



# *EFACEC Presentation*

## *Information System – Internationalization Challenge*

September 2014

- I. Introduction**
- II. EFACEC Profile
- III. Business Units Overview
- IV. EFACEC Information System
- V. Internationalization Challenge
- VI. Lessons Learned
- VII. Q&A

# Introduction



Efacec is a Portuguese company present in over 65 countries in all 5 continents.

With more than 3,900 employees and over 900 million euros of turnover.

Present in sectors that represent world future development, from energy to transportation and engineering, from the environment to services and renewable energies.

Developing the state-of-the-art technologies through competence, quality and entrepreneurship.



## Clear mission and vision

### Mission

**Improving power/energy, transportation and environmental infrastructures for a sustainable world:**

- Building long lasting partnerships;
- Leveraging on technology;
- Ensuring responsiveness and flexibility;
- Attracting and developing world talent;
- Offering a consistent return to stakeholders.

### With a Vision

**To be the preferred partner in delivering worldwide innovative and customized solutions for power, transportation and the environment.**

I. Introduction

**II. EFACEC Profile**

III. Business Units Overview

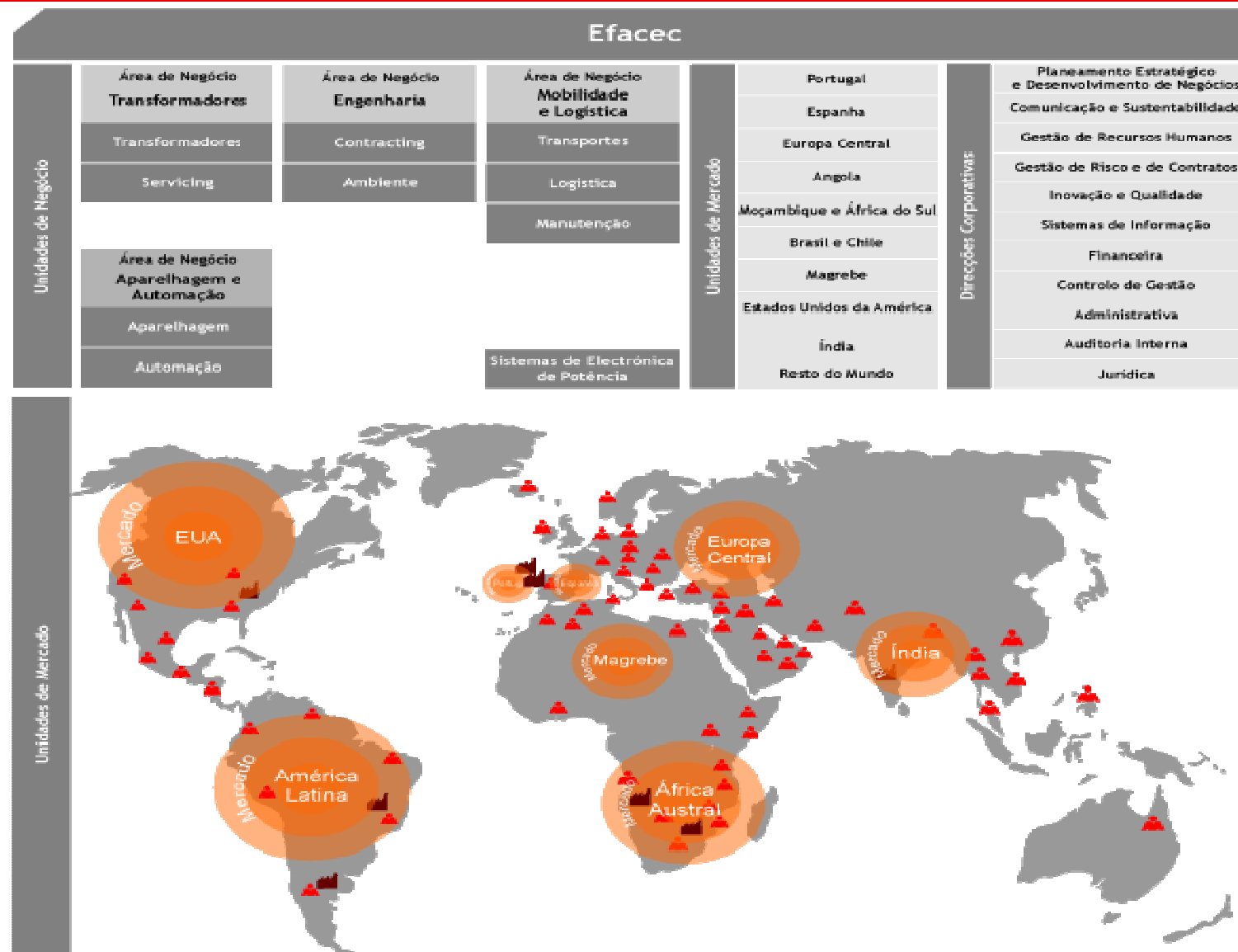
IV. EFACEC Information System

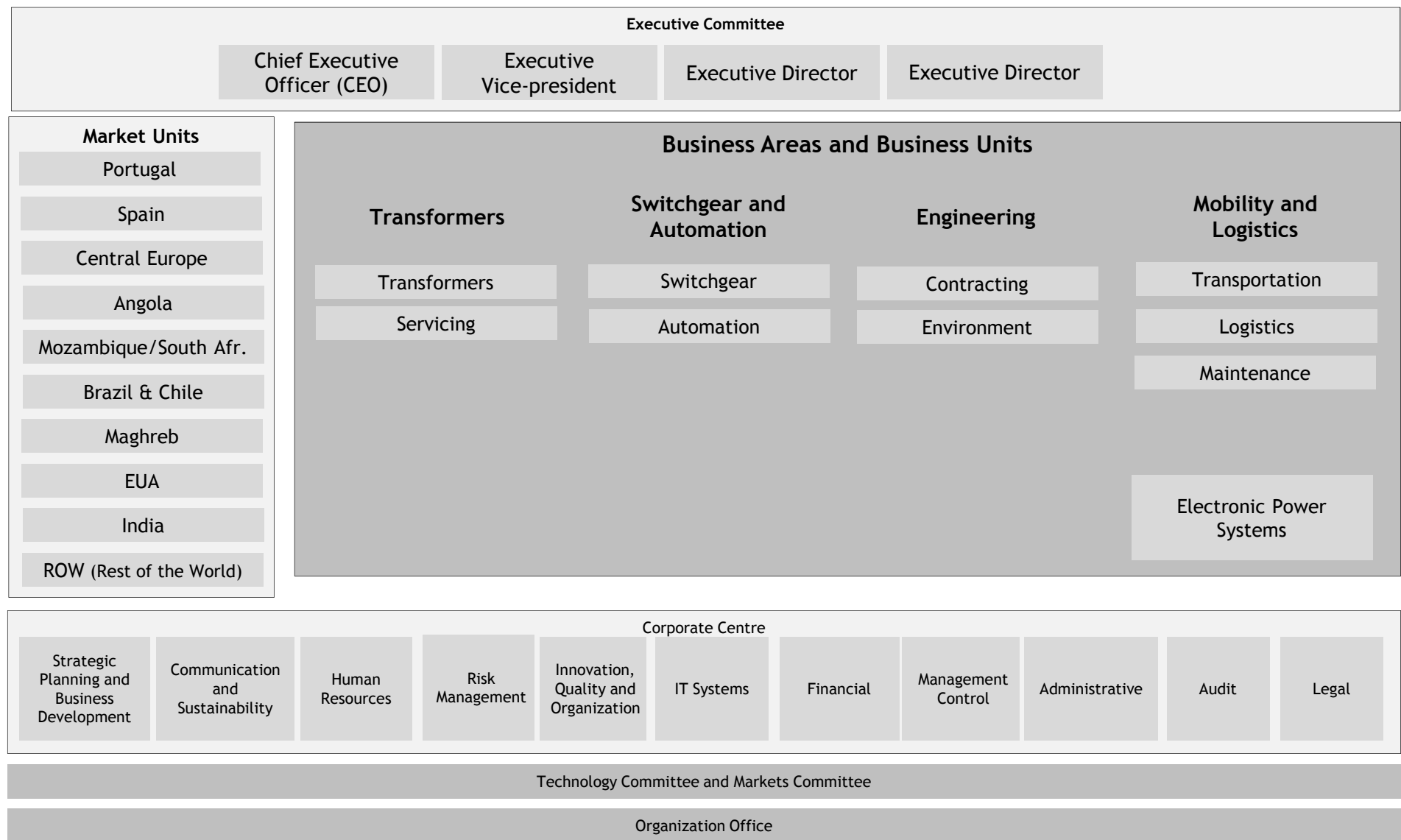
V. IT Internationalization Challenge

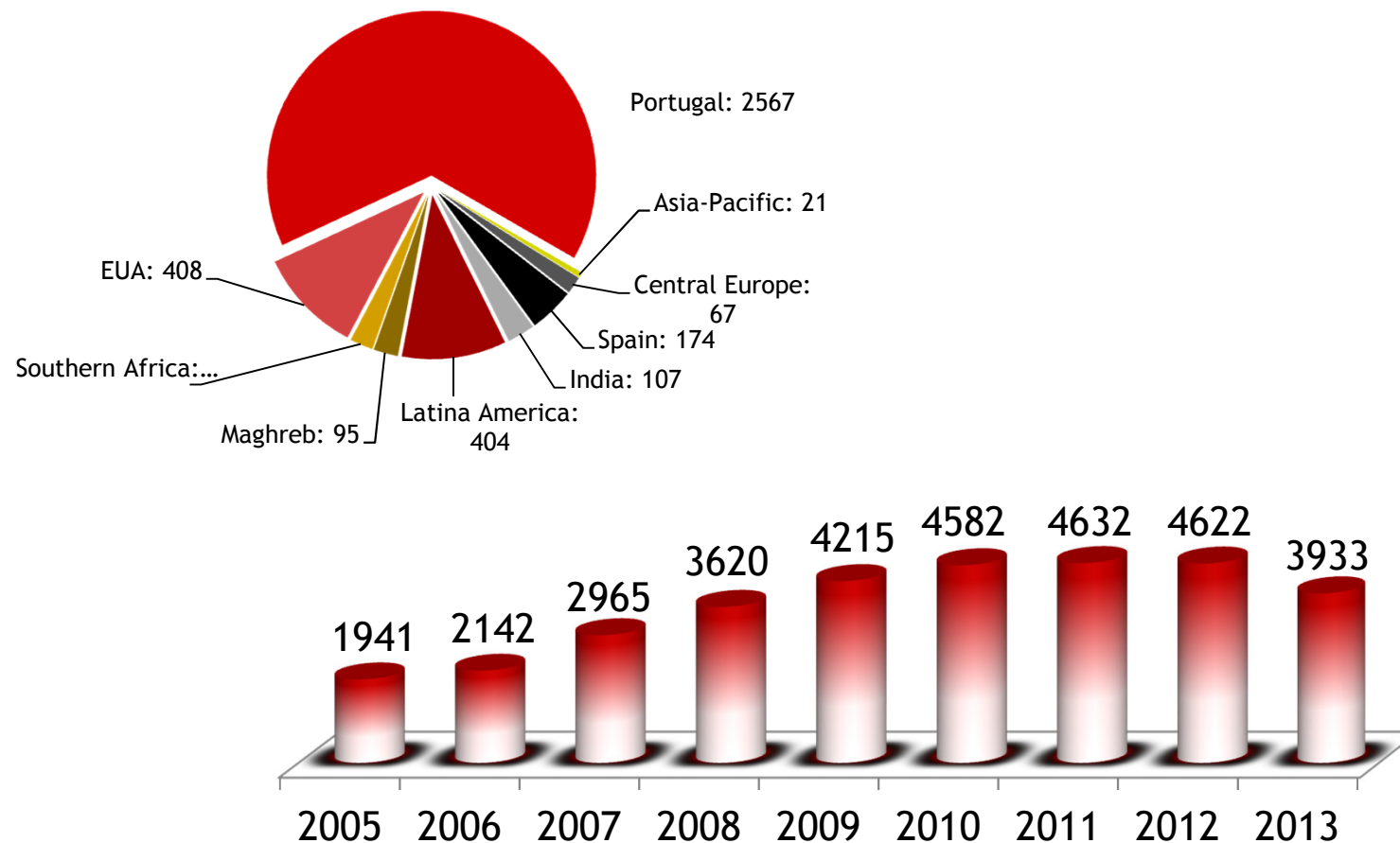
VI. Lessons Learned

VII. Q&A

# Organizational model







**Over 220 People dedicated to R&D + I**

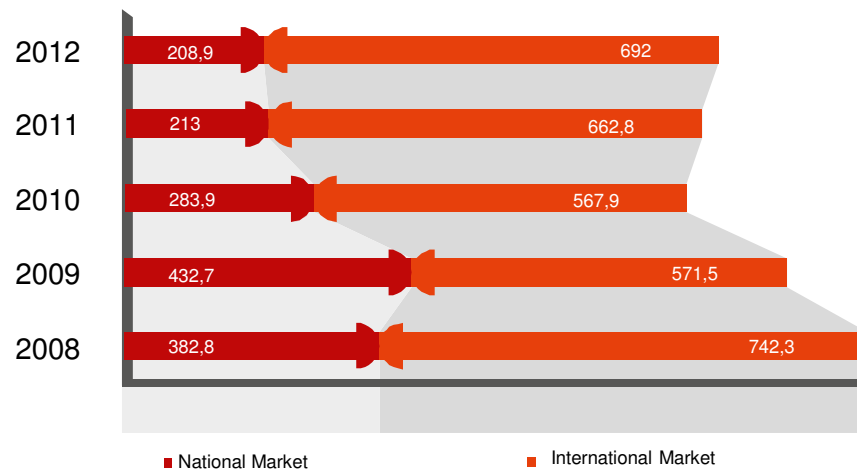
**≥ 22.6 M€ invested in R&D + I activity**



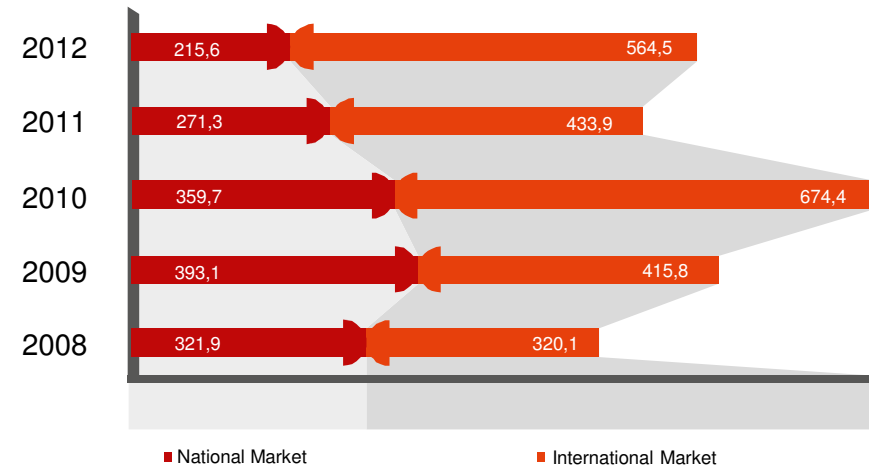
# Sales and Orders



Orders (M€)



Sales (M€)



Increase of Business Areas volume compared to 2011 (+ 11%).

Increase of orders in 2012, overcoming 900 M€.

Increase backed-up by international expansion (+4%).

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## Efacec Portfolio

Transformers

Switchgear and Automation

Engineering

Mobility and Handling

Electronic Power Systems



# Business Areas



Transformers



Servicing

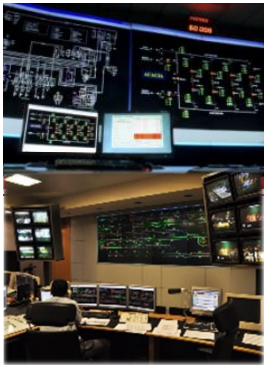


Switchgear





# Business Areas



Automation



*Energy*



*Renewable Energy*



*Environment*

Engineering



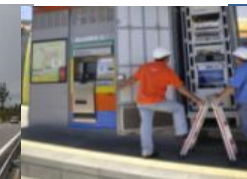
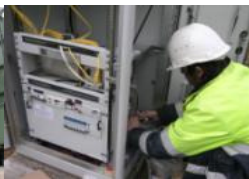
# Business Areas



Mobility  
&  
Handling



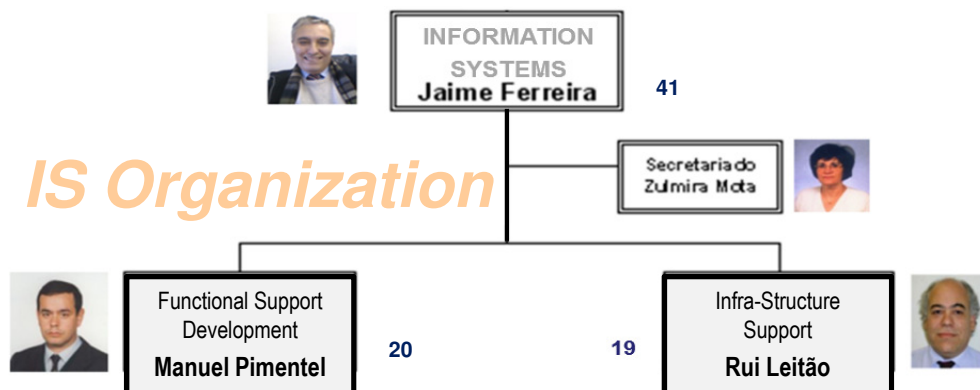
Maintenance



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## Mission

*Support and Develop "Efacec Group's Information System"  
Enabling efficiency improvement for all that use Information Technologies to support their Business Processes .*

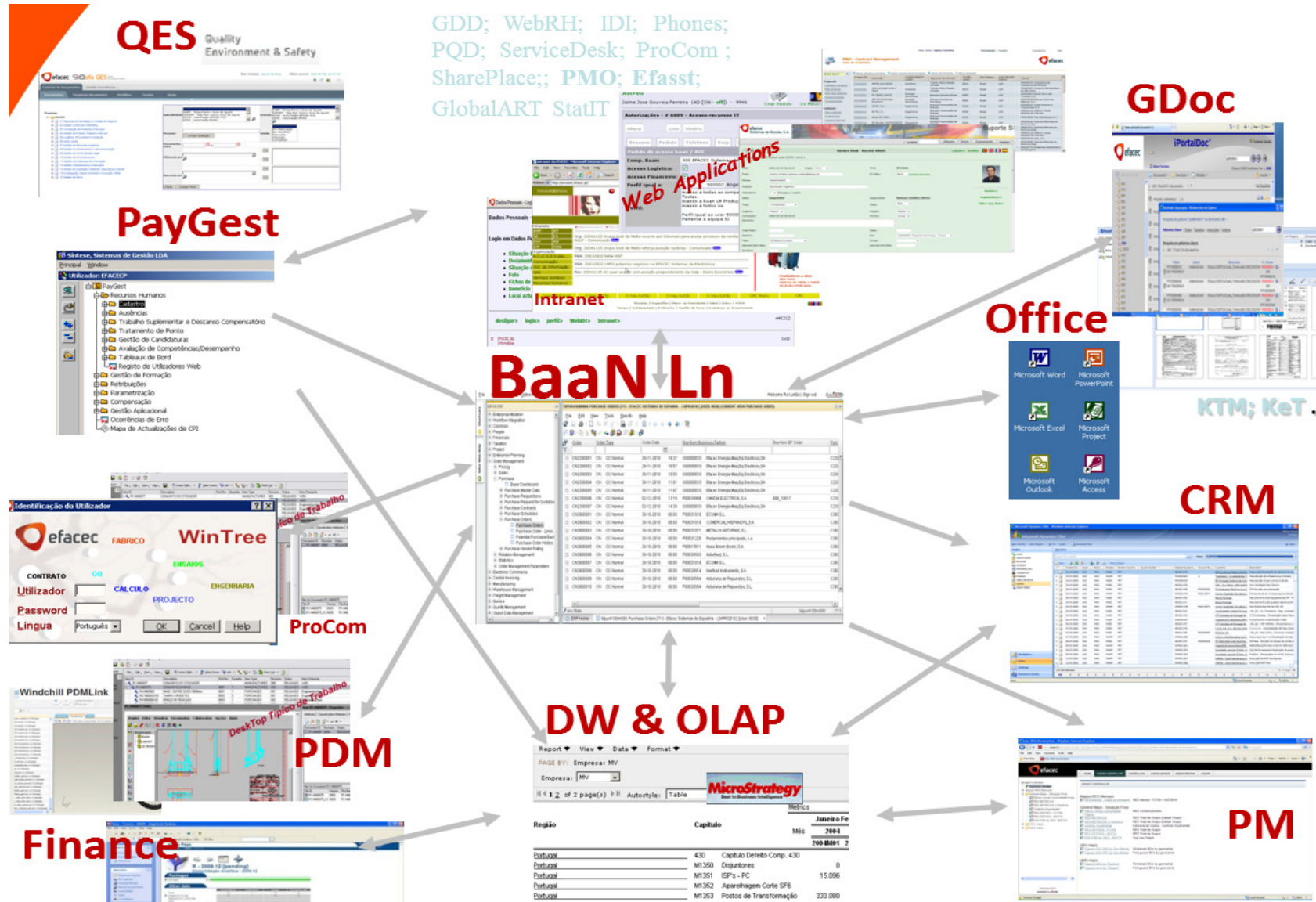


- **Infrastructures**
- **ERP**
- **Developments**
- **Business - Intelligence**
- ...





# Corporate Software



**2100** Baan Users ( **600 Concurrent** )

**3800** Mailboxes (**1 220.000** Emails/month ; **330 GB/month**)  
( Does not include 90% of Email rejected as SPAM )

**43** Different sites (29 International)

**3500** WorkStations (2500 Portugal)

**230** LAN Switches

**58** AP Wifi

**>5400** VoIP Calls per month (> 410 h /month)

**165** TB of Storage (135 TB Portugal)

**200** Windows Servers (125 Vmware)

**42** Linux Servers

# Some Figures

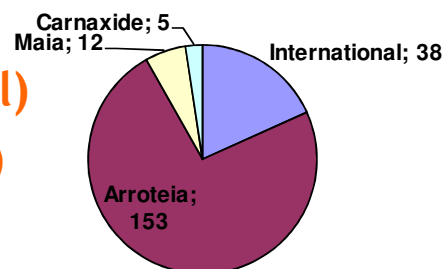


## 207 Servers

159 Windows 42 Linux 6 NetApp  
22 (testing/development)

Total 207 servers

Arroteia - 152 (112 virtual)  
Maia - 12 ( 8 virtual)  
Carnaxide - 5  
International - 38



## ERP Baan

> 160 Companies

Service

ETO

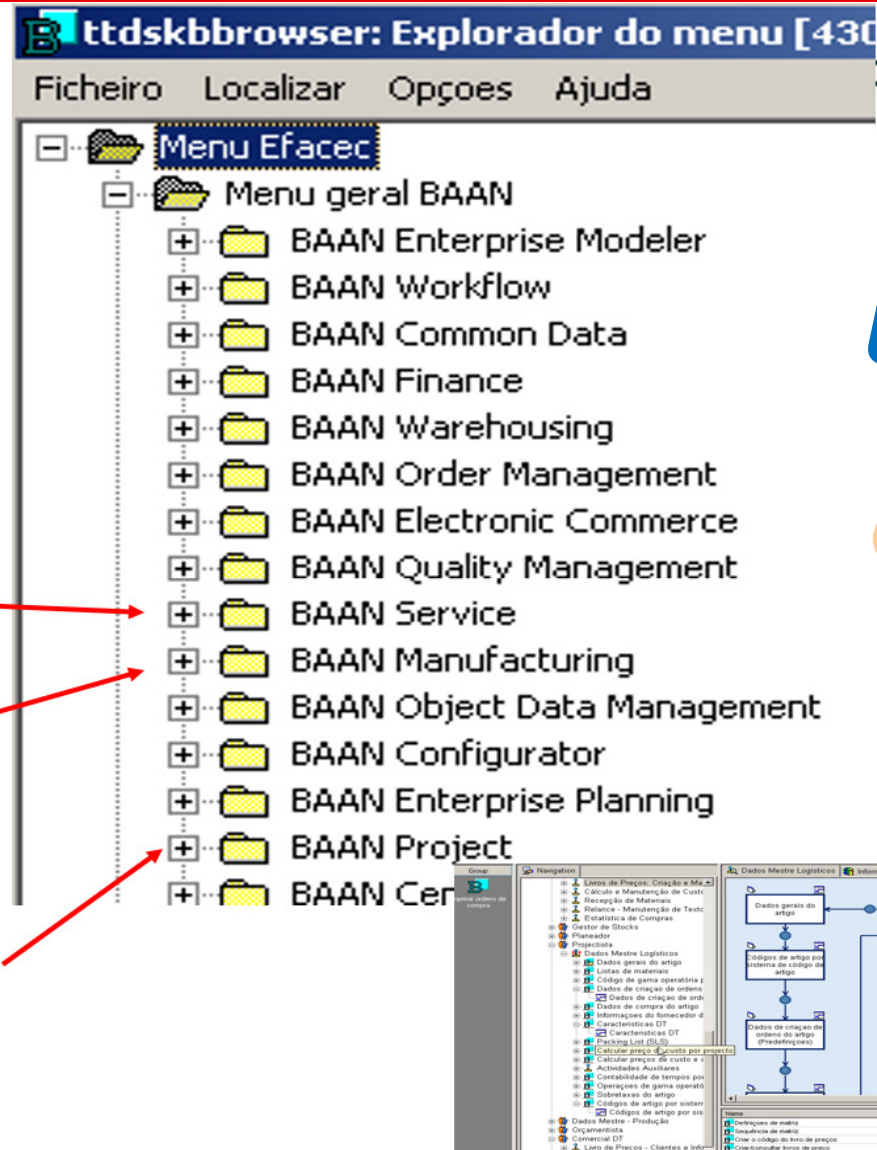
MTO

ATO

MTS

Project Management

Manufacturing



**Used on 14 Countries**

( Logistic & Finance )



## Baan companies by country

Country	#	Country	#
Algeria	2	Italy	1
Angola	1	Macao	1
Argentina	2	Malaysia	1
Austria	1	Morocco	3
Brazil	3	Mozambique	4
Bulgaria	4	Norway	1
Cape Verde	1	Paraguay	1
Chile	2	Poland	1
China	1	Portugal	69
Costa Rica	1	Romania	2
Czech Republic	2	Singapore	2
France	2	Slovakia	2
Germany	1	South Africa	1
Greece	1	Spain	21
Honduras	1	Tunisia	4
India	10	United States of America	3
Ireland	1	Venezuela	2

Rollouts

Virtual

( Used on 14 Countries )

# Geographic Dispersion



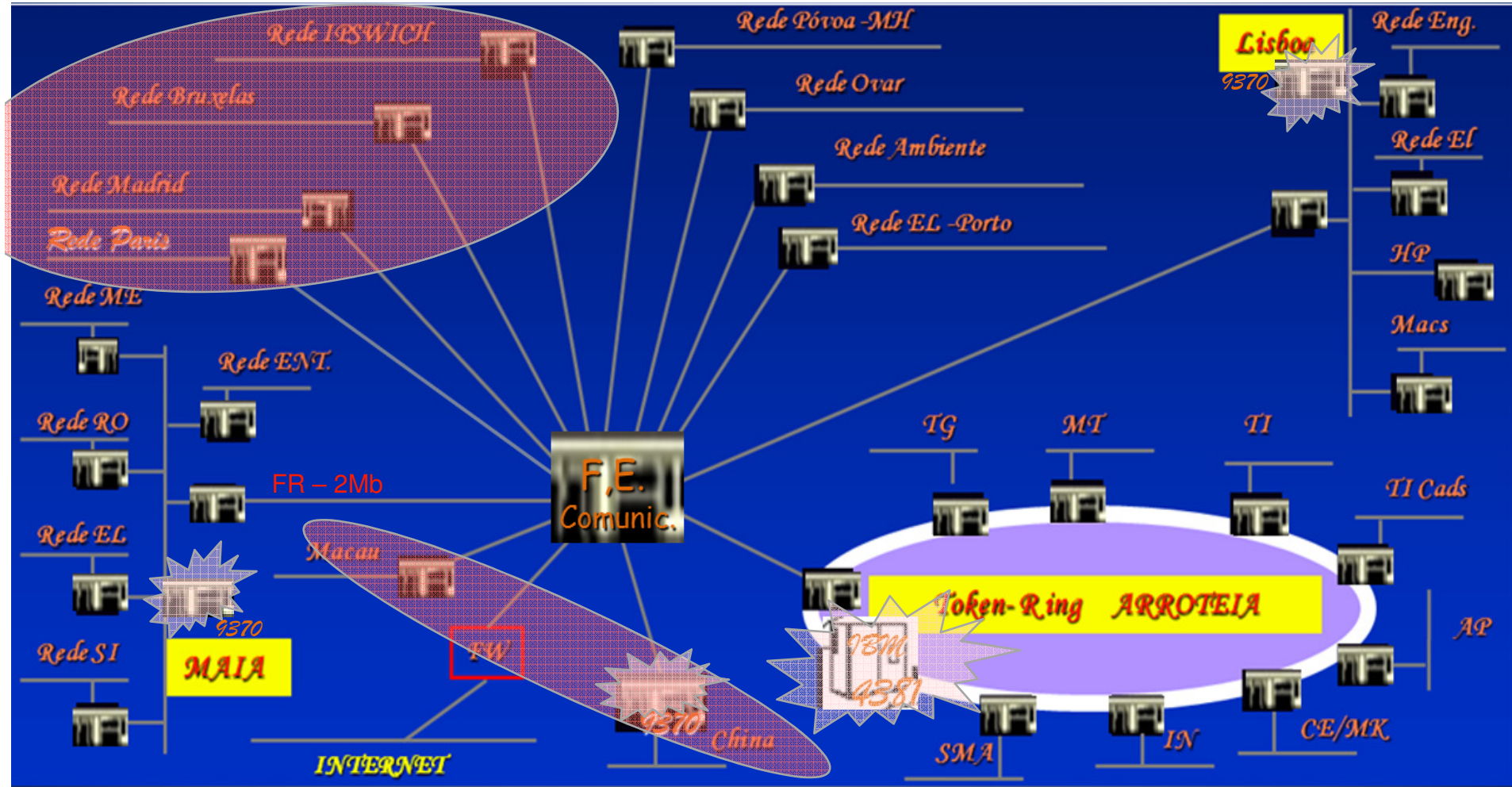
## 14 National sites



## 29 International sites

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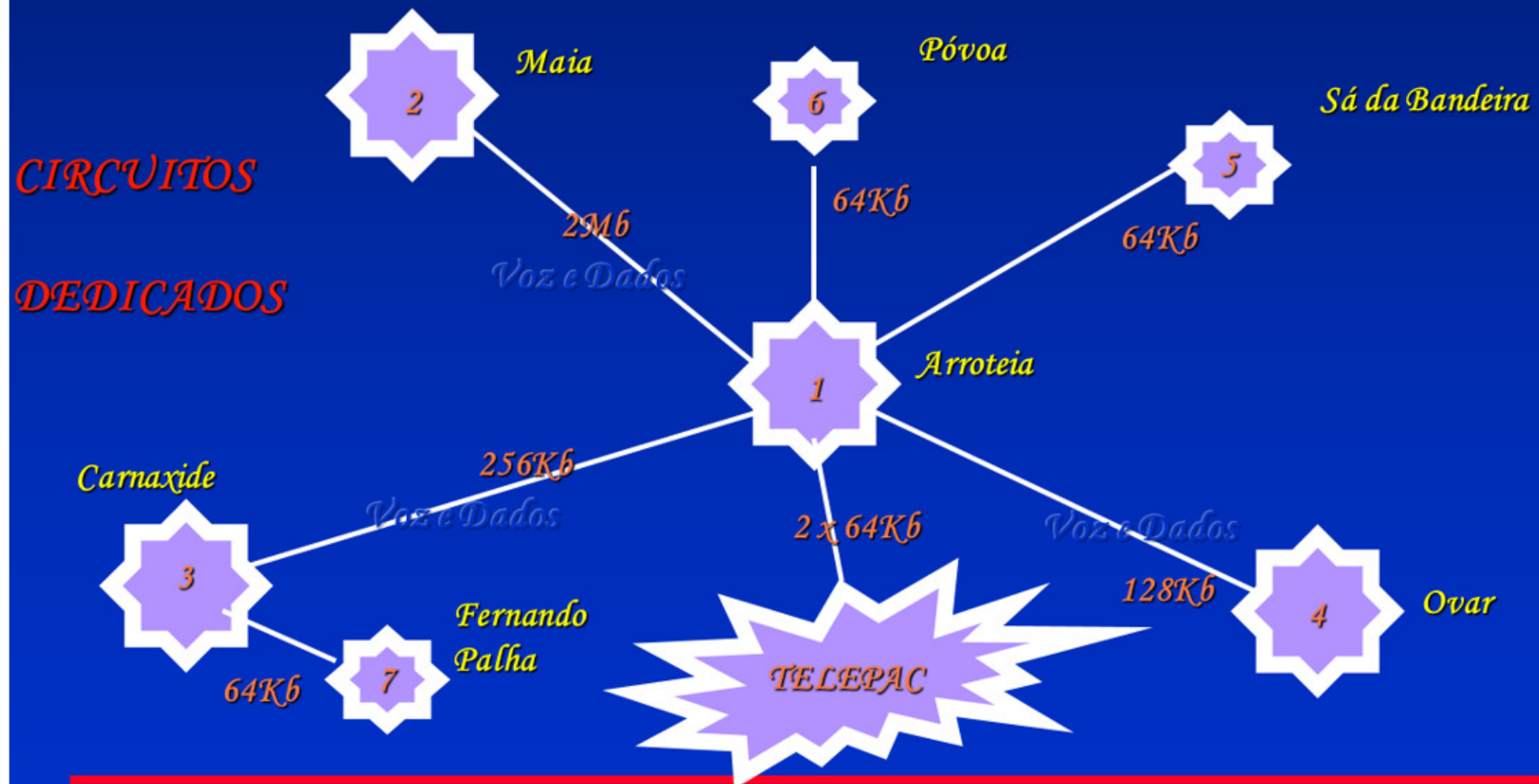
## One network of networks



Network Architecture – 1998



## Infra-Estrutura dos S.I. no Grupo Efacec



- No integrated view of “Core Business Processes” easily adapted at each reality
- Meet compliance with different finance rules and regulations
- Multiple Languages
- Difficulties to find support locally
- Different Cultures
- Communications – Bandwith Limitations

***“ First 4 reasons worked as a good additional to justify a migration to an ERP ”***

During 1998 - ERP Strategic Decision

Beginning 1999 - Decision BaaN

- 3 Companies start using Baan IV at Jan / 2000 ( Pilot Project )
- At the end of 2003 almost all Efacec Companies in Portugal use BaaN  
(Not all use the same version and not all use the same HW environment to “RUN IT” )
- VoIP becomes the standard to communicate between all Efacec Companies (2005)  
(National and International)
- At 2006 “Efacec Board” decide to use the ERP as the “Information System Backbone”  
in all Efacec Companies (National and International)

## ➤ IT ASSESSMENT

To validate the better IT solution to Support the Business and its growing Strategic

- Define a COMMON “Corporate Account Plan“ ( “Multiple Mapping Schema” )  
(National and International Companies)

## ➤ From 2007 to 2009 ERP Rollout in 8 countries

- *Algeria*
- *Angola*
- *Mozambique*
- *Argentina*

- *Brazil*
- *USA*
- *Spain*
- *India*

... just followed by ...

- *Czech Rep.*
- *Romania*
- *Austria*
- ...

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# International Network



"...EFACEC is focused on its growth strategy, especially in international markets, where it is present in more than sixty countries, being one of the most internationally represented of Portuguese companies."

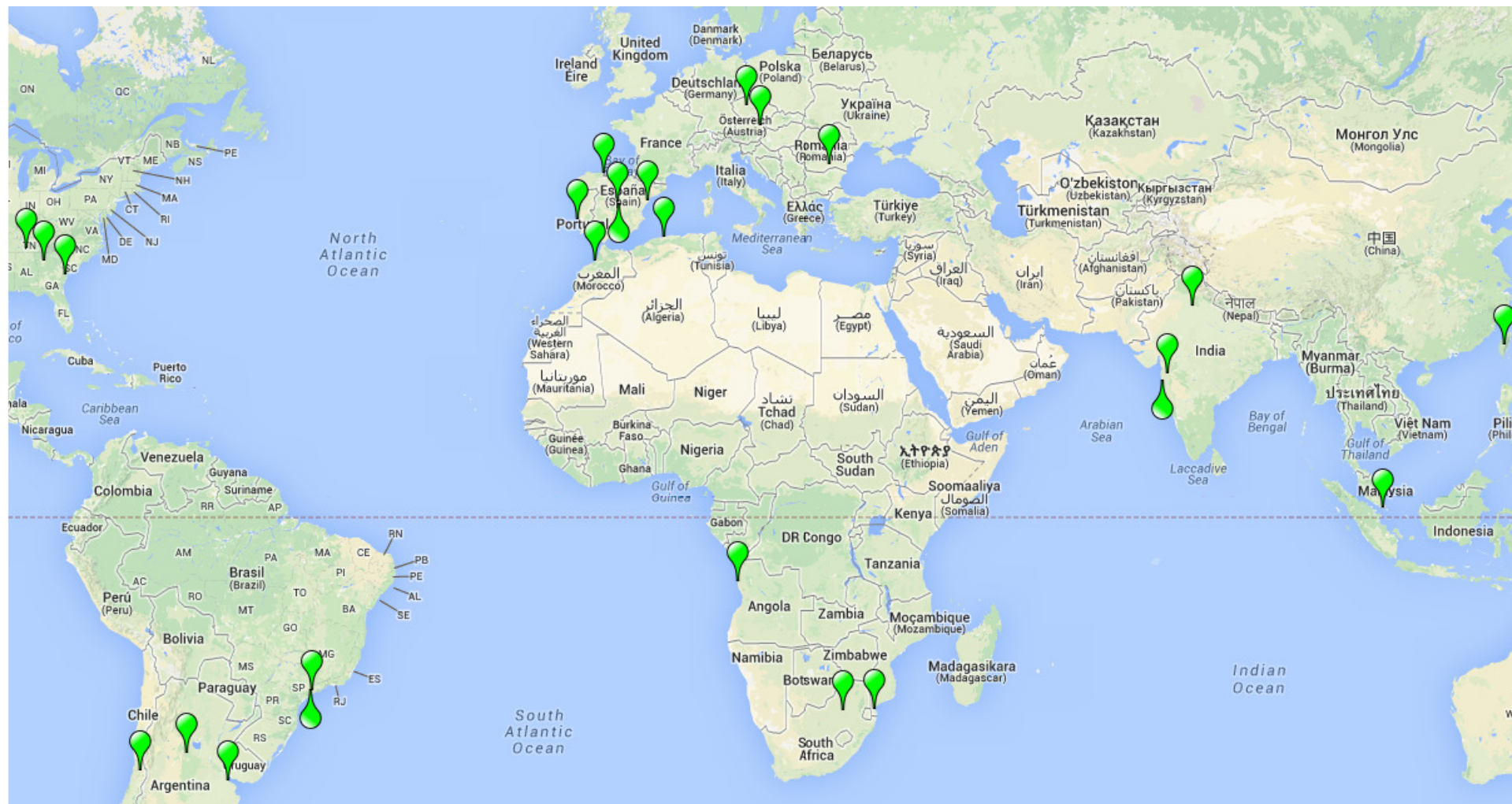


■ Unidades Industriais

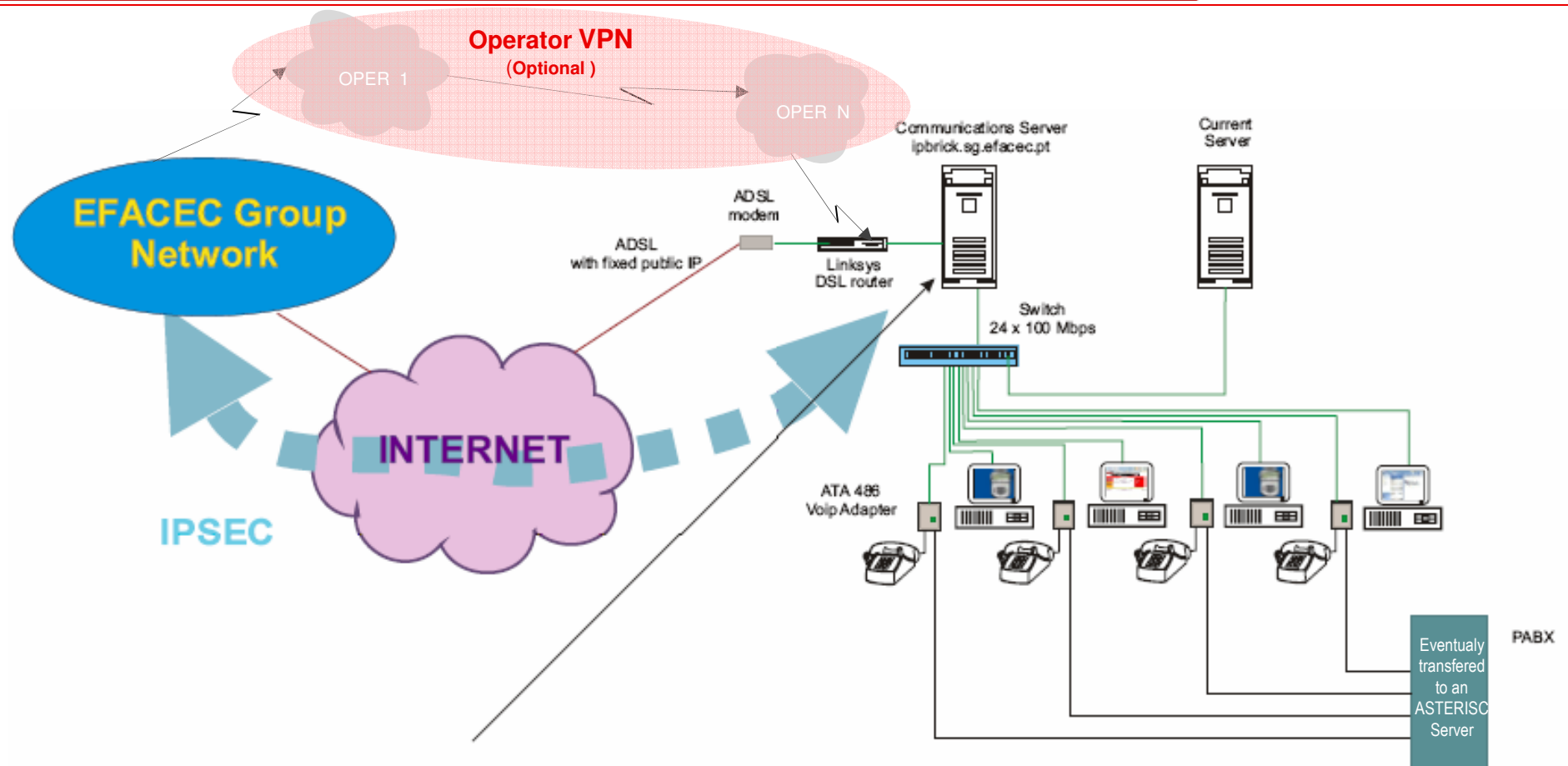
● Filiais, Delegações, Agentes e Representantes, permanentes ou temporários (obras) em 65 países



( today )



# Communication Infrastructure Standard Model by Site ( history )

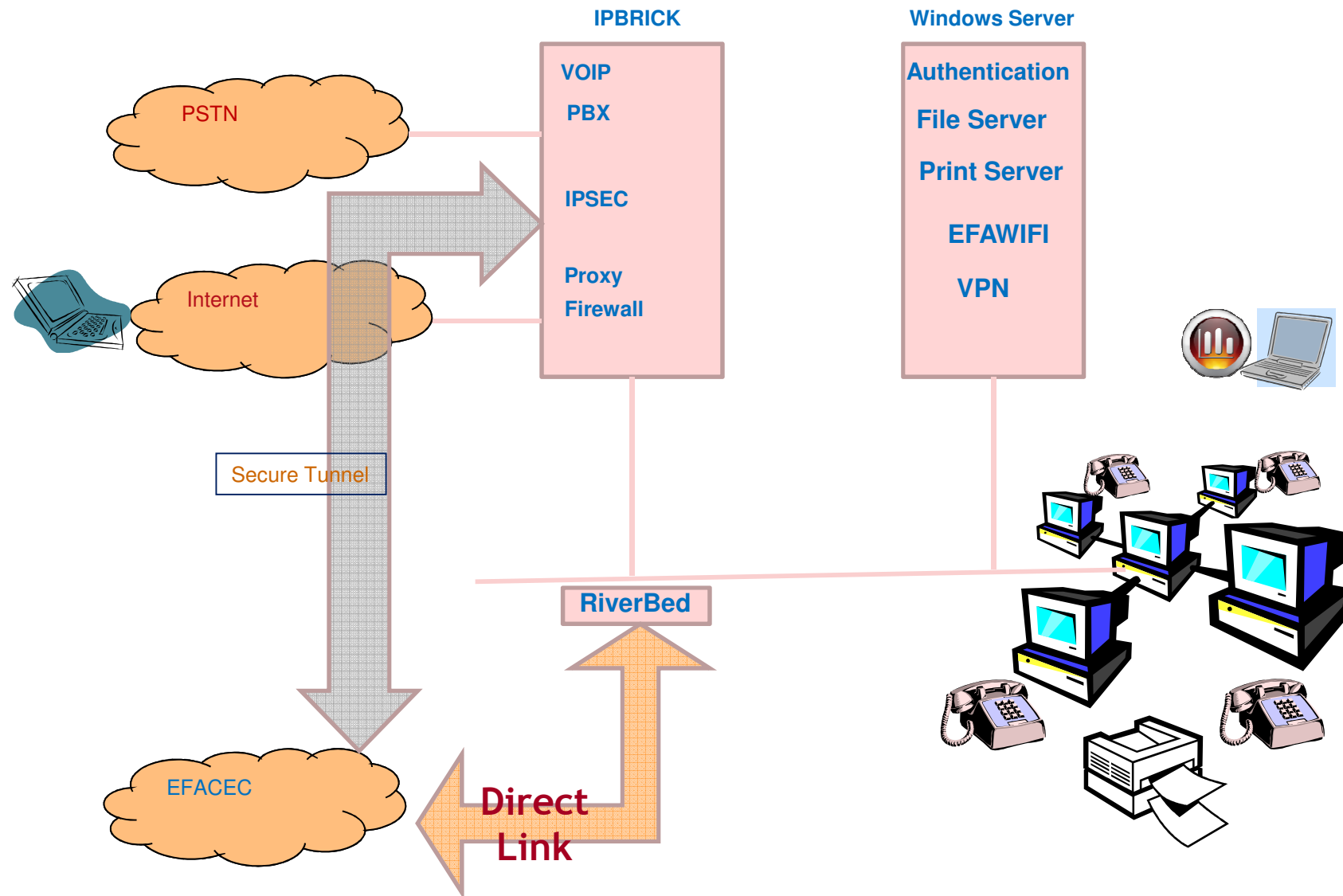


IPBRICK Communications Server

- Firewall
- Proxy server
- VOIP server
- DHCP server
- IPSEC tunnel with EFACEC Group



# Standard Model - Remote Branch Office





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  - *...*

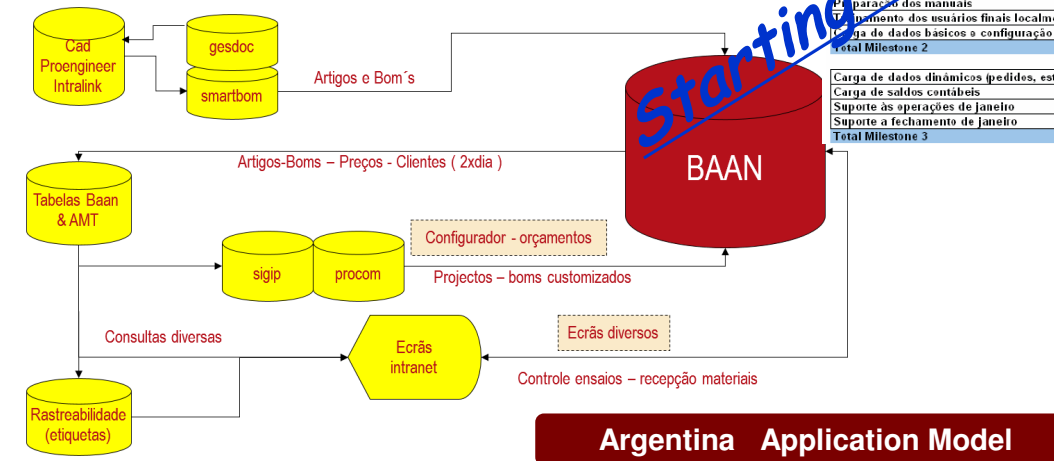
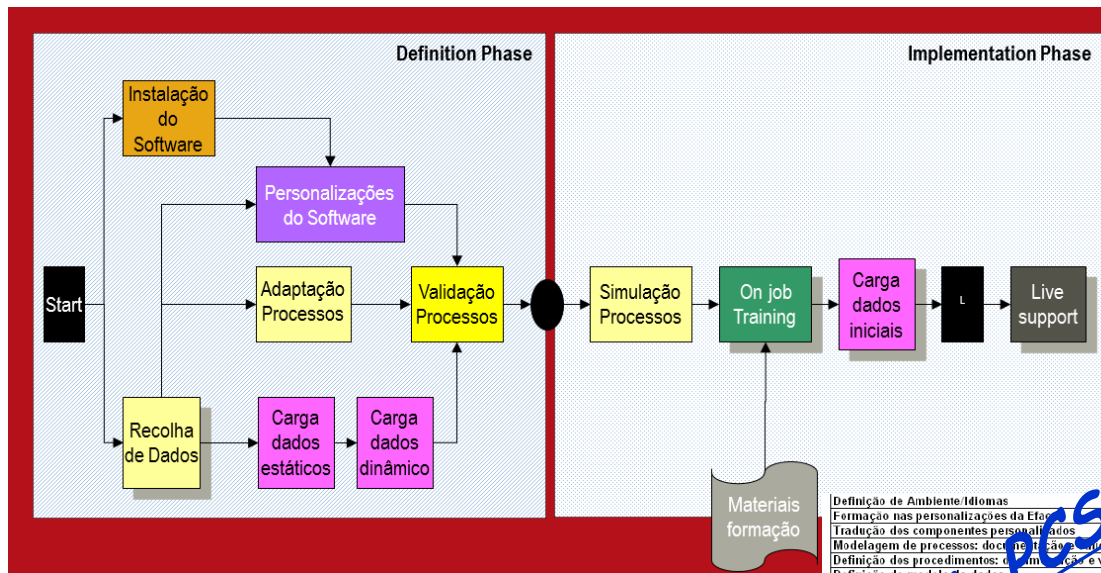
## Principal constraints of the model.

- The same ERP for all EFACEC Group (One Integrated System)
- The same Corporate Model for all companies
  - [Corporate Mapping Schema](#)
  - [Sharing “Common Data” between Companies](#)
- One central “Infrastructure” to ERP support
- Multi-Language support
  - [Portuguese](#)
  - [French](#)
  - [Spanish](#)
  - [English](#)
- Adaptability to different international realities (**Localizations**)
- Efficient Maintenance System (**Customizations ; Updates; ...** )
- Using a reliable but economic communication network.

## Business Process Model and Operations

- Build an “Enterprise Reference Model” .
- Map all Business Functions for each future ERP company, identifying all the functions to be supported by BaaN.
  - Identifying all integration needs between ERP and other Systems.
  - Documenting all the process to be supported by BaaN.
  - Preparing forms and documents to be used to support the manual procedures.
  - Preparing training materials (Local or English Language).
  - Developing procedures for data loading.
  - Using local Consultants (Whenever deemed necessary; Fiscal Rules; locations; Use Supplementary SW; ...)

# Methodology (cont.)



Argentina Application Model

25/07/2006		Grupo 1		
		Mozambique	Angola	Argelia
Nº	Funções de negócio			
1	Função de negócio: Engenharia			
1.1	Processo: Gestão de produtos			
1.2	Processo: Estruturas de produtos			
1.3	Processo: Estruturas de processos (rotinas)			
2	Função de negócio: Gestão de projectos/obras			
2.1	Processo: Definição de projectos			
2.2	Processo: Controle de orçamento de projecto			
2.3	Processo: Oferta de projecto			
2.4	Processo: Planeamento de projecto			
2.5	Processo: Execução de projecto: registo de horas e materiais			
2.6	Processo: Gestão financeira: controle de gastos e receitas			
2.7	Processo: Fechamento de projecto			
3	Função de negócio: Planeamento			
3.1	Processo: Planeamento de ordens de produção			
3.2	Processo: Planeamento de ordens de compras			
4	Função de negócio: Gestão de fornecedores			
	Processo: Dados de fornecedores			
5	Função de negócio: Compras			
	Processo: Ordens de compra			
	Processo: Devolução ao fornecedor			
	Processo: Facturas de compras			
6	Função de negócio: Gestão de clientes			
	Processo: Dados de clientes			
7	Função de negócio: Vendas			
	Processo: Ordens de vendas			
	Processo: Devolução de vendas			
	Processo: Facturas de vendas			
8	Função de negócio: Controle de manutenção			
	Processo: Solicitação de manutenção			
	Processo: Controle de execução			
	Processo: Controle de materiais			
	Processo: Gestão financeira: controle de gastos e receitas			
9	Função de negócio: Gestão de armazéns			
9.2	Processo: Receções de compras			
	Processo: Entregas			
10	Função de negócio: Produção			
10.1	Processo: Ordens de produção			
10.2	Processo: Programação de produção			
10.3	Processo: Execução de produção: consumos e entregas			
10.4	Processo: Registo de horas de produção			
11	Função de negócio: Recursos humanos			
11.1	Processo: Folha de pagamento			
12	Função de negócio: Contabilidade			
12.1	Processo: Contabilidade analítica			
12.2	Processo: Fechamento contábil mensal/anual			
13	Função de negócio: Tesouraria			
13.1	Processo: Pagamentos			
13.2	Processo: Cobranças			
13.3	Processo: Cash Management			
14	Função de negócio: Ativos fixos			
14.1	Processo: Estrutura de ativos			
14.2	Processo: Amortizações			

## Project Management Methodology

### SGSI – Information Systems

### ERP Projects

### EFACEC



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# Data Load Process Automatization



**Warehouses Items**

Name	Address	Account (number or description)	Swift code	IFSC Code	Curre	Type of Account
Central Bank of India	Corporate Finance Branch, MMO Branch, Mumbai 400 023	1728100820	BCINABNADEFFRA	CBIN0283007	INR	Current Account
Central Bank of India	Corporate Finance Branch, MMO Branch, Mumbai 400 023	03234371922	BCINABNADEFFRA	CBIN0283007	INR	Cash Credit Acc
Central Bank of India	Vikhroli Branch, Mumbai 400 079	1039335	BCINABNADEFFRA	CBIN0282930	INR	Current Account
Central Bank of India	Corporate Finance Branch, MMO Branch, Mumbai 400 023	30834109	BCINABNADEFFRA	CBIN0283007	INR	Current Account
ICICI Bank	Godrej IT park Branch, Mumbai 400 079	160500120	BIC	ICIC0001196	INR	Current Account
State Bank of India	Station Road, Vikhroli, Mumbai 400 079	029411020018328	BBI	SBIN0001406	INR	Current Account
Axis Bank Ltd	Ghatkopar E, Mumbai 400 077	029411020018328	BAR	UTIR0000029	INR	Current Account

**Sales Orders**

date	qty	adat	uapr#adpr	re
20130630	12.2	1#682.8		R70900001 1#
20130630	1	1#930		R70900001 1#

**Time-Sheets**

Date	Employee	Type	PCS	Production order	Oper.	Work center	Task
20130701	500112	Normal	1	E80000005			900 Ok
20130701	500112	Overtime	0,5	E80000005			900 Ok
20130701	500112	Normal	1	E80000016			900 Ok
20130701	500112	Overtime	0,5	E80000016			900 Ok
20130701	500112	Normal	1	E80000016			900 Ok
20130701	500112	Overtime	0,5	E80000016			900 Ok
20130701	500099	Normal	1	E80000011			900 0#Spec
20130701	500099	Overtime	1	E80000011			900 0#Spec
20130701	500099	Normal	1,5	E80000005			900 Ok
20130701	500116	Normal	8	E80000013			900 Ok
20130702	500116	Normal	8	E80000013			900 Ok
20130701	500239	Normal	6	E80000013			900 Ok

**Baan Company 709**

**Upload into Baan**

## ➤ Project Management Concerns

*Documentation*

*Highest Level Involvement*

*Key-Users Participation*

...

## ➤ Technical Concerns

*Architecture*

*Environment*

*Interconnection with other Systems*

...

## ➤ Operational Concerns

*Maintenance Windows*

*Disaster Recover Availability*

*How and when to apply Updates*

...



## MOU

Memorandum  
of  
Understanding

*Example :*

ERP Roll-Out

**“GEARL Project”**

### Introduction

### Project Objectives

### Project Organization

1. Steering Committee (SC)
2. Project Board
3. Project Team
4. Key-Users
5. Other Teams

### Team Members

### Agenda

### Project Deliveries

#### 1. **Project Start**

- ✓ Project Charter & Standard Company Definitions
- ✓ Project Presentation and Planning
- ✓ Kick-off - Project Presentation meeting

#### 2. **MAPPING**

- ✓ Assessment Report

#### 3. **PILOT**

- ✓ Project Training Manuals

#### 4. **Go-Alive**

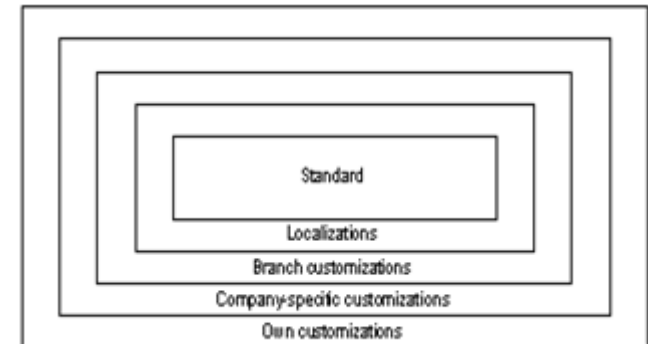
- ✓ Project Acceptance Report
- ✓ Lessons Learned Report
- ✓ Project Close Report

### Critical Success Factors



### ■ Architecture

- VRCs
- Multiple Languages
- Development, Quality and Test environments
- . . .



### ■ Sharing Tables between different VRCs

### ■ Different “Time Zones”

- Small “Maintenance Window”
- Need to extend IT Support for longer periods (Holidays; Week-Ends)

### ■ Synchronous Maintenance (Standard & Localizations)

- Localizations – Impact of “Localizations Service Level”
- Periodic Maintenance Strategy
- “Reporting” and Update Methodology

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We must not forget to be prepared to deal with “different culture reality”

It's very important to have a very good communication plan

- A start-meeting (**Kick-off**) is important but is not enough. We should have frequently meetings.
- Everything should be documented - **Manuals; ToDo Check-Lists (who and when)**
- We must be very careful with Key-User's expectations (namely things they could loose)
- The involvement of TOP MANAGEMENT is **crucial**
- It's very Important a **formal** relationship

Do not forget to UPDATE our tools with the experience of each Roll-Out

The Roll-Out does not end when the users start using the ERP without local help. We Need to visit them again one month or two after “**Start-Up**”

We need to Improve our ERP UPDATE policy.

