



1976 — 2026

— 50 YEARS OF NDT EXPERTISE

NDT Career & Certification Roadmap

Supporting NDT professionals from first training to technical leadership — a practical guide to methods, levels, certification pathways and building your next career step.



Lavender International

EMPLOYEE OWNED · NDT TRAINING & CONSULTANCY

50 YEARS

CELEBRATING NDT EXPERTISE

Where are you today in your NDT career?

Since 1976, Lavender International has supported the development of Non-Destructive Testing professionals through specialist training, examinations and Level 3 consultancy.

Over five decades, NDT technologies, inspection requirements and certification frameworks have continued to evolve. Yet one principle remains constant: professional competence is built through the right combination of knowledge, practical training, industry experience, examination and continued development.

For technicians and inspectors, understanding that journey is essential. Progressing in NDT is not simply about moving from Level 1 to Level 2 or Level 3. Each stage brings new knowledge, responsibilities and expectations, while certification pathways may differ according to the applicable scheme, method, sector and employer requirements.

The **NDT Career & Certification Roadmap** has been created to help professionals understand this journey more clearly — from choosing an NDT method and beginning training to developing experience, achieving certification and progressing toward advanced technical responsibility.

Drawing on 50 years of involvement in NDT training, examination and consultancy, Lavender International presents this guide as a practical starting point for professionals considering an important question:

"Where are you today in your NDT career — and what could your next step be?"

Inside this guide

The four pillars of NDT competence · Understanding Levels 1–3 · The full career roadmap · Choosing your NDT method · Certification pathways compared · Reaching Level 3 · A career-planning workbook you can complete yourself.

Training. Experience. Examination. Certification.

Understanding how these four elements work together is the foundation of your NDT career. Building a career in NDT involves more than completing a course or learning to operate equipment — it means working within qualification and certification frameworks designed to demonstrate real competence.

01

Training — Build the Knowledge

Formal training develops the theoretical and practical foundations of an NDT method: principles, equipment, techniques, applications, limitations, and relevant codes and procedures for the level and programme.

02

Experience — Build the Capability

Knowledge must be reinforced through practical experience. Supervised industrial experience lets candidates apply techniques in real working conditions and progressively build competence.

03

Examination — Demonstrate What You Know

Examinations assess whether the candidate has achieved the required knowledge and practical capability, through general, specific and practical assessment appropriate to the scheme and level.

04

Certification — Formalise Your Qualification

Passing an exam does not automatically mean certification is achieved. Certification is issued once all applicable requirements — training, experience, exams, vision and more — are satisfied.

Central certification or employer-based — which route is yours?

NDT professionals may progress through central certification schemes, such as PCN in accordance with ISO 9712 requirements, or through employer-based programmes established under applicable industry standards, such as SNT-TC-1A, EN 4179 and NAS 410. Lavender International supports both pathways through training and examinations for Levels 1, 2 and 3. The important first step is not simply choosing a course — it is understanding which certification pathway, method and level are appropriate for where you want your career to go.

Level 1, 2 and 3 — competence, responsibility, authority

An NDT level is more than a measure of experience — it defines the scope of activities a professional is qualified to perform within a method, sector and certification scheme. As professionals progress, they move from performing defined tasks toward interpreting results, developing procedures and, ultimately, providing technical leadership.

01 LEVEL 1 · PERFORM

Building practical competence within defined instructions

Level 1 personnel perform specific NDT tasks in accordance with written instructions and within the scope of their certification. Depending on the scheme, they may be authorised to:

- Set up NDT equipment
- Perform inspections using specified techniques
- Record and classify results against written criteria
- Report inspection results

The emphasis is on correctly performing the test — Level 1 personnel are not normally responsible for selecting the method or independently interpreting results beyond defined criteria.

Career focus: Learn → Apply → Perform → Record

02 LEVEL 2 · INTERPRET

From performing the test to understanding and evaluating results

Level 2 represents a significant increase in responsibility and independence. Within the scope of certification, Level 2 personnel may perform and supervise NDT activities while applying applicable codes and procedures. Responsibilities can include:

- Selecting the appropriate technique within the certified method
- Setting up and verifying equipment
- Performing and supervising inspections
- Interpreting and evaluating results against acceptance criteria
- Developing NDT instructions from approved procedures
- Providing guidance to Level 1 personnel

Career focus: Perform → Interpret → Evaluate → Supervise

03 LEVEL 3 · LEAD

Providing technical authority for the NDT method

Level 3 represents the highest level of technical competence within the qualification framework for a certified method. A Level 3 professional understands not only how an inspection is performed, but the technical principles, standards and wider factors required to manage effective NDT activities. Depending on scheme and scope, responsibilities may include:

- Assuming technical responsibility for NDT activities
- Establishing, reviewing and validating procedures
- Interpreting codes, standards and specifications
- Selecting methods, techniques and procedures
- Providing technical guidance to Level 1 and 2 personnel
- Supporting qualification and certification programmes
- Evaluating inspection capabilities and limitations
- Providing Level 3 consultancy and technical oversight

Career focus: Evaluate → Develop → Guide → Lead

— YOUR PROGRESSION IN NDT



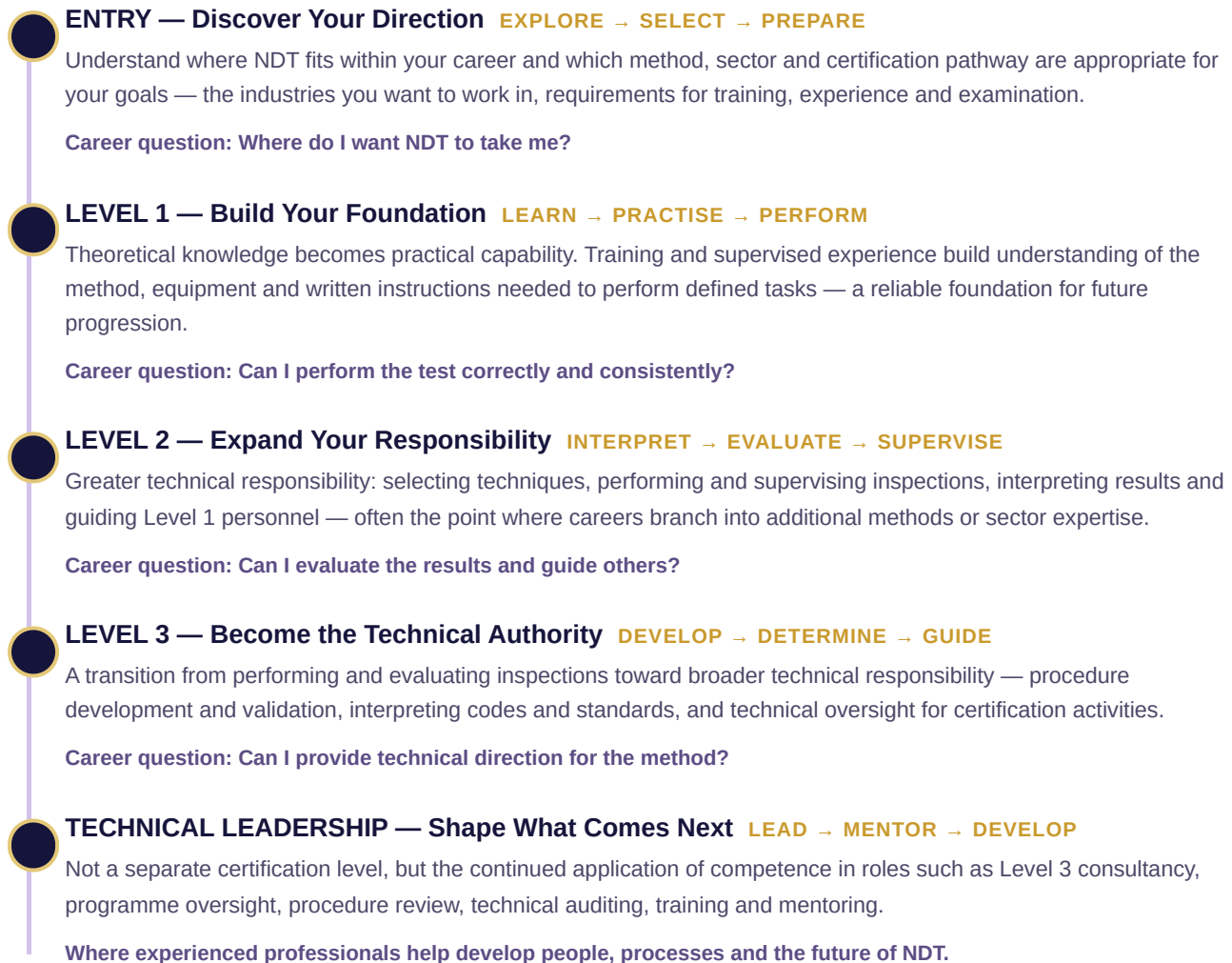
Remember

Certification is method-, sector- and scheme-specific. Holding a particular level does not automatically qualify you to perform every NDT method, technique or application. Plan your development around the methods you use, the industries you serve and the responsibilities you want to achieve.

"Progression is not about collecting certificates — it is about the widening scope of judgement you are trusted to exercise."

From your first step to technical leadership

There is no single career path in NDT. Professionals enter from engineering, manufacturing, welding, quality, inspection, aerospace and other backgrounds. Whatever the route, a successful NDT career is built progressively.



— YOUR ROADMAP



"Your NDT career is not defined by how quickly you move through the levels, but by the competence you build at every stage."

Your method helps define your technical specialisation

Different methods are based on different physical principles, detect different discontinuities and require different skills. The right choice depends on the materials you inspect, your industry, accessibility, applicable standards and long-term goals. Many professionals ultimately develop competence in more than one method.

VT

SEE THE CONDITION

Visual Testing

Uses direct or assisted observation to identify relevant visible conditions and discontinuities — a valuable foundation across many inspection activities.

Consider if interested in: welds, fabrication, in-service inspection, strong fundamentals.

PT

REVEAL SURFACE DISCONTINUITIES

Penetrant Testing

Uses a liquid penetrant process to reveal discontinuities open to the surface of suitable non-porous materials.

Consider if interested in: welds, castings, forgings, non-porous components.

MT

FIND NEAR-SURFACE FLAWS

Magnetic Testing

Uses magnetic fields and an indicating medium to reveal discontinuities in ferromagnetic materials.

Consider if interested in: weld inspection, fabrication, maintenance.

UT

LOOK BENEATH THE SURFACE

Ultrasonic Testing

Uses high-frequency sound waves to examine materials and detect or characterise discontinuities.

Consider if interested in: volumetric inspection, thickness measurement, advanced ultrasonics.

RT

IMAGE INTERNAL CONDITIONS

Radiographic Testing

Uses penetrating radiation to produce an image revealing internal features and discontinuities.

Consider if interested in: castings, volumetric inspection, radiation safety discipline.

ET

ELECTROMAGNETICS DETECT CHANGE

Eddy Current Testing

Uses electromagnetic induction to detect changes in material condition, geometry or discontinuities.

Consider if interested in: aerospace, tubing, specialised applications.

— ADVANCED NDT

Build on your foundation

As your career develops, you may progress from conventional methods into specialised or advanced techniques. Advanced technology does not replace fundamental NDT knowledge — strong understanding of the underlying method remains essential.

PA — Phased Array UT

Multiple ultrasonic elements with controlled timing steer and focus sound beams for enhanced coverage and data presentation.

TOFD — Time of Flight Diffraction

An ultrasonic technique based on diffraction of sound from discontinuity tips, commonly used for detection and sizing.

ACFM

An electromagnetic technique designed to detect and size surface-breaking cracks in conductive materials.

— WHICH PATH IS RIGHT FOR YOU?

Ask yourself five questions

1

What will I inspect?

Welds? Castings? Forgings? Tubes? Aerospace components? In-service assets?

2

What am I trying to detect?

Surface-breaking or internal discontinuities? Material loss? Cracking?

3

What materials will I work with?

Ferromagnetic? Conductive? Non-porous? Composite or specialised materials?

4

Which industry do I want to enter?

Aerospace? Oil & Gas? Power generation? Manufacturing? Defence?

5

Where do I want my career to go?

Multi-method inspector? Advanced UT specialist? Level 3? Technical consultant? NDT leader?

Do not choose a method simply because it appears more advanced. Choose the pathway that builds the competence your industry, responsibilities and career ambitions require.

— TRAINING, EXPERIENCE & EXAMINATION

Three elements, three different purposes

Training provides the knowledge, experience develops practical capability, and examination demonstrates whether the required competence has been achieved. Understanding these differences helps you plan your progression more effectively.



— HOW THEY WORK TOGETHER



But the process is not simply a one-way sequence — competence develops continuously through Learn → Apply → Demonstrate → Perform → Develop, with knowledge, experience and judgement all increasing from Level 1 to Level 3.

A Certificate Is Not the Starting Point — or the End Point

Certification is an important milestone, but maintaining competence requires continued involvement in the method and ongoing professional development. Build competence first — let certification demonstrate the progression you have achieved.

Who certifies you, under which requirements, for what scope?

There is more than one route to NDT certification. NDT personnel work across industries with different regulatory, contractual and technical requirements — so the pathway required for one professional may not be the same as for another. Two important models are third-party central certification and employer-based qualification.

01 PATHWAY 1 — Third-Party Central Certification

ISO 9712 & PCN · Certification Body → Individual

ISO 9712 specifies requirements for the qualification and certification of personnel performing industrial NDT. Certification is administered through an independent certification body operating a defined scheme. **PCN** — Personnel Certification in Non-Destructive Testing — is a third-party scheme operated by the British Institute of Non-Destructive Testing (BINDT).

An important distinction: *ISO 9712 establishes requirements. PCN is a certification scheme.* Candidates must satisfy defined requirements — training, industrial experience, examinations and vision — before certification is awarded for the applicable method, level and sector. The resulting certification belongs to the individual within the scope stated on the certificate.

Standard requirements → Certification scheme → Independent assessment → Personnel certification

02 PATHWAY 2 — Employer-Based Certification

Employer Written Practice · Employer → Employee

The employer has direct responsibility for establishing and administering the qualification and certification programme for its NDT personnel — normally defined through the employer's **Written Practice**, covering training, experience, examinations, vision, levels, responsibilities, certification, renewal and records.

Examples include programmes based on **SNT-TC-1A** (Personnel Qualification and Certification in NDT) and, particularly in aerospace, **NAS 410** and **EN 4179**. Certification here is tied to the employer's programme and authorisation, rather than functioning as an independent third-party certificate in the same way as PCN.

Applicable requirements → Employer Written Practice → Qualification & exam → Employer certification/authorisation

— UNDERSTANDING THE DIFFERENCE

	Third-Party / PCN	Employer-Based
Framework	Certification scheme aligned with ISO 9712 requirements	Employer programme based on applicable industry requirements
Responsibility	Independent certification body	Employer
Programme control	Certification scheme rules	Employer's Written Practice
Relationship	Certification held by the individual within its defined scope	Certification/authorisation tied to the employer's programme
Typical consideration	Portability and independent demonstration of certification	Employer-, industry- and application-specific qualification

— WHICH PATHWAY DO YOU NEED?

The answer depends on more than personal preference

Before choosing a certification route, consider five factors:

Your Industry

What certification model is commonly required?

Your Employer

Does the organisation operate a specific Written Practice?

Your Customer

Do contracts or specifications require a particular certification?

Your Method & Sector

Is the required method, technique and industrial sector covered?

Your Career Goals

Will you work for one employer, across multiple organisations, internationally, or within a highly regulated sector?

One Important Principle

Certification does not automatically equal employer authorisation to perform NDT. Even with valid third-party certification, the employer remains responsible for determining whether an individual is authorised to perform specific work within its organisation.

The right question is not "Which certification is better?" — it is "Which certification pathway is appropriate for the work I need to perform, the industry I serve and the career I want to build?"

From inspection competence to technical authority

Level 3 is more than the next certification milestone — it represents a transition toward broader technical knowledge, responsibility and leadership. The transition from Level 2 requires more than becoming more experienced at performing inspections.

LEVEL 2

How should this inspection be performed and evaluated?



LEVEL 3

How should this activity be technically established, controlled and supported?

— BUILD BROADER KNOWLEDGE

NDT Principles

Know the physical principles, capabilities and limitations of your method.

Materials & Processes

Understand how manufacturing and service conditions influence discontinuities.

Codes & Standards

Develop the ability to navigate and interpret governing technical requirements.

Procedures

Understand how requirements translate into technically appropriate procedures.

Other NDT Methods

Build awareness of methods that complement or offer alternatives to your own.

Technical Judgement

Evaluate inspection challenges and determine technically appropriate approaches.

"A Level 3 professional understands not only how an inspection is performed, but the technical principles, standards and wider factors required to manage effective NDT activities."

Not Every Method at Once

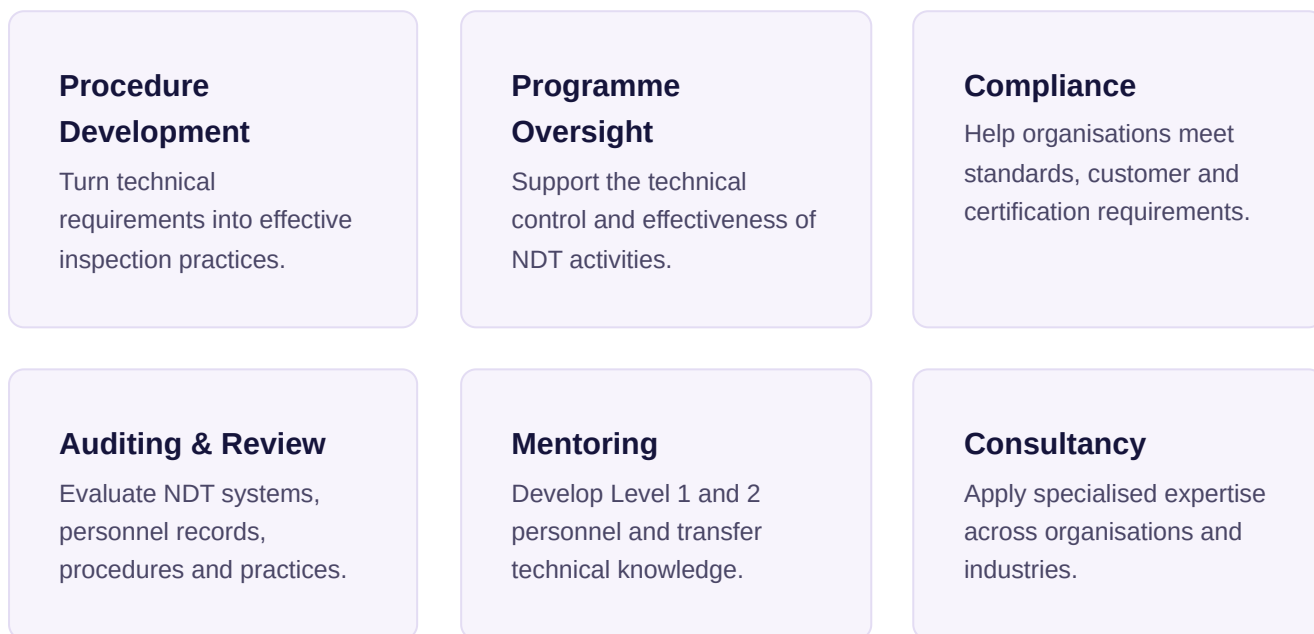
Broader knowledge does not mean starting again from zero in every direction. Most Level 3 professionals build this depth gradually, around the method and sector where they already hold Level 2 experience, before widening their scope further.

— PREPARE FOR THE LEVEL 3 PATHWAY

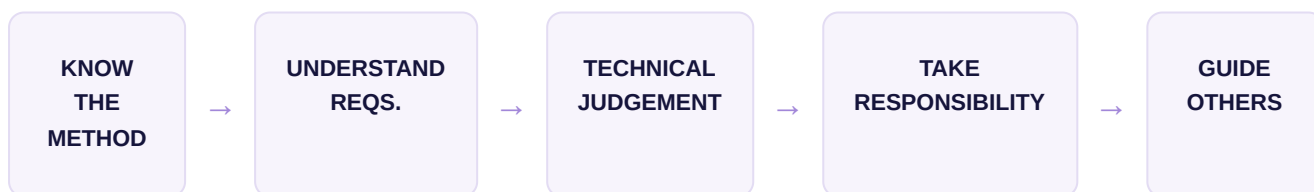
The exact route depends on the certification scheme. For PCN progression, review the current scheme requirements for the applicable method and sector, including prerequisites relating to Level 3 Basic, training, experience and examinations. Do not assume experience alone makes you ready — or that passing an exam alone creates technical leadership.

— BEYOND CERTIFICATION

Develop as a technical leader



— FROM LEVEL 3 TO TECHNICAL LEADERSHIP



Level 3 Is a Milestone, Not a Finish Line

New technologies emerge, codes and standards change, techniques evolve. Achieving Level 3 demonstrates how far you have progressed — technical leadership is defined by what you continue to build from there.

You understand the roadmap. Now make it yours.

Every NDT career develops differently. Your next step depends on your current competence, methods, certification pathway, industry and goals. Use this checklist to identify where you are today — and what you need to do next.

1 DEFINE YOUR DESTINATION

Where do you want your NDT career to go?

- | | |
|---|---|
| ☐ Enter the NDT profession | ☐ Progress toward Level 3 |
| ☐ Achieve my first Level 1 certification | ☐ Move into technical leadership |
| ☐ Progress to Level 2 | ☐ Develop training or mentoring responsibilities |
| ☐ Add another NDT method | ☐ Work in Level 3 consultancy |
| ☐ Develop an advanced NDT specialisation | ☐ Other: _____ |

MY NEXT CAREER GOAL

2 CHOOSE YOUR TECHNICAL DIRECTION

Which NDT method supports that goal?

- | | |
|--|--|
| ☐ VT — Visual Testing | ☐ RT — Radiographic Testing |
| ☐ PT — Penetrant Testing | ☐ ET — Eddy Current Testing |
| ☐ MT — Magnetic Testing | ☐ Advanced UT / PA / TOFD |
| ☐ UT — Ultrasonic Testing | ☐ ACFM / Other: _____ |

MY PRIMARY METHOD

ADDITIONAL METHOD TO DEVELOP

3 KNOW YOUR CERTIFICATION PATHWAY

Before booking training or examinations, identify the requirements that apply to you.

- ☐ I know which certification scheme my industry or employer requires.
- ☐ I understand whether I need third-party certification, employer-based certification or another applicable pathway.
- ☐ I have identified the current scheme document / Written Practice that applies to me.
- ☐ I understand the method, level and sector for which I need qualification or certification.
- ☐ I have checked the applicable training requirements.
- ☐ I have checked the applicable experience requirements.
- ☐ I understand the examination requirements.
- ☐ I have checked the applicable vision requirements.

MY CERTIFICATION PATHWAY

— A QUICK REMINDER

Third-party vs. employer-based, at a glance

PCN / ISO 9712

Independent certification body → personal certificate, portable within its defined scope.

EMPLOYER-BASED

Written Practice (e.g. SNT-TC-1A, NAS 410, EN 4179) → employer certification/authorisation.

Before You Book Anything

Confirm the pathway with your employer or client first. Booking training or an examination against the wrong scheme, method or sector is the single most common — and most avoidable — delay in an NDT career plan.

QUESTIONS TO CONFIRM WITH MY EMPLOYER OR CERTIFICATION BODY

4 CHECK YOUR CURRENT POSITION

Tick what applies today across each pillar of your development.

TRAINING

- ☐ Required training identified
- ☐ Training scheduled
- ☐ Training completed
- ☐ Additional study required

EXPERIENCE

- ☐ Required experience identified
- ☐ Supervision arrangements confirmed
- ☐ Experience being recorded
- ☐ Required experience completed
- ☐ Evidence / documentation available

EXAMINATION

- ☐ Examination requirements reviewed
- ☐ Preparation plan established
- ☐ Examination scheduled
- ☐ Examination completed

CERTIFICATION / AUTHORISATION

- ☐ Certification requirements reviewed
- ☐ Application / documentation prepared
- ☐ Certification achieved
- ☐ Employer authorisation confirmed where required

Why This Step Matters

A single gap — training booked but experience not yet recorded, or an examination passed but authorisation not yet confirmed — is often the only thing standing between where you are and your next certification. Reviewing all four pillars together, rather than one at a time, is what turns this from a checklist into a plan.

NOTES ON MY CURRENT POSITION

5 IDENTIFY YOUR SKILLS GAP

What is currently standing between you and your next career goal?

- | | | |
|--|---|--|
| ☐ Technical knowledge | ☐ Codes & standards knowledge | ☐ Advanced NDT techniques |
| ☐ Practical experience | ☐ Procedure writing | ☐ Leadership / mentoring experience |
| ☐ Required training | ☐ Interpretation & evaluation skills | ☐ Certification requirements |
| ☐ Examination preparation | ☐ Additional NDT methods | ☐ Industry-specific knowledge |

MY PRIORITY DEVELOPMENT AREA

6 BUILD YOUR 12-MONTH ACTION PLAN

NEXT 30 DAYS — ONE ACTION I WILL TAKE

NEXT 3 MONTHS — WHAT I WANT TO COMPLETE

NEXT 6 MONTHS — COMPETENCE I WANT TO DEVELOP

NEXT 12 MONTHS — CAREER MILESTONE I WANT TO ACHIEVE

— YOUR NDT CAREER ROADMAP

Six questions to return to, again and again

1. Where am I now?

2. What is my next level or specialisation?

3. What training do I need?

4. What experience do I need?

5. What examination / certification pathway applies?

6. What is my next action?

"A strong NDT career is built one stage at a time. Choose your direction. Understand the requirements. Build the competence. Demonstrate your capability. Keep progressing."

Five decades of NDT experience. The next chapter starts with you.

In 1976, the NDT industry looked very different from the one professionals know today. Over the past 50 years, inspection technologies have advanced, techniques have become more sophisticated, industries have evolved and the requirements placed on NDT personnel have continued to develop. Through those changes, one principle has remained constant: **competence matters.**

Technology can improve how inspections are performed and how data is collected, analysed and reported. But effective NDT still depends on professionals who understand the method, recognise its capabilities and limitations, apply the correct techniques, interpret requirements and make technically sound decisions. That competence is built throughout a career.

— YOUR CERTIFICATION IS A MILESTONE. YOUR DEVELOPMENT CONTINUES.

Whether you are preparing for your first NDT qualification, progressing from Level 1 to Level 2, working toward Level 3 or already providing technical leadership, there is always another opportunity to strengthen your capability. That may mean:

- Developing competence in another NDT method
- Progressing to a higher certification level
- Building expertise in an advanced technique
- Strengthening codes and standards knowledge
- Developing procedure-writing skills
- Expanding into another industrial sector
- Mentoring the next generation of professionals
- Taking greater technical responsibility
- Continuing to learn as technologies evolve

Professional development does not end when a certificate is issued. It continues every time knowledge is applied, experience is gained, judgement is challenged and expertise is shared.

1976 → 2026 → What Comes Next?

For 50 years, Lavender International has been part of the professional journey of NDT personnel. The next generation of NDT will combine established inspection principles with advanced ultrasonics, digital technologies and new ways of supporting inspection decisions. The tools will continue to change — the responsibility to understand what those tools can, and cannot, tell us will remain.



— YOUR NEXT STEP STARTS HERE

Look again at the career plan you created in this guide.

Where are you today? Where do you want to be next? What competence do you need to build to get there? Whatever stage of the journey you have reached, keep developing the knowledge, experience and technical judgement that will prepare you for the next one.

50 Years of NDT Expertise.

A Lifetime of Professional Development.

Your Next Step Is Yours to Build.



LAVENDER INTERNATIONAL

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