

Co-funded by the
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South Mediterranean Tunisian Maintenance Centre of Excellence

Skills for Additive Manufacturing (SAM) National Roll Out



The Additive Manufacturing
Professional Profiles in the:
International Additive Manufacturing
Qualification System (IAMQS)



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AM industrial deployment Is this a simple process?

There is not a single technology /solution
7 process categories, with subcategories, using different materials...FOR DIFFERENT SECTORS

SHEET LAMINATION

MATERIAL EXTRUSION

MATERIAL JETTING

VAT
PHOTOPOLYMERISATION

BINDER JETTING

POWDER BED FUSION
(PBF)

DIRECTED ENERGY
DEPOSITION (DED)



Health



Aerospace



Automotive



Consumer goods



Electronics



Energy



Industrial equipment and tooling



Construction

And more!!!

Production is not a single step

Need to consider the complete chain / integration of process



ONE SYSTEM



FORTY SIX COUNTRIES

 Referred in CEN and ISO Standards


 Based in training guidelines

 From project management to workshop level

✓ Based in harmonised examination database

30 YEARS OF INTERNATIONAL QUALIFICATIONS

 Training Personnel in Welding & Joining

 Qualification of Personnel in Welding & Joining

 Certification of Personnel / Companies

 Technical Information

 Technical Products

 Collaboration Projects

Professional Qualification

EWF Joining

Rules for Approval ANBs e ATBs

EWF AM

Qualification Levels / Guidelines:

- **EWE** – Engineer
- **EWT** – Technologist
- **EWS** - Specialist
- **EWP** – Practitioner
- **EWIP** – Inspection Personnel (3 levels)
- **EW** – Welder (3 levels, 4 processes)
- **Adhesive Bonding** (3 levels)
- **Resistance Welding** (2 levels)
- **Thermal Spraying** (2 levels)
- **Laser Processing Personnel** (3 techniques, 2 levels)
- **Mechanized, Orbital and Robot Welding** (3 techniques, 2 levels)
- Blend Learning (Distance+Presential Learning)
- Plus 6 Special courses at Specialist Level

Qualification Levels/Guidelines:

- Metal AM Operators (4 processes)
- Metal AM Coordinator
- Metal AM Process Engineer (3 processes)
- Metal AM Designers (2 group of processes)
- Metal AM Supervisor
- Polymer AM Designer
- More than 70 Competence Units, that can be applied out of the qualifications

INTERNATIONAL AM QUALIFICATION SYSTEM



COMPANIES

support your **competitiveness** and **growth**, ensuring the **right skills sets** of your **workers**, according to **your business needs**

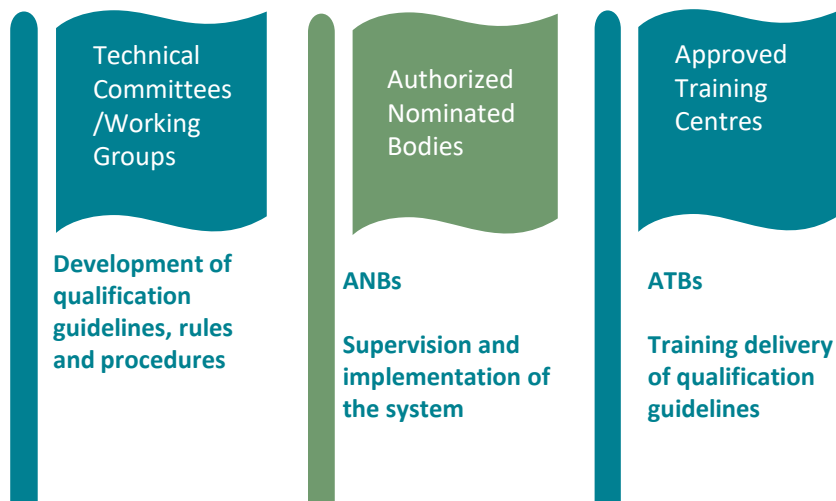
TRAINING CENTRES

increase your **training offer**; enhance your **collaboration** with **other organisations**, and attract **trainees** from around the **world**

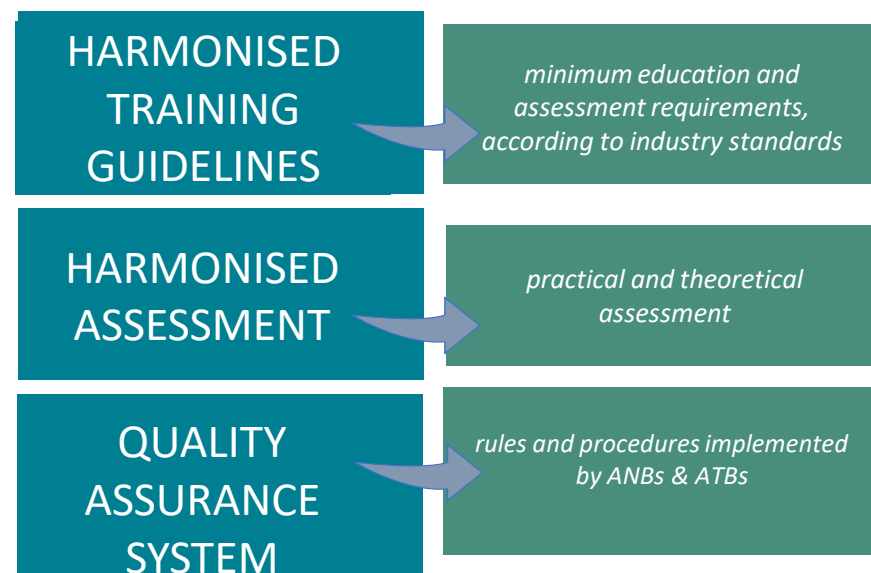
TRAINEES

gain **specialized know-how** to leverage AM technology, **increasing** your **chances** to find a **job** /start a **career**.

IAMQS Quality Assurance



The three major pillars of IAMQS Quality Assurance System



The Additive Manufacturing Professional Profiles



AM OPERATOR



AM COORDINATOR



AM PROCESS ENGINEER



AM DESIGNER



AM SUPERVISOR



On-going projects



Completed projects



AM OPERATOR

IAMQS Operator(s)

Between 10 and 12 days of training (7 hours per day)



AM COORDINATOR

IAMQS Coordinator

Between 27 and 30 days of training (7 hours per day)



AM PROCESS ENGINEER

IAMQS Engineers

Between 27 and 20 days of training (7 hours per day)



AM DESIGNER

IAMQS Designers

Between 12 and 14 days of training (7 hours per day)

EWF AM Qualifications

Alignment Between IAMQS Qualifications and AM Standardization Bodies

Qualification of Personnel Standards:

Operators - ISO/ASTM 52926

Coordination - ISO/ASTM 52935

Designer - ISO/ASTM 52937

