# heliceNet Improving Competitiveness in the Andalusian Aerospace Cluster

Final Conference Erik





Simón Vázquez Aerospace Cluster svazquez@agenciaidea.es

**Clusters Division IDEA Agency** 

## Contents

- 1. Introducction
- 2. Description of the Initiative
- 3. Collaborative Networks

### 1. Introduction

#### **FOCUS**

 Suitable combination of the different elements: processes, organization , Human resources capabilities, relationship model and technology plan to yield the necessary strategy

I foresee "Andalucía to become as the third reference

point for Aeronautics in Europe"

-Mr. José Antonio Viera Former Consejero Junta de Andalucia

 Provide IT needed and a way of sharing costs (Service Center)



**Technology** 

**EXTENDED ENTERPRISE BUSINESS MODEL** 

**Strategy** 



**Organization** (PEOPLE)

**Business** 

**Processes** 

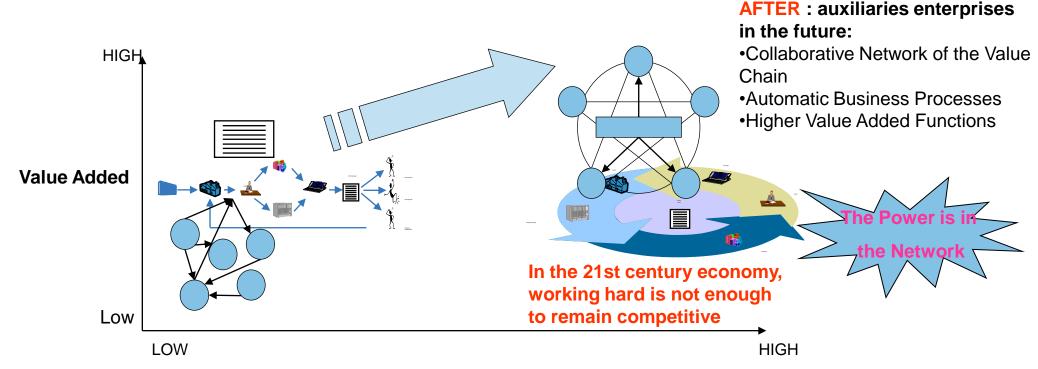
Establishing standard business processes, integrated and agreed among Prime Contractors and the SMEs

 Encouraging virtual networking to foster collaborative organizations

## 2. Description of the Initiative

#### **Objective**

 To create a working network which will position the Andalusian region as a reference point regarding Aeronautics at the European level, empowering the capabilities needed by the SMEs to improve their competitiveness when measured as a whole (global competitiveness).



#### **BEFORE**: State of Business Relationships:

- Disintegration
- Business Processes badly optimized
- Hand made administrative tasks
- Poor Added Value

Level of Integration/collaboration among agents

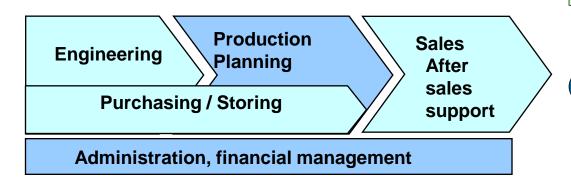
### 2. Description of the Initiative

#### **Technology Model**

- Implementing an ERP (SAP ECMA) to support internal subcontractors processes mngmt.
- A Portal Connection allowing subcontractors to integrate their processes with the OEMs.

## SAP ECMA Functionality (sectorial solution for A&D subcontractors).

It gathers know-how of aerospace production and management best practices and the required standards and docs to support processes in a small and medium subcontractor.



### Connectivity with OEM Leading firm Leading Leading firm **Electronic** SAP ECMA Integration **Platform** (Portal) ERP SAP ECMA ERP SAP ECMA Security Global Connectivity Service level Agreement Standard and robust

### 3. Collaborative Networks

**BUSINESS** Rewards and risks specified under

contract

ORGANIZATION A legal entity is not mandatory just a

temporal dynamic network managed

by a leader

PROCESSES Distributed, coordinated and

supported by a IT Platform, higher

integration level with big corporations

MANAGEMENT Based upon process managmnt. and

delegated functions

### 3. Collaborative Networks

### Factors that contribute to increase collaborations

**BUILDING TRUST** 

PREVIOUS EXPERIENCES

**EXTERNAL THREATS, CRISIS** 

THE EXISTENCE OF CLUSTER LIKE ENTITIES

A COMMON SET OF VALUES: transparency distributing collaboration benefits

**EXISTENCE OF AN AD-HOC IT INFRASTRUCTURE** 

## How can cooperation upgrade the innovation capacity of existing enterprises?

Providing a bus for sharing knowledge for people in participating firms. Sharing common culture, values, techniques. Boosting spillovers and innovations.

Collaborative Networks increase companies flexibility to adapt to market changes

Big corporations that participate in collaborative networks benefit from its flexibility: shortening "time to market" for new products

Help companies to get involved in products, projects and markets beyond individual company's reach

Collaborative IT Platforms catalyzes knowledge transfer and innovative solutions allowing complementary companies to benefit from synergies

## What lessons has your region learned from Erik on enterprise cooperation?

Local political rivalries can hinder cooperation activities between entrepreneurial stakeholders (assocs, tech centers, Universities, etc)

Entrepreneurs need to be trained on cooperation with down to earth instances of cooperative practices in order to make the benefits of cooperation explicit.

All stakeholders must be represented in cluster like cooperation initiatives (Trust is a volatile asset)

## What challenges do you face in this field and how can interregional/national cooperation help?

The aerospace supply chain is undergoing deep transformation (the changing market conditions)

The subcontracting policy of Airbus is forcing some SMEs to joint: machining SMEs must cooperate and create a joint venture.

Only bigger companies with more financial power and engineering capabilities will remain well located in the value chain

Two companies have already begun to cooperate with companies from other regions because local rivalries prevent them from cooperate with neighbouring companies

Three companies have established cooperation agreements with german engineering companies

## What challenges do you face in this field and how can interregional/national cooperation help?

An association of european aerospace clusters is forming and this will help international cooperation between complementary companies

The heliceNet IT Platform must invest in new functionalities to allow for this supply chain changes

Collaborative helping functions like: finding partners, publication of success cooperative experiences, must complement new supply chain transaction functions that will be available for tier1 contractors

Regional agencies should encourage cluster organizations to cooperate with other nation clusters to increase chances of international cooperations between companies

But there are different degrees of involvement for cooperation

## Degrees of innovation while cooperating

**Networking** 

**Share info** 

No common targets

No control on when info will be

uploaded

**Industrial area Website:** 

**E-Catalog** 

Each firm has a product

Each firm updates info

INFORMATION INTERCHANGE

**NETWORK** 

Type of coallition

Camarinha-Matos, L M; Afsarmanseh, H., Simón Vázquez

## Degrees of innovation while cooperating

### **Coordinated Networks**

**Complementary Targets** 

Alter activities to be more effective

Still each company keeps its own products, targets and resources

#### Industrial area website:

Catalog and service managmt.

Each firm its product

Each firm updates info

Common activities like waste retrieval (chips or chemicals) are coordinated to save calls.

**ACTIVITIES ALIGNMENT** 

INFORMATION INTERCHANGE

INFORMATION INTERCHANGE

**NETWORK** 

Type of coallition

COORDINATED NETWORK

Camarinha-Matos, L M; Afsarmanseh, H., Simón Vázquez

## Degrees of innovation while cooperating

COORDINATED

**NETWORK** 

	<b>COOPERATIVE NE</b>	TWORKS	SUPPLY CHAIN		
<b>†</b>	Share resources to reach compatible targets  Split works among participants  Compatible objectives  Results of one are passed to another		They may set up a purchase center  Each firm manufactures a subassembly		
			Compatible Targets Work appart		ַ קאַ
		ACTIVITIES ALIGNMENT	ACTIVITIES ALIGNMENT		
	INFORMATION INTERCHANGE	INFORMATION INTERCHANGE	INFORMATION INTERCHANGE		
_	NETWORK	COORDINATED	COOPERATIVE		

**NETWORK** 

Camarinha-Matos, L M; Afsarmanseh, H., Simón Vázquez

Type of coallition

# Integratio

## Degrees of innovation while cooperating

### **Collaborative Networks**

Common targets Joint firms working			Common Targets Work Together Compatible Targets Work appart	level
they wanted they confor the same firm  4Rs sharing = risks responsibilities and	s, resources,	Compatible Targets Work appart		
	ACTIVITIES ALIGNMENT	ACTIVITIES ALIGNMENT	ACTIVITIES ALIGNMENT	
INFORMATION INTERCHANGE	INFORMATION INTERCHANGE	INFORMATION INTERCHANGE	INFORMATION INTERCHANGE	
NETWORK pe of coallition	COORDINATED NETWORK	COOPERATIVE NETWORK	COLLABORATIVI NETWORK	- E

## Thank you

Simón Vázquez Aerospace Cluster svazquez@agenciaidea.es