



SOFTWARE FACTORY

PRESENTATION MODEL

Review: January 2018

© **iT-South Consultores**

740 Alicia Moreau de Justo Ave., 3rd floor, office 1

Bs.As., Puerto Madero, C1107AAR - Argentina

Telephone +54 +11 4334-0033 4343-3157

Email: info@itsouth.com.ar

Web: www.itsouth.com.ar

INDEX

SOFTWARE FACTORY Model..... 4

Software Factory – Detail of the service..... 5

 SERVICE LIFE CYCLE..... 5

 Start..... 5

 Setup 6

 Takeover..... 6

 Operations..... 7

 Transition 7

 Project Close..... 8

 Summary of reach of service..... 9

 SERVICE ACTIVITIES 10

 Detail of activities..... 11

 TEAM MODEL 12

 Roles of service 12

 Team models..... 12

 Team capacity 13

 Available teams..... 14

 MANAGEMENT MODEL..... 15

 Agile project strategy 15

 Management model..... 16

 Work units 16

 Dynamics of iterations 17

 Measurements of the service 18

Example of SLA model..... 19

Changes management 20

CONTROL MODEL 21

TOOLS AND INFRASTRUCTURE 22

Infrastructure and management..... 22

Life cycle 22

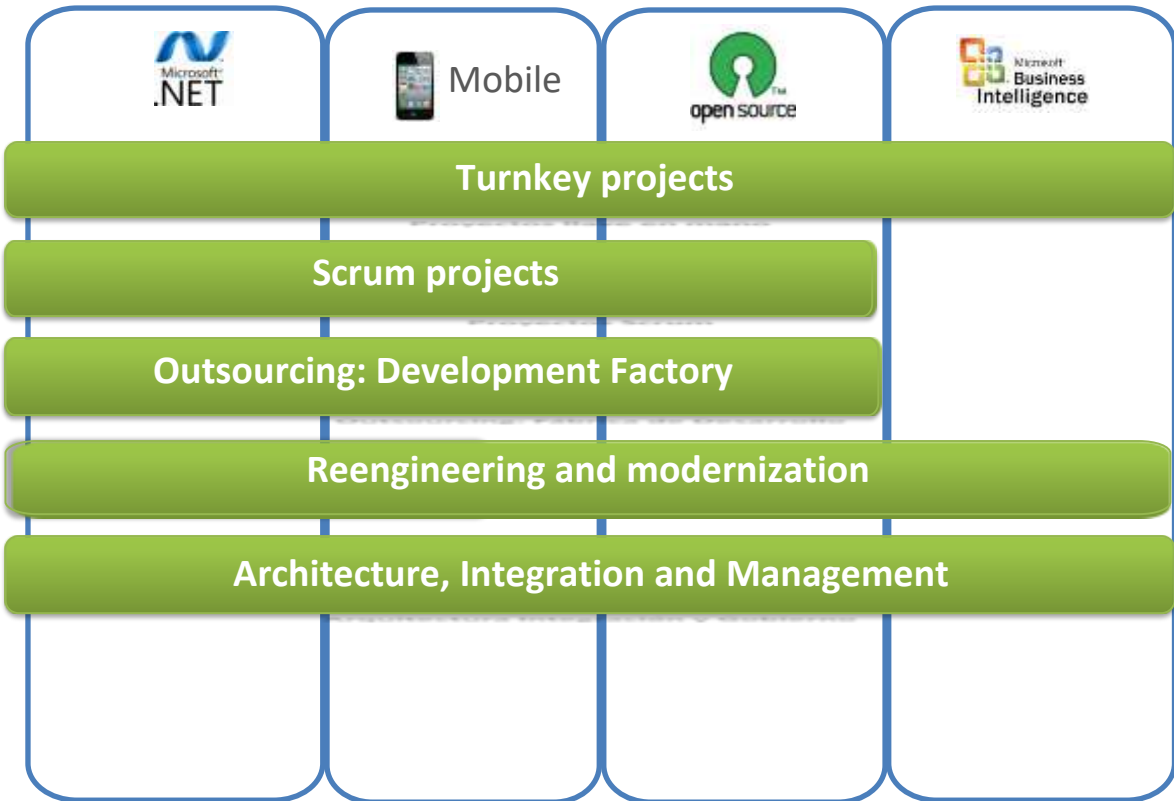
Measurable 23

Flexible 23

Confiable 23

SOFTWARE FACTORY MODEL

The service covers different technologies, architectures and development modalities or types of projects.



SOFTWARE FACTORY – DETAIL OF THE SERVICE

This model can be described by exploring the following aspects:

- Service Life Cycle
- Service Activities
- Team Model
- Management Model
- Control Model
- Tools and Infrastructure

SERVICE LIFE CYCLE

START



The objective is to agree on a first sizing and scope of service

- Initial map of solutions
- Equipment sizing and composition
- Preliminary design of the service level agreement (SLA)
- Workplace and infrastructure
- Time / geographical coverage
- Control model
- Hiring the service - Confidentiality Agreements

SETUP



The objective is to leave the equipment ready for the takeover activities, in the agreed place of work and with the required infrastructure

- Installation and configuration of the work environment and support tools (SCM tool¹, incident management)
- Collection of existing documentation
- Knowledge transfer planning
- Incident and evolutionary backlog review
- Definition of the communication and interaction with the other interlocutors – Service procedures - Methodology
- Model of monitoring reports - Metrics
- Kick-off service

TAKEOVER



"To transfer the operation of the service, from the client's equipment to the ITSouth's one"

- Knowledge transfer
 - Training sessions by solution
 - Joint resolution of incidents (outside the SLA)
 - Detailed review of the backlog
- Update documentation by solution
- Initial prioritization of the backlog
- Identify points of improvement

¹ Software Configuration Management

OPERATIONS



It is the development itself

- Sprint diagramming
- Development of iteration activities
- Compliance control, metrics
- Sprint closure
- Retrospective

TRANSITION



The objective is to transfer the operation of the service, from the ITSouth team to the Client's team

- Service restitution plan
- Review of the documentation delivered
- Generated knowledge base
- Knowledge transfer
- Post transition support

PROJECT CLOSE



The objective is to learn from the situations that were raised throughout the service or in the period considered

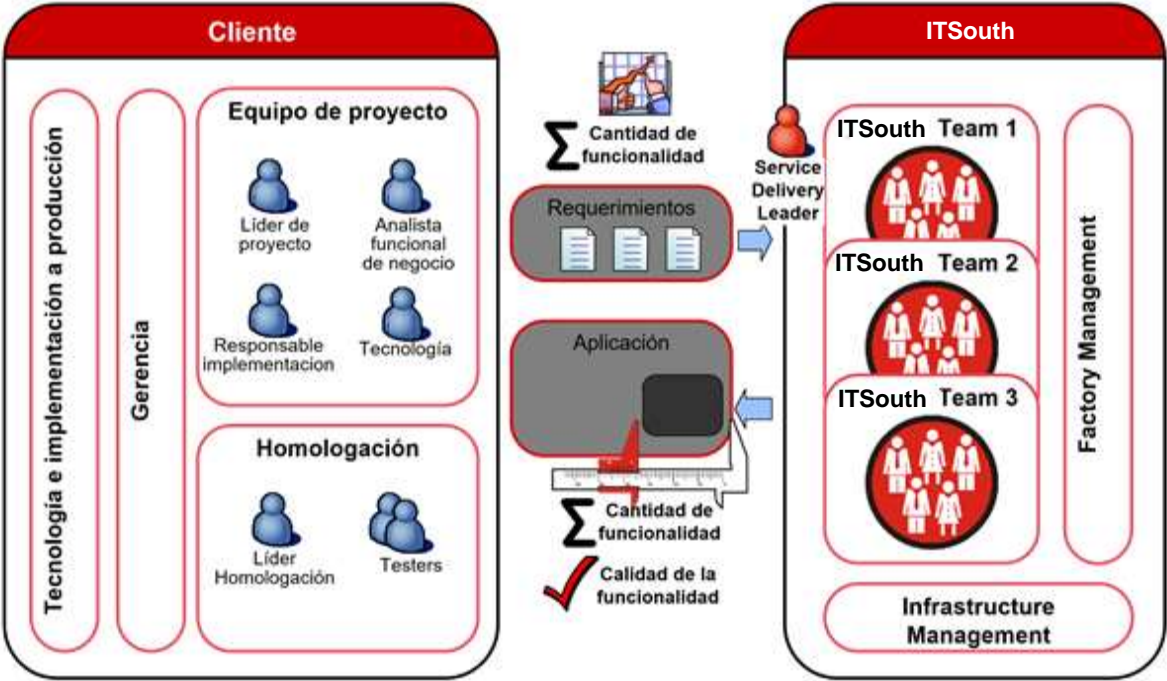
- Presentation of the Final Service Report
- Learned lessons
- Administrative / legal closure
- In services with annual renewal, it is usually done at the end of each period

SUMMARY OF REACH OF SERVICE

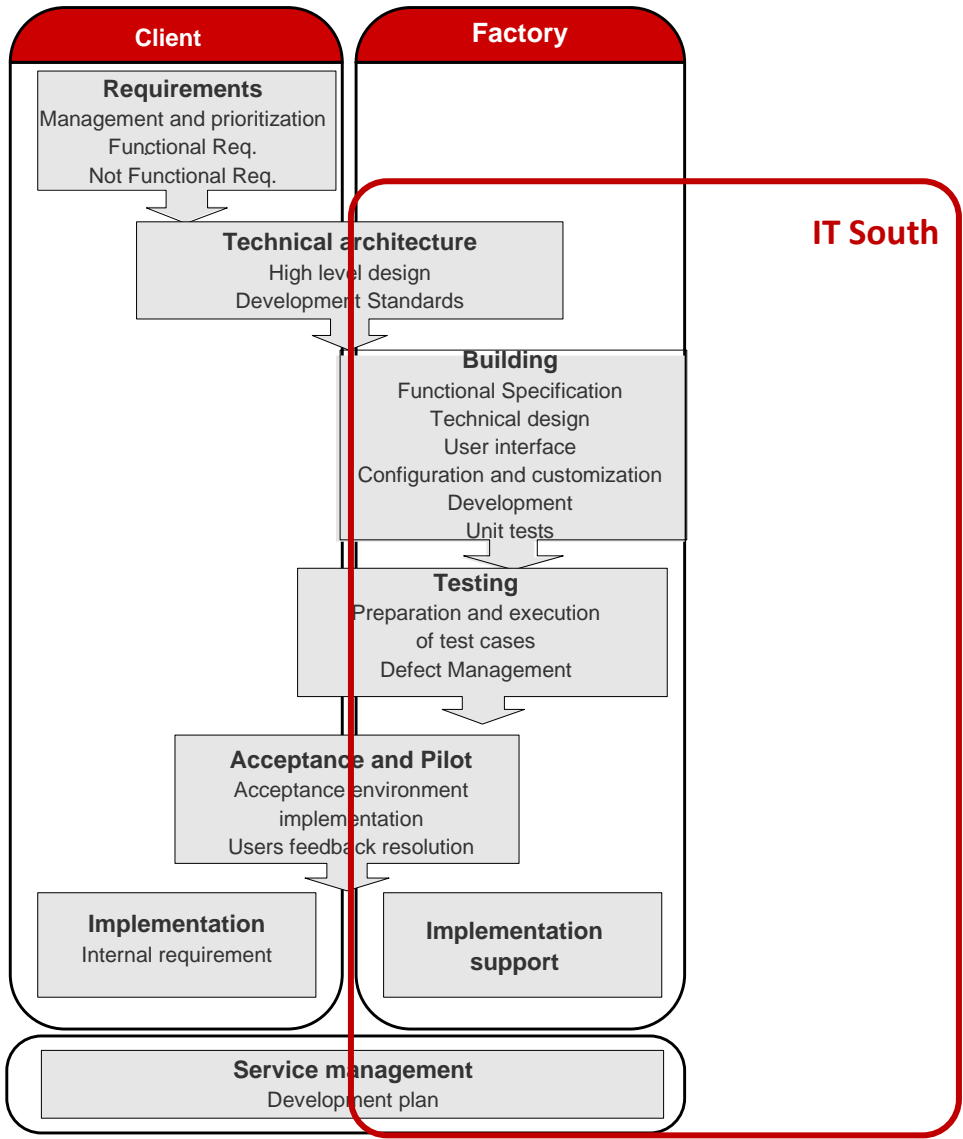
- Inventory of applications to be developed and / or supported
- Service benefits
 - Corrective maintenance (Incidences)
 - Repair of errors / defects in the solutions at production in order to ensure the availability and functionality required by the business.
 - Evolutionary maintenance
 - Improvements and small developments
 - Preventive maintenance
 - Adaptations to changes in the platform or execution environment
 - New developments
 - Development of new functionalities or new solutions, aimed at implementing new business requirements that are not supported by current solutions.
- Service management, monitoring and reporting
- Consulting activities, support and *Start Up* of projects.

SERVICE ACTIVITIES

- Plan and provide the requirements to be built by the service
- Build the requirements with an integral service, managed by productivity and quality level



DETAIL OF ACTIVITIES



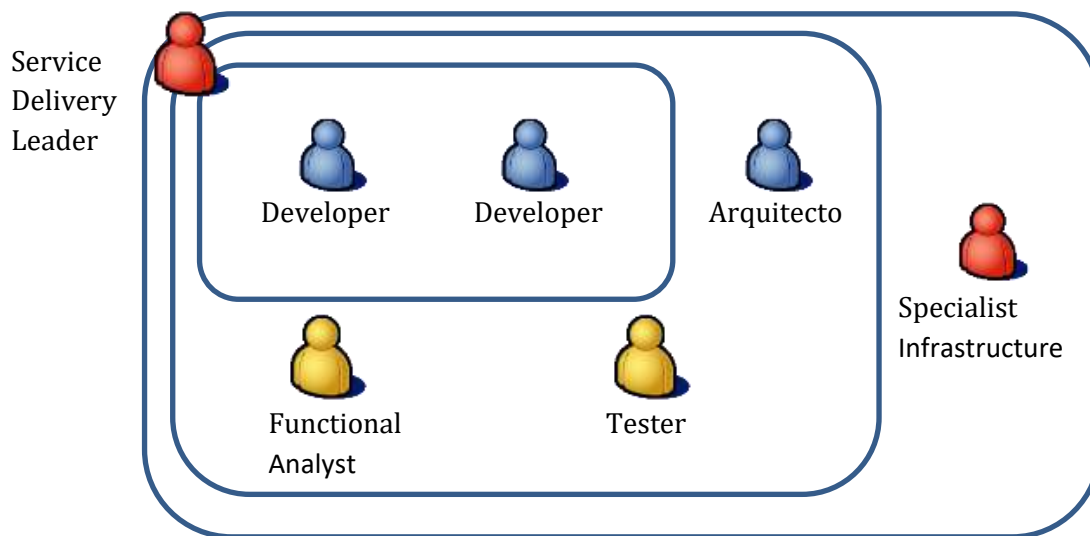
TEAM MODEL

ROLES OF SERVICE

- Service Leader
 - He is responsible for business relations, provision of human resources and general coordination of the ITSouth work team.
 - Responsible for the coordination of the project with the client and the project itself by ITSouth.
- Architect
 - Responsible for the design of the solution. This includes the evaluation of the key technical decisions of the overall design of the solution.
- Developer
 - Responsible for generating the code, according to the defined requirements provided
- Functional Analyst/Tester
 - Responsible for giving functional support to the developers
 - Responsible for functional tests
 - Responsible for user documentation
- Usability Specialist -optional-
 - Design of the usability of the application, recommendations and implementation of the proposals

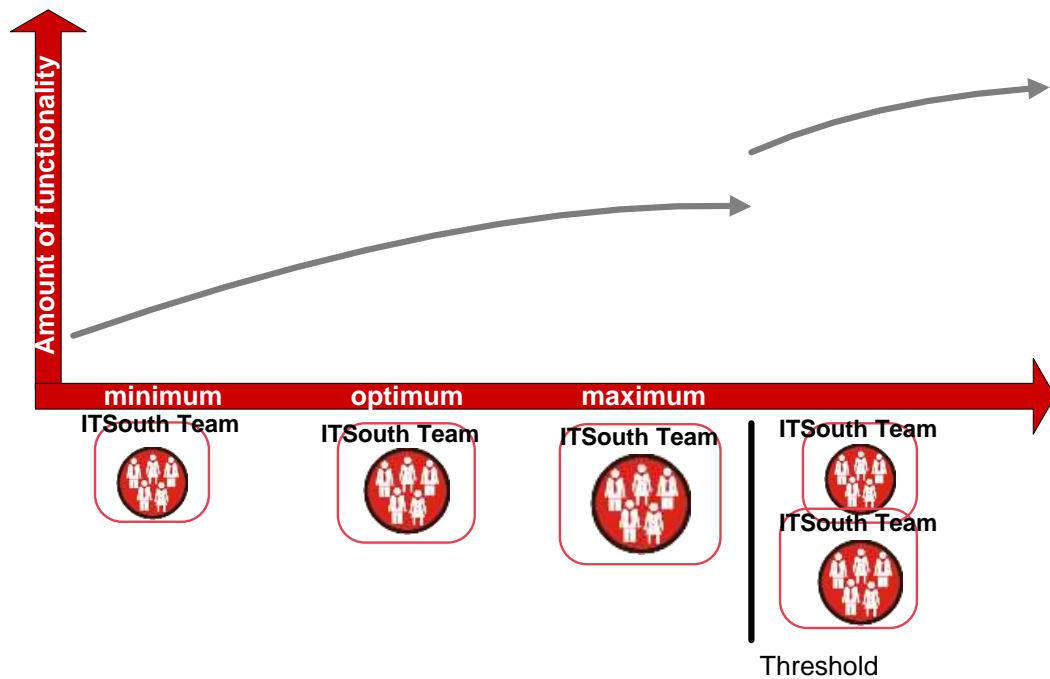
TEAM MODELS

The **roles** and **team model** are configured according to the complexity of the projects

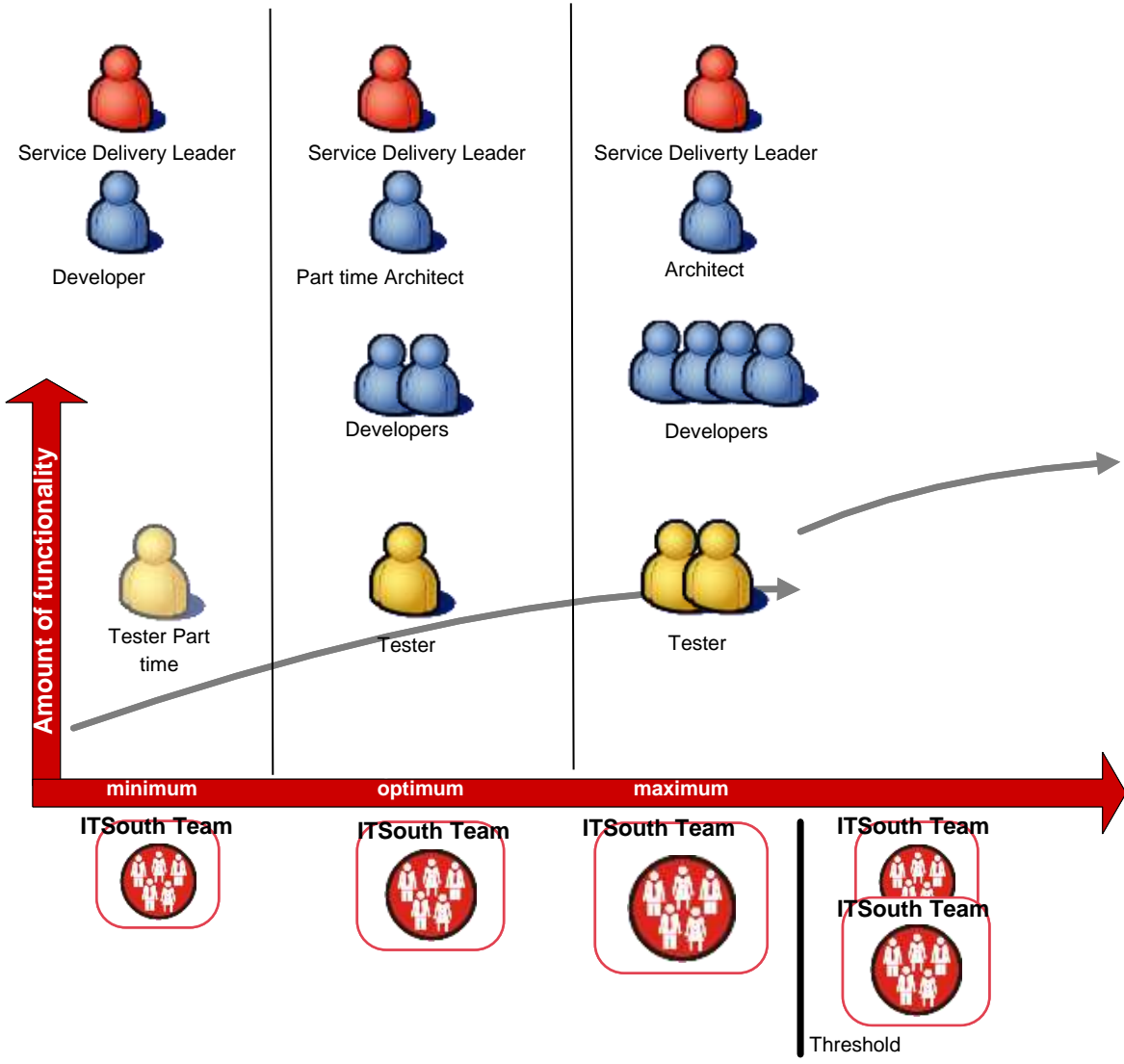


TEAM CAPACITY

- The amount of functionality an ITSouth Team can deliver depends on its size. The size of each ITSouth Team can vary between:
 - Minimum: Minimum required of an ITSouth Team
 - Optimum: The best productivity ratio (capacity / cost)
 - Maximum: Beyond which there is no capacity increase
- Obtain greater amount of functionality after the maximum size threshold, it requires incorporating a new ITSouth Team



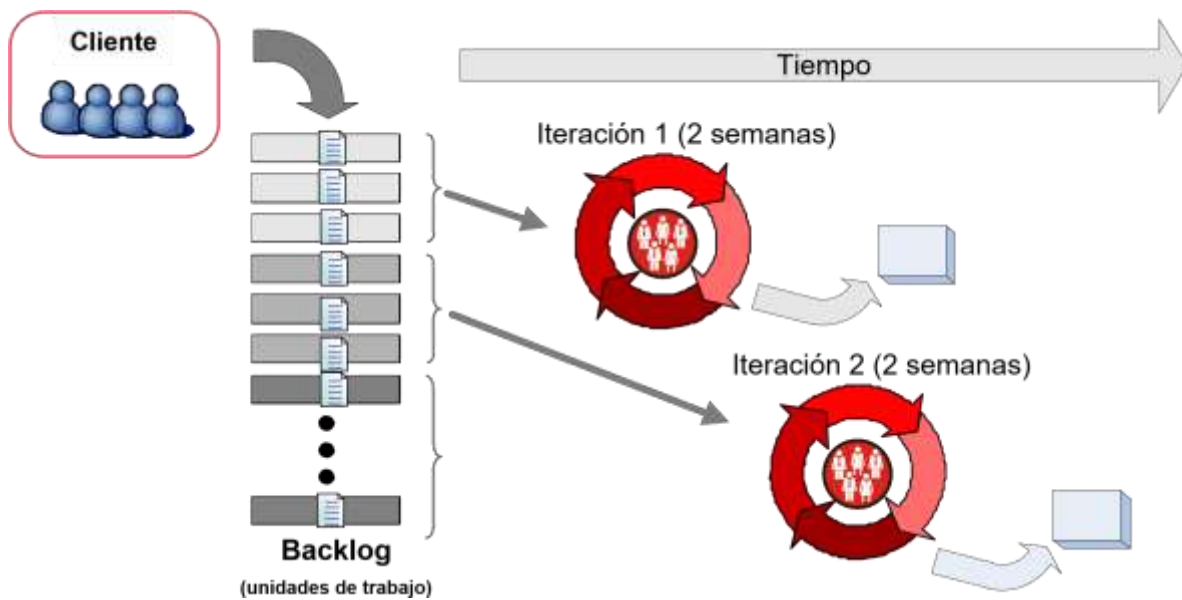
AVAILABLE TEAMS



MANAGEMENT MODEL

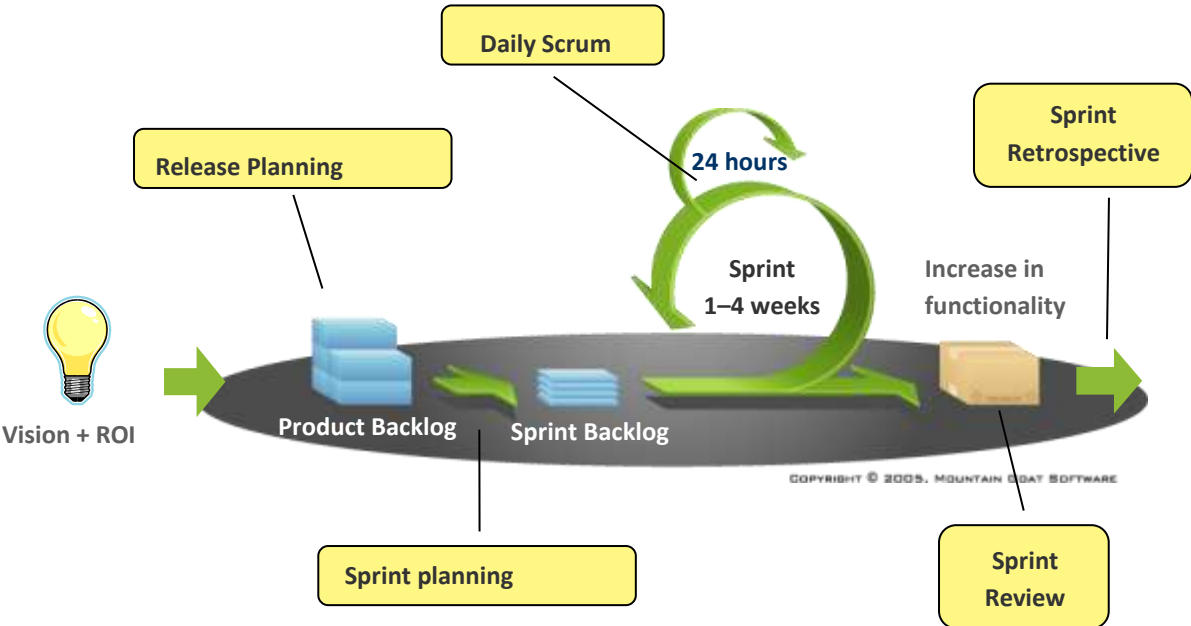
AGILE PROJECT STRATEGY

- Interdisciplinary teams, which include the client (or a representative)
- Frequent delivery of working software
- Strong focus on quality
- Builds and periodic tests, integration with high frequency



- The backlog consolidates the work to be carried out in work units
- The work is organized to deliver functionality every 2 weeks
- The content and size of the next delivery are planned together. Each delivery is concrete and measurable in terms of quantity and quality
- The necessary design, development and testing activities are carried out to build each delivery
- The quantity and quality of the delivered functionality are measured and validated

MANAGEMENT MODEL



WORK UNITS

- Each unit of work is broken down into development tasks
- Each development task is classified / valued in hours of effort

Unit of work	Construction tasks	Hours of maximum effort of execution
Work unit X	Task 1	hh
	Task 2	hh
	Task 3	hh

Valuation ("Unit of work x") = Hours of maximum effort

- Pre-agreed task model
 - Maintenance of a standardized task catalogue
 - Hours of execution effort expected by task

DYNAMICS OF ITERATIONS

1. The **work units** are consolidated
2. The construction team **classifies and evaluates** each item on the backlog
3. The items of the backlog to be built in the next iteration are **agreed** together, with a quantity of work according to the capacity of the Team
4. The quantity and quality of the delivered functionality are measured.

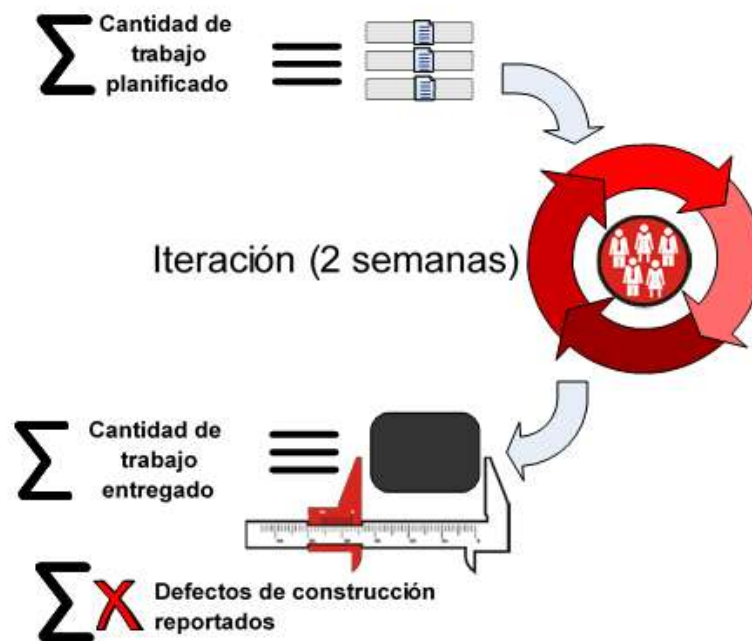
MEASUREMENTS OF THE SERVICE

It is measured:

- Valorization of planned work units
- Valorization of work units effectively delivered
- Number of defects reported

From the measurements, we obtain indicators of:

- Productivity
- Compliance with deadlines
- Quality

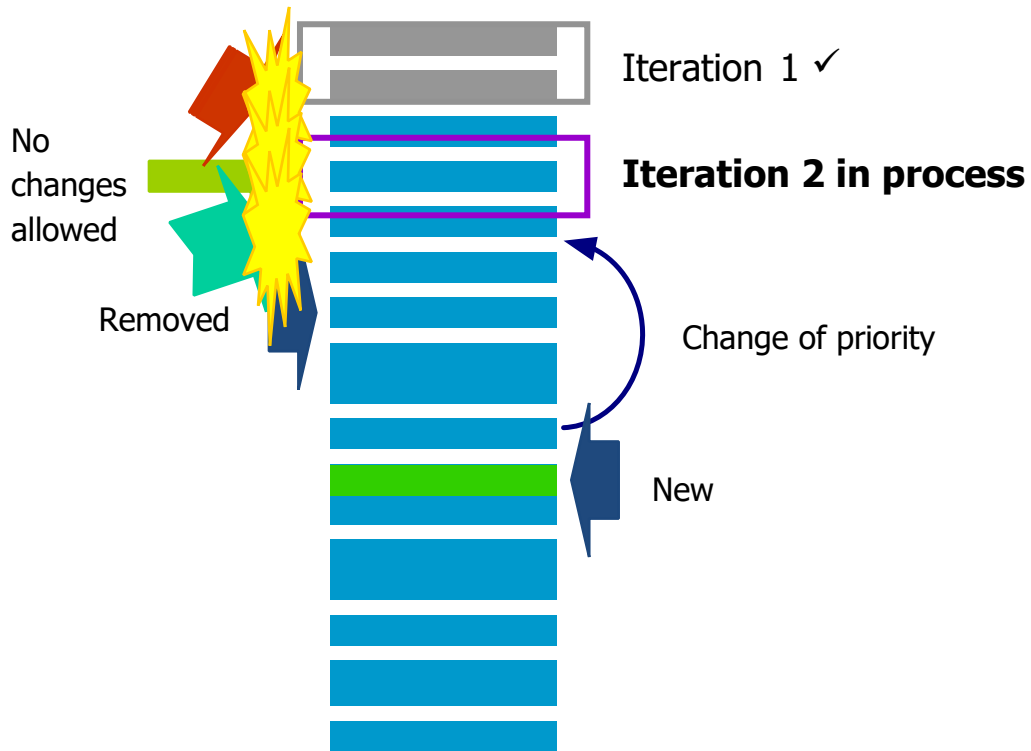


EXAMPLE OF SLA MODEL

Dimension	Metric	Target sought	Measuring method	Formula	Desired performance (indicator)
Productivity	M = Quantity of delivered functionality	Maximize the amount of functionality delivered by the service	x = Total valuation of the work units delivered	$M = x$	To be defined in the implementation stage
	M = Percentage of production over installed capacity	Use all the capacity and comply with the hours of maximum effort of work units execution	N = Available capacity in hours of service x = Total valuation of the work units delivered	$M = x / N$	To be defined in the implementation stage
Deadlines	M = Delay of work units	Meet deadlines for all planned work units	N = Total number of delayed work units X = sum of the total number of iterations of delay of each unit of work delayed	$M = x / N$	To be defined in the implementation stage
	M = Percentage of work units delayed	Meet deadlines for all planned work units	N = Total valuation of the planned work units X = Total valuation of the delayed work units	$M = x / N$	To be defined in the implementation stage
Quality	M = Percentage of re-opened incidents	Do not find incidents that have to be reopened	N = Total valuation of the work units delivered X = Total valuation of the work units of type incidents reopened	$M = x / N$	To be defined in the implementation stage
	M = Percentage of reported defects of high celerity	Minimize the number of reported defects of high and critical severities	N = Total valuation of the work units delivered X = total number of reported defects of severity	$M = x / N$	To be defined in the implementation stage

CHANGES MANAGEMENT

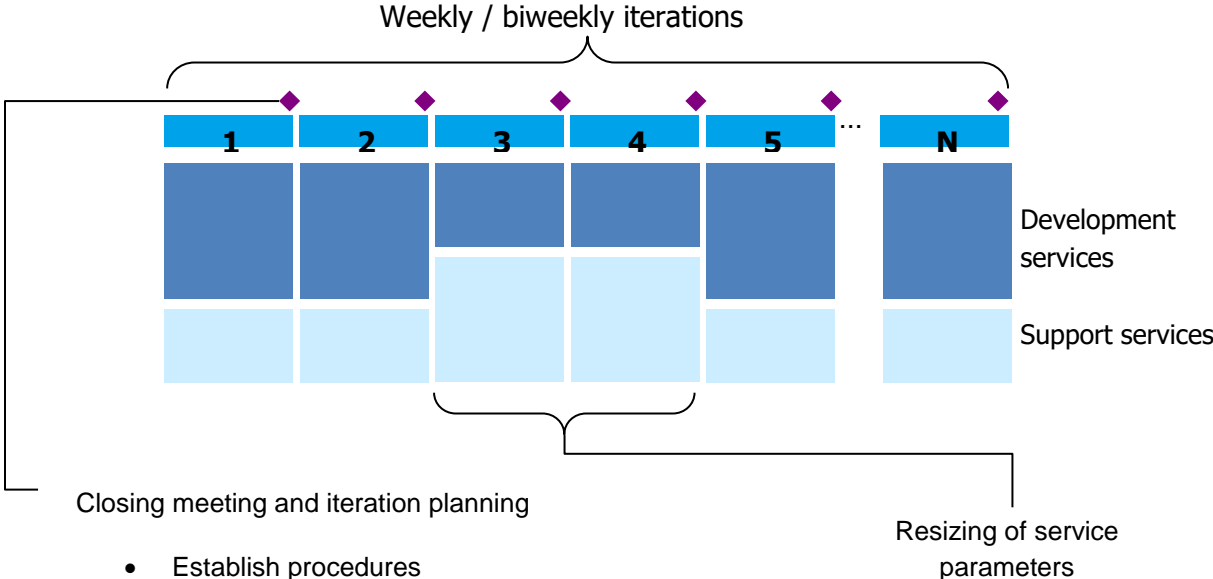
BACKLOG OF WORK UNITS



- An iteration can be modified only with:
 - Replacement of uninitiated work units
 - Assignment of additional resources

CONTROL MODEL

Each iteration close will be done through a meeting in which the following activities will be carried out



- Establish procedures
- Review of deliverables
- Support / development distribution
- Analysis of results (Complete vs. planned items)
- Planning of the next iteration
- Formalize agreements

TOOLS AND INFRASTRUCTURE

INFRASTRUCTURE AND MANAGEMENT

- Hardware
- Basic software and development tools
- Development environments
- Point-to-Point connectivity
- Internal support

LIFE CYCLE

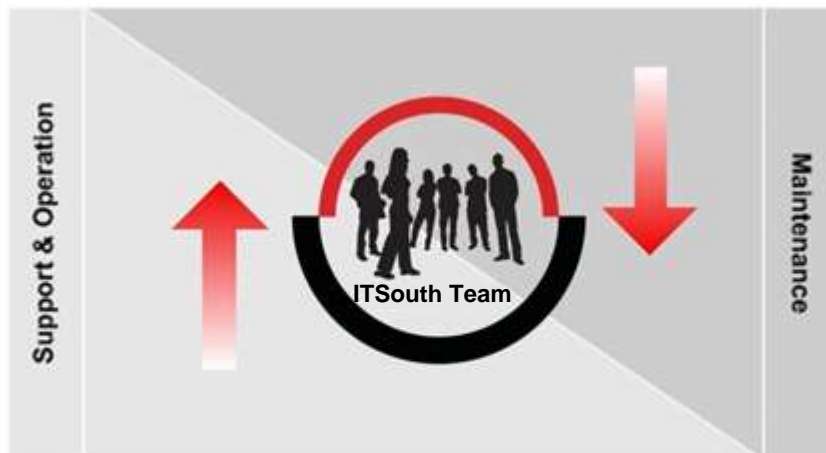
- Short and regular iterations - Visibility
 - The main objective of this practice is to obtain concrete results at the end of each iteration that guarantee the regular visibility of the progress
- Exchangeable scope of the non-developed
 - This concept implies the possibility of changing a requirement initially defined in the scope by another of equal size, as long as that requirement is not being developed in the current iteration.
 - And every new requirement will be added at the end and it will be prioritized according to the needs of the project and the user.

MEASURABLE

- **Productivity**
 - Number of features completed per cycle (speed)
 - Earned Business Value per cycle
 - Lead Time (time from the generation of the requirement until it is in production)
- **Quality**
 - Amount of discovered errors
 - Amount of incidents in production
- **Delivery times**
 - % of Features / Value delivered over planned

FLEXIBLE

- The composition of the ITSouth is
 - Adaptable to each problem
 - Configurable in time
 - Number of members adaptable to the demand
- The scope of the service is reviewed periodically
- Own infrastructure available
- Hourly coverage models and guards



CONFIABLE

- **+20 years perfecting the model**
- **Technical solidity**
 - Multiple platforms
 - Multiple architectures
- **Specific resource management**
 - Scheduled rotations
 - Focus on the assurance of continuity of service
 - Scheme of contingency assignments

iT South Consultores

740 Alicia Moreau de Justo Ave., 3rd floor, office 1

Capital Federal, C1107AAN, Argentina

Telephone +54 (11) 4334-0033 / 4343-3157

Email: info@itsouth.com.ar

www.itsouth.com.ar

