



# AROSATEC

**Final Meeting**

**at Metris in Leuven/Belgium on 4 July 2006**

**Introduction**



- Title:  
**Automated Repair & Overhaul System for Aero Turbine Engine Components**
- STREP project in FP6, Priority 4: Aeronautics and Space
- Contract no. AST3-CT-2003-502937
- 7 project partners from 4 countries
- EC Scientific Officer: Daniel Chiron
- Coordinator: BCT, Claus Bremer
- Duration: Nov 2003 - July 2006 (33 months)
- Costs: 2.300.000 €



---

	<b>BCT</b>	Germany	Adaptive technology, milling
	<b>ALROUND</b>	Germany	Administrative management
	<b>ISQ</b>	Portugal	Laser welding
	<b>METRIS</b>	Belgium	Scanning, inspection
	<b>SKYTEK</b>	Ireland	Data management
	<b>MTU</b>	Germany	End user (OEM)
	<b>SIFCO</b>	Ireland	End user (independent)

---

# Project Structure

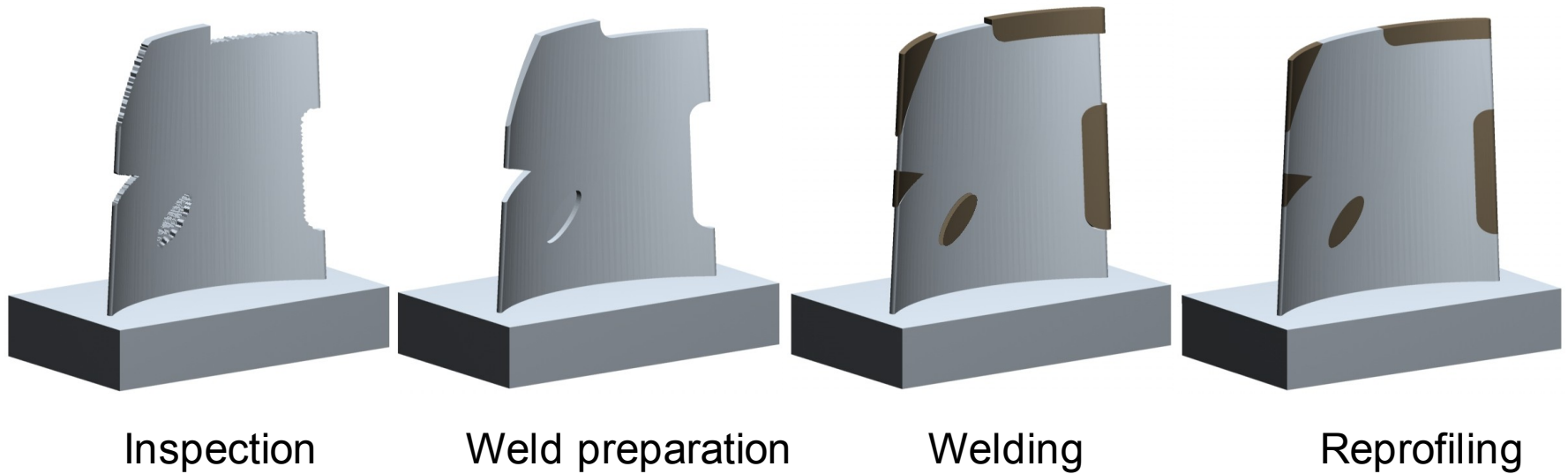
## Work Packages



1000	2000	3000	4000	5000	6000
Management	Specification	Process R&D	SoftwareR&D	Integration	Testing & Demonstrat.
1100	2100	3100	4100	5100	6100
Administrative Management	Present and future requirements	Scanning technologies	Data base and data flow	Technology integration	System test and demonstration
<b>ALROUND</b>	<b>SIFCO</b>			<b>BCT.</b>	<b>SIFCO</b> <b>BCT.</b>
1200	2200	3200	4200	5200	
Dissemination and Expolitation	Standardi-sation of data structure	Laser welding technologies	Data distribution	Data integration	
<b>ALROUND</b>					
	2300	3300	4300		
	Compatibility with user systems	Milling technologies	Process interfaces		
		<b>BCT.</b>	<b>BCT.</b>		
		3400	4400		
		Adaptive machining technologies	Process management		
		<b>BCT.</b>			

# Typical Repair Process Chain For the Overhaul of Blades, Vanes, Blisks & Impellers

---



# The Two Main Objectives

## Improvement & Integration of Repair Processes

---



### **Improvement** of repair processes

The first objective is to improve existing repair methods for aero-engine components.

This is achieved by employing adaptive machining technology to compensate for the part-to-part variation of the complex turbine components to be overhauled.

### **Integration** of repair processes

The second goal is to develop a data management system which will constitute the core of automated overhaul systems for aero engine components.

As part of this innovative data management solution, the single repair processes are integrated to build an automated repair chain.

# Project Structure

## Work Packages and Technologies

