

POST PRIMARY SCHOOLS INFORMATION BOOKLET



LMETB AMTCE FET ADVANCED MANUFACTURING PATHWAYS SCHOOLS PROJECT 2025/2026 ACADEMIC YEAR

Introduction

to the **LMETB Advanced Manufacturing Training Centre of Excellence (AMTCE)**
Mr. Martin G. O'Brien, Chief Executive, LMETB

The LMETB Advanced Manufacturing Training Centre of Excellence (AMTCE) is a state-of-the art training facility based in Dundalk, Co Louth which was established in January 2021.

The purpose of the AMTCE is to provide training on state-of-the-art equipment and processes which will underpin the transition of Irish companies to industry 4.0 based operations.

The centre provides a dynamic catalogue of training courses which are tuned to the needs of industry and delivered by leading industry training practitioners.



Mr. Martin G. O'Brien
Chief Executive, LMETB

At present, the AMTCE is offering world class skills training, apprenticeships, and level 5/6 courses in Robotic Processes, Cobotics, Additive Manufacturing, IIoT, CAD/CAM, Industrial Control, Cybersecurity, Process Optimisation (Lean 6 Sigma), BioPharma and Food Processing amongst other areas.

Pathways & Transitioning Opportunities

the Further Education and Training (FET) Directorate LMETB

The LMETB FET Directorate provides courses and programmes in a wide array of disciplines to both a broad and targeted audience, which includes school leavers, persons seeking upskilling and reskilling, those researching career change, the unemployed, those not in the workforce and those who are seeking employment. FET programmes and courses focus on experiential learning, alongside the acquisition of knowledge, skills and competency development.

As part of the FET Directorate provision, LMETB also provides for structured Pathways and Transitioning opportunities for students and learners to participate in and experience FET.

The AMTCE FET Advanced Manufacturing Pathways Schools Project is one such programme, which combines access to cutting edge technologies in a



Ms. Sadie Ward McDermott
Director of FET, LMETB

state of the art FET premises, thus facilitating creative exploration and application of innovative and problem solving skills to project challenges.

This schools pathways programme also critically provides CPD opportunities for teachers which then facilitates cascading of skills, knowledge and competencies within subject departments in school settings.

The LMETB FET Directorate, supported by DFHERIS and SOLAS are acutely aware of the synergies and potential for expansion of such a programme. In this regard we look forward to welcoming the next group of schools, teachers and learners to the AMTCE for the forthcoming expanded AMTCE FET Advanced Manufacturing Pathways Schools Project during the 2025/2026 Academic Year.

Aims of AMTCE Further Education and Training (FET) Advanced Manufacturing Pathways

Schools Project

With the opening of the LMETB's AMTCE, LMETB schools were provided with exciting and innovative new opportunities to enhance the student learning experience by establishing linkages with the Centre.

In late 2021, the AMTCE commenced the roll out on a pilot basis of the Further Education and Training (FET) Advanced Manufacturing Pathways Schools Project.

The programme's project challenge introduces students and teachers to real-world applications of STEM and technologies used in advanced manufacturing, enabling both teachers and students to learn new skills that allow them to better contextualise what is taught in schools with the requirements of the modern workplace. Students experience real-life applications of engineering/ICT whilst also interacting with engineers from diverse backgrounds, highlighting potential career paths available to them in all areas

of STEM, whilst teachers also have the opportunity to upskill in design software and 3D printing technologies.

The FET Advanced Manufacturing Pathways Schools Project was piloted with four LMETB Post Primary Schools and Colleges, two in Co. Louth and two in Co. Meath. The four Post Primary Schools were delighted to be involved in this unique and innovative project incorporating the latest technologies such as Virtual Reality (VR), Augmented Reality (AR) and Robotics.

Further information on the AMTCE is available on www.amtce.ie



Ms. Fiona Kindlon
Director of Schools, LMETB





Aims of AMTCE Further Education and Training (FET) Advanced Manufacturing Pathways

Schools Project

The AMTCE Further Education and Training (FET) Advanced Manufacturing Pathways Schools Project will incorporate the latest technologies such as Virtual Reality (VR), Augmented Reality (AR) and Robotics available in this state-of-the-art FET or similar centre, to enhance and enrich the learning experience.

The aims of engagement with the project include:

- » Provide a unique opportunity for students and teaching staffs to engage in active learning in a FET or similar centre in the region affording access to state of the art equipment and technologies
- » Enable, support, and encourage students participating to see career pathways from school to FET and onwards into employment in the areas of Advanced Manufacturing and Digital technologies
- » Provide awareness of the ever-growing manufacturing, advanced manufacturing and technology sector
- » Promote awareness of digital skills for the workplace
- » Foster awareness of current industry initiatives
- » Deliver a diverse sampling of technology use in the manufacturing setting
- » Provide students with an understanding of Robotics operation and applications
- » Provide opportunities for students to further develop their skills including communication, creativity, innovation, managing information and thinking, research, working with others, decision making, presentation skills and working with digital technology
- » Provide an environment for students to discuss and engage in modelling ideas and structured innovation with skilled engineers
- » Facilitate students in engaging with the process of 3D Modelling and optimisation for printing
- » Provide students with hands on experience of using a variety of 3D printing technologies used in Additive Manufacturing
- » Inspire students to consider tech careers and advise on appropriate career paths
- » Facilitate students in shaping their career ambition and in realising their career goals
- » Promote linkages with post-primary education, training and employment opportunities
- » Provide opportunities for students to liaise with local employers/businesses in their area
- » Promote and encourage partnerships and networking across schools
- » Provide opportunities for teachers to upskill in the area of Advanced Manufacturing Technologies
- » Provide opportunities for teachers to liaise with teachers in other schools and with employers/businesses in their local area
- » Develop an awareness of the importance of cyber security



Integration

of the AMTCE Further Education and Training (FET) Advanced Manufacturing Pathways Schools Project into the Transition Year Programme

Transition Year is a one-year programme that offers a unique opportunity where schools and communities can collaborate to encourage young people to thrive now and into the future. The TY Programme Statement is designed to provide schools with a flexible, collaborative approach to planning programmes for their context. Schools can adapt their TY curriculum so that students have opportunities to develop the key competencies to thrive and flourish in this rapidly changing world.

TY provides a bridge to enable students to make the transition from the more dependent type of learning associated with Junior Cycle to the more independent learning environment associated with Senior Cycle. It encourages the development of a wide range of transferable critical thinking and creative problem solving skills.

A key feature of Transition Year should be the use of a wide range of teaching/learning methodologies and

situations. The goals and objectives of the programme can best be achieved by placing particular emphasis on negotiated learning, personal responsibility in learning, activity-based learning, team teaching approaches, group work, discussion, debate, interview, project work and research, visiting speakers and seminars, study visits and field trips and work experience and work simulation.

The combination of activities in the AMTCE Further Education and Training (FET) Advanced Manufacturing Pathways Schools Project including visits in to the school, visits out to the AMTCE and/or other research centres, brainstorming sessions with groups of students, idea generation, concept and prototype development, practical workshops and opportunities to consider career opportunities for the future will really enhance and enrich the learning experience for all students going forward and enable them to further develop their individual skills and qualities.



Timetabling

the AMTCE Further Education and Training (FET) Advanced Manufacturing Pathways Schools Project at your school



Transition Year Co-ordinators will be delighted that the AMTCE Further Education and Training (FET) Advanced Manufacturing Pathways Schools Project can easily be incorporated into the TY Programme.

Based on the experiences of the schools who have participated in the project to date, we recommend that the school timetables the project for the full academic year on the TY timetable. We recommend that the school timetable the project for a double class over the course of the academic year i.e. 80 minutes. For schools that have one hour classes, you may decide to schedule for one class i.e. 60 minutes.

The teacher(s) assigned to the project on the timetable must be aware of the aims of engagement with the project for both students and teachers which is outlined earlier in this information booklet.

For all schools starting the AMTCE FET Advanced Manufacturing Pathways Schools Programme we recommend that for the first year you work with one group of TY students.

Further information on the Transition Year Programme is available on curriculumonline.ie/senior-cycle/transition-year/



Linking with Local

Employers

Local employers are a central and critical part of the AMTCE FET Advanced Manufacturing Pathways Schools Project. The building of relationships between employers, FET and schools as part of the Advanced Manufacturing Pathways Schools Project has further increased awareness of the employment potential locally in the region for our learners.

The programme has contributed to the broadening and increasing of knowledge base of local indigenous industries in the STEM area in Louth and Meath resulting in our young people recognising a realistic progression pathway to FET and into employment as a dynamic and exciting career opportunity.

Schools are asked to engage with local employers to request their participation as judges in the celebrations of innovation and creativity at school level in April/May 2026.

We thank our local employers for their continued contribution of time, expertise, constructive and positive support for each of our young people as they progress through the project as part of their Transition Year Programme.

Students and teaching staff teams will have opportunities to meet with local and national industry representatives at the Final Awards Ceremony in Drogheda Institute of Further Education on 14th May 2026.

Categories for Student Projects

Students should choose to complete their project under one of the following categories



Category 1

**Mental Health
& Disabilities**



Category 2

Health & Sports



Category 3

**Environment &
Sustainability**



Category 4

Technology



Schedule

Slides, Video Clips, Notes, Forms
& Worksheets Available as
Support Documents

SEPTEMBER 2025

Online Information Session for Teachers and School Leaders:

- » Overview of the FET Directorate & the AMTCE FET AM Pathways Project

In School Activities:

- » Completion of Parental Consent Forms and Online Student Registration
- » Overview of the AMTCE, Dundalk & 3D Printing Developments
- » Introduction to the 3D Printing Project Challenge & Categories & Overview of Ideas from previous projects
- » Introduction to Teamwork, Benefits, Challenges & Establishment of Project Teams
- » Brainstorming Name for Team & Team Challenges including focus on 3D Printing across the Curriculum

OCTOBER 2025

In School Activities:

- » Team Challenges including focus on 3D Printing in the Community /Student Challenge including videos
- » Student Challenge on Advanced Manufacturing & 3D Printing
- » Introduction to Brainstorming & Design Thinking & the various stages of same
- » Teams commence brainstorming possible ideas for 3D Printing Challenge
- » Schools Closed for Mid Term Break (27 Oct-31 Oct 2025)

NOVEMBER 2025

- » Teams continue brainstorming possible ideas for 3D Printing Challenge
- » Guest Speaker/ Recorded Piece on examples of 3D Printing Business in the Community
- » Progressing Project Ideas/Teamwork/Visit 1 into school

Classroom resources
provided for In
School Activities



DECEMBER 2025

- » Progressing Project Ideas/Teamwork
- » Visit 1 into school
- » Schools Closed for Christmas Break (22nd Dec 2025-2nd Jan 2026)

JANUARY 2026

- » Schools Closed for Christmas Break (22nd Dec 2025-2nd Jan 2026)
- » Progressing Project Ideas/Teamwork/
- » Visit to the AMTCE

FEBRUARY 2026

- » Progressing Project Ideas/Teamwork
- » Visit to the AMTCE
- » School Closed February Mid Term Break (16-20 Feb 2026)
- » Progressing Project Ideas/Teamwork
- » Visit 2 into school



Schedule

Slides, Video Clips, Notes, Forms
& Worksheets Available as
Support Documents



MARCH 2026

- » Progressing Project Ideas/Teamwork
- » Visit 2 into school
- » Preparation of Projects/ Learning Journals/ Posters etc. for In School Celebrations
- » Liaising with local employers to request their participation in In School Celebrations
- » School Closed for Easter Holidays (30th March-10th April 2026)

APRIL 2026

- » School Closed for Easter Holidays (30 March-10th April 2026)
- » Preparation of Projects/ Learning Journals/ Posters etc. for In School Celebrations
- » In School Celebration of Creativity & Innovation
- » Preparation for Final Presentation of Projects & Awards Ceremony
- » Student Review of In School Celebration

MAY 2026

- » Preparation for Final Presentation of Projects & Awards Ceremony
- » Student Evaluation of Engagement with Project
- » Final Presentation of Projects & Awards Ceremony DIFE 14 May 2026
- » TY end of Year/ Final Portfolio Prep/ Awards/ In School / Student Evaluation of Engagement with Awards Ceremony



Key Dates

for your diary



8 SEPT 2025

Online Information session for all School Leaders & Teachers



OCT 2025

Teacher Training Day facilitated by AMTCE (Full Day Onsite in AMTCE)



NOV 2025

Teacher Training Day facilitated by AMTCE (Full Day/Half Day)



3 NOV - 12 DEC 2025

School Visit to Meet with Students & Teachers. Visit Facilitated by AMTCE Personnel. (2 hrs Duration)



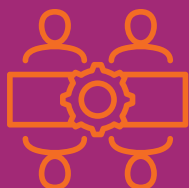
5 JAN - 13 FEB 2026

Tour of AMTCE. Facilitated by AMTCE Personnel in the AMTCE Dundalk



23 FEB - 27 MAR 2026

School Visit to Meet with Students & Teachers. Visit Facilitated by AMTCE Personnel. (2 hrs Duration)



13 APR - 24 APR 2026

Technical Assistance Workshop Facilitated by AMTCE Personnel either by phone/email/visit



27 APR - 8 MAY 2026

In School Celebrations of Creativity & Innovation. Selection of Two Projects to go through to the Awards Ceremony on 14 May 2026



14 MAY 2026

LMETB AMTCE FET Advanced Manufacturing Pathways Schools Project **Awards Ceremony.** Drogheda Institute of Further Education, Drogheda, Co. Louth

Teacher Training

Teachers participating in the LMETB AMTCE FET Advanced Manufacturing Pathways Schools Project are expected to engage with all elements of the Teacher Training provided as part of the programme.

The aim of the Teacher Training is three – fold; firstly to upskill the teachers in the areas of advanced manufacturing technologies, secondly to encourage networks of support and collaboration of teaching staff across schools and thirdly to equip teachers to facilitate the Project with their TY students.

Teacher Training provided as part of the project includes a combination of face to face CPD and online CPD. Some elements of the training are delivered during school time and some out of school. For the out of school element of the Teacher Training we have asked school leaders to consider that this would meet the requirements of the Croke Park hours.

A selection of the various elements of Teacher Training include:

1. Introduction to Advanced Manufacturing
2. Overview of Technology Careers Pathways
3. Overview of Design Thinking and Design Thinking in the Curriculum
4. 3D Modelling
5. 3D Printing
6. Additive Manufacturing & Slicing
7. Overview of Cybersecurity
8. Robotics and Cobotics

Attendance Registers will be completed for each of the CPD sessions and teachers who engage with the training element of the project will receive a Certificate of Engagement towards the end of the academic year. This certificate will list the different elements of the training programme, the elements in which the teacher engaged and the total hours CPD completed by the teacher.



In School Celebration of Creativity and Innovation

The LMETB AMTCE FET Advanced Manufacturing Pathways Schools Project In School Celebration of Creativity and Innovation will take place in each of the participating schools in April/May 2026.

The LMETB AMTCE FET Advanced Manufacturing Pathways Schools Project Awards Ceremony is a very important event in the School's TY Calendar and we look forward to welcoming students, their teachers, Programme Co-ordinators and School Leaders to the event.

Each participating group will be invited to set up their stands and displays in a room allocated by the school. The judging panel will then visit each stand to meet with the group and ask questions about developing their ideas through the Advanced Manufacturing Pathways Schools Project.

The judges attending the In School Celebrations of Creativity and Innovation will nominate two project groups from each school to attend the LMETB AMTCE FET Advanced Manufacturing Pathways Schools Project Awards Ceremony on the 14 May 2026.

At the end of the In School Celebrations of Creativity and Innovation, each participating student and teacher will be presented with a Certificate of Engagement with the Project. Students can then include this Certificate in their Transition Year Portfolio. This Certificate will prove extremely beneficial for the student when completing CV's and application forms for apprenticeships, colleges and/or employment. Engagement with this project will also provide students attending interviews with practical examples of how they have developed their skills and qualities during their time in Transition Year.





LMETB AMTCE FET Advanced Manufacturing Pathways

Schools Project Awards Ceremony

The LMETB AMTCE FET Advanced Manufacturing Pathways Schools Project Awards Ceremony will take place on 14 May 2026 in the Drogheda Institute of Further Education (DIFE) one of LMETB's Post Leaving Certificate Colleges in Drogheda, Co. Louth.

The LMETB AMTCE FET Advanced Manufacturing Pathways Schools Project Awards Ceremony is a very important event in the Annual LMETB Calendar and we look forward to welcoming students, their teachers, Programme Co-ordinators, School Leaders and Board of Management members to the event. Members of the LMETB Board, the LMETB Executive, the FET and Schools Directorate and personnel from SOLAS, the Department of Education and Youth, Education and Training Boards Ireland (ETBI), local employers and local elected representatives will also be in attendance at this event.

The participants in the Awards Ceremony on 14 May 2026 will be determined by the results of the In School Celebrations of Creativity and Innovation which take place in the participating schools in April/May 2026. The judges attending the In School Celebrations of Creativity and Innovation will nominate two project groups from each school to attend the Awards Ceremony on the 14 May 2026.

On the 14 May 2026 each participating group will be invited to set up their stands and displays by 10.15am. The judging panel will then visit each stand between 9.45am and 12.45pm to meet with the group and ask questions about developing their ideas through the Advanced Manufacturing Pathways Schools Project.

Once the judging panel have visited each group, the group members will then have an opportunity to visit and engage with personnel from LMETB FET Centres/Colleges which offer Post Leaving Certificates Courses and Apprenticeship opportunities for school leavers and adult learners.

This interaction with personnel from other FET Colleges in LMETB contributes greatly to developing greater awareness of the FET opportunities for student progression in Counties Louth and Meath.

Once the judges deliberations are completed on the day the judging panel will award a 1st, 2nd and 3rd prize, as well as a range of Highly Commended Awards to conclude the competition. At the end of the Awards Ceremony each winning team member will be presented with a Certificate of Achievement at the Final Awards Ceremony, as well as a range of Highly Commended Awards to conclude.



Review and Evaluation

of the LMETB AMTCE FET Advanced Manufacturing Pathways
Schools Project for the Academic Year 2025/2026

Towards the end of the academic year a structured review and evaluation of engagement with the project will be completed by students, teachers, programme co-ordinators, school leaders, employers, members of the judging panel and AMTCE and LMETB Personnel to consider the

strengths of the project, the challenges emerging over the course of the academic year and the opportunities for the project going forward. The results of the review and evaluation process will inform future planning for the growth and expansion of the Pathways Project.



LMETB AMTCE FET Advanced Manufacturing Pathways Schools Project is a collaboration between the FET and Schools Directorates in LMETB



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