

Implementing Local Content initiatives in Oil & Gas through Suppliers Development Programs in Argentina

- 1. Overview of Argentina's Oil & Gas Industry**
- 2. Assessing the Value Chain for developing Local Content Policies**
- 3. YPF's National Supplier Development Program**

Marcelo Neuman

Associate Professor. Coordinator of the Energy Area
Institute of Industry. National University of General Sarmiento
Former Coordinator of YPF Supplier Development Program

1. Overview of Argentina's Oil and Gas Industry

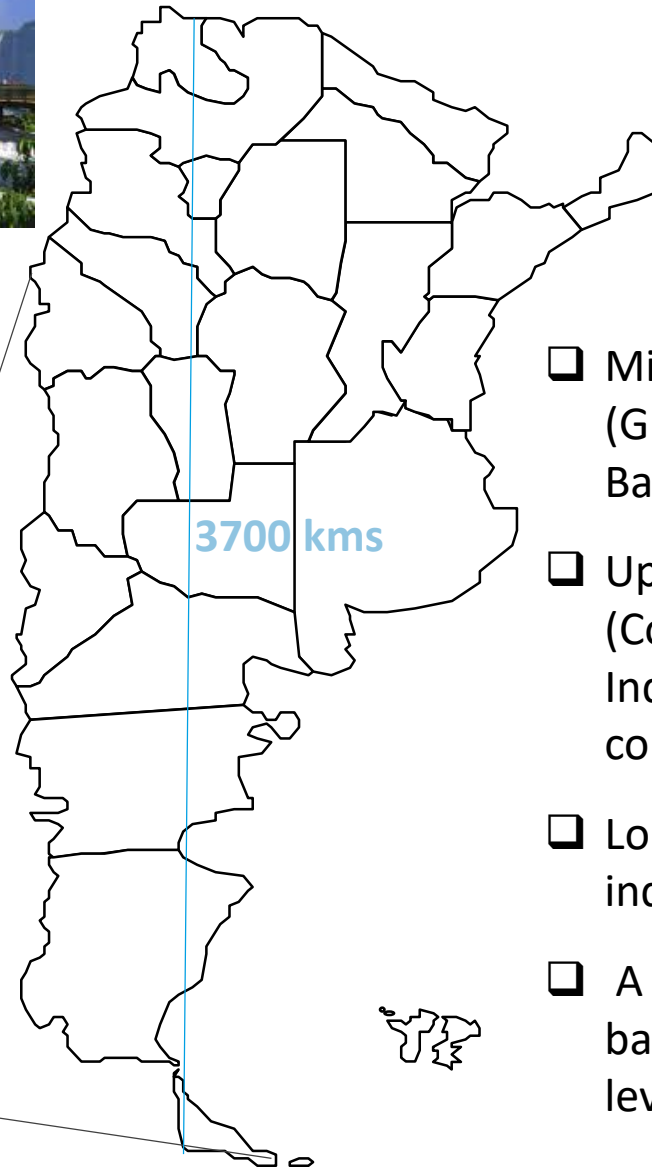
Overview of Argentina's oil & gas sector



Iguazú falls, Misiones (North)



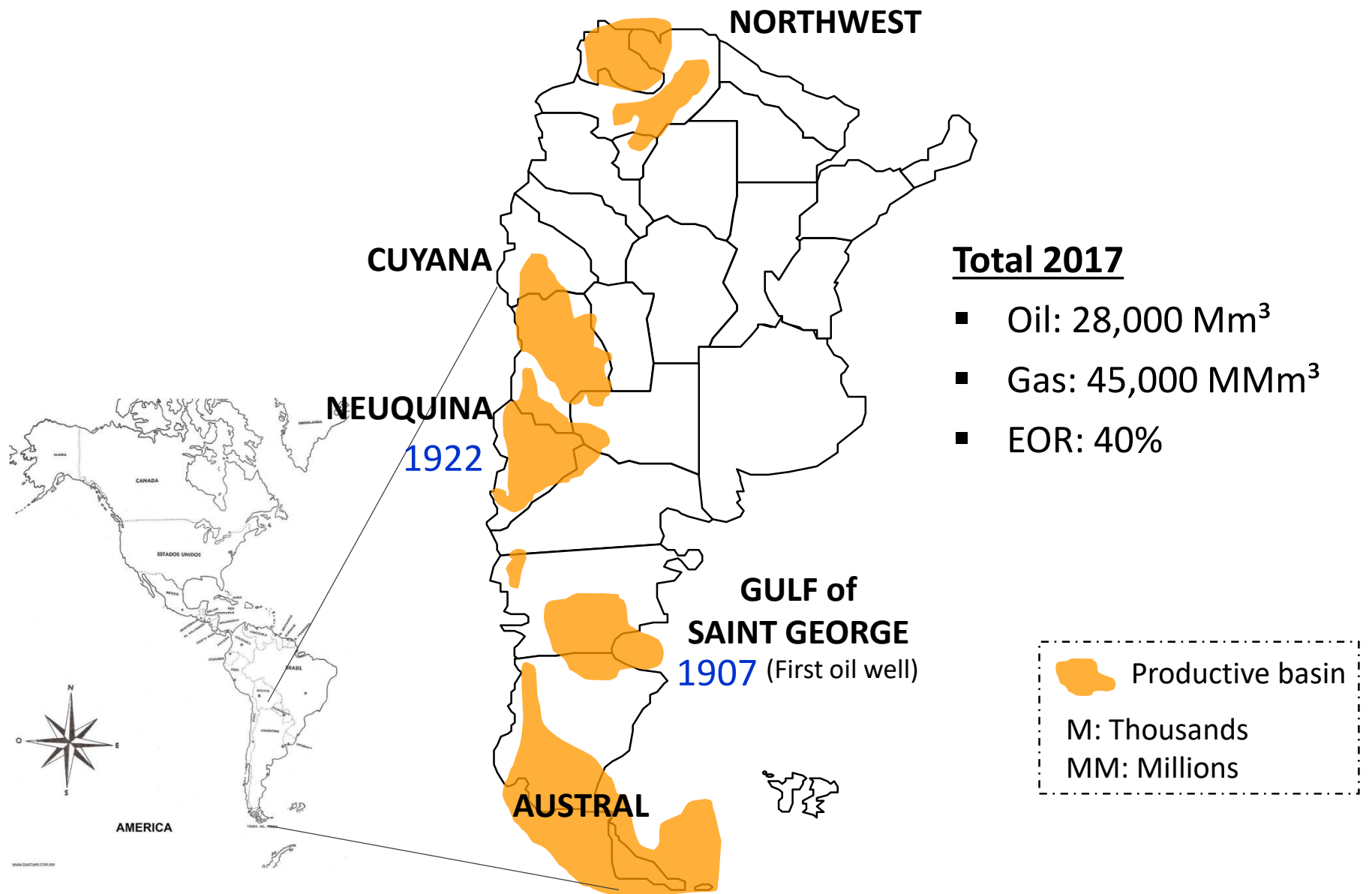
Glacier Perito Moreno, Santa Cruz (South)



- ❑ Middle developed country
(GDP/capita 2015: US\$ 13,432 World Bank)
- ❑ Upper middle quintile in the CIP
(Competitive Industrial Performance Index) of UNPD (#40 out of 141 countries)
- ❑ Long experience in the oil and gas industry (+100 years)
- ❑ A well established local supplier base (dominates a intermediate level of technology)

Source: Ministry of Energy & Mining

Overview of Argentina's oil & gas sector

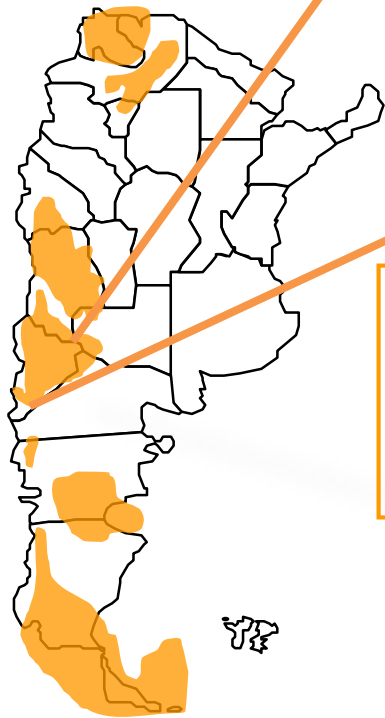


Source: Ministry of Energy & Mining

Overview of Argentina's oil & gas sector



Fracking operation



Shale production

- 8% of oil
- 26% of gas

Geological formation of Vaca Muerta (Technically recoverable resources)

- ❑ Unique shale geological formation
(technically recover resources: 2nd the world)
 - Large amount of TCG (Total Carbonic Gas)
 - High pressure
 - Optimal permeability
 - Great thickness
- ❑ 12,000 MI2
- ❑ The potential to obtain 308 TCF of gas
- ❑ Away from urban centers
- ❑ More than 2,500m deep
- ❑ Important oil and gas activity in the area

Source: YPF

2. Assessing the Value Chain for developing Local Content Policies

Developing the LC Policy

Hierarchies



government



oil & gas companies



suppliers' associations

Government



Rector
Executive
(Steering Committee)
Technical

Developing the LC Policy

COMPONENTS	METHODOLOGY	ACTIVITIES	PRODUCTS
DEMAND	In-depth interviews	17 Oil & Gas Companies	<p>Policies Recommendations</p> <ul style="list-style-type: none">■ Federal■ Region■ Initiatives
SUPPLY	Interviews	1200	
POLICIES	Interviews & documents	Government Regulations	
COUNTRIES	Interviews & documents	Literature Interviews Regulations	

Developing the LC Policy

Main policies recommendations

Joint effort between the government and the Oil and Gas companies

- ☐ Give price preference in purchases of Oil & Gas Co. in specific subsectors
- ☐ Visibility of procurement plans for local suppliers
- ☐ Specific Supplier Development Programs (shale oil and gas)
- ☐ Implement financing system for the local Oil & Gas suppliers
- ☐ Upgrade and build specific labs in research institutes and universities

3. YPF's National Supplier Development Program

Supplier Development Program in YPF

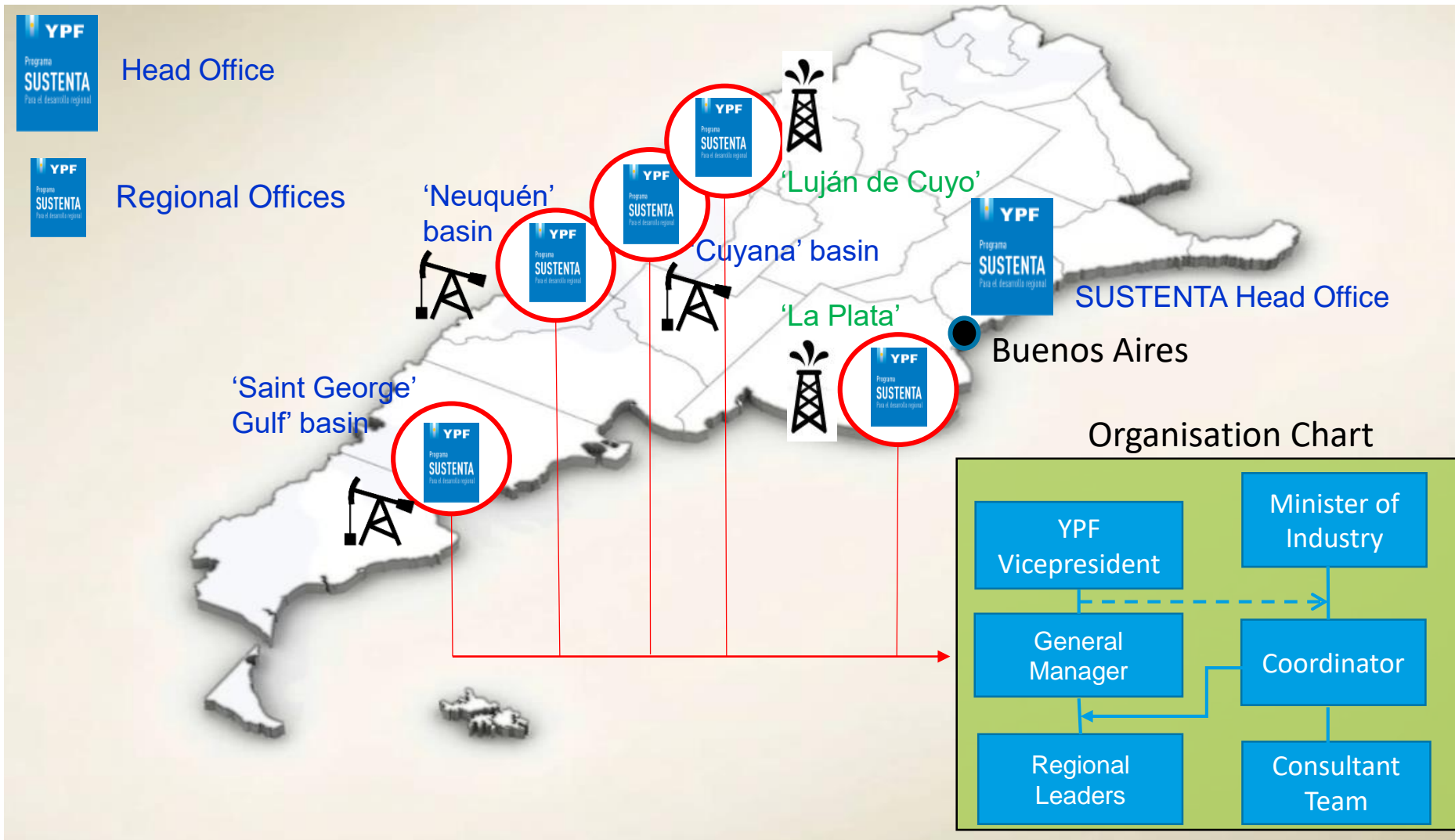


Objectives

- ☐ Increase **productivity** and **quality** of local suppliers
- ☐ Contribute to reduce **costs** of YPF's operations
- ☐ Develop a **Local Content Plan** within YPF's growth strategy
- ☐ Upgrade the **technical skills** of suppliers' workers

Supplier Development Program in YPF

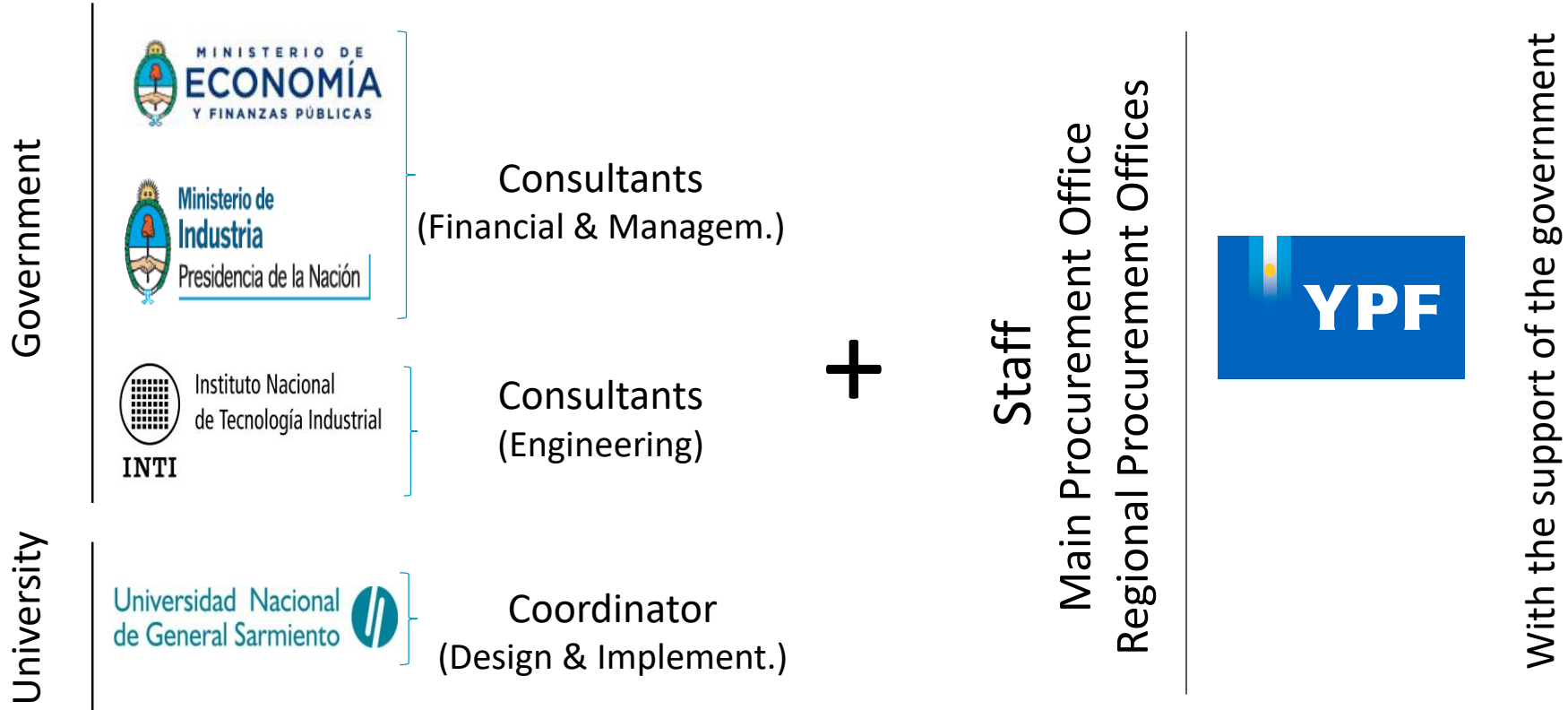
Organizing the work and the team



Supplier Development Program in YPF

The team

(intense public-private cooperation)



2 consultants	
Engineering	Management

Balance the view and the analysis

Supplier Development Program in YPF



Regional Office



Regional Office



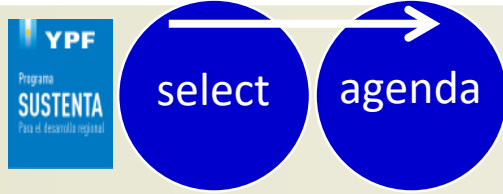
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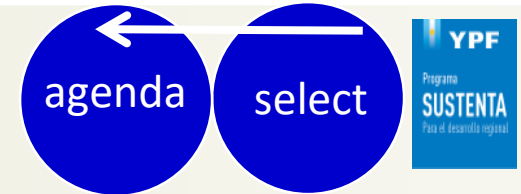


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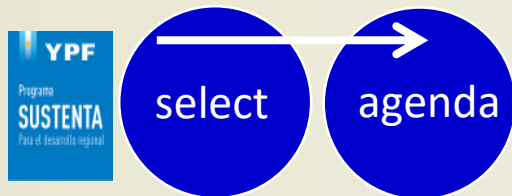
Supplier Development Program in YPF



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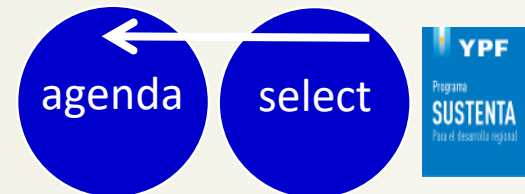
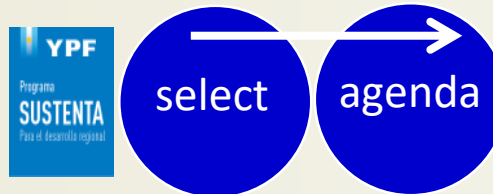


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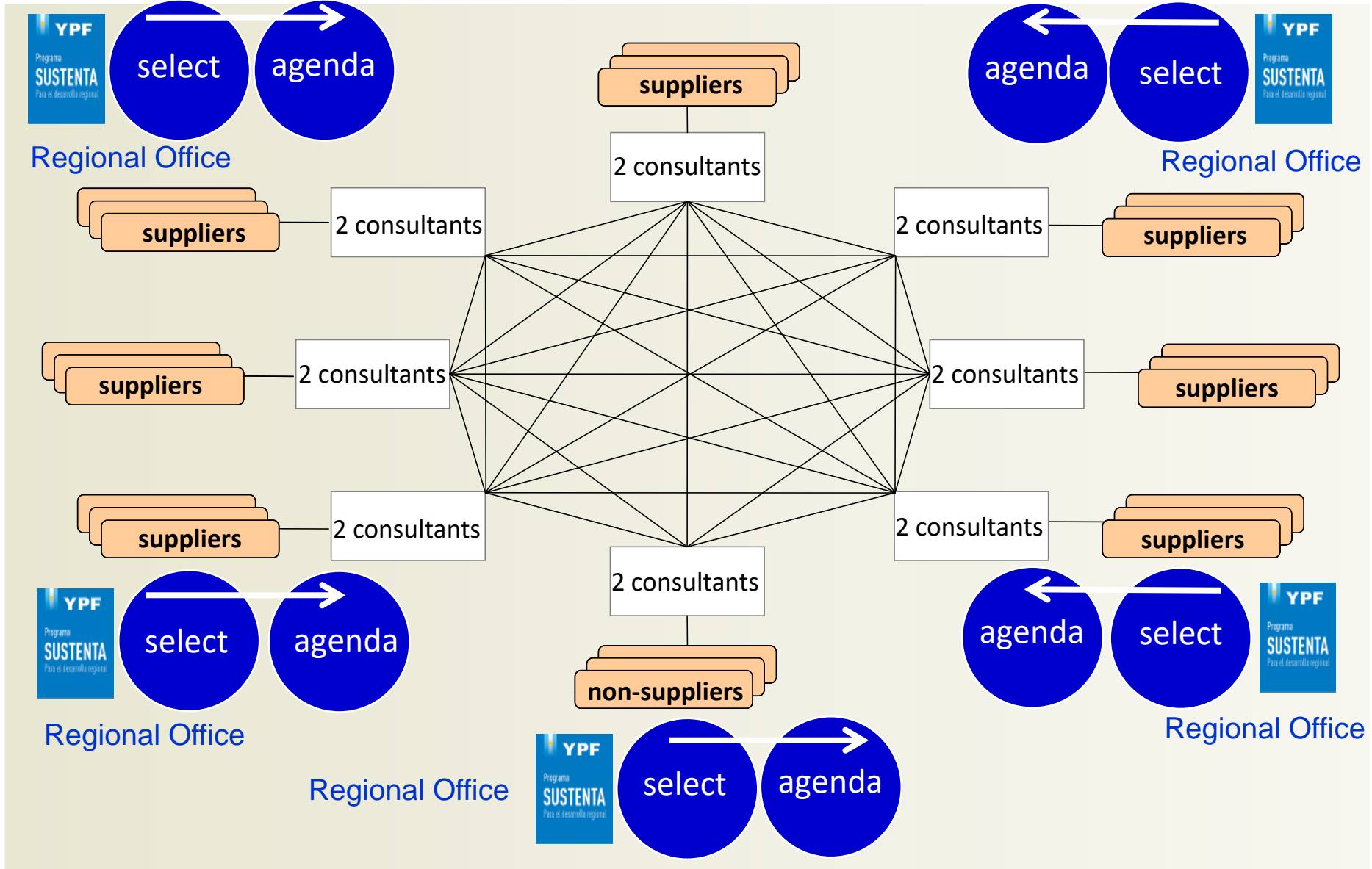
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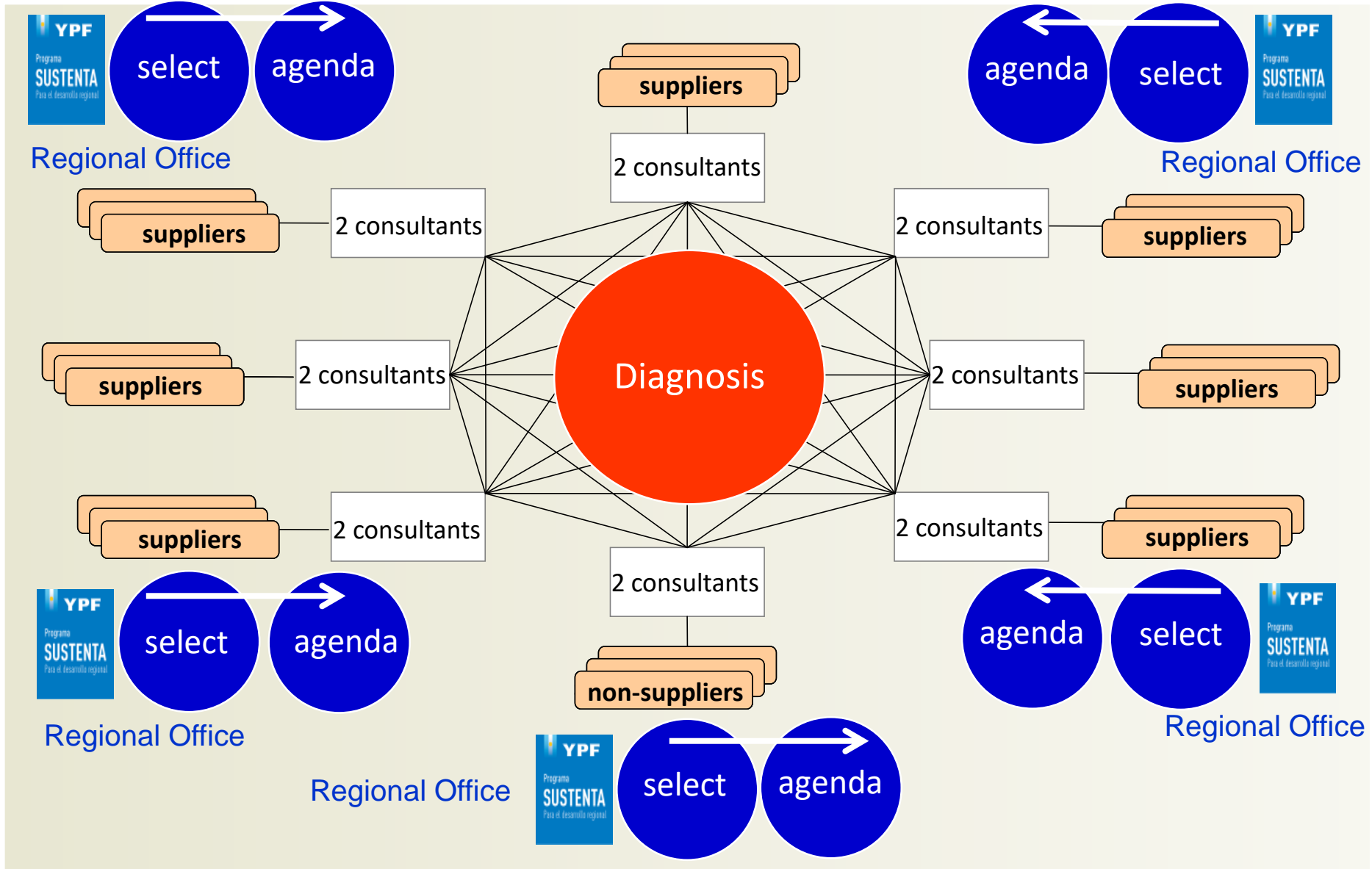


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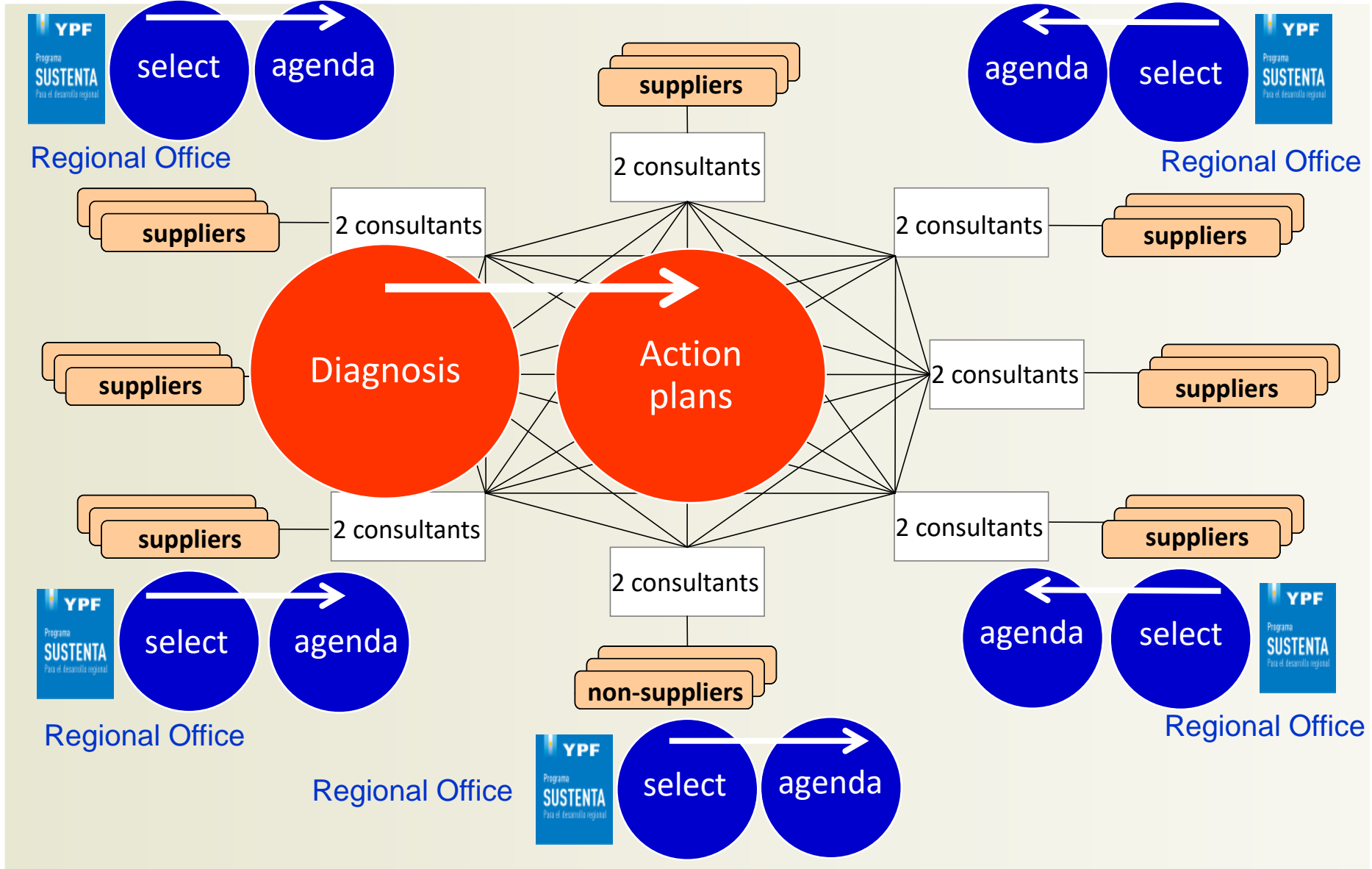
Supplier Development Program in YPF



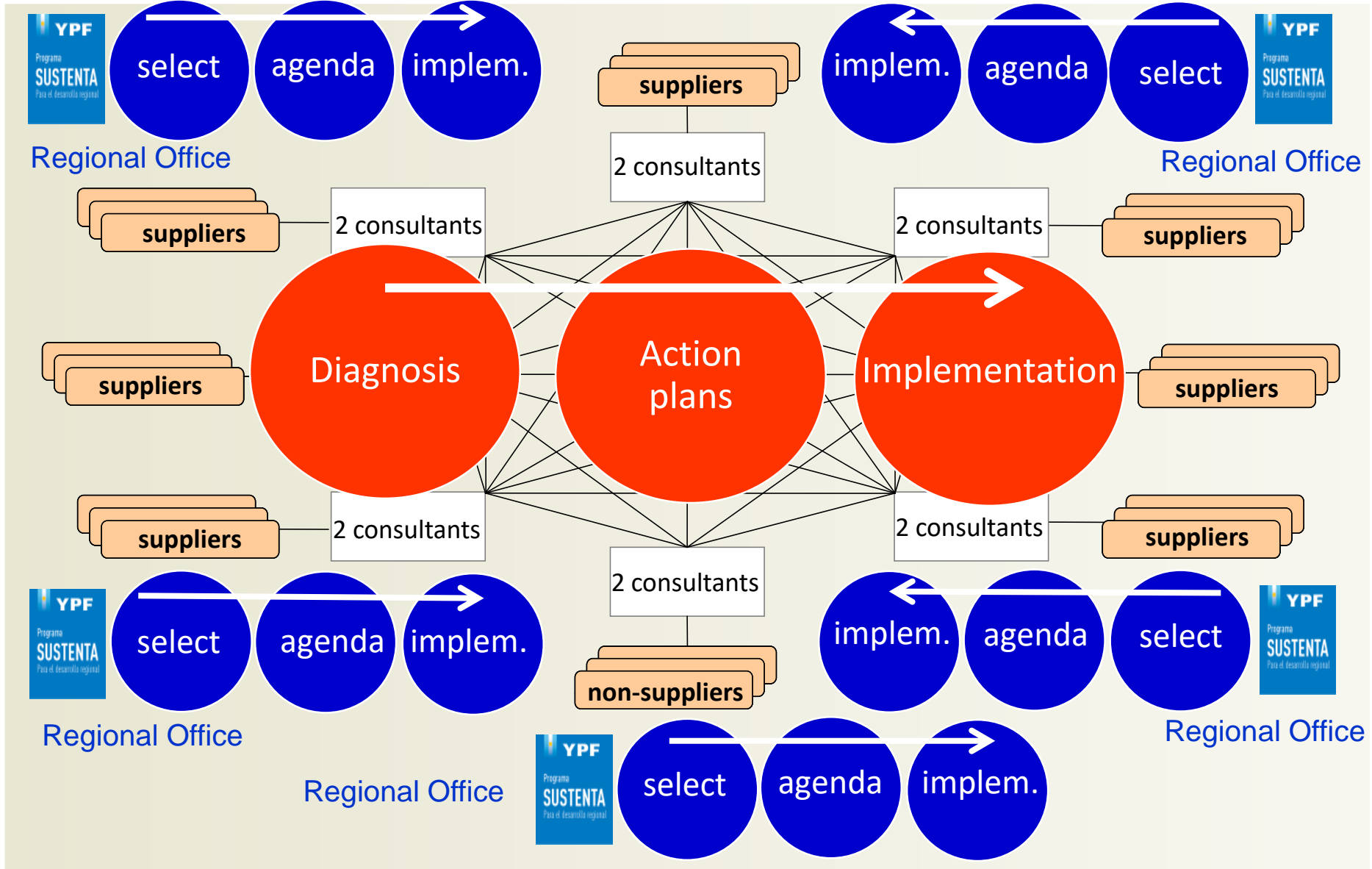
Supplier Development Program in YPF



Supplier Development Program in YPF



Supplier Development Program in YPF



Supplier Development Program in YPF

Implementation

Modules

Finance

Management

Training

Association

Technology

Import
substitution



Visiting CIMSA company selected for import substitution of semi-submersible oil platforms.

Supplier Development Program in YPF

Import substitution: at least the same cost, quality and time delivery

Information
sources

YPF's direct imports

Value chain of main suppliers

YPF's future procurements

Import substitution process

Analysis of
the
information

Identify
item to
substitute

Develop
substitution
plan

Search for
firms

Diagnosis of
the firms

Gap
analysis

Elaborate
developing
plan

Implement
plan

For each initiative

Supplier Development Program in YPF

Import Substitution activities with large suppliers

Individual working meetings between YPF, main suppliers and SMEs suppliers

Halliburton	Nabors	DLS Argentina	Exterran
Baker Hughes	BJ Services	ABB S.A.	Lufkin Argentina
Odebrecht	Schlumberger	Weatherford	Tuboscope
Swaco	Smith	GE Oil and Gas	Flowserve
Tesco	San Antonio Int.	Special Services San Ant.	GE Inter. Inc.



List of products with the potential to be substituted

Supplier Development Program in YPF



Within one year of work

Results

Design and implement the Supplier Development Program

Diagnosis of 235 firms (20% of the total purchases of YPF)

Implement improvements in 182 (77% of the firms)

Substitute products for U\$D 11MM (8 firms and 9 on progress)

Cooperation agreements with 2 banks and 3 universities

Involve 20 large suppliers of YPF in the program

Other results (externalities)

- Lab for flow elements in the South (Patagonia)
- Turning short-term contracts into long-term
- Visibility of procurement plans and technical needs

Supplier Development Program in YPF

After the 1st year the SDP was ready to continue by its own means



Meeting for import substitution between the Government and Oil & Gas Comp.

Design & Implement the Supplier Development of YPF

Continuation of the SDP in YPF and its extension to other oil & gas companies

The SDP it's decentralize to the regions. Import subst. initiatives in other oil & gas companies

Oct 2015 presidential elections opposition wins elections by 1%.

The program is extended to other sectors and approved by law on April 2018 (PRODEPO)

(Aug 2012-Jul 2013)
Year 1

(Aug 2013-Jul 2014)
Year 2

(Aug 2014-Jul 2015)
Year 3

(Aug 2015-Jul 2016)
Year 4

(Jul 2016 - 2018)
Years 5,6..

External coordinator
* Develop methodology
* Trained the team
* Implement the program

Coordinators (YPF & Gov.)
* +15 oil & gas comp.
(import. Subst.)
* Foster suppliers' exports

Coordinators (YPF & Gov.)
* +475 MM of import.
substitution
* Exports for U\$D 40 MM

Coordinator (Gov.)
* Involves suppliers of other sectors
* Loans for U\$D 40 MM

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Thank you

Marcelo Neuman
mneuman@ungs.edu.ar