



ADES GROUP

Company introduction

INTRODUCTION

AdES Group is an international group of companies. Today we have offices in Italy, UK and Finland. Our management systems are qualified and certified according to ISO 9001 and ISO 45001. AdES is an inspection body type C (ISO 17020). Relevant experience in Oil&Gas, Nuclear, Pharmaceutical and Renewables industries.

Our core business is NDT service, inspection and technical personnel provision.



ISO 17020



CERTIFICATO DI ACCREDITAMENTO Accreditation Certificate

ACCREDITAMENTO N.
ACCREDITATION N.

311E REV. 01

EMISSO DA
ISSUED BY

DIPARTIMENTO CERTIFICAZIONE E ISPEZIONE

SI DICHIARA CHE
WE DECLARE THAT

ADES Consulting & Services S.r.l.

SEDE PRINCIPALE/HEADQUARTERS:

• Via della Pentapoli, 48 96010 - Priolo Gargallo (SR) - Italia

È CONFORME AI REQUISITI
DELLA NORMA

UNI CEI EN ISO/IEC 17020 Ed. 2012

MEETS THE REQUIREMENTS
OF THE STANDARD

ISO/IEC 17020 Ed. 2012

QUALE ORGANISMO DI

Ispezione di Tipo C

(così come dettagliato nell'Allegato al presente Certificato)

AS BODY FOR THE

Inspection of Type C

(as stated in the Annex to this Certificate)

Data di 1^a emissione

1st issue date

04-11-2020

Data di revisione

Review date

25-02-2021

Data di scadenza

Expiry date

03-11-2024

Settore di Tipo C in cui è accreditato:

Field	Range	Stage	Requirements
<ul style="list-style-type: none">- Industrial- Civil	<ul style="list-style-type: none">- Non-destructive testing (VT, MT, PT, UT, AUT, RT Methods)	<ul style="list-style-type: none">- Initial (before use)- In service	<ul style="list-style-type: none">- UNI EN ISO 17637:2017- UNI EN ISO 3452-1:2013- UNI EN ISO 9934:2017- UNI EN ISO 17638:2016- UNI EN ISO 17640:2019- UNI EN ISO 22825:2017- UNI EN ISO 17636-1:2013- UNI EN ISO 13588:2019- UNI EN ISO 20601:2019- UNI EN ISO 10863:2020- ASME V - 2019- AWS D1.1 - 2020- DNVGL-ST-F101 - 2017- ASTM-E1961 - 2016
Subfield: <ul style="list-style-type: none">- Methane pipelines- Piping- Tanks- Pressure vessel- Structural Steelwork			

INTERNATIONAL EXPERIENCE



Main Clients:

- Shell
- Total
- Eni
- BP
- Chevron
- TechnipFMC
- Lukoil (Isab)
- Exxon Mobil
- Heerema
- Belleli Energy cpe
- Lamprell Energy Limited
- Cimolai Spa
- Cartubi srl
- Walter Tosto Spa
- Mangiarotti Spa
- ATB Riva Calzoni Spa
- Rina Consulting Spa
- Smulders
- SGS Italia Spa

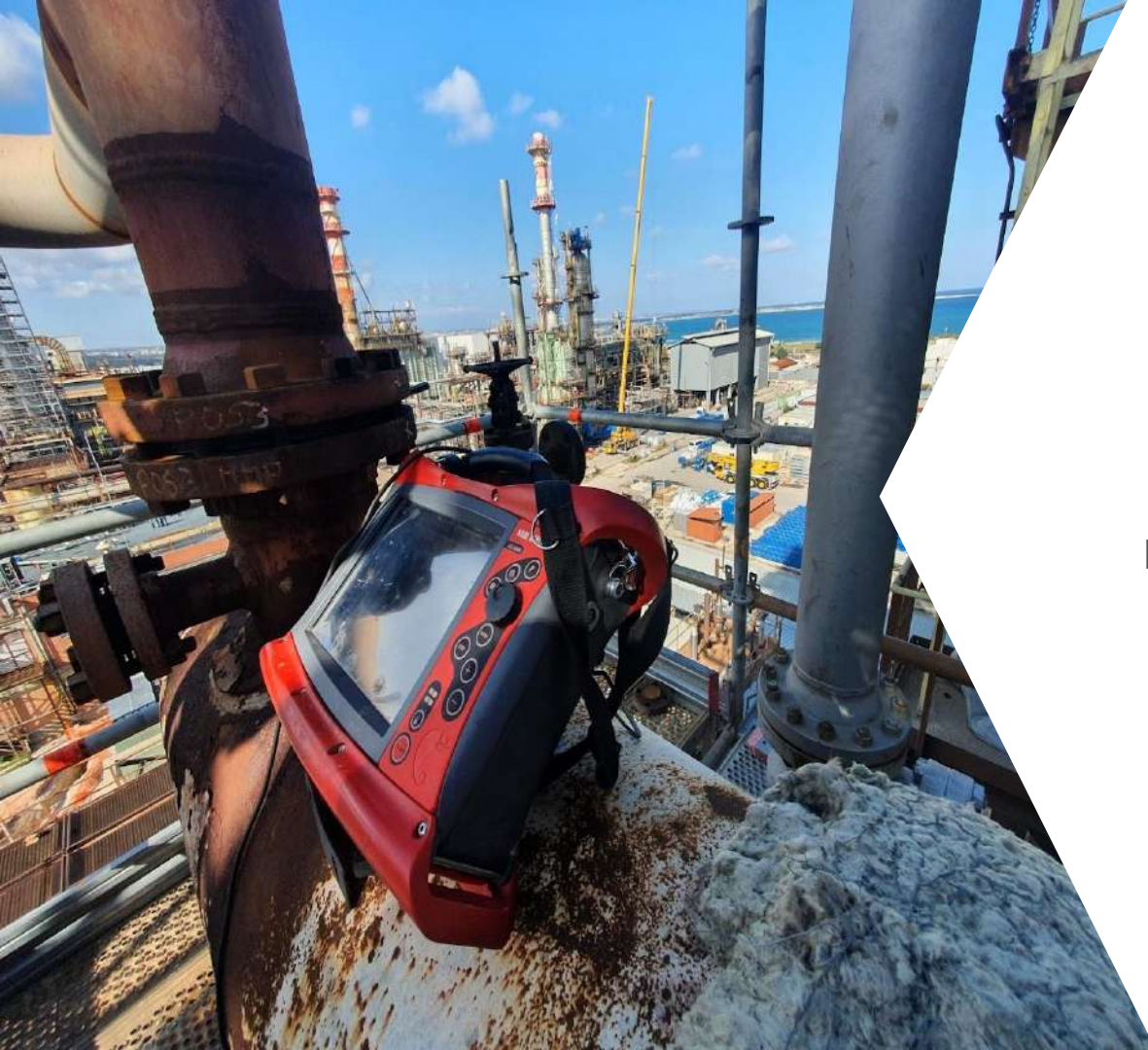
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**NDT - ONSHORE,
OFFSHORE, ROPE ACCESS**



- AUT (zonal discrimination approach).
- Traditional NDT such as UT, RT (X-ray), MT, PT, VT (direct or remote by using video-endoscopes, borescopes and cameras), ET, MRT.
- Advanced NDT such as Phased Array and TOFD, Long range UT, TOFD M-Skip, PEC (Pulsed Eddy Current), ECA, ACFM.
- UT & PAUT inspection of materials and equipment made by exotic materials (clad, HDPE, duplex, super duplex, etc.).
- Drones (UAV) using both visual and thermal cameras.





2

PHASED ARRAY AND TOFD

AT A GLANCE



Phased Array and TOFD can be used as stand-alone techniques or combined together to successfully replace RT inspection of full penetration welds.

Replacing RT with advanced UT is nowadays accepted both by ISO and ASME codes.

Several scanner (manual or motorized) available to cover all the possible needs.

AdES PA UT equipment includes M2M Gekko which has Full Matrix Capture / Total Focusing Method (FMC/TFM) capabilities.

PA UT Procedures specifically developed for:

- Piping (new construction).
- Pressure vessels (new construction).
- In-service piping and pressure vessel.
- HIC (step-wise cracking).
- HTHA early detection.
- HDPE welds inspection.
- Austenitic steel.
- Duplex and Super duplex.
- Nickel alloys.
- Composite material.

3

AUT

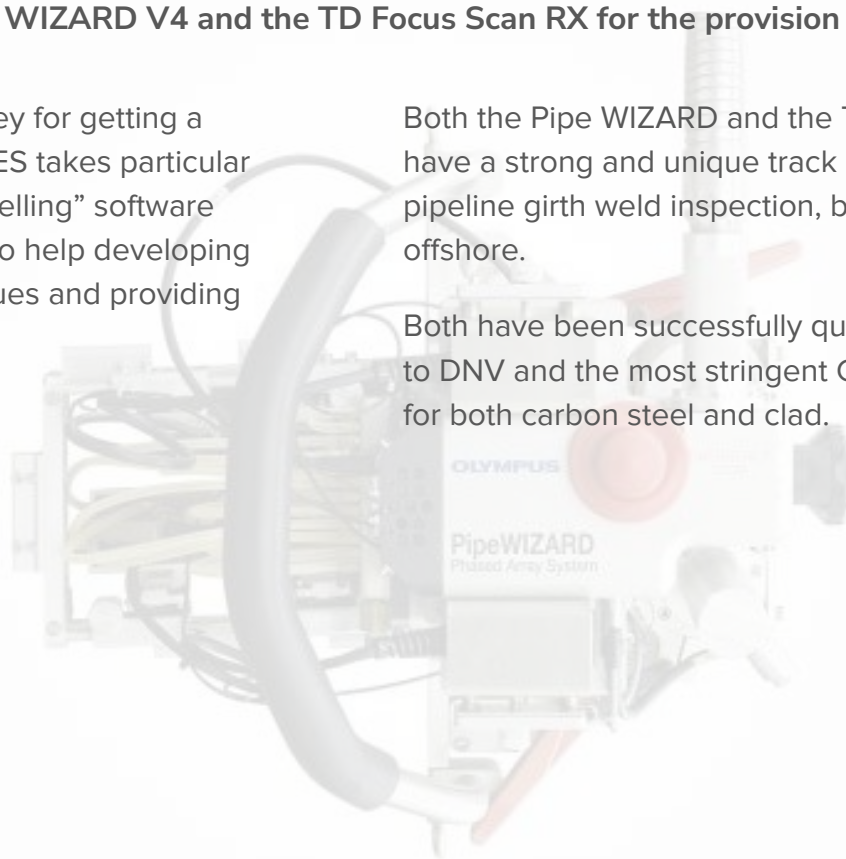


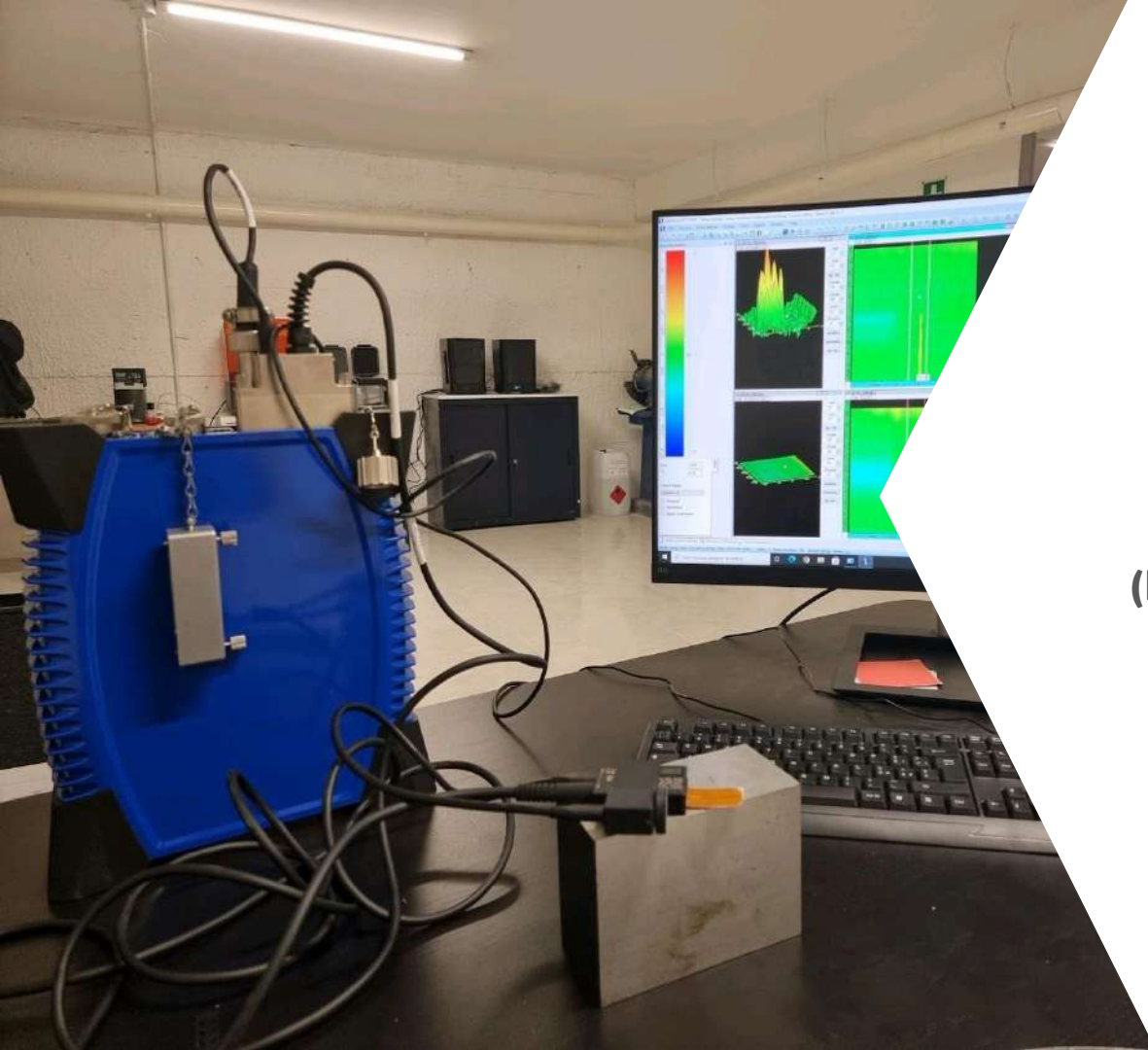
AdES uses the Olympus Pipe WIZARD V4 and the TD Focus Scan RX for the provision of AUT services.

The preparation phase is the key for getting a high-standard AUT service. AdES takes particular care of it, using also “NDT modelling” software such as CIVA as assisting tool to help developing setup, addressing potential issues and providing technical evidences.

Both the Pipe WIZARD and the TD focus scan have a strong and unique track record on pipeline girth weld inspection, both onshore and offshore.

Both have been successfully qualified according to DNV and the most stringent Company specs for both carbon steel and clad.





4

ECA
(EDDY CURRENT
ARRAY)

AdES uses Zetec MIZ 200 to perform Eddy Current Array techniques.

A broad range of applications which include but are not limited to:

- Inspection of painted surfaces.
- Weld inspection using the new Surf-X weld ECA probe.
- Surface inspection of particular geometries with the flexible ECA probe (3D printed parts, turbines, various applications for aerospace industry).

The same equipment is used for performing NDT on heat exchangers tubing (ET, NFT, RFT, IRIS)



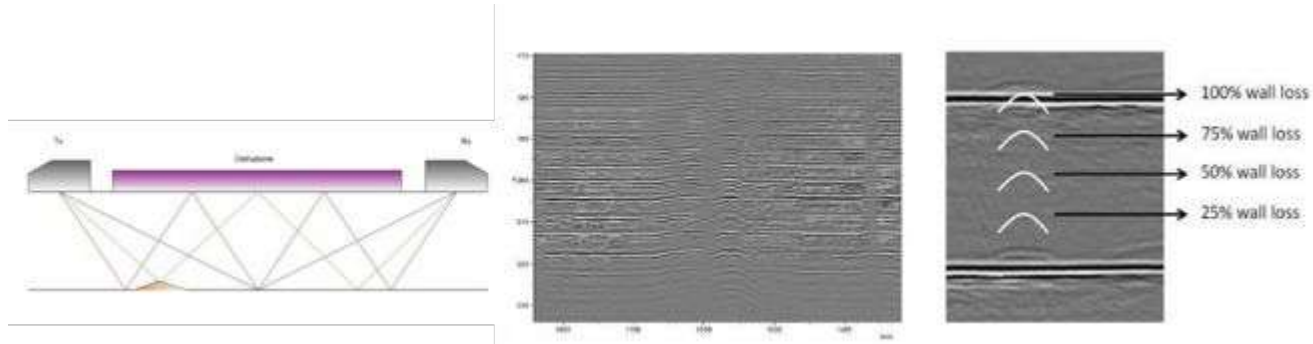
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TOFD MULTI SKIP



AdES developed an in-house solution for M-Skip. This includes the acquisition unit and dedicated accessories such as special wedges and a special scanner designed for CUS inspection.

The technique used is “Time Of Flight Diffraction”, however shear waves in multi-skip mode are used instead of longitudinal waves. The special wedges include also a traditional zero degree UT probe used for coupling monitoring.





6

**GPR LIVE
A NEW METHOD FOR
DETECTION OF CUF**

Ground Penetrating Radar (GPR) is a standard technique used for several scopes (mainly for structural inspection, locating rebar, 2D and 3D rebar layout reconstruction, etc.).

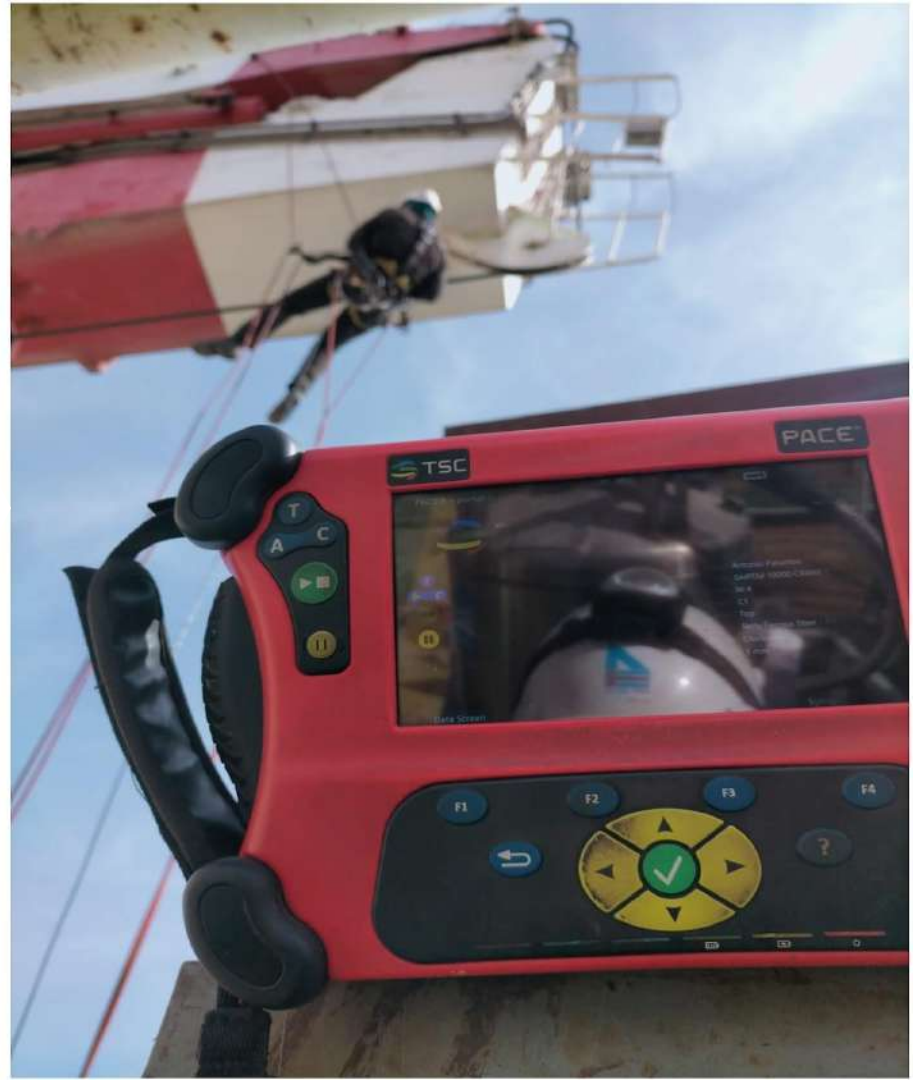
AdES performed a full validation of the proposed technique using both “flawed” specimens as well as via a blind test performed inspecting field samples of an Italian refinery.

Using the Proceq 8000 and its patented “Stepped Frequency Continuous Wave” technology, AdES developed and validated a procedure for performing Corrosion Under Fireproofing inspection (for structural steel where PEC/PECA is not suitable due to geometric constraints).



7

ACFM ALTERNATING CURRENT FIELD MEASUREMENT





ACFM (Alternating Current Field Measurement) is an NDT technique used to detect and size surface breaking defect on both carbon steel and non ferromagnetic materials.

This method can be used to accurately size defect (both length and depth) without removing paint/coating.

AdES uses the TSC Pace ACFM equipment which is able to provide a record of the inspection and automatically generate a detailed report.



8

DDR
(DIGITAL
RADIOGRAPHY)



RT is not just about traditional film radiography.

AdES uses Go-scan panels from Teledyne to perform DDR. There are several advantages compared to traditional RT, the first being the possibility to have a real-time feedback.

ISO 17636-2 Class B quality level can be consistently met using X-ray and Go-scan panel.

And it's not only about welds. The main advantages and the software tools can be clearly appreciated when inspecting difficult geometries.

9

UAV TEAM

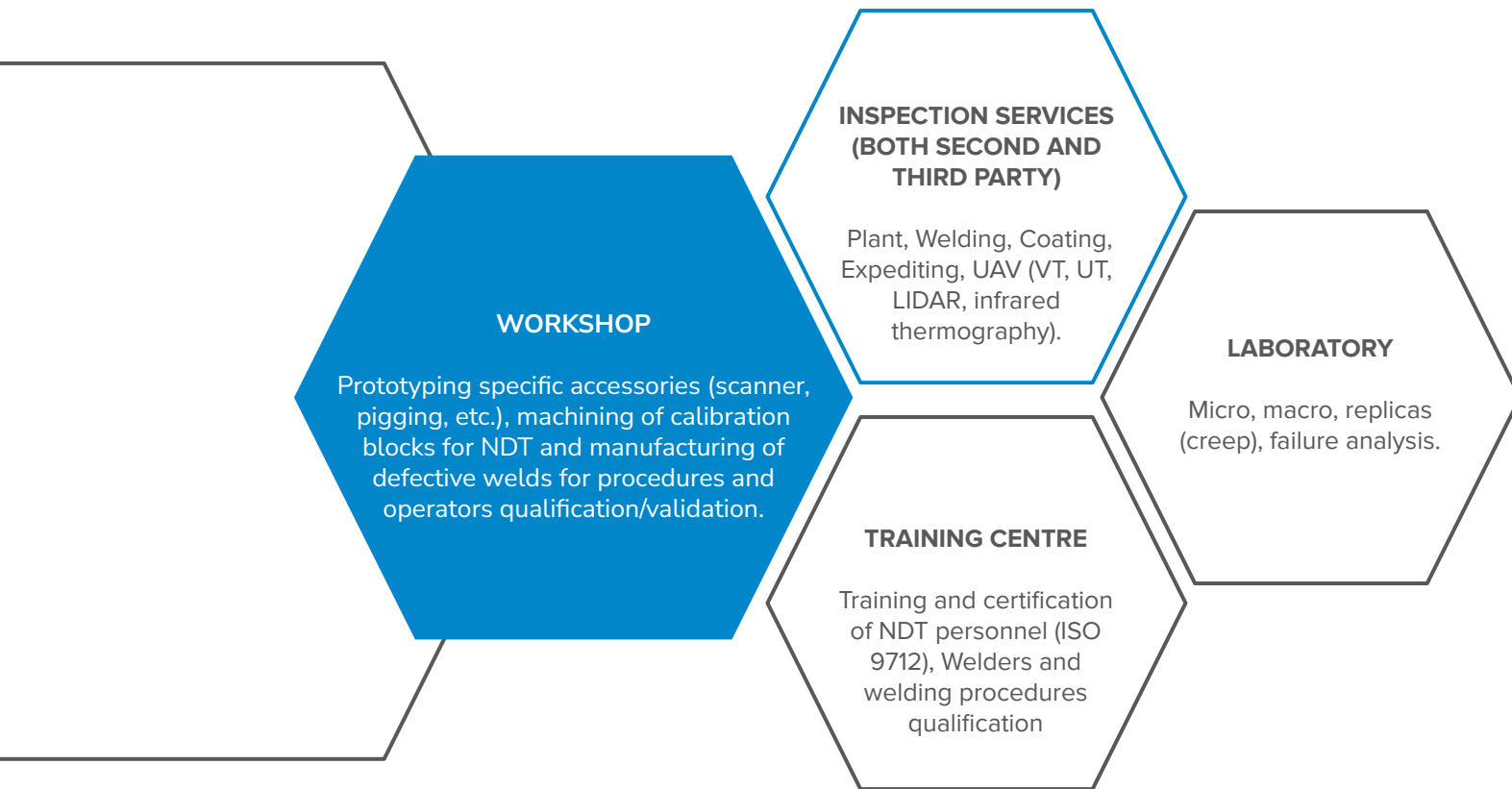




Applications for drones are really limitless. AdES uses DJI units equipped both with visual and thermal cameras.

A team of qualified pilots and engineers are dedicated to the UAV team for Oil&Gas, Civil and Energy sectors.

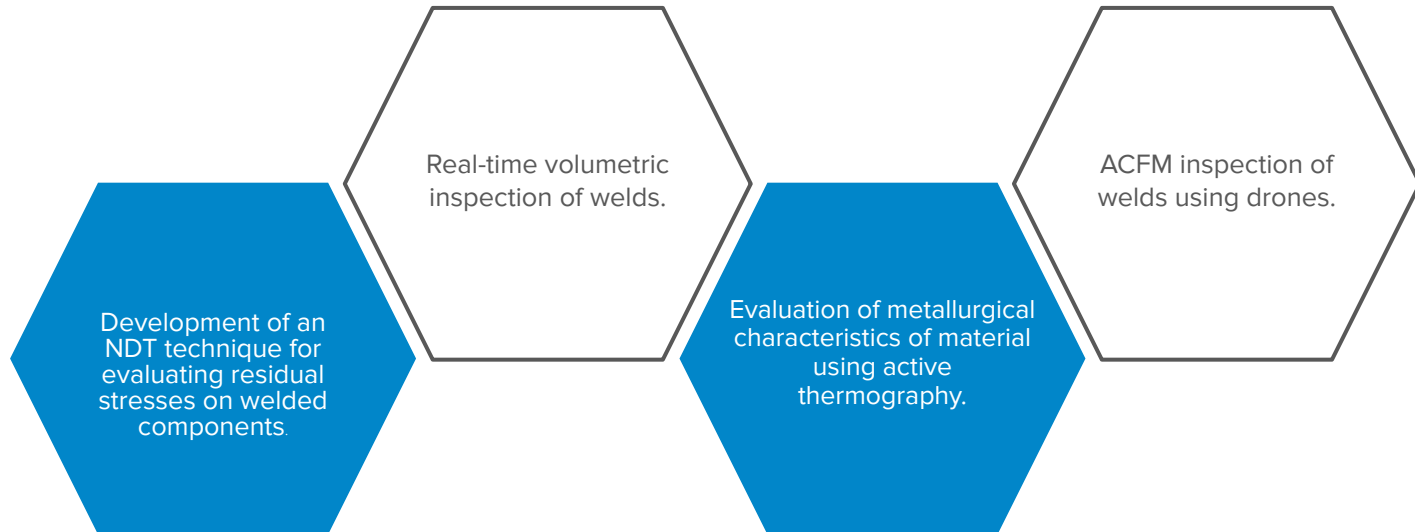
NOT ONLY AN NDT SERVICE PROVIDER



ADVANCED SERVICES AND R&D

AdES has always invested time and energies in new technologies and R&D. Since 2015 we use several software (including Extende Civa) for NDT modelling.

SmartUT Gauge is as of today our first UT set – Software developed in-house. We collaborate with UNIPA (University of Palermo), UNICT (University of Catania) and Politecnico of Turin for our R&D programs. Today we working on several interesting projects such us:





THANKS

Do you have any questions?

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