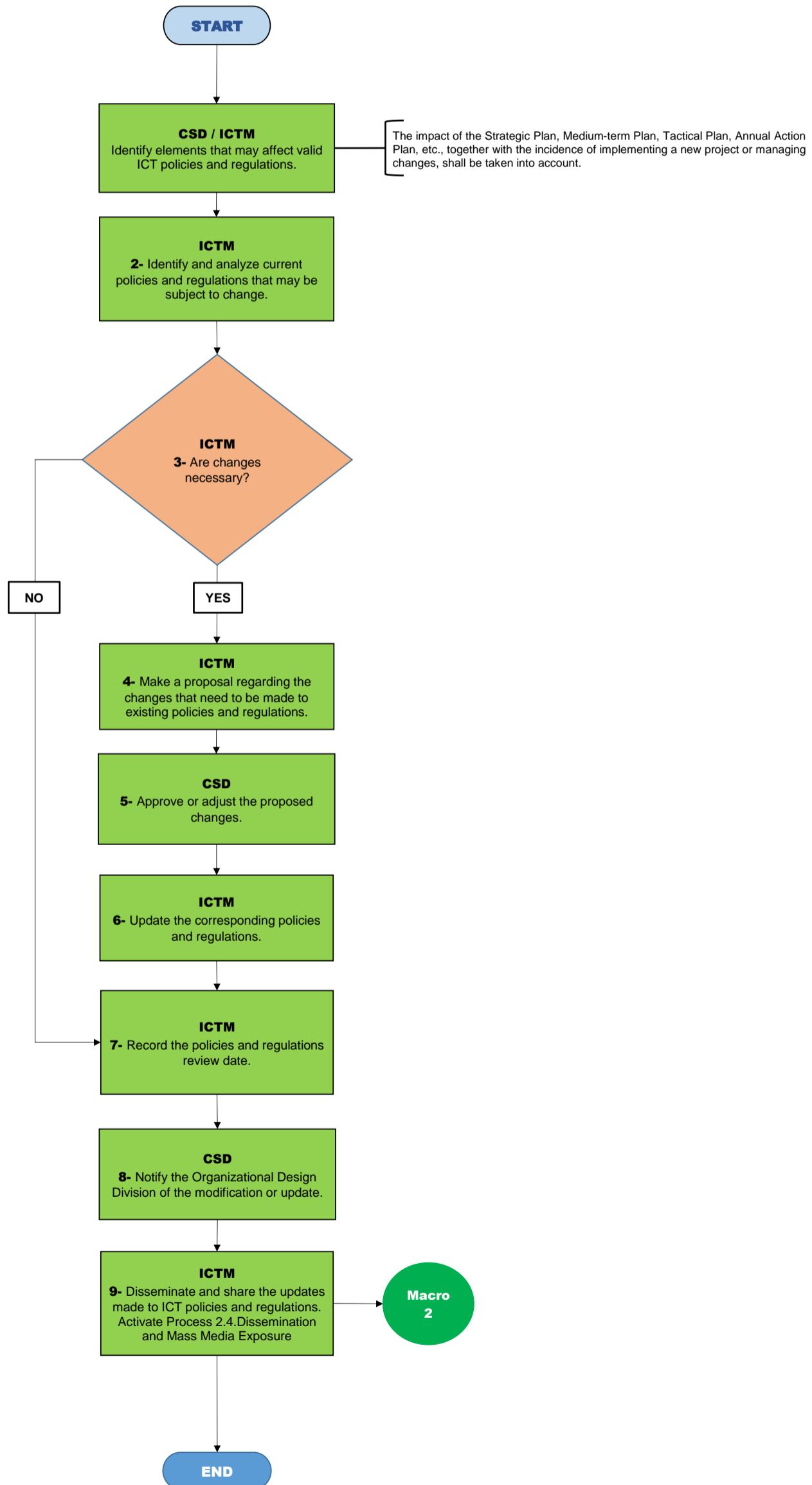
Subprocess		
10.1.4 Maintenance of ICT Policies and Guidelines.		
Objective	Ensure that all policies and regulations involving information and communication technologies are in keeping with institutional dynamics in regards to compliance with strategic, tactical and operational plans.	
Inputs	Background Information	Reference Material
	ICTM general and specific policies and rules (valid).	<ul style="list-style-type: none"> • Strategic Plans (10-year Strategic Plan, 4-year Medium-Term Plan MTP) • Tactical Plans (Regional, National, Institutional at Headquarters, Budget Plan) • Project Master Plan • Reference control reports. • Application inventory. • Infrastructure inventory. • Reference documents defined by the subprocess support systems.
Outcomes	Updated general and specific policies and rules for the ICTM.	

10.1 ICT Institutional Management.

10.1.4 Maintenance of ICT Policies and Guidelines.

PARTIES INVOLVED

Corporate Services Director (DSC)
Information and Communication Technologies and DA Manager (ICTM)
ICT Technicians (T)





Process	
10.2 Application operations.	
Objective	Ensure that all applications installed at IICA are functional and available as required to maintain a continuous institutional operation.
Scope	Hemispheric level. Technical-regulatory actions at a hemispheric level. Centralization at strategic levels and at Headquarters. Partial decentralization at tactical and operational levels, per region and country.
Specific policies and rules	<ol style="list-style-type: none"> 1. The ICTAAP shall provide the guidelines regarding compliance levels of programmed interventions and application availability goals. 2. This process shall ensure the correct operation of applications, anticipating any need for expansion, replacement or renewal that may result in improvement projects for the ICT Institutional Management process. 3. The need for support provided by external resources shall be considered. Contracting times must also be taken into account to guarantee the continuity of institutional operations. 4. Cybersecurity initiatives implemented throughout the process must guarantee the safeguarding of information against intrusions from parties external to IICA. 5. Three levels of responsibility are defined to address these tasks: <ul style="list-style-type: none"> • 1st level: end user resolves the issue with the support of ICTM. • 2nd level: ICTM resolves the issue directly. • 3rd level: issue is resolved by an external supplier. 6. All level 2 and level 3 incidents and requirements must be revised to determine whether corrective actions are to be taken or large-scope changes made.
Computer systems	Monitoring systems.
Indicators	<ul style="list-style-type: none"> • Applications installed with no errors after delivery. • Number of level 2 and level 3 incidents solved in a timely manner in relation to the total number of incidents received at said levels. • Number of incidents received by an end user in relation to the total number of incidents received.

Process	Subprocess
10.2 Application operations.	10.2.1 Engineering of New Applications.
	10.2.2 Maintenance of Applications.
	10.2.3 Maintenance of Web and Cloud Developments.



Subprocess

10.2.1 Engineering of New Applications.

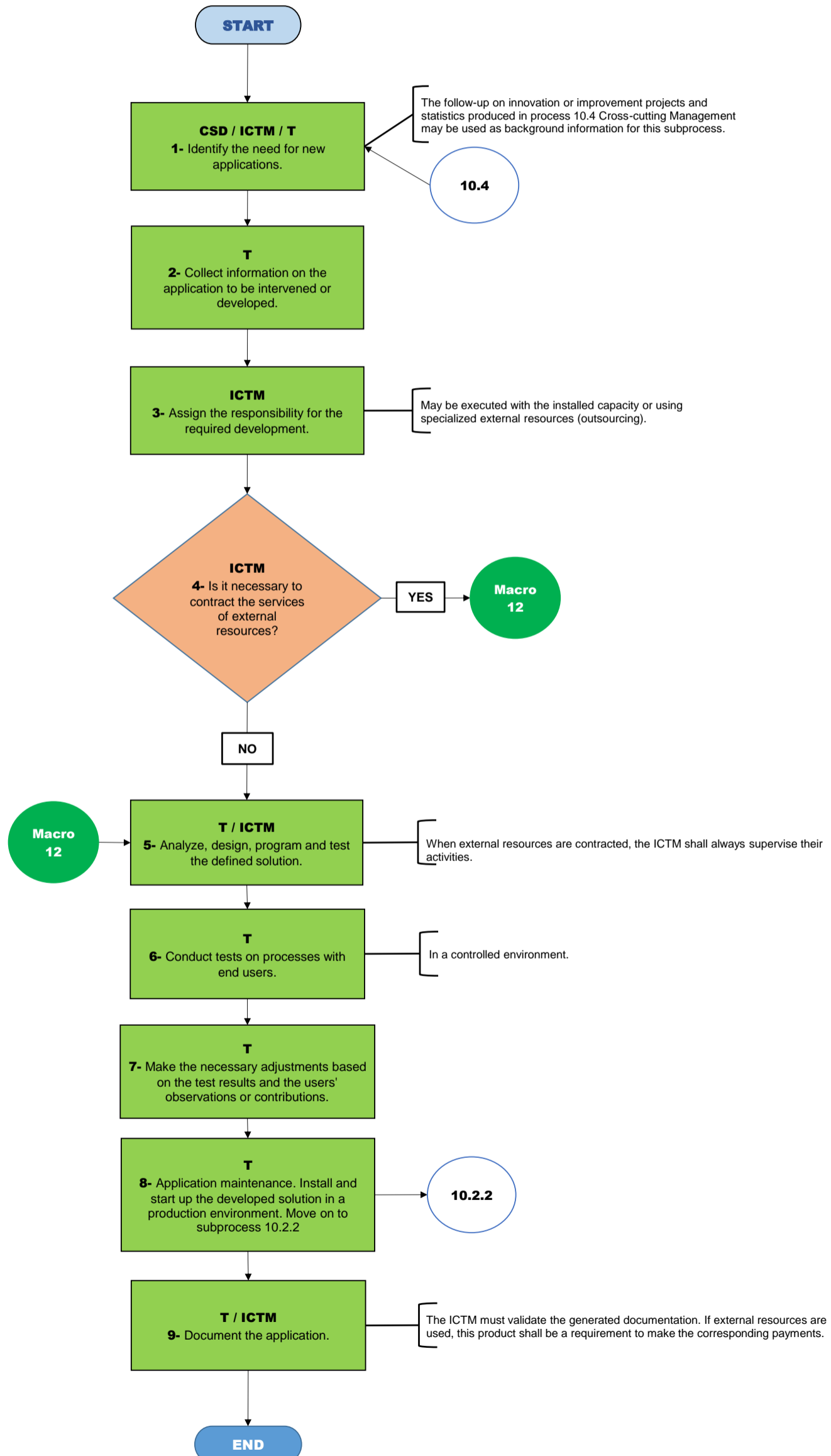
Objective	Ensure the timely detection and efficient implementation of additional developments, generated as a result of projects or incidents detected in the Cross-cutting Management process.	
Inputs	Background Information	Reference Material
	<ul style="list-style-type: none">Preventive intervention requirements (established by developers)Corrective action needs (based on incident monitoring)	<ul style="list-style-type: none">Application inventory.Documentation generated by developers (internal or external).Procedures Manual for the Procurement of Goods and Services.Service Catalogue.Statistical report from Process 10.4 Cross-cutting Management.Reference documents defined by subprocess support systems.
Outcomes	Installed applications with a level of availability equal to or higher than the current level.	

10.2 Operation of applications.

10.2.1 Engineering of New Applications.

PARTIES INVOLVED

Corporate Services Director (DSC)
Information and Communication Technologies and DA Manager (ICTM)
ICT Technicians (T)





Subprocess

10.2.2 Maintenance of Applications.

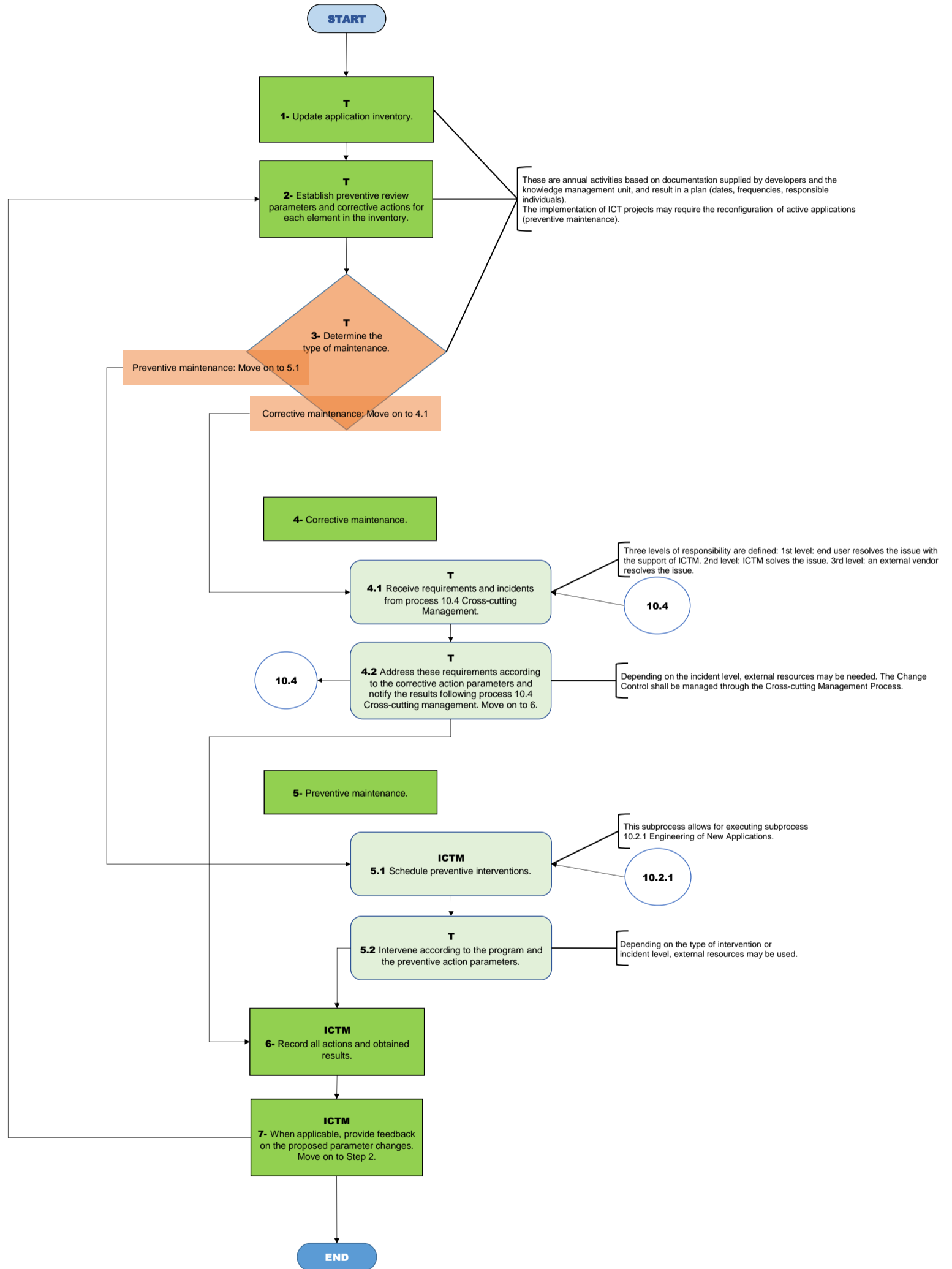
Objective	Ensure that all applications installed at IICA are up-to-date and capable of providing the functionality and availability required by the processes they support.	
Inputs	Background Information	Reference Material
	<ul style="list-style-type: none"> Incidents detected in the Cross-cutting Management process regarding application development (levels 2 and 3). Identification of needs to modify installed applications (as a result of the implementation of innovation projects or improvements). 	<ul style="list-style-type: none"> The ICTAAP shall establish the guidelines for programmed interventions and application availability goals. Inventory of applications installed at IICA. Documentation generated by developers (internal and external). Procedures Manual for the Procurement of Goods and Services. Service catalogue. Reference documents defined by subprocess support systems.
Outcomes	Installed applications at IICA with a level of availability that is equal to or higher than the current level.	

10.2 Operation of applications.

10.2.2 Maintenance of Applications.

PARTIES INVOLVED

Corporate Services Director (CSD)
Information and Communication Technologies and DA Manager (ICTM)
ICT Technicians (T)





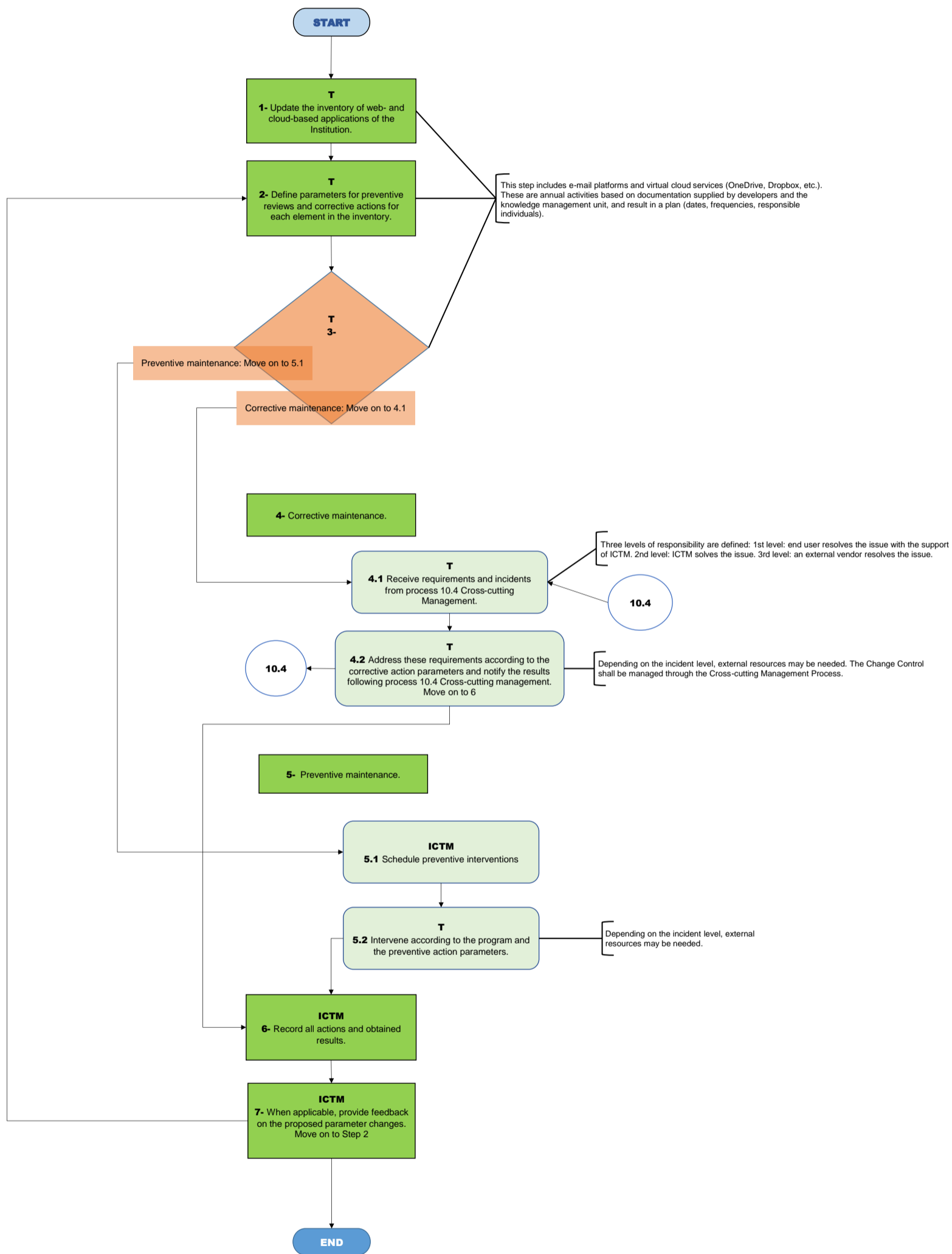
Subprocess		
10.2.3 Maintenance of Web and Cloud Developments.		
Objective	Ensure that all web and cloud applications acquired or developed at IICA are updated and in suitable condition to offer the required availability and functionality.	
Inputs	Background Information	Reference Material
	<ul style="list-style-type: none">Incidents detected in the Cross-cutting Management process related to web and cloud applications.	<ul style="list-style-type: none">Inventory of web and cloud applications.Documentation generated by developers (internal or external).Procedures Manual for the Procurement of Goods and Services.Reference documents defined by the subprocess support systems.
Outcomes	Installed applications at IICA with a level of availability that is equal to or higher than the current level.	

10.2 Application operations.

10.2.3 Maintenance of Web and Cloud Developments.

PARTIES INVOLVED

Corporate Services Director (CSD)
Information and Communication Technologies and DA Manager (ICTM)
ICT Technicians (T)





Process	
10.3 Infrastructure Operations.	
Objective	Ensure that all infrastructure installed at IICA is functional and available as required to maintain a continuous institutional operation.
Scope	Hemispheric level. Technical-regulatory actions at a hemispheric level. Centralization at strategic levels and at Headquarters. Partial decentralization at tactical and operational levels, per region and country.
Specific policies and rules	<ol style="list-style-type: none"> 1. The ICTAAP shall provide the guidelines regarding compliance levels of programmed interventions and infrastructure availability goals. 2. This process shall ensure the correct operation of software and hardware, anticipating any need for expansion, replacement or renewal that may lead to improvement projects for the ICT Institutional Management process. 3. The need for support provided by external resources shall be considered. Contracting times must also be taken into account to guarantee the continuity of institutional operations. 4. Cybersecurity initiatives implemented throughout the process shall guarantee the safeguarding of information against intrusions from parties external to IICA. 5. Three levels of responsibility are defined to address these tasks: <ul style="list-style-type: none"> • 1st level: end user resolves the issue with the support of ICTM. • 2nd level: ICTM resolves the issue directly. • 3rd level: issue is resolved by an external vendor. 6. All level 2 and level 3 incidents and requirements must be revised to determine whether corrective actions are to be taken or wide-scope changes made.
Computer systems	
Indicators	<ul style="list-style-type: none"> • The infrastructure availability (telecommunications, system availability, servers, etc.) must be equal to or higher than 99%. • Number of level 2 and level 3 incidents solved in a timely manner in relation to the total number of incidents received at said levels. • Number of incidents received by an end user in relation to the total number of incidents received.

Process	Subprocess
10.3 Infrastructure Operations.	10.3.1 Management of Network and Telecommunications Wiring.
	10.3.2 Network Management.
	10.3.3 Telecommunications Management.
	10.3.4 Maintenance of Technology Infrastructure.



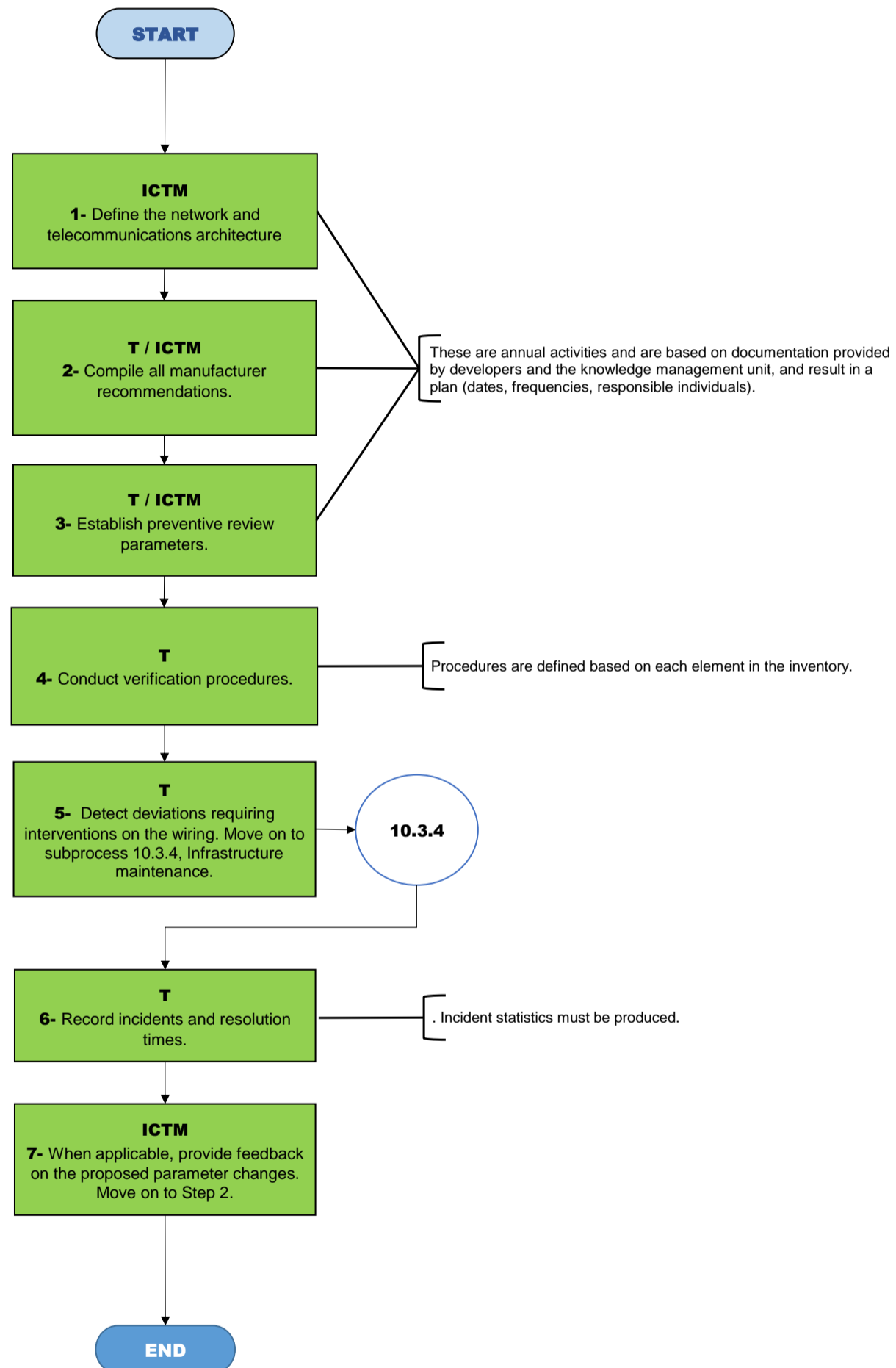
Subprocess					
10.3.1 Management of Networks and Telecommunications Wiring.					
Objective	Ensure that all wiring infrastructure is in optimal condition to support the flow of information that IICA must generate for voice and data transmission processes.				
Inputs	<table border="1"> <thead> <tr> <th>Background Information</th> <th>References</th> </tr> </thead> <tbody> <tr> <td> <ul style="list-style-type: none"> Preventive intervention requirements (defined by the manufacturers), established based on relevant issues identified through failure monitoring or by internal users. </td> <td> <ul style="list-style-type: none"> Inventory of network wiring. Documentation generated by manufacturers. Procedures Manual for the Procurement of Goods and Services. Service Catalogue. Reference documents defined by the subprocess support systems. </td> </tr> </tbody> </table>	Background Information	References	<ul style="list-style-type: none"> Preventive intervention requirements (defined by the manufacturers), established based on relevant issues identified through failure monitoring or by internal users. 	<ul style="list-style-type: none"> Inventory of network wiring. Documentation generated by manufacturers. Procedures Manual for the Procurement of Goods and Services. Service Catalogue. Reference documents defined by the subprocess support systems.
	Background Information	References			
<ul style="list-style-type: none"> Preventive intervention requirements (defined by the manufacturers), established based on relevant issues identified through failure monitoring or by internal users. 	<ul style="list-style-type: none"> Inventory of network wiring. Documentation generated by manufacturers. Procedures Manual for the Procurement of Goods and Services. Service Catalogue. Reference documents defined by the subprocess support systems. 				
Outcomes	Network and telecommunications wiring suitably controlled in operational conditions.				

10.3 Infrastructure operations.

10.3.1 Management of Network and Telecommunications Wiring.

PARTIES INVOLVED

**Corporate Services Director (CSD)
Information and Communication Technologies and DA Manager (ICTM)
ICT Technicians (T)**





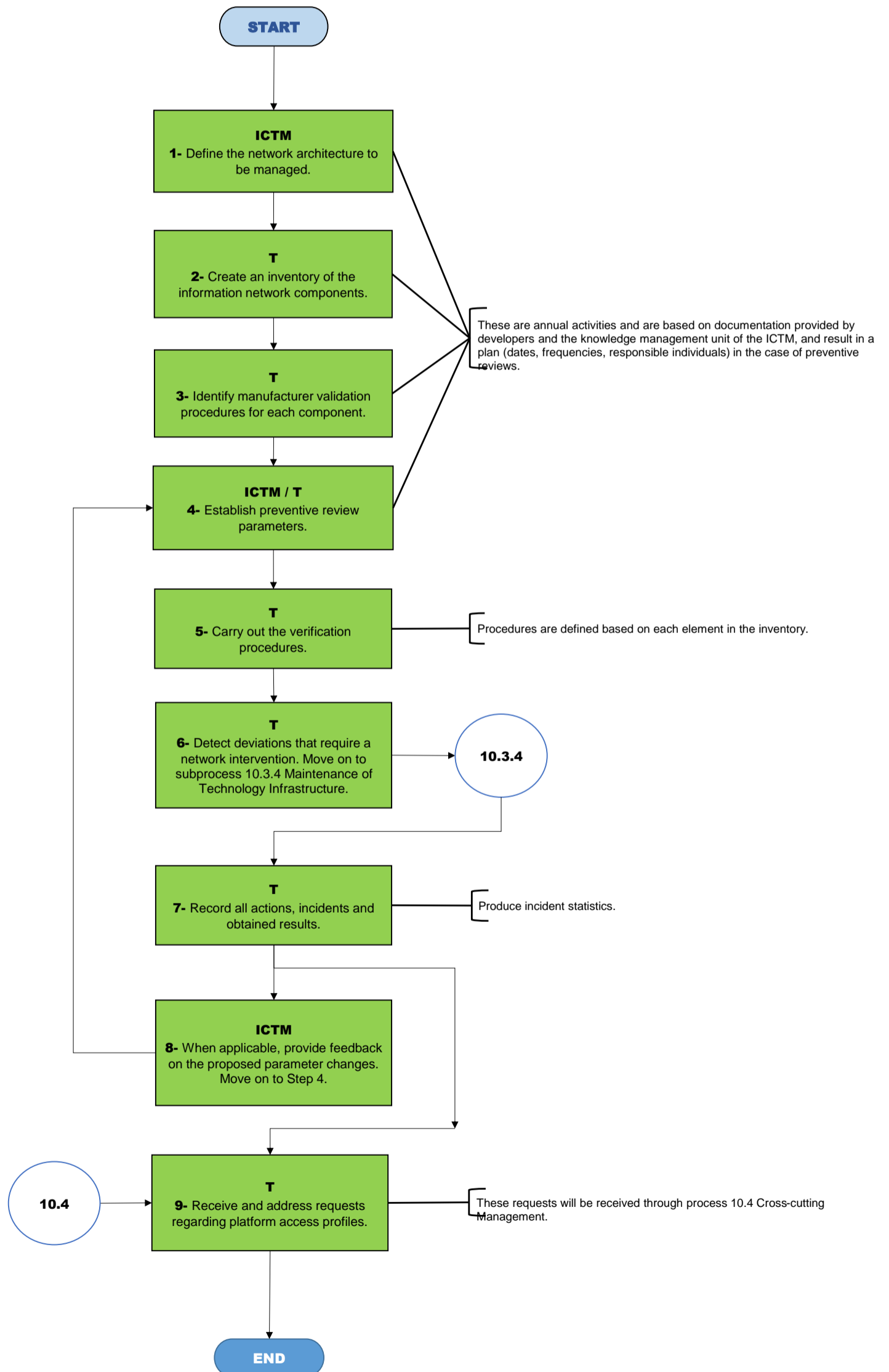
Subprocess		
10.3.2 Management of Networks.		
Objective	Ensure that all wiring infrastructure is in optimal condition to support the flow of information that IICA must generate for voice and data transmission processes, with the required security levels.	
Inputs	Background Information	Reference Material
	<ul style="list-style-type: none"> • Preventive intervention requirements (defined by the manufacturers), established based on relevant issues identified through failure monitoring or by internal users. 	<ul style="list-style-type: none"> • Inventory of network wiring. • Documentation generated by manufacturers. • Procedures Manual for the Procurement of Goods and Services. • Service Catalogue. • Reference documents defined by the subprocess support systems.
Outcomes	Data and voice networks correctly maintained and operational. Guaranteed integrity and safeguarding of the Institute's technological information flow.	

10.3 Infrastructure operations.

10.3.2 Management of Networks.

PARTIES INVOLVED

Corporate Services Director (CSD)
Information and Communication Technologies and DA Manager (ICTM)
ICT Technicians (T)





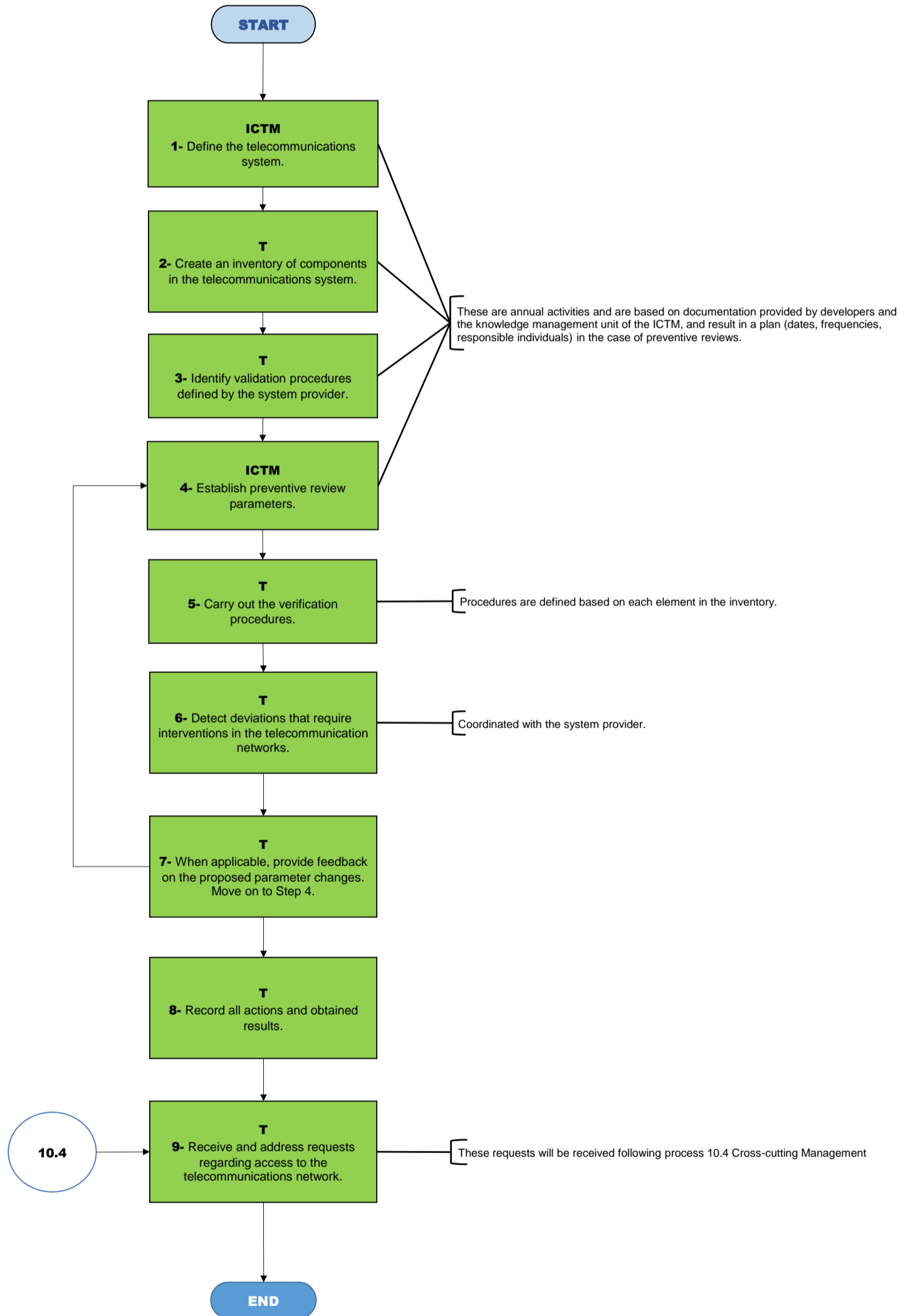
Subprocess		
10.3.3 Telecommunications Management.		
Objective	Ensure that the telecommunications service is operational, readily available, efficient and functional in order to support the voice communication needs of IICA.	
Inputs	Background Information	Reference Material
	<ul style="list-style-type: none">Preventive or corrective intervention requirements (defined by the manufacturers), established based on relevant issues identified through failure monitoring or by internal users.	<ul style="list-style-type: none">Logical network schemes and telecommunication components.Documentation generated by suppliers.Procedures Manual for the Procurement of Goods and Services.Service Catalogue.Reference documents defined by the subprocess support systems
Outcomes	Available telecommunication service with the functionality required to meet institutional demands.	

10.3 Infrastructure operations.

10.3.3 Telecommunications Management.

PARTIES INVOLVED

Corporate Services Director (CSD)
Information and Communication Technologies and DA Manager (ICTM)
ICT Technicians (T)





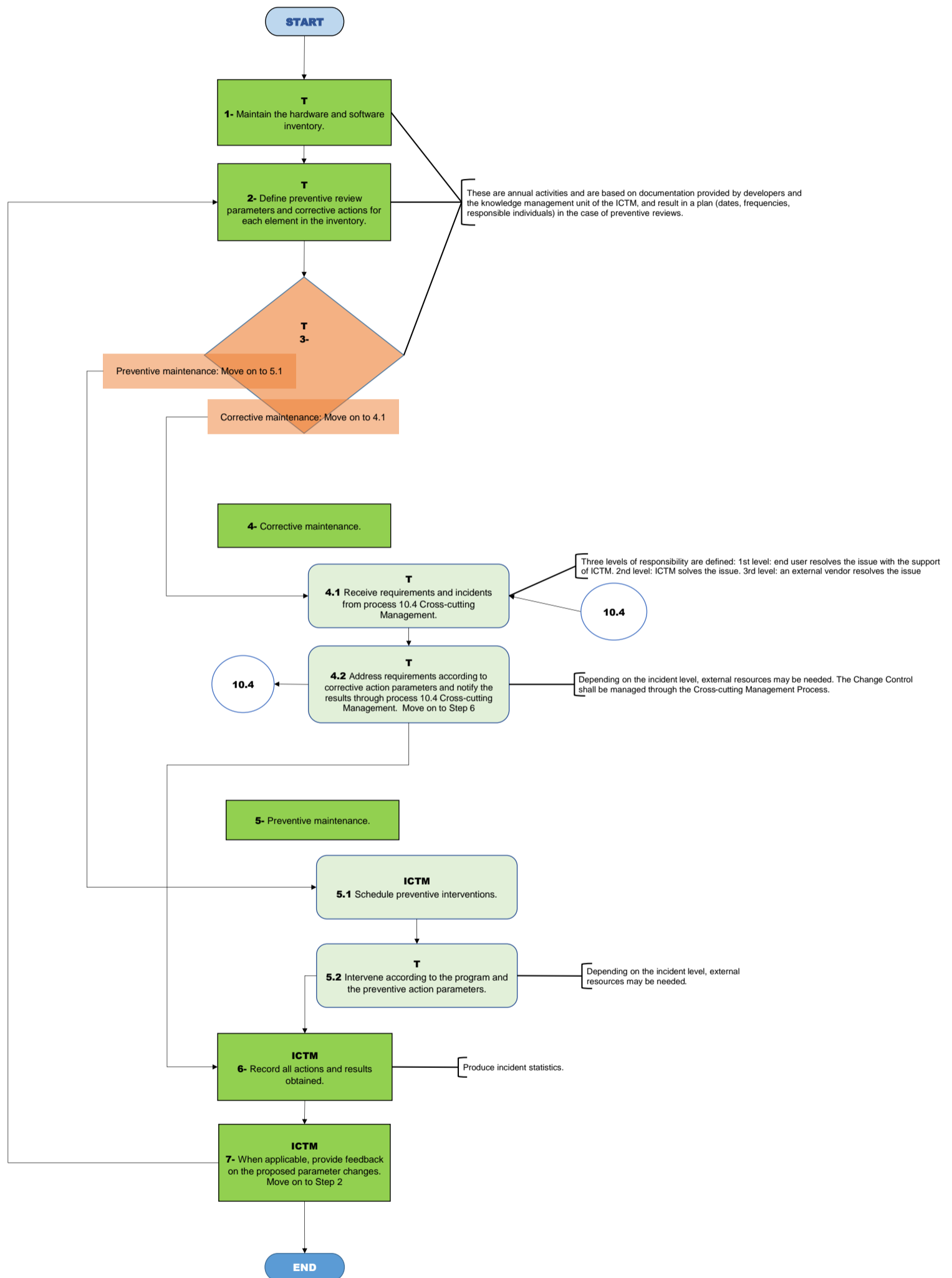
Subprocess		
10.3.4 Maintenance of Technology Infrastructure.		
Objective	Ensure that IICA's technology infrastructure is available and operates as required, through preventive or corrective interventions originated at administrative levels or based on requests submitted by users.	
Inputs	Background Information	Reference Material
	<ul style="list-style-type: none">Incidents detected in the Cross-cutting Management process regarding technology infrastructure (levels 2 and 3).Hardware and software inventory.	<ul style="list-style-type: none">Annual Infrastructure Plan.Documentation generated by suppliers.Procedures Manual for the Procurement of Goods and Services.Service Catalogue.Reference documents defined by the subprocess support systems.
Outcomes	Infrastructure and networks adequately maintained and operational.	

10.3 Infrastructure operations.

10.3.4 Maintenance of Technology Infrastructure

PARTIES INVOLVED

Corporate Services Director (CSD)
Information and Communication Technologies and DA Manager (ICTM)
ICT Technicians (T)





Process		
10.4 Cross-cutting Management.		
Objective	Ensure the continuity of macroprocesses and the promotion of continuous improvement initiatives through the effective management of relevant requirements, failure and/or incident resolution.	
Scope	Hemispheric level. Technical-regulatory actions at a hemispheric level. Centralization at strategic levels and at Headquarters. Partial decentralization at tactical and operational levels, per region and country.	
Specific policies and rules	<ol style="list-style-type: none"> 1. The ICTAAP shall set forth the guidelines for programmed interventions and infrastructure availability goals. 2. This process includes corrective action requirements generated through operative processes or by the end user. 3. The Service Catalogue shall determine the scope of ICT management. Any request unrelated to this document shall be deemed unacceptable for this process. 4. The Service Catalogue must be updated each time new incidents are detected or corrective measures are applied. 5. The Service Catalogue must be accessible (controlled inquiries) for all IICA staff members. 6. All of the addressed incidents and requirements shall be reviewed on a monthly basis to identify issues that require a large-scale intervention or modifications in the technology infrastructure, which in turn require improvement or innovation projects. 7. The need for support provided by external resources shall be considered. Contracting times must also be taken into account to guarantee the continuity of institutional operations. 	
Computer systems		
Indicators	<ul style="list-style-type: none"> • Number of level 1 incidents solved in a timely manner in relation to the total number of incidents received at said levels. • Number of incidents addressed in a timely manner in relation to the total number of incidents received. • New recorded incidents. • Degree of user satisfaction. 	
	Background Information	References
Inputs	<ul style="list-style-type: none"> • Detection of failures or incidents identified in other subprocesses of the Information and Communication Technologies macroprocess. • Requirements to address failures or incidents received by users. • Service Catalogue (valid). 	<ul style="list-style-type: none"> • Reference documents defined by the subprocess support systems.
Outcomes	Service Catalogue (updated). End-user requirements adequately addressed. Monitoring and control of infrastructure and network functionality at an end-user level.	

10.4 Cross-cutting Management.

PARTIES INVOLVED	Corporate Services Director (CSD)
	Information and Communication Technologies and DA Manager (ICTM)
	ICT Technicians (T)
	Help Desk (HD)

