

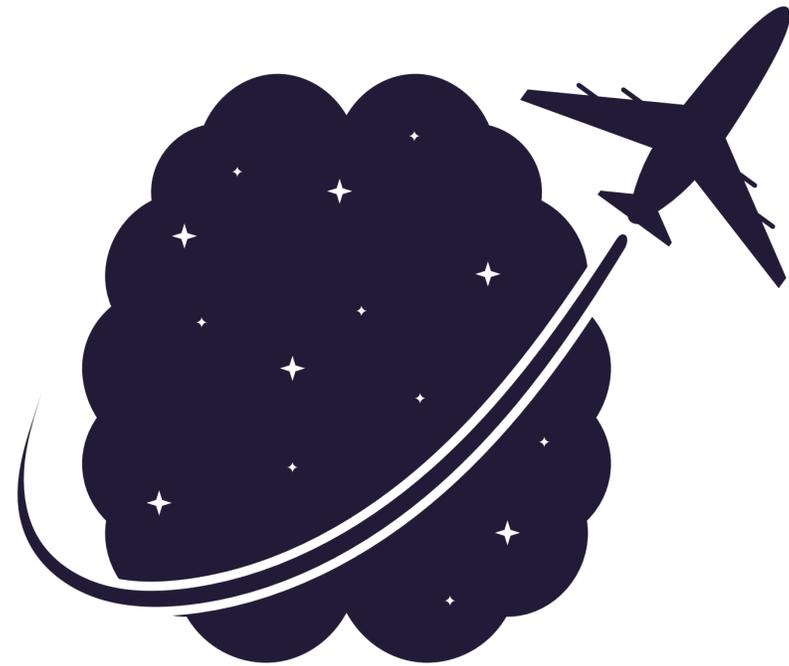
AILEEN

TRAINING

CATALOGUE



Co-funded by
the European Union



AILEEN

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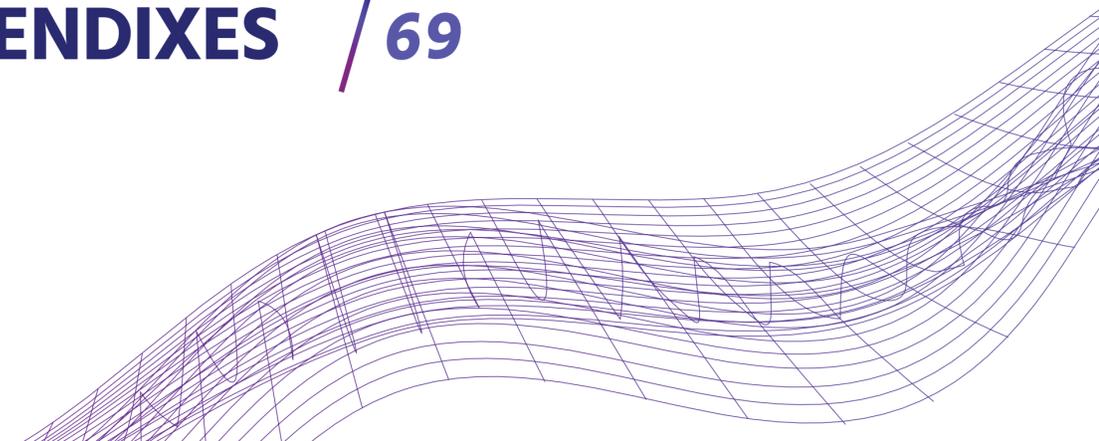
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LEARNING PATHWAYS / 17**

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**DISCOVER THE DETAILS OF
ALL TRAINING COURSES / 33**

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Unlock your Potential with **AILEEN Training**



★ **The aerospace and defence sectors demand precision, innovation, and excellence, and AILEEN training is designed to help you rise to that challenge.**

Developed in collaboration with industry leaders and educational experts, our programmes combine cutting-edge knowledge with practical application to prepare you for the future of advanced manufacturing.

Whether you are aiming to strengthen your expertise in **design, production** processes, master methods of **inspection**, ensure compliance through rigorous **quality assurance**, embrace the power of **digital** technologies, or contribute to a greener future through **sustainability** practices, **AILEEN** offers the right pathway for you.

By enrolling in **AILEEN** training, you develop more than skills: you gain relevance in industries where performance and trust are vital.

Each course is carefully designed to match the evolving needs of advanced manufacturing, empowering you to **make an impact** in two of Europe's most demanding and innovative sectors: **aerospace and defence**.

Explore your Journey

- ✦ **Welcome to the AILEEN Training Catalogue, your access point to cutting-edge learning offers designed to meet the evolving needs of Europe's industrial transformation in advanced manufacturing for the aerospace and defence sectors.**

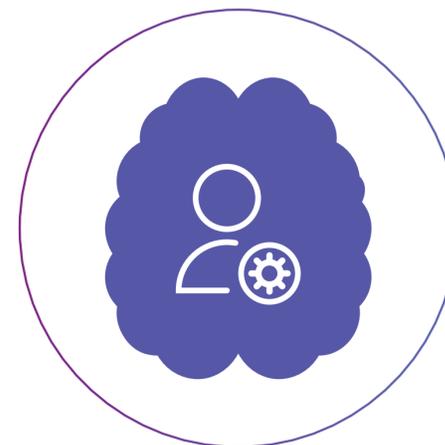
Whether you're preparing to shape tomorrow's industry, upskilling or reskilling, **AILEEN** empowers you to thrive in sectors where precision, innovation, and excellence define success.



**NEW TO
ADVANCED
MANUFACTURING?**

**BECOME A QUALIFIED
PROFESSIONAL IN ADVANCED
MANUFACTURING**

**BE THE EXPERT IN
AEROSPACE AND
DEFENCE SECTOR**



**START
YOUR PATH**

**FIND
YOUR PATH**

**FOLLOW
YOUR PATH**



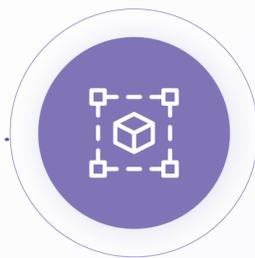
★ **SELECT
YOUR
PATHWAY**

★ Discover the most appropriate training offer or pathway for your needs, aligned with your chosen technology or theme

THEMES



INSPECTION



DESIGN



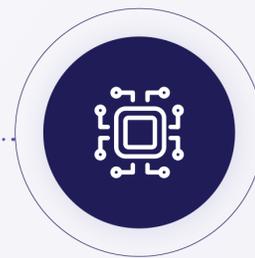
SUSTAINABILITY



QUALITY ASSURANCE



PRODUCTION



DIGITAL

TECHNOLOGIES



WELDING & BRAZING

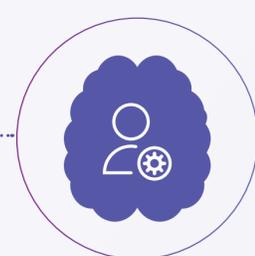


ADDITIVE MANUFACTURING

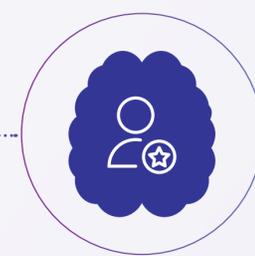
PATHWAYS



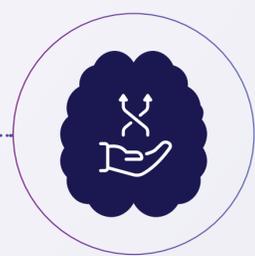
START YOUR PATH



FIND YOUR PATH



FOLLOW YOUR PATH



RECOMMENDED PATH



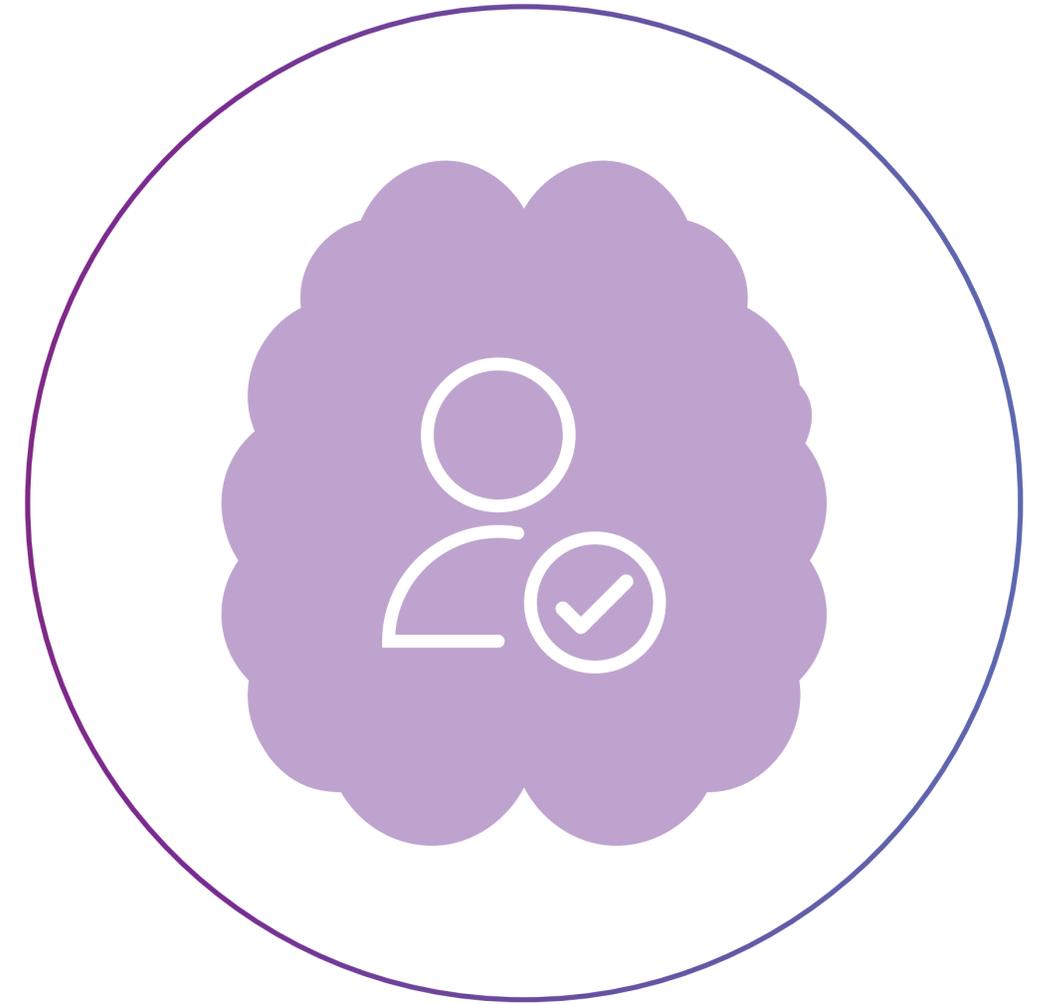
NEW TO ADVANCED MANUFACTURING?

New to Advanced Manufacturing?

- ★ **If this is your first contact with advanced manufacturing, embark on a transformative journey with AILEEN**

Dive into the world of advanced manufacturing with **AILEEN**'s starting pathways in welding and additive manufacturing

Designed with the **aerospace** and **defence** sectors in mind, these courses give you insight into the areas shaping the future of advanced manufacturing.



START YOUR PATH



BECOME A QUALIFIED PROFESSIONAL IN ADVANCED MANUFACTURING

Become a Qualified Professional in Advanced Manufacturing

★ Ensure Excellence in Aerospace and Defence with International Qualifications



EWF qualifications in **production, inspection, and design** give you the tools to shape the future of manufacturing, including for the aerospace and defence sectors.

The **International Qualifications Systems** cover from shopfloor to engineering level skills, needed to master cutting-edge advanced manufacturing processes and to ensure the highest quality standards.

International qualifications are aligned with industrial standards and recognised by industry. They open doors, accelerate careers, and empower you to drive innovation in high-stakes.



FIND YOUR PATH



BE THE EXPERT IN AEROSPACE AND DEFENCE SECTOR

Be the Expert in Aerospace and Defence Sector

- ✦ **AILEEN's sector-specialist training offers hands-on experience and the latest knowledge**

in production workflows, inspection techniques (including additive manufacturing), rigorous quality assurance, digitalisation, and sustainability.

Anchored in a harmonised European curriculum tailored to aerospace and defence, these training offers ensure your career aligns with the strategic needs of Europe's aerospace and defence industries.

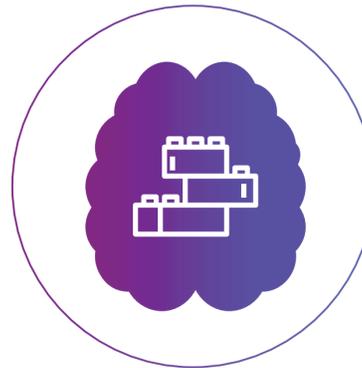
AILEEN's training programmes combine cutting-edge knowledge with practical application to prepare you for the future of advanced manufacturing.



FOLLOW YOUR PATH

★ In AILEEN, you decide how to shape your learning journey

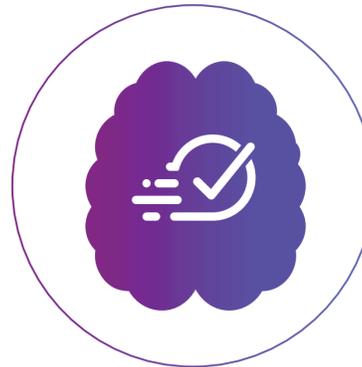
You decide how to shape your learning journey. Choose a **flexible modular** path to build skills step by step, or immerse yourself in an **intensive programme** to accelerate your skills.



FLEXIBLE MODULAR

PATHWAY

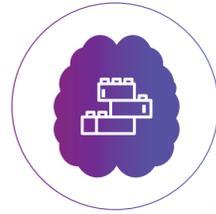
TAKE YOUR TIME
WITHIN YEARS



INTENSIVE LEARNING

PATHWAY

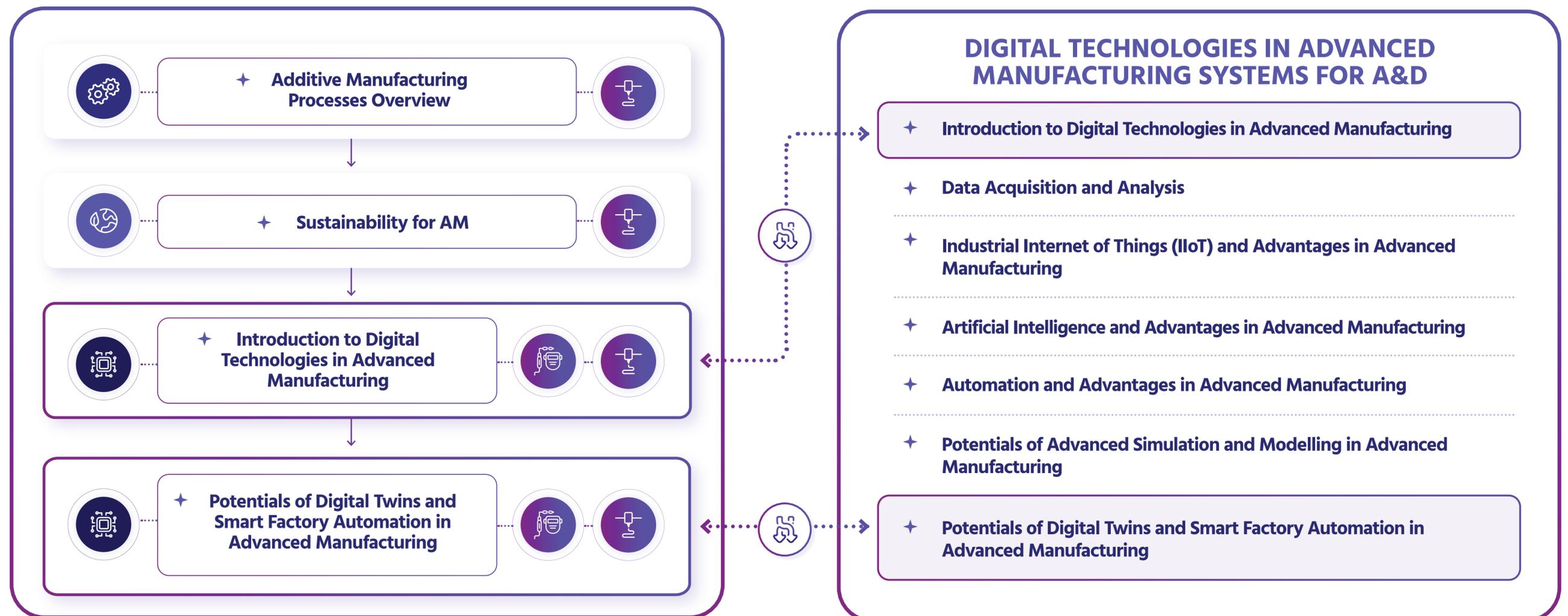
FULL SPEED AHEAD
WITHIN DAYS



FLEXIBLE MODULAR PATHWAY



INTENSIVE LEARNING PATHWAY



✦ FOR ALL COURSES THAT CAN BE COMBINED INTO AN INTENSIVE FORMAT, YOU WILL FIND THIS SYMBOL 



★ **RECOMMENDED
LEARNING
PATHWAYS**



★ Choosing the right training can be challenging

To support you, **AILEEN** proposes learning pathways carefully mapped to specific professional profiles, such as **engineers**, **inspectors**, or **designers**.

These pathways are recommendations, not obligations, guiding you towards the most impactful courses across areas like **production**, **inspection**, **digital** skills, and **sustainability** — ensuring your training journey is both effective and relevant.





GENERAL PUBLIC

From Curiosity to Know How

★ **AILEEN opens the door for anyone curious about the future of manufacturing**

This training courses are addressed to the general public.







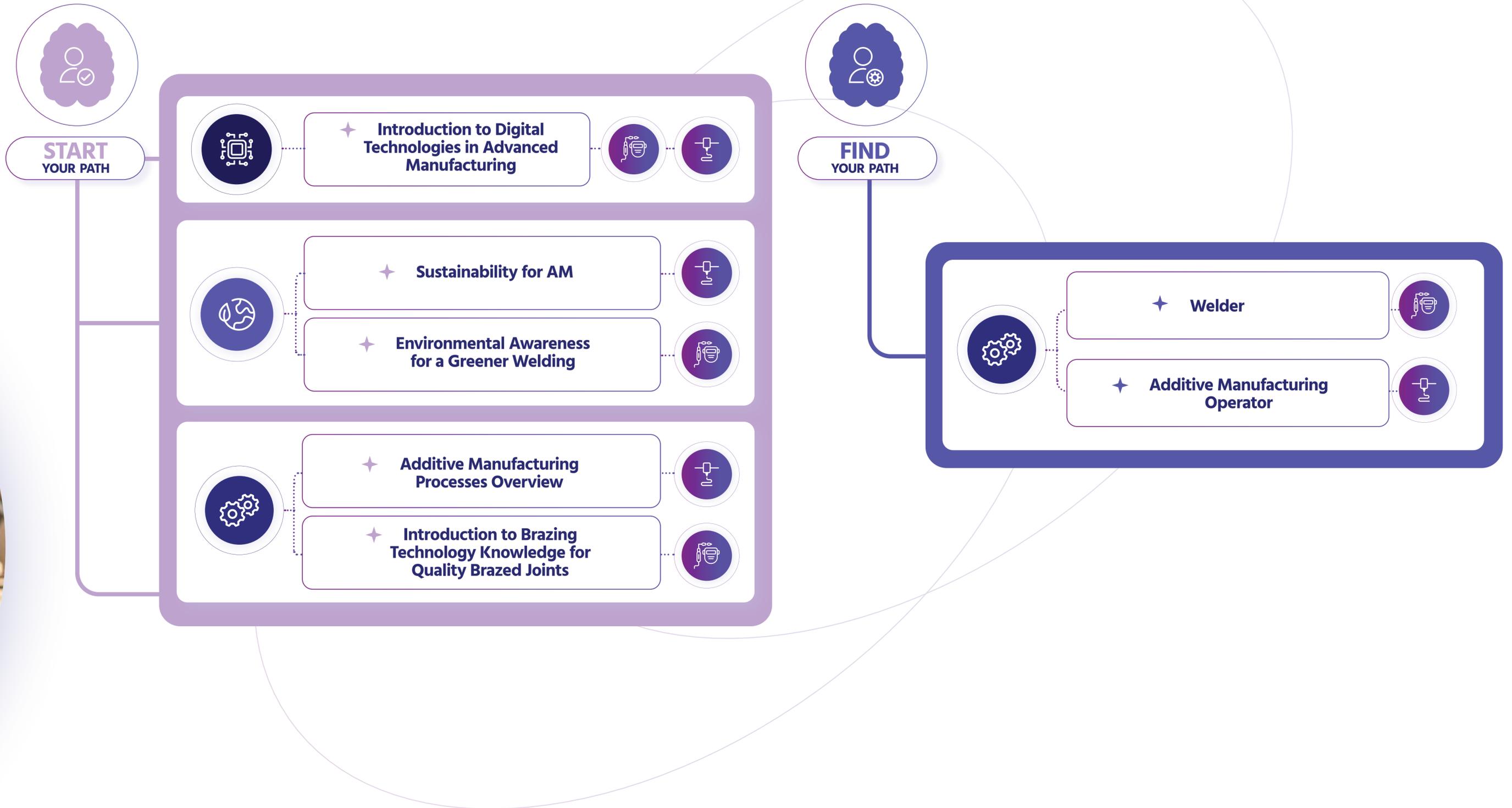
WELDERS & OPERATORS

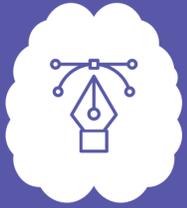
Explore additive manufacturing and welding and become a qualified professional

✦ **If your passion is to have a hand's on professional carrier, this is the path for you to become a qualified professional in advanced manufacturing**

Pursuit a career as a welder or an additive manufacturing operator.





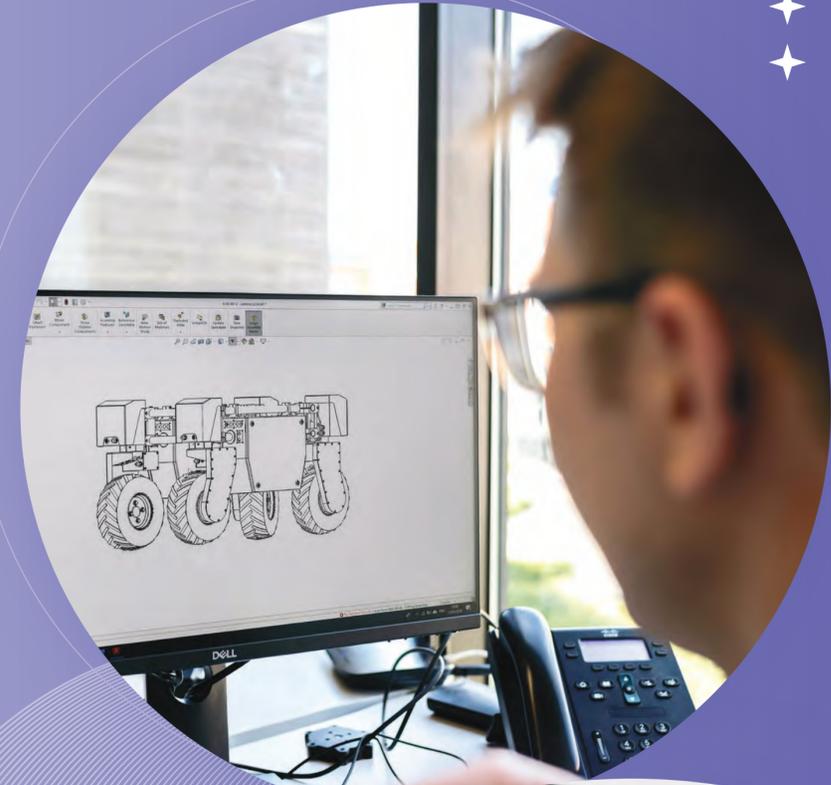


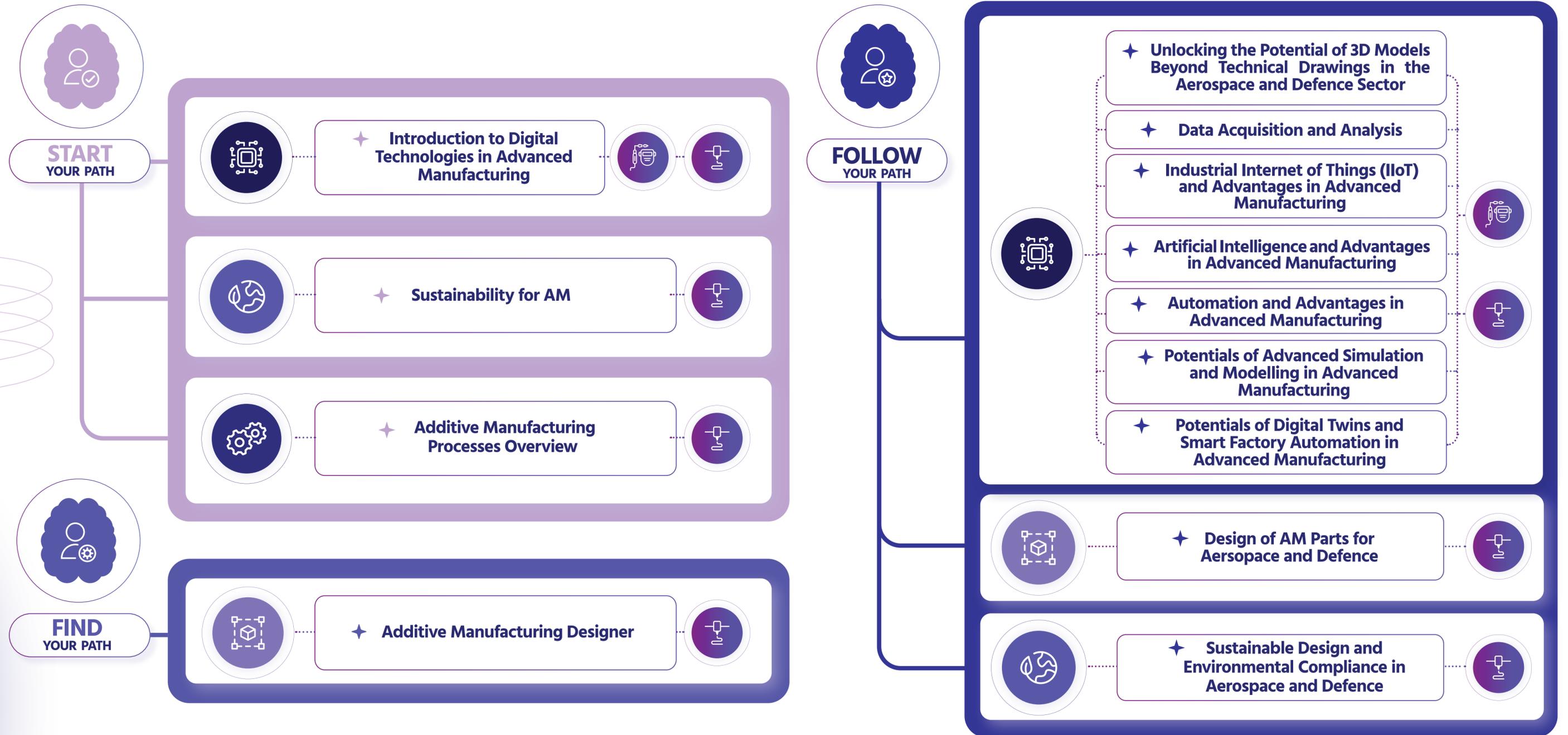
DESIGNERS

Design the Future of Aerospace & Defence

✦ **AILEEN empowers designers to go beyond creativity by integrating design expertise, digital innovation, and sustainability strategies into every project**

With training tailored to the aerospace and defence sectors, you'll gain the skills to deliver designs that are not only precise but also future-ready.







ENGINEERS

Engineer the Next Generation of Aerospace and Defence Innovation

✦ **Drive innovation in manufacturing production while embedding quality control at every stage**

AILEEN equips engineers with the tools to reduce errors, optimise processes, and deliver flawless results for the most demanding aerospace applications.







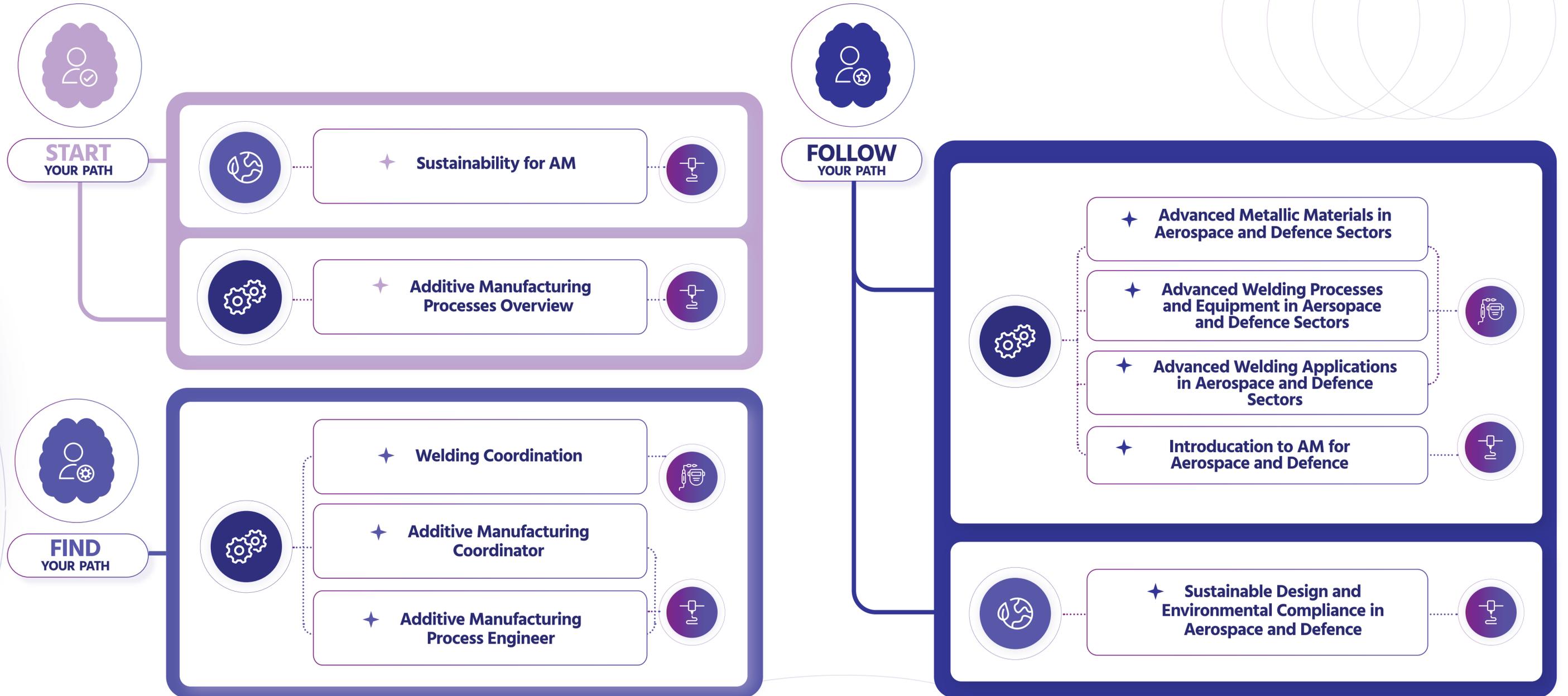
ENGINEERS

Engineer the Next Generation of Aerospace and Defence Innovation

✦ **From advanced welding to additive manufacturing, AILEEN prepares engineers to lead in production excellence**

By integrating sustainability into every step, you'll contribute to greener factories, cleaner skies, and a future-ready defence and aerospace sector.







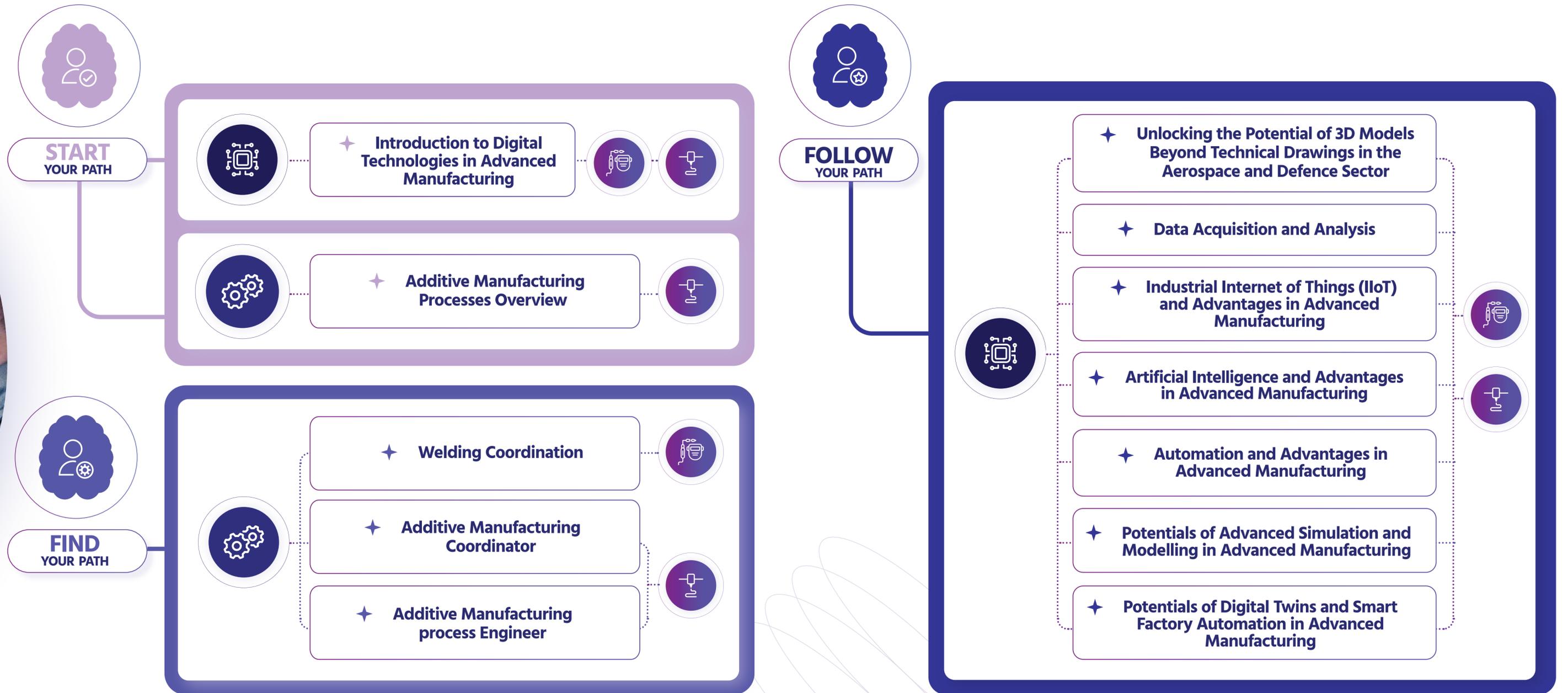
ENGINEERS

Engineer the Next Generation of Aerospace and Defence Innovation

✦ **AILEEN brings production excellence and digital competences together in one powerful learning journey**

By mastering both areas, engineers not only improve manufacturing efficiency but also unlock innovation opportunities that shape the future of the aerospace and defence industries.







INSPECTORS & NDT PROFESSIONALS

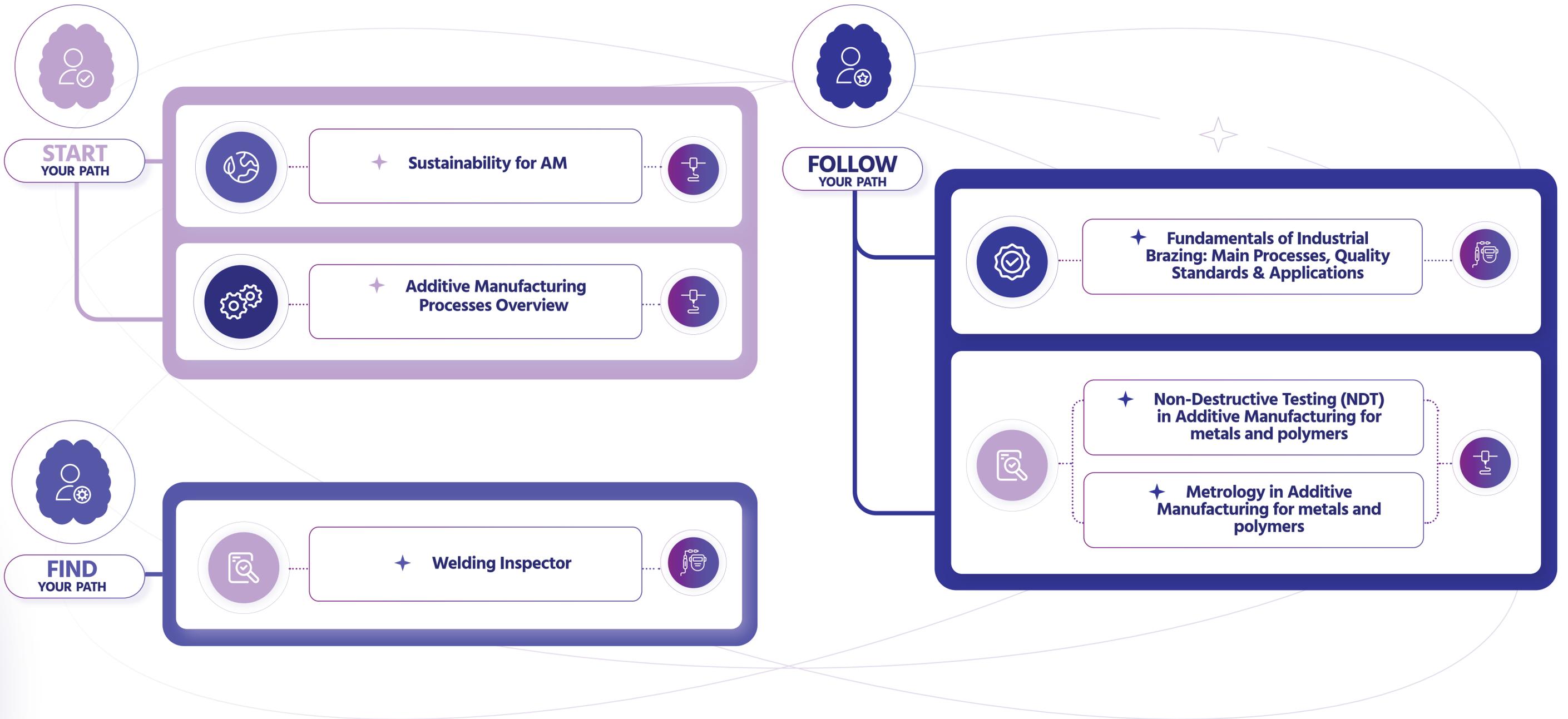
Build Your Expertise in Aerospace Inspection

✦ **In aerospace and defence, inspection and non-destructive testing are critical to mission success**

AILEEN training empowers professionals with the skills, tools, and confidence to uphold the highest standards of quality.

Delivered through a network of CoVEs across Europe, you gain rigorous training in NDT methods and inspection technologies specifically for the aerospace and defence industries





★ **DISCOVER
THE
DETAILS
OF ALL
TRAINING
COURSES**



COMPETENCE UNITS / QUALIFICATIONS DETAILS



START
YOUR PATH

- ★ **Introduction to Digital Technologies in Advanced Manufacturing** / 39
Gain an introductory understanding of various digital technologies
- ★ **Additive Manufacturing Processes Overview** / 40
Discover the main additive manufacturing processes used for 3D printing
- ★ **Introduction to Brazing Technology Knowledge for Quality brazed joints** / 41
Learn how to perform optimal brazing works within industrial applications
- ★ **Fundamentals of Industrial Brazing: Main Processes, Quality Standards & Applications** / 42
Recognize brazing processes, equipment, and quality requirements within industrial brazing applications
- ★ **Sustainability for Additive Manufacturing** / 43
Explore the importance of sustainability applied to additive manufacturing
- ★ **Environmental awareness for a greener welding** / 44
Discover the benefits of applying sustainability principles to welding



FIND
YOUR PATH

- ★ **International Metal AM Coordinator** / 45
Be the professional responsible for the implementation and coordination of AM activities
- ★ **International Metal Additive Manufacturing Process Engineer** / 46
Specialize and pursue a career in an additive manufacturing specific process
- ★ **International Metal Additive Manufacturing Supervisor** / 47
Pursue a career in advanced manufacturing related with Quality Assurance and Health, Safety & Environment
- ★ **International Metal Additive Manufacturing Operator** / 48
Operate metal AM machines using a specific additive manufacturing process

COMPETENCE UNITS / QUALIFICATIONS DETAILS



**FIND
YOUR PATH**

- ✦ **European/International Welding Inspector** / 49
Ensure the quality, safety, and code compliance of welded structures
- ✦ **International Metal Additive Manufacturing Designer** / 50
Design metal AM solutions
- ✦ **European/International Welding Coordination** / 51
Manage the applications of welding and related technologies
- ✦ **European/International Welder** / 52
Become a skilled professional in joining metal parts



**FOLLOW
YOUR PATH**

- ✦ **Advanced Metallic Materials in Aerospace and Defence Sectors** / 53
Select advanced metallic materials to be used in Aerospace and Defence
- ✦ **Advanced Welding Processes for Aerospace & Defence** / 54
Develop expertise on the welding processes and metallic materials used in Aerospace and Defence sector
- ✦ **Advanced Welding Applications in Aerospace and Defence Sectors** / 55
Explore the key welding applications for Aerospace and Defence
- ✦ **Inspection of metal AM parts - Material Quality** / 56
Select advanced metallic materials to be used in Aerospace and Defence
- ✦ **Quality Assurance & Quality Control for AM in Aerospace & Defence** / 57
Unlock the key QA/QC requirements for using AM in certified aerospace & defence parts
- ✦ **Qualification, Certification and Standards for AM in Aerospace & Defence** / 58
Discover the steps required to deploy AM to produce end-use parts in the aerospace & defence sector

COMPETENCE UNITS / QUALIFICATIONS DETAILS

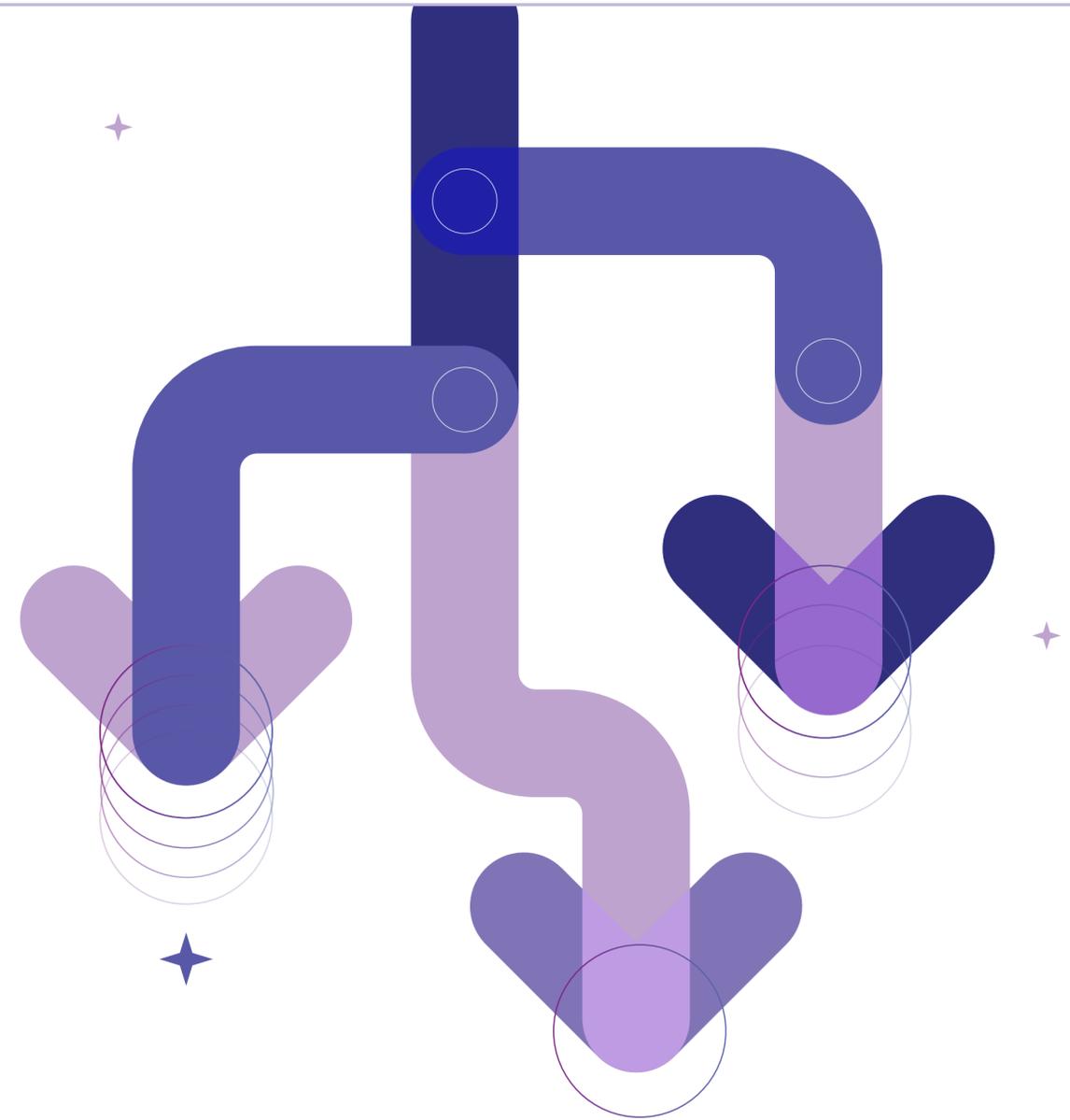


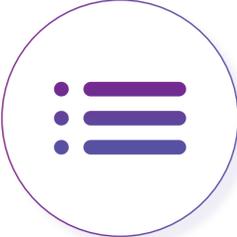
**FOLLOW
YOUR PATH**

- ✦ **Metrology in Additive Manufacturing for metals and polymers** / 59
Gain the skills to ensure compliance in aerospace Additive Manufacturing
- ✦ **Non-Destructive Testing (NDT) in Additive Manufacturing for metals and polymers** / 60
Learn how advanced testing secures reliability in aerospace metals and polymers through NDT
- ✦ **Sustainable Design and Environmental Compliance in Aerospace and Defence** / 61
Develop sustainable, compliant, and future-ready products
- ✦ **Data Acquisition and Analysis** / 62
Explore the digital edge of aerospace and defence production.
- ✦ **Industrial Internet of Things (IIoT) and Advantages in Advanced Manufacturing** / 63
Discover the advantages of using IIoT
- ✦ **Artificial Intelligence and Advantages in Advanced Manufacturing** / 64
Optimize manufacturing processes and improve quality assurance using AI tools
- ✦ **Automation and Advantages in Advanced Manufacturing** / 65
Uncover the advantages of using automations systems in AM applications
- ✦ **Potentials of Advanced Simulation and Modelling in Advanced Manufacturing** / 66
Explore modelling and simulation for aerospace and defence applications
- ✦ **Potentials of Digital Twins and Smart Factory Automation in Advanced Manufacturing** / 67
Unlock how digital twins transform manufacturing with real-time data, validation, and optimisation
- ✦ **Unlocking the Potential of 3D Models Beyond Technical Drawings in the Aerospace and Defence Sector** / 68
Develop advanced CAD skills to design precise, compliant aerospace and defence systems

Icon Guide

This section includes a set of icons that highlight key aspects of each course unit, such as **Themes**, **Technologies**, **Pathways**, **Modular/Intensive** formats, and **Professional profiles**. Reintroduced here for quick reference, these symbols help you navigate and understand the course sheets at a glance.



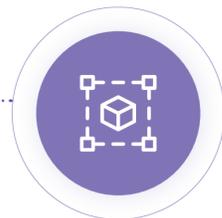


RETURN TO INDEX
Tap the icon anytime to jump back to the *COURSES INDEX* page.

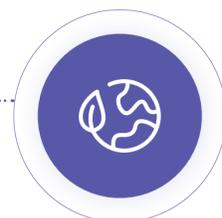
 **THEMES**



INSPECTION



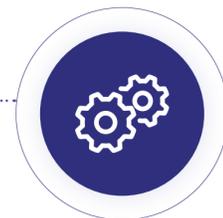
DESIGN



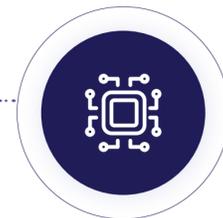
SUSTAINABILITY



QUALITY ASSURANCE



PRODUCTION



DIGITAL

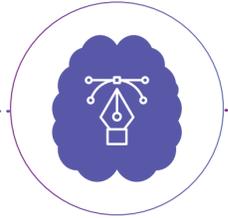
PROFILES



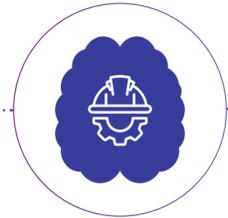
GENERAL PUBLIC



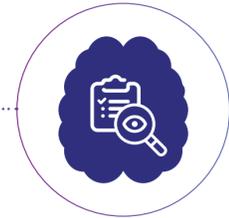
WELDERS & OPERATORS



DESIGNERS



ENGINEERS



INSPECTORS & NDT PROFESSIONALS

TECHNOLOGIES



WELDING & BRAZING



ADDITIVE MANUFACTURING

PATHWAYS



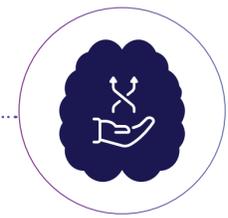
START YOUR PATH



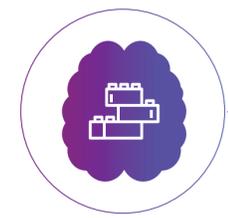
FIND YOUR PATH



FOLLOW YOUR PATH



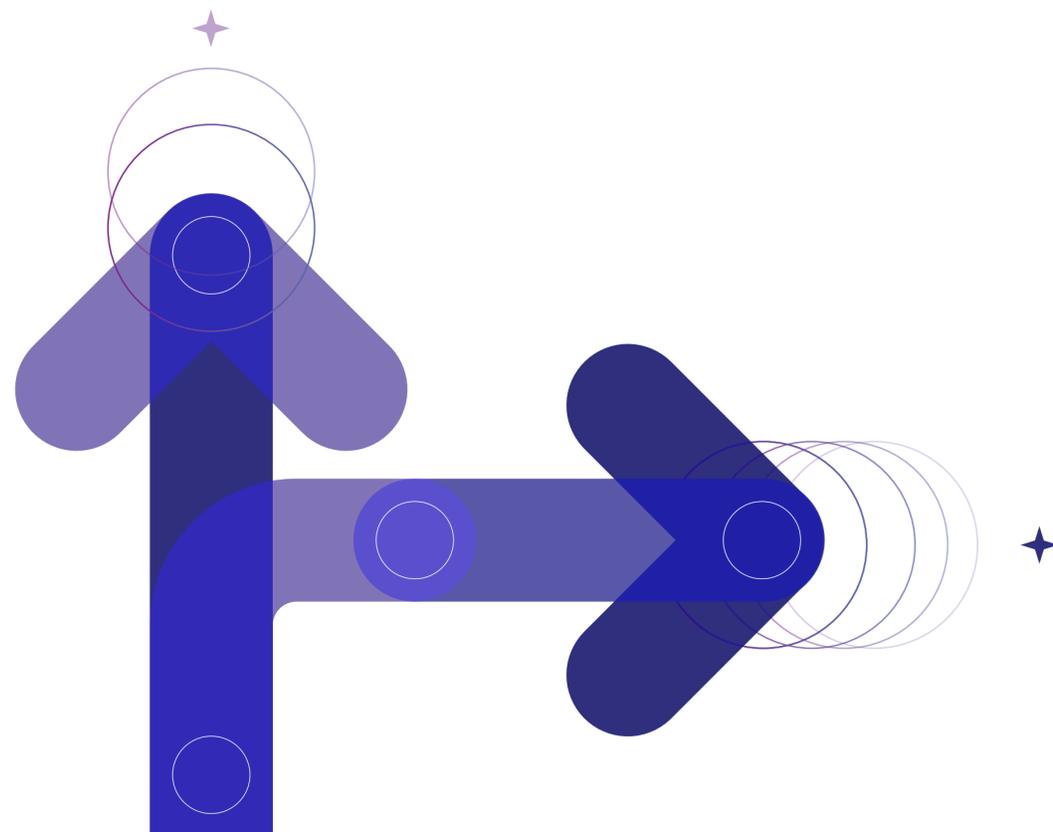
RECOMMENDED PATH



FLEXIBLE MODULAR PATHWAY



INTENSIVE LEARNING PATHWAY



PATHWAYS

For all courses that can be combined into an *INTENSIVE FORMAT*, you will find this symbol

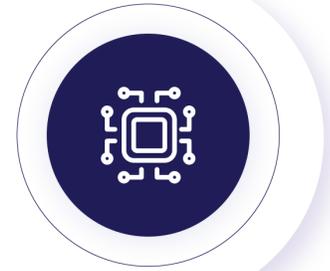




START
YOUR PATH



Introduction to Digital Technologies in Advanced Manufacturing



WHO IS IT FOR?

General Public

CONTACT HOURS

7h

LEVEL



ELEMENTARY



KNOWLEDGE

Basic facts, principles, processes and general concepts of:

- ★ Digital technologies used in advanced manufacturing, including data analysis, IIoT, AI, and automation,
- ★ Key components and functionalities of digital technologies in manufacturing processes.



SKILLS

- ★ Recognize different types of digital technologies and their roles within advanced manufacturing.
- ★ Understand the fundamentals of automation and how it improves manufacturing processes.



Additive Manufacturing Processes Overview



START
YOUR PATH

WHO IS IT FOR?

General Public



CONTACT HOURS

3,5h



LEVEL



BASIC



KNOWLEDGE

Basic factual knowledge of:

- ✦ Directed energy deposition
- ✦ Powder bed fusion
- ✦ Vat photopolymerization
- ✦ Material jetting
- ✦ Binder jetting
- ✦ Material extrusion
- ✦ Sheet lamination



SKILLS

- ✦ Distinguish parts produced by different AM processes.
- ✦ List the advantages and limitations of AM processes from a manufacturing process chain point of view.
- ✦ Name the applicability of different AM processes, according to the characteristics of each process.



START
YOUR PATH



Introduction to brazing technology Knowledge for quality brazed joints



WHO IS IT FOR?

Brazers and Brazing Operators

CONTACT HOURS

16,5h

LEVEL



BASIC



KNOWLEDGE

Basic facts, principles, processes and general concepts of:

- ✦ Brazing processes and equipment,
- ✦ Brazing materials and consumables,
- ✦ Brazing drawings interpretation,
- ✦ Brazing Procedure Specification interpretation,
- ✦ Quality and brazed joints inspection,
- ✦ Health and safety requirements.



SKILLS

- ✦ Describe the preparation (clean, fit and assembled) of workpieces for brazing.
- ✦ Explain how various brazing processes and heat control techniques are applied to achieve precise and defect free joints.
- ✦ Follow Brazing Procedure Specifications (BPS) to undertake brazing works.
- ✦ Interpret technical drawings and brazing symbols according to the applicable standards.
- ✦ Recognise common imperfections in brazed joints and their causes, against defined criteria.
- ✦ Identify safe conditions for brazing operations.



Fundamentals of Industrial Brazing: Main Processes, Quality Standards & Applications



START
YOUR PATH

WHO IS IT FOR?

Quality assurance, maintenance & inspection personnel, process engineers, and/or decision makers/managers

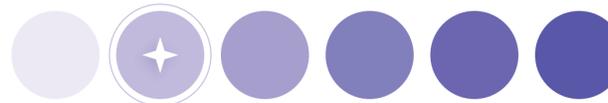


CONTACT HOURS

7h



LEVEL



BASIC



KNOWLEDGE

Basic facts, principles, processes and general concepts of:

- ✦ Brazing processes and equipment, including their advantages and limitations,
- ✦ Quality requirements for brazing of metallic materials.



SKILLS

- ✦ Identify the (dis)advantages/limitations for the main brazing techniques.
- ✦ Apply quality assurance and control according to the relevant standards.
- ✦ Explain the main factors relating to personnel and equipment which influence the quality in brazing operations.
- ✦ Interpret inspection and testing plans effectively to fulfill the brazing quality requirements.



START
YOUR PATH



Sustainability for Additive Manufacturing



WHO IS IT FOR?

General public

CONTACT HOURS

7h

LEVEL



BASIC



Basic knowledge of:

- ✦ Economic and social context for Sustainability Policies (R Imperatives; Green Deal; Sustainable Development Goals),
- ✦ Sustainability along the product life cycle (Human Centred Design),
- ✦ AM role in sustainability (advantages and limitations).



- ✦ Spot ideas and opportunities on alternative and more sustainable simple solutions applied to the daily AM activities.
- ✦ Identify the cases/examples where AM can lead to more sustainable products.
- ✦ Name advantages and disadvantages of AM use towards sustainability.
- ✦ Take the initiative to make suggestions for more sustainable choices along the AM product life cycle.



★ Environmental awareness for a greener welding



START
YOUR PATH

WHO IS IT FOR?

All professionals in the field of Welding

CONTACT HOURS

7h

LEVEL



ELEMENTARY



KNOWLEDGE

Basic facts, principles, processes, and general concepts on:

- ★ **Green topics:** Reduce, Reuse, Recycle,
- ★ **Common welding waste:** scrap metal, fumes, gases, consumables,
- ★ **Waste reduction in welding** (careful use of base and filler materials, avoiding unnecessary scrap),

- ★ **Three dimensions of sustainability:** environmental, social, economic,
- ★ **Workplace environmental rules and company policies,**
- ★ **The role of welding in sustainability** (advantages and limitations compared to other processes),
- ★ **How process selection and material identification influence waste and energy use,**
- ★ **How technology choices can affect sustainability in welding.**



SKILLS

- ★ **Identify common sources of waste in welding** (e.g. scrap, gases, fumes, consumables).
- ★ **Recognize simple ways to reduce waste and environmental impact during welding.**
- ★ **Recognize basic steps that help save energy and materials during welding.**
- ★ **List the main benefits and limits of welding for sustainability.**
- ★ **Give examples of small improvements for more sustainable welding practices.**

- ★ **Identify correct handling and storage of welding materials to minimize harm to the environment.**
- ★ **Recognize basic design ideas** (e.g. simple joints, avoiding oversized welds) that help save materials and energy.
- ★ **Recognize when alternative welding technologies may offer environmental or economic advantages.**
- ★ **Give examples of how welding waste can be repurposed to reduce environmental impact.**
- ★ **Apply preventative maintenance practices to improve energy efficiency and equipment lifespan**



FIND
YOUR PATH



International Metal AM Coordinator



WHO IS IT FOR?

Engineers willing to widen their knowledge in AM processes in general and coordination activities

CONTACT HOURS

185h

LEVEL



ADVANCED



KNOWLEDGE

- ★ Advanced knowledge and critical understanding of the theory.
- ★ Principles and applicability of metal additive manufacturing processes.



SKILLS

- ★ Advanced problem-solving skills including critical evaluation, allowing to choose the proper technical and economical solutions, when selecting metal additive manufacturing processes, in complex and unpredictable conditions.



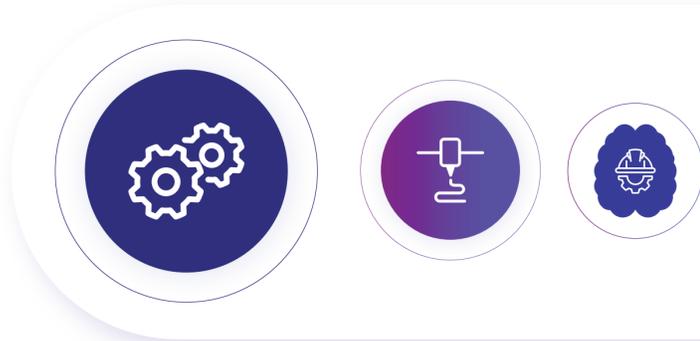
AUTONOMY AND RESPONSIBILITY

- ★ Manage the selection of metal additive manufacturing processes in a highly complex context.
- ★ Take responsibility in decision making and definition of the metal additive manufacturing personnel's tasks.

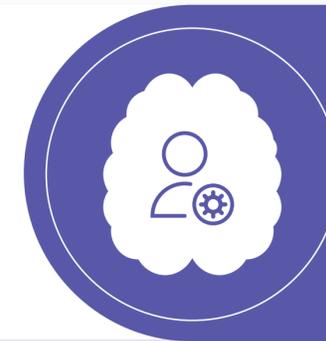


CURRICULUM

- ★ CU 00: Additive Manufacturing Process Overview
- ★ CU 01: DED-Arc Process
- ★ CU 08: DED-LB Process
- ★ CU 15: PBF-LB Process
- ★ CU 25: Post Processing
- ★ CU 34: Process Selection
- ★ CU 35: Metal AM Integration
- ★ CU 36: Coordination Activities



International Metal Additive Manufacturing Process Engineer



FIND
YOUR PATH

WHO IS IT FOR?

Engineers willing to widen their knowledge in AM processes in general and coordination activities

CONTACT HOURS

≈ 150h

LEVEL



ADVANCED



KNOWLEDGE

- ★ Advanced knowledge and critical understanding of the theory, principles and applicability of a specific additive manufacturing process.



SKILLS

- ★ Advanced problem-solving skills including critical evaluation, allowing to choose the proper technical solutions, when applying metal additive manufacturing processes, in complex and unpredictable conditions.



AUTONOMY AND RESPONSIBILITY

- ★ Manage a metal additive manufacturing specific processes activities in a highly complex context.
- ★ Take responsibility in decision making and definition of procedures and applications.



CURRICULUM

Powder Bed Fusion - Laser Beam PBF-LB

- ★ CU 00: Additive Manufacturing Process Overview
- ★ CU 15: PBF-LB Process
- ★ CU 25: Post Processing
- ★ CU 43: Production of PBF-LB parts
- ★ CU 44: Conformity of PBF-LB parts
- ★ CU 45: Conformity of facilities featuring PBF-LB parts

Directed Energy Deposition - Laser Beam DED-LB

- ★ CU 00: Additive Manufacturing Process Overview
- ★ CU 08: DED-LB Process
- ★ CU 25: Post Processing
- ★ CU 40: Production of DED-LB parts
- ★ CU 41: Conformity of DED-LB parts
- ★ CU 42: Conformity of facilities featuring DED-LB

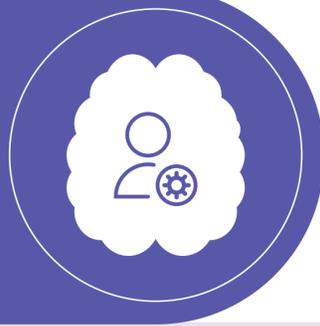
Directed Energy Deposition – Arc DED-Arc

- ★ CU 00: Additive Manufacturing Process Overview
- ★ CU 01: DED-Arc Process
- ★ CU 25: Post Processing
- ★ CU 37: Production of DED-Arc parts
- ★ CU 38: Conformity of DED-Arc parts
- ★ CU 39: Conformity of DED-Arc parts

★ + Optional CU's ★ + CU Materials



FIND
YOUR PATH



International Metal Additive Manufacturing Supervisor



WHO IS IT FOR?

Candidates having basic knowledge and skills related with Quality Assurance and HSE, willing to specialise and pursue a career in AM.



CONTACT HOURS

80h



LEVEL



INDEPENDENT



KNOWLEDGE

- ★ Factual and broad concepts in the field of Metal additive manufacturing processes, quality health and safety assurance in shop floor.



SKILLS

Fundamental cognitive and practical skills on simple and specific of Metal additive manufacturing problems required to:

- ★ develop proper solutions related with quality, health and safety in shop floor.
- ★ application of procedures and tools related with quality, health and safety.



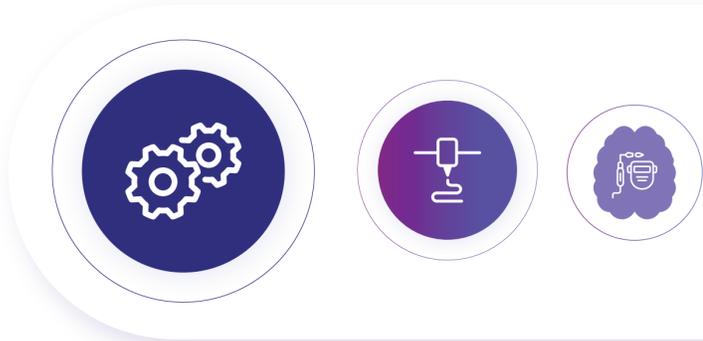
AUTONOMY AND RESPONSIBILITY

- ★ Self-manage of professional activities and simple standard applications of Metal AM manufacturing in predictable contexts but subject to change.
- ★ Take responsibility for supervising routine Metal AM production, machines and related personnel.

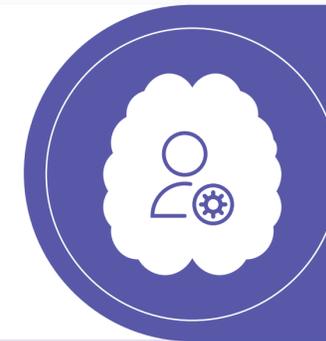


CURRICULUM

- ★ CU 00: Additive Manufacturing Process Overview
- ★ CU 01: DED-Arc Process
- ★ CU 08: DED-LB Process
- ★ CU 15: PBF-LB Process
- ★ CU 46: Quality Assurance for Metal AM processes
- ★ CU 47: HSE for Metal AM processes
- ★ CU 48: Power handling



International Metal Additive Manufacturing Operator



FIND
YOUR PATH

WHO IS IT FOR?

Candidates who need to independently operate additive manufacturing machines

CONTACT HOURS ≈ 60/80h

LEVEL



INDEPENDENT



KNOWLEDGE

★ Factual and broad concepts in the field of a specific metal additive manufacturing process.



SKILLS

★ Fundamental cognitive and practical skills required to develop proper solutions and application of procedures and tools on simple and specific manufacturing problems.



AUTONOMY AND RESPONSIBILITY

★ Self-manage of professional activities and simple standard applications of manufacturing in predictable contexts but subject to change.



CURRICULUM

Powder Bed Fusion - Laser Beam *PBF-LB*

- ★ CU 00: Additive Manufacturing Process Overview
- ★ CU 15: PBF-LB Process
- ★ CU 16: Quality Assurance (QA) in PBF-LB
- ★ CU 17: Health, Safety and Environment (HSE) in PBF-LB
- ★ CU 18: Hardware, software and build file set-up for PBF-LB
- ★ CU 19: Monitoring and managing the manufacturing of PBF-LB parts
- ★ CU 20: Post-processing of PBF-LB parts
- ★ CU 21: Maintenance of PBF-LB systems
- ★ + Optional CU's

Directed Energy Deposition - Laser Beam *DED-LB*

- ★ CU 00: Additive Manufacturing Process Overview
- ★ CU 08: DED-LB Process
- ★ CU 09: Quality Assurance (QA) in DED-LB
- ★ CU 10: Health, Safety and Environment (HSE) in DED-LB
- ★ CU 11: Fit and set-up of DED-LB systems
- ★ CU 12: Manufacturing of DED-LB parts
- ★ CU 13: Post processing of DED-LB parts
- ★ CU 14: Maintenance of DED-LB systems
- ★ + Optional CU's

Directed Energy Deposition – Arc *DED-Arc*

- ★ CU 00: Additive Manufacturing Process Overview
- ★ CU 01: DED-Arc Process
- ★ CU 02: Quality Assurance (QA) in DED-Arc
- ★ CU 03: Health, Safety and Environment (HSE) in DED-Arc
- ★ CU 04: Fit and set-up of DED-Arc systems
- ★ CU 05: Manufacturing of DED-Arc parts
- ★ CU 06: Post processing of DED-Arc parts
- ★ CU 07: Maintenance of DED-Arc systems

Powder Bed Fusion - Electron Beam *PBF-EB*

- ★ CU 00: Additive Manufacturing Process Overview
- ★ CU 22: PBF-EB Process
- ★ CU 23: Quality Assurance (QA) in PBF-EB
- ★ CU 24: Health, Safety and Environment (HSE) in PBF-EB
- ★ CU 50: Hardware, software and build file set-up for PBF-EB
- ★ CU 51: Monitoring and managing the manufacturing of PBF-EB parts
- ★ CU 52: Post-processing of PBF-EB parts
- ★ CU 53: Maintenance of PBF-EB systems
- ★ + Optional CU's



FIND
YOUR PATH



European/International Welding Inspector



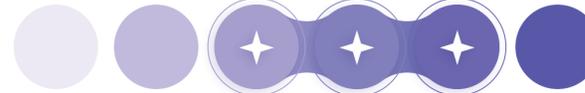
WHAT IS IT FOR?

candidates who want to become professional welding inspectors

CONTACT HOURS

≈ 100/230h

LEVEL



INDEPENDENT⁺ / SPECIALIZED⁺⁺ / ADVANCED⁺⁺⁺

I/EWI-B⁺

★ Responsible for planning, coordination, supervision, execution, evaluation, reporting and acceptance criteria of all tasks and responsibilities related with welding inspection.

I/EWI-S⁺⁺

★ Responsible for providing supervision to those of lower competency and for planning, coordination, supervision, execution, evaluation and recording of welding inspection tasks for common and regular applications.

I/EWI-C⁺⁺⁺

★ Responsible for the performance of specific assigned welding inspections tasks (including recording), under the supervision of those with higher competency.

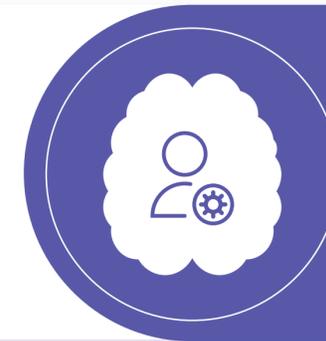


CURRICULUM

- ★ Welding processes and equipment
- ★ Materials and their behaviour during welding
- ★ Construction and design
- ★ Fabrication, applications engineering
- ★ Quality Assurance / Quality Control in Inspection
- ★ Testing of welds and Reporting
- ★ Practical work on testing



International Metal Additive Manufacturing Designer



FIND
YOUR PATH

WHO IS IT FOR?

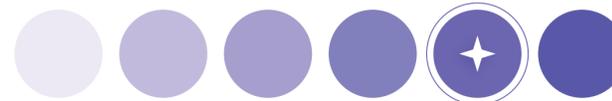
Candidates who want to become professional welding inspectors

Specific conditions applied, based on the qualification level

CONTACT HOURS

≈ 100h

LEVEL



ADVANCED



KNOWLEDGE

★ Advanced knowledge and critical understanding of the theory, principles and applicability of metal additive manufacturing design processes.



SKILLS

★ Advanced problem-solving skills including critical evaluation and design thinking, allowing to choose the proper technical and economical solutions, when designing parts to be manufactured by metal additive manufacturing processes, in complex and unpredictable conditions.



AUTONOMY AND RESPONSIBILITY

★ Manage complex additive manufacturing metallic design projects, taking responsibility for decision-making in unpredictable processes design applications.



CURRICULUM

Directed Energy Deposition Processes

DED

- ★ CU 00: Additive Manufacturing Process Overview
- ★ CU 25: Post Processing
- ★ CU 57: Relevant principles of DED Processes for Design
- ★ CU 58: Design Metal AM parts for DED Processes
- ★ CU 61: Simulation Analysis

Powder Bed Fusion Processes

DED-Arc

- ★ CU 00: Additive Manufacturing Process Overview
- ★ CU 01: DED-Arc Process
- ★ CU 25: Post Processing
- ★ CU 59: Relevant principles of PBF Processes for Design
- ★ CU 60: Design Metal AM parts for PBF Processes
- ★ CU 61: Simulation Analysis

★ + Optional CU



FIND
YOUR PATH



European/International Welding Coordination



WHO IS IT FOR?

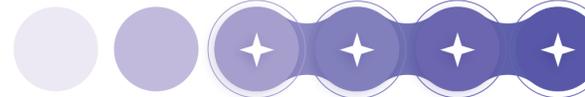
Candidates who want to become welding coordinators

Specific conditions applied, based on the qualification level

CONTACT HOURS

≈ 150/450h

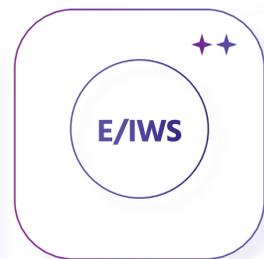
LEVEL



INDEPENDENT⁺ / SPECIALIZED⁺⁺ / ADVANCED⁺⁺⁺ / EXPERT⁺⁺⁺⁺



★ Self-manage within the guidelines of work, the applications of welding and related technologies, in a predictable context, but subject to change.



★ Manage and supervise common or standard welding applications and related technologies, in an unpredictable context.



★ Manage the applications of welding and related technologies in a highly complex context.



★ Manage and transform the welding processes and related technologies in a highly complex context.



CURRICULUM

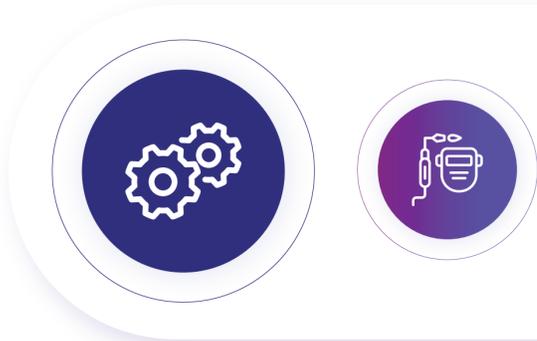
★ Module 1: Welding processes and equipment.

★ Module 2: Materials and their behaviour during welding.

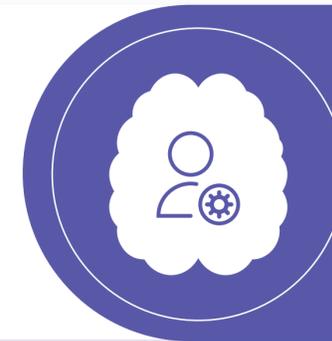
★ Module 3: Construction and design.

★ Module 4: Fabrication, applications engineering.

★ Practical training



European/International Welder



FIND
YOUR PATH

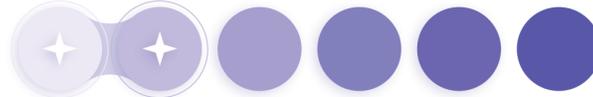
WHO IS IT FOR?

Candidates who want to become professional welders

CONTACT HOURS

≈ 60/120h

LEVEL



BASIC⁺ / ELEMENTARY⁺⁺



PROCESSES

- ✦ MMA
- ✦ TIG
- ✦ MIG/MAG-FCAW
- ✦ OFW



GROUPS OF MATERIALS

- ✦ Mild Steel
- ✦ Stainless Steel
- ✦ Aluminium



SPECIALIZATIONS ACCORDING TO ISO 9606

- ✦ International/European Tube Welder
- ✦ International/European Plate Welder
- ✦ International/European Fillet Welder



CURRICULUM

- ✦ Theoretical + practical training



FOLLOW
YOUR PATH



Advanced Metallic Materials in Aerospace and Defence Sectors



WHO IS IT FOR?

Manufacturing, Production and/or Materials Engineers

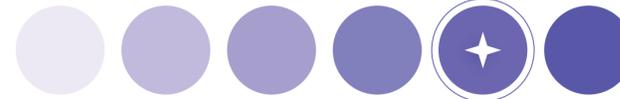


CONTACT HOURS

10,5h



LEVEL



ADVANCED



KNOWLEDGE

Advanced knowledge, involving a critical understanding of theories and principles of:

- ✦ Aluminium and aluminium alloys,
- ✦ Titanium and titanium alloys,
- ✦ Nickel and nickel alloys.



SKILLS

- ✦ Discuss the applications of advanced metallic materials, considering their properties and weldability, to achieve the quality requirements of welded joints.
- ✦ Select advanced metallic materials to be used in Aerospace and Defence, according to their behaviour, specific welding processes and application.



Advanced Welding Processes for Aerospace & Defence



FOLLOW
YOUR PATH

WHO IS IT FOR?

Manufacturing, Production and/or Materials Engineers

Specific conditions applied, based on the qualification level



CONTACT HOURS

17,5h



LEVEL



ADVANCED



KNOWLEDGE

Advanced knowledge, involving a critical understanding of theories and principles of:

- ★ Advanced metallic materials used in Aerospace and Defence sectors,
- ★ Advanced welding processes and equipment,
- ★ Automation and monitoring of welding processes,
- ★ Applications and problem solving for different welding processes in Aerospace and Defence,
- ★ Joining of Additive Manufacturing parts.



SKILLS

- ★ Select the advanced metallic material to be used with Aerospace and Defence application, according to their behaviour, properties and welding process.
- ★ Select the welding processes and equipment to be used in the Aerospace and Defence workshop for each type of joint.
- ★ Implement an automation and monitoring process in the welding workshop for Aerospace and Defence applications.
- ★ Apply solutions to solve different welding processes related problems, that might occur in the Aerospace and Defence manufacturing fields.
- ★ Establish procedures for joining parts manufactured by Additive Manufacturing, avoiding the deterioration of their properties.



FOLLOW
YOUR PATH



Advanced Welding Applications in Aerospace and Defence Sectors



WHO IS IT FOR?

Manufacturing, Welding, Production and/or Materials Engineers

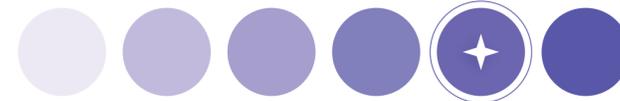


CONTACT HOURS

14h



LEVEL



ADVANCED



KNOWLEDGE

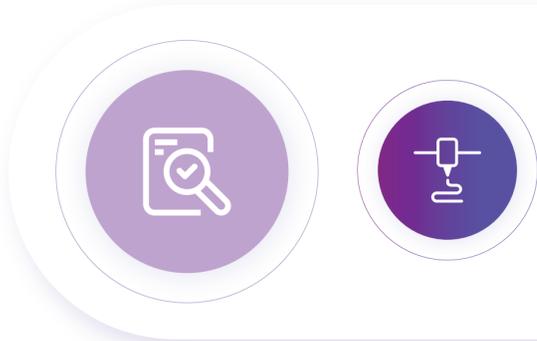
Advanced knowledge, involving a critical understanding of theories and principles of:

- ✦ Applications and problem solving for different welding processes in Aerospace and Defence,
- ✦ Joining of Additive Manufacturing parts.



SKILLS

- ✦ Apply solutions to solve different welding processes related problems, that might occur in the Aerospace and Defence manufacturing fields.
- ✦ Establish procedures for joining parts manufactured by Additive Manufacturing, avoiding the deterioration of their properties.



Inspection of metal AM parts - Material Quality



FOLLOW
YOUR PATH

WHO IS IT FOR?

Engineers & Technicians

CONTACT HOURS

7h

LEVEL



INDEPENDENT



KNOWLEDGE

Basic knowledge and understanding of:

- ★ Metal AM processes and materials,
- ★ Impact of AM process parameters on material quality,
- ★ Impact of heat treatment on material quality,
- ★ How to assess material quality in metal AM.

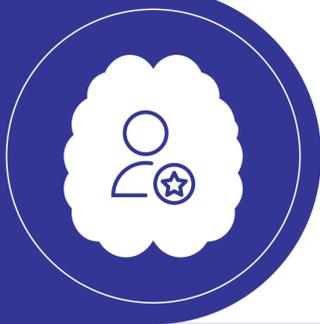


SKILLS

- ★ Ability to assess material quality for metal AM processes,
- ★ Production of material quality documentation required to comply with traceability.



FOLLOW
YOUR PATH



Quality Assurance & Quality Control for AM in Aerospace & Defence



WHO IS IT FOR?

Senior supervisors, engineers and coordinators

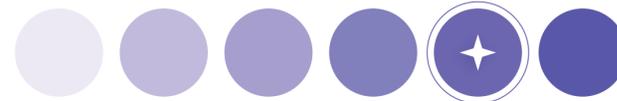


CONTACT HOURS

7h



LEVEL



ADVANCED



KNOWLEDGE

Advanced knowledge of the theory, principles and applicability of:

- ✦ Difference between QA and QC,
- ✦ Role of QA and QC in ensuring part quality,
- ✦ Link between QA&QC and AM part qualification and inspection,
- ✦ Quality Assurance principles,
- ✦ Total Quality Management,
- ✦ Role of Quality Management System (QMS),
- ✦ Traceability concept and importance,
- ✦ AM Process Specification (AMPs),
- ✦ Quality Control concept,
- ✦ Assessment of AM part quality,
- ✦ Challenges associated with inspection of AM parts.



SKILLS

- ✦ Able to apply QA principles to AM production.
- ✦ Show how QA and QC links to AM part qualification and inspection.
- ✦ Identify what needs to be monitored, controlled and recorded in the AM manufacturing chain.
- ✦ Recognise the standards applicable to QA and QC in AM.
- ✦ Be able to control AM part quality in production.



Qualification, Certification and Standards for AM in Aerospace & Defence



FOLLOW
YOUR PATH

WHO IS IT FOR?

Engineers, supervisors, and coordinators

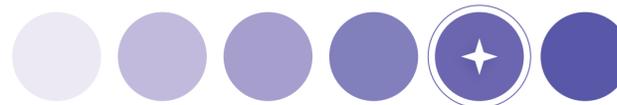


CONTACT HOURS

7h



LEVEL



ADVANCED



KNOWLEDGE

Advanced knowledge of the theory, principles and applicability of:

- ★ Differences between certification and qualification,
- ★ Role standards play in certification and qualification,
- ★ Route to AM adoption through qualification and certification,
- ★ Impact of part criticality,
- ★ National, military domain, industry and company specific requirements.



SKILLS

- ★ Outline certification, qualification and standardisation activities.
- ★ Identify requirements to certify any of the steps in the AM manufacturing chain.
- ★ Recognise and locate the standards applicable to additive manufacturing.
- ★ Understand the impact of part criticality on adoption process for AM.



FOLLOW
YOUR PATH



Metrology in Additive Manufacturing for metals and polymers



WHO IS IT FOR?

Metrology personnel



CONTACT HOURS

7h



LEVEL



INDEPENDENT



KNOWLEDGE

Factual and broad knowledge of:

- ✦ Principles of dimensional and surface metrology techniques,
- ✦ Limitations of metrology techniques , typical errors in applying these,
- ✦ Regulatory Standards for Coordinate Measuring Machine calibration, surface texture, and calibration documentation,

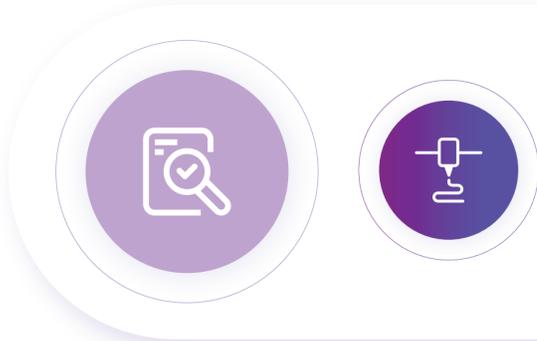
- ✦ Measurement Strategies for Additive Manufacturing, including post-build and in-process verification of the dimensional quality of AM parts,
- ✦ Problem-solving approaches and the rationale for selecting specific measurement methods,
- ✦ Industry best practices and lessons learned from real-world metrology applications.



SKILLS

- ✦ Apply standards for GD&T, CMM, laser scanning, structured light scanning, and surface texture measurement instruments à Learn which technology exists for certain methods.
- ✦ Relate how metrology ensures dimensional and surface texture compliance in AM parts, meeting aerospace and manufacturing standards through Geometric Dimensioning and Tolerancing (GD&T).
- ✦ Point out and document dimensional measurement results for aerospace and defence compliance.
- ✦ Interpret and document surface texture results for aerospace and defence compliance.

- ✦ Identify suitable dimensional and surface metrology technologies for the inspection in AM components and processes.
- ✦ Differentiate between in-process and post-process inspection applications for AM quality control.
- ✦ Evaluate the effectiveness of metrology techniques used in cases studies and proposing alternative solutions.
- ✦ Ability to apply knowledge to practical scenarios and effectively use metrology methods to solve complex problems.
- ✦ Report metrology findings using a correct wording and reference to standards.



Non-Destructive Testing (NDT) in Additive Manufacturing for metals and polymers



FOLLOW
YOUR PATH

WHO IS IT FOR?

Additive Manufacturing, welding and NDT engineers

CONTACT HOURS

7h

LEVEL



INDEPENDENT



KNOWLEDGE

Factual and broad knowledge of:

- ✦ Defects and NDT Methods in Additive Manufacturing (AM),
- ✦ Regulatory Standards and Quality Control for AM parts,
- ✦ Strategies for Inspection in AM, including techniques and challenges.



SKILLS

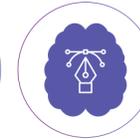
- ✦ Identify common defect types in the AM process.
- ✦ Differentiate between in-process monitoring and in-process inspection in AM.
- ✦ Identify the types of NDT technologies and their applicability for inspection and AM quality control.
- ✦ Determine the most suitable NDT method(s) and technique(s) for AM quality control, to ensure the compliance with established standards.
- ✦ Identify inspection alternatives for of AM parts (i.e. can it be inspected).
- ✦ Recognised the challenges and advantages of post build and in-process inspection.
- ✦ Evaluate the effectiveness of NDT techniques used in cases studies and proposing alternative solutions.
- ✦ Analyse various case studies involving NDT application, identifying factors that influence outcomes.
- ✦ Apply knowledge to practical scenarios, effectively selecting NDT method(s) to solve complex problems.
- ✦ Report inspection findings using a correct wording and reference to standards.
- ✦ Apply industry best practices and integrate lessons learned from real-world NDT applications.



FOLLOW
YOUR PATH



Sustainable Design and Environmental Compliance in Aerospace and Defence



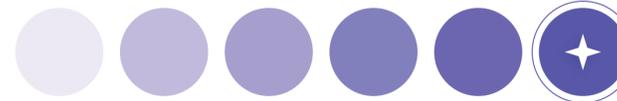
WHO IS IT FOR?

Engineers, designers, and technical staff involved in aerospace and defence product development

CONTACT HOURS

14h

LEVEL



EXPERT



KNOWLEDGE

Highly Specialized and Forefront Knowledge including:

- Principles of life cycle thinking and environmental impact assessment in aerospace and defence,
- Overview of key environmental regulations and compliance frameworks (e.g., REACH, RoHS, ESPR, ISO 14001, NATO Green Defence Framework, EU Defence Green Transition),
- Green design principles in aerospace and defence, including Safe and Sustainable by Design (SSbD),
- Environmental impacts of design choices, with emphasis on operational-phase factors such as fuel consumption, lightweighting, and component consolidation,
- Waste management and circular economy approaches for aerospace, with attention to high-value materials and complex supply chains,
- Carbon footprint and emission reduction strategies across the aerospace product lifecycle, from material sourcing to disposal,
- Concepts of closed-loop systems in aerospace and defence, including material recovery, reuse, and reintegration across product lifecycles.

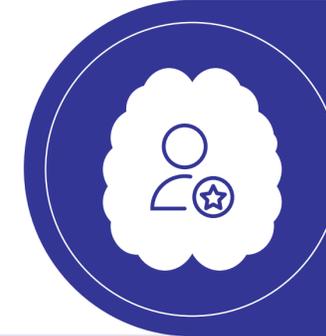


SKILLS

- Conduct and critically analyse life cycle assessments (LCA) of aerospace or defence products, identifying environmental hotspots and recommending improvements aligned with sustainability targets.
- Interpret complex regulatory requirements, integrating them into product development strategies to ensure compliance and reducing risk in international supply chains.
- Apply Safe and Sustainable by Design (SSbD) principles to material and component selection, justifying decisions in terms of safety, performance, and environmental sustainability.
- Evaluate emissions data, assessing the impact of design changes (e.g., material substitution, lightweighting) on operational fuel consumption and organisational carbon reduction commitments.
- Design waste reduction strategies for aerospace products, incorporating circular economy principles to enhance recyclability, reducing in-process waste, and enabling reverse logistics.
- Integrate closed-loop design strategies into aerospace product development, enabling material recovery, remanufacturing, and reuse while supporting compliance and cost-efficiency.
- Integrate sustainability considerations into aerospace design workflows, balancing performance, compliance, and environmental impact.
- Formulate and present a business case for sustainable design decisions, linking technical improvements to cost savings, compliance advantages, lead time reduction, and enhanced ESG performance.



Data Acquisition and Analysis



FOLLOW
YOUR PATH



WHO IS IT FOR?

Welding and additive manufacturing engineers, coordinators and designers



CONTACT HOURS

7h



LEVEL



INDEPENDENT



KNOWLEDGE

Factual and broad of:

- ✦ The basic principles of data acquisition, including the role of sensors and data acquisition systems in manufacturing,

- ✦ Key concepts of data protection, security, and privacy as they apply to manufacturing systems,
- ✦ Advanced data analysis techniques and their relevance to optimizing manufacturing processes.



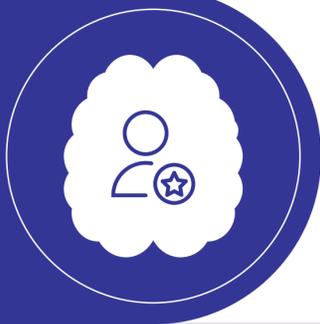
SKILLS

- ✦ Utilize data analysis tools to interpret industrial data, extracting meaningful insights that support decision-making and enhance process optimization in manufacturing.

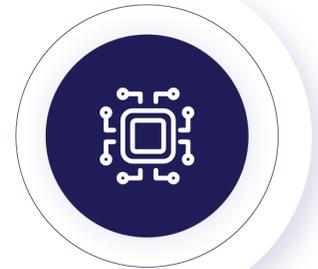
- ✦ Apply standard methods for collecting, transmitting, and storing industrial data securely.



FOLLOW
YOUR PATH



Industrial Internet of Things (IIoT) and Advantages in Advanced Manufacturing



WHO IS IT FOR?

Welding and additive manufacturing engineers, coordinators and designers

CONTACT HOURS

14h

LEVEL



INDEPENDENT



Factual and broad of:

- Basic architecture, components, and functioning of Industrial Internet of Things (IIoT) systems in the context of advanced manufacturing,

- Benefits of digital transformation through the implementation of IIoT in manufacturing processes,
- Key IIoT applications such as real-time monitoring, predictive maintenance, and supply chain management in advanced manufacturing.

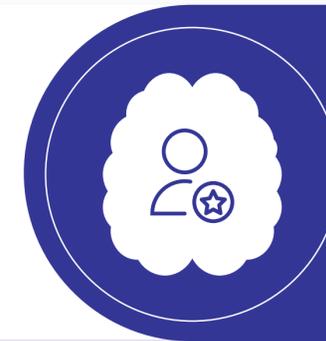


- Utilize IIoT data to predict maintenance needs, optimizing equipment performance and reducing downtime.

- Analyze cases to extract key insights on the application of IIoT in the aerospace and defense sectors.



Artificial Intelligence and Advantages in Advanced Manufacturing



FOLLOW
YOUR PATH

WHO IS IT FOR?

Welding and additive manufacturing engineers, coordinators and designers



CONTACT HOURS

14h



LEVEL



INDEPENDENT



KNOWLEDGE

Factual and broad of:

- ★ The basic principles of AI and its role in optimizing manufacturing processes, including quality assurance and defect detection,
- ★ AI supports human-machine collaboration in manufacturing environments, improving productivity and safety,
- ★ Emerging trends in AI and its future potential in advanced manufacturing sectors, particularly aerospace and defence.



SKILLS

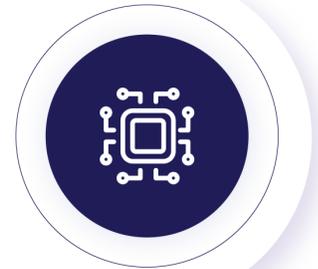
- ★ Apply AI tools to optimize manufacturing processes and improve quality assurance, using data-driven insights to enhance decision-making.
- ★ Implement AI-driven strategies for supply chain management and production planning to streamline operations and improve production flow.
- ★ Analyze cases to understand the real-world application of AI in the aerospace and defense sectors.



FOLLOW
YOUR PATH



Automation and Advantages in Advanced Manufacturing



WHO IS IT FOR?

Welding and additive manufacturing engineers, coordinators and designers

CONTACT HOURS

24h

LEVEL



INDEPENDENT



KNOWLEDGE

Factual and broad of:

- ★ The fundamental differences between automated processes and manual operations,
- ★ Modern automation technologies and their application in advanced manufacturing, including the role of sensors and robotics.



SKILLS

- ★ Utilize hardware and software automation systems to monitor and manage production processes effectively.
- ★ Analyze technical processes using automated systems for production control, coordination, and reporting.
- ★ Implement strategies for resource optimization and safety improvements in manufacturing environments through automation technologies



Potentials of Advanced Simulation and Modelling in Advanced Manufacturing



FOLLOW
YOUR PATH

WHO IS IT FOR?

Welding and additive manufacturing engineers, coordinators and designers



CONTACT HOURS

14h



LEVEL



INDEPENDENT



KNOWLEDGE

Factual and broad of:

- ★ Fundamental simulation techniques, and their applications in modelling complex processes and identifying bottlenecks,
- ★ Advanced modelling techniques such as virtual and augmented reality and their role in enhancing product design and development,
- ★ The principles of computer-aided design (CAD) and topology optimization, and how they contribute to producing “right-first time” designs in advanced manufacturing.



SKILLS

- ★ Apply simulation techniques to analyse manufacturing processes and identify areas for optimization and improvement.
- ★ Implement CAD and topology optimization techniques to create efficient designs that minimize resource use and reduce errors in production.
- ★ Evaluate the application of simulation and modelling techniques in the aerospace and defence sectors.



FOLLOW
YOUR PATH



Potentials of Digital Twins and Smart Factory Automation in Advanced Manufacturing



WHO IS IT FOR?

Welding and additive manufacturing engineers, coordinators and designers

CONTACT HOURS

14h

LEVEL



INDEPENDENT



KNOWLEDGE

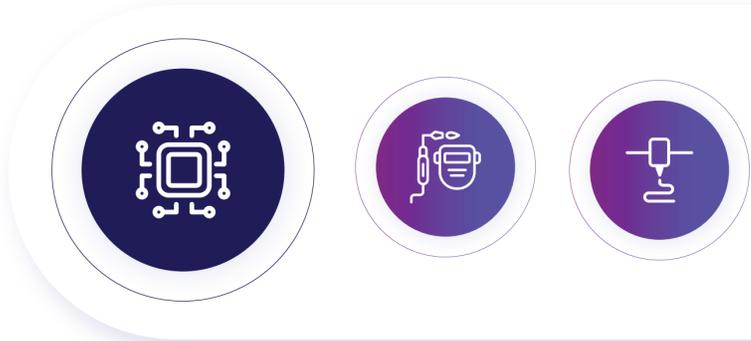
Factual and broad of:

- ✦ The fundamental concepts and data types required for the effective application of digital twins in manufacturing,
- ✦ The role of software and hardware in implementing digital twin applications within advanced manufacturing environments.



SKILLS

- ✦ Apply the principles of validation and optimization to develop functional digital twins that enhance manufacturing processes.
- ✦ Utilize software and hardware tools to create and manage digital twins and integrate them into smart factory automation systems.



Unlocking the Potential of 3D Models Beyond Technical Drawings in the Aerospace and Defence Sector



FOLLOW
YOUR PATH



WHO IS IT FOR?

Welding and additive manufacturing engineers, coordinators and designers

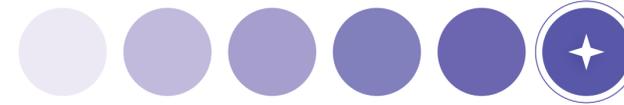


CONTACT HOURS

26h



LEVEL



EXPERT



KNOWLEDGE

Highly specialized and forefront knowledge including:

- ★ The role of CAD in designing complex systems and explore the capabilities of industry-standard software,
- ★ Compliance with industry standards,
- ★ Advanced modelling techniques & design optimization,
- ★ Reverse-engineer components using 3D scanning technologies,
- ★ Influence of parts requirements in design.



SKILLS

- ★ Utilize advanced CAD software tools (such as CATIA, NX, or SolidWorks) to create complex 3D models of aerospace and defence components.
- ★ Perform mesh repair, model optimization, and reverse engineering techniques to generate high-quality CAD models from scanned data for purposes such as maintenance, prototyping, or legacy system upgrades.
- ★ Analyse designs for manufacturability and assembly, incorporating aerospace/defence-specific considerations such as tolerance analysis and material selection.
- ★ Verify and analyse requirements for production providing initial propositions and constraints.
- ★ Interpret CAD data exchange formats to ensure compliance with industry protocols and facilitate communication between cross-disciplinary teams.



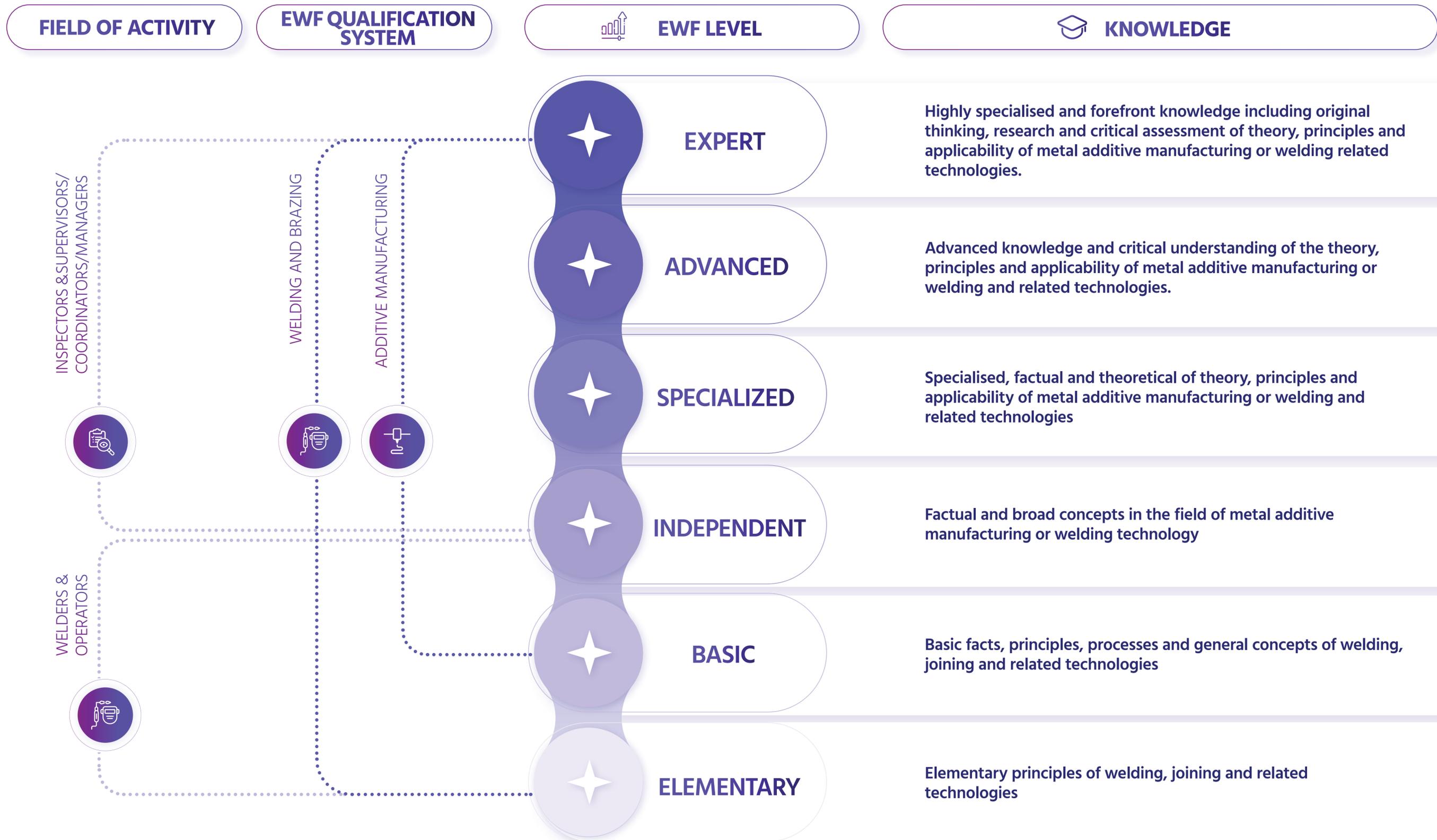
★ **APPENDIXES**

✦ **EWF Qualifications System Framework, which is a generic description of qualifications for both Welding and AM fields**

This sectoral framework contains six levels of proficiency associated to each qualification/CU (**Basic, Elementary, Independent, Specialized, Advanced** and **Expert**), and a general descriptor defined in terms of knowledge, skills, autonomy, and responsibility



EWF SYSTEMS



FRAMEWORK



SKILLS

Highly specialised problem- solving skills including critical and original evaluation, allowing to define or develop the best technical and economical solutions, when applying metal additive manufacturing or welding related technologies, in complex and unpredictable conditions.

Advanced problem-solving skills including critical evaluation, allowing to choose the proper technical and economical solutions, when applying metal additive manufacturing or welding and related technologies, in complex and unpredictable conditions.

Specialised range of cognitive and practical skills, allowing to develop solutions or choose the appropriate methods, when applying metal additive manufacturing or welding and related technologies, in common/regular problems.

Fundamental cognitive and practical skills required to develop proper solutions and application of procedures and tools on simple and specific metal additive manufacturing or welding problems.

Be able to check and follow the information on the welding procedure specification, to produce butt and fillet welds in plates and or tubes, and or profiles in a variety of geometries and positions to the required quality and of specified dimensional accuracy.

Able to check and follow the information on the welding procedure or adhesive bounding specification, and to produce weld/joints in a variety of geometries and positions to the required quality and of specified dimensional accuracy.



AUTONOMY AND RESPONSIBILITY

Manage and transform the metal additive manufacturing or welding and related technologies processes in a highly complex context.
Fully responsible for the definition and revision of personnel's tasks.

Manage the applications of metal additive manufacturing or welding and related technologies in a highly complex context.
Act autonomously in decision making and definition in the definition of the metal additive manufacturing or welding and related personnel's tasks.

Manage and supervise common or standard metal additive manufacturing or welding applications and related technologies, in an unpredictable context.
Take responsibility in standard work and supervise the metal additive manufacturing or welding and related personnel's tasks.

Self-manage of professional activities and simple standard applications of metal additive manufacturing or welding and related technologies in predictable contexts but subject to change.
Supervise routine tasks and similar function workers, as well as take responsibility for decision making in basic work.

Work under supervision, taking personal responsibility for own actions and for the quality and accuracy of the work produced.

Work under supervision.

✦ Contact our CENTRES OF VOCATIONAL EXCELLENCE

and step into the future of advanced manufacturing for aerospace and defence

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AILEEN Denmark

AILEEN Germany

AILEEN Portugal

AILEEN Spain *(Gijon)*

AILEEN Spain *(Madrid)*

AILEEN Turkey

AILEEN United Kingdom

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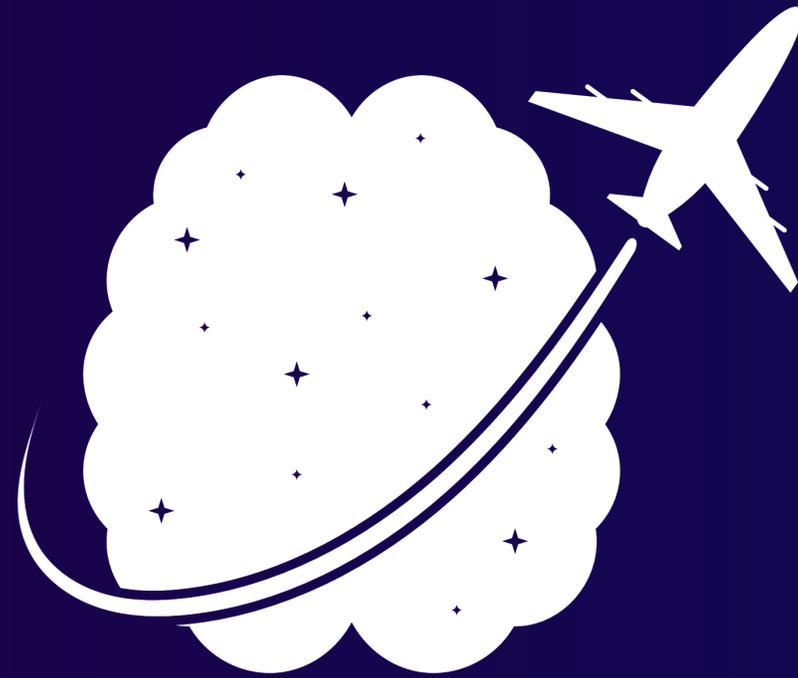
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