

*Louth Meath
Education and Training Board*

*Further Education and Training
Digital TEL Strategy*

2017-2019



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LMETB Digital Technology Enhanced Learning Strategy

Further Education and Training

Introduction

The new TEL- Enhanced Learning Strategy, in Further education and Training 2016-2019, recognises the intrinsic linkages between the change agenda which has brought about *large Scale reforms *, whilst at the same time endeavouring to *consolidate resources* and investment across the emerging fourth pillar of our education system : the Further Education and Training sector.

The LMETB TEL strategy focuses on current extent and pervasiveness of ICT in FET sector and plans for the future growth and development of same. The development by LMETB of a digital /TEL strategy provides an opportunity for the FET community to inform planning and investment in the enhancement of infrastructure and software which supports and enables teaching, Learning and support networks within FET. In so doing the FET community are active agents in improving outcomes and experiences of both staff and Learners in the FET sector.

The Aim of LMETB FET Digital TEL strategy

Using technology to facilitate and support innovation in teaching and Learning.

The steps to be taken to achieve the aim of the strategy are further explored in LMETBs digital/TEL strategy. In developing an action/implementation plan. LMETB gave due cognisance to the national TEL strategy, thus LMETB adopted a similar methodology in identifying three main strategic themes as key tenants of its action plan.

Strategic Themes LMETB FET Digital TEL Strategy

- Building of existing capacity
- Expanding access to continuous improvement.
- Innovation.
- ICT infrastructure

As with the national TEL strategy LMETB , have further identified a number of actions under each theme , which over the course of the life of the strategy , we hope will both inform and guide the development and investment of this sector in LMETB FET sector.!

“Technology is one of the key drivers of change and improved digital skills will be vital for Ireland’s Future, both in higher-end dedicated ICT jobs and, More widely, as a basic core competence” National Skills Strategy 2025 P10

Vision : LMETB FET Digital TEL Strategy:

To systematically plan for the development and enhancement of Digital ICT TEL, so as to enable and support services which promote and enable Teaching and Learning opportunities for both staff and Learners in LMETB FET. In so doing we plan to achieve the promotion of active positive engagement of staff and learners with digital technologies in FET LMETB.

TEL -Technology-Enhanced Learning Defined

What is TEL (Technology Enhanced Learning)?

“Using Technology to facilitate and support innovative Teaching and learning practices”ⁱⁱ

Measuring Success

Success in implementing this strategy will result in:

- 1. Learners who are skilled and confident in using technology as part of their work, study and home life.*
- 2. Technology being used appropriately as part of all teaching and learning.*
- 3. Significantly improved access to further education and training opportunities in LMETB*
- 4. Learners will be more engaged with, and achieve more from their learning experience.*

LMETB Digital TEL Strategy Further Education and Training

Design of a Digital TEL Strategy Further Education and Training Strategy

When designing a digital strategy for the Further Education and Training sector, cognisance was given to the recommendations of the national TEL strategy .It is intended that this TEL strategy will enable and support the achievement of LMETBs mission statement:

‘Louth Meath Education and Training Board is committed to excellence and innovation in the education of young people and adults through the provision of dynamic services delivered by professional staff ‘

FET LMETB, in designing its digital/TEL strategy have given consideration to the following.

- Complement existing strategies such as the ICT Strategy developed by the Education and Training Board.
- Upgrade or install all infrastructure to a minimum specification as laid out in the Department of Education TGD’s (Technical Guidance Documents) which will in turn allow all Teachers and Learners to fully engage in the learning process using technology as outlined in the TEL strategy.
- Provide an efficient and effective broadband service at all Further Education sites.
- Provide a Wireless and core network which meets or exceeds the minimum specification laid out in the WI-FI network and Network switch Framework. (Please remember that all equipment on this framework, meets or exceeds these requirements and have fully complied with the due diligence in each case.)
- Provide service and support For Teachers and Learners both in the school/centre premises and remotely, so location no longer is an issue. “The appropriate use of technology allows people to be informed about opportunities which enhance when and where they learn”ⁱⁱⁱ
- Introduce appropriate technology to allow for “high –quality individualised feedback” ^{iv} between Teachers and learners.
- Provide hosted solutions and platforms (Moodle, SharePoint, office 365) where Teachers and Learners can engage in their work, both in class and from any location deemed appropriate
- Implement a CPD (continuous professional development) strategy where staff can improve their digital skills which in turn allows them to introduce new and innovative teaching methods.

Goals of the LMETB FET Digital TEL strategy will include:

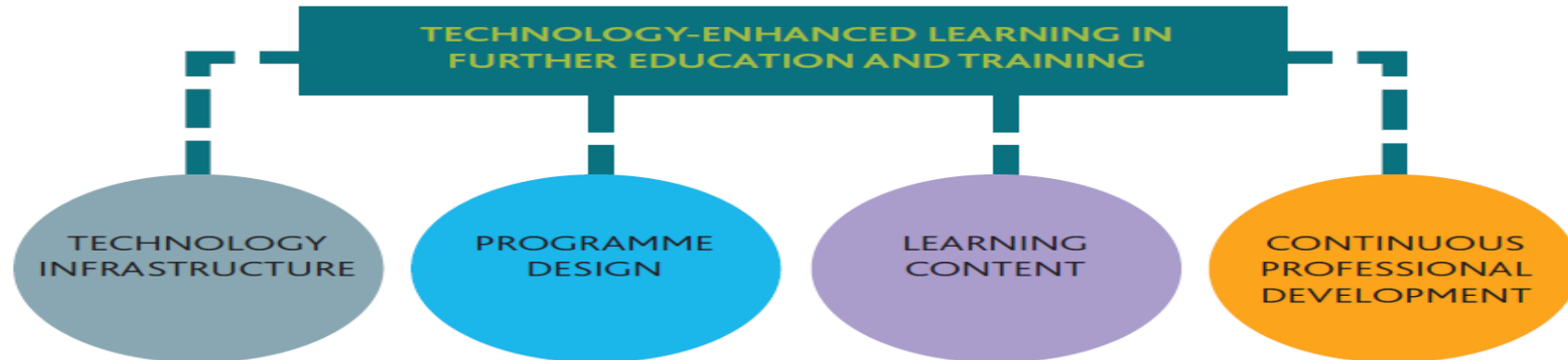
- Provision of an enhanced learning experience for the student.
- Preparing learners to be more digitally aware, capable and competent in the use of ICT.
- Aptly prepare learners with the requisite skills knowledge and competencies in ICT to support and enable progression pathways to employment or third level as is apt for each learner.
- Through communities of practice, build an awareness and understanding of the dangers of ICT misuse.
- To enable learners to be ICT ambassadors in their own homes, encouraging and supporting younger family member's to be responsible in use of ICT, whilst also sharing positive experiences of the benefits of new technologies, thereby breaking the cycle of educational and digital disadvantage in our homes and communities.
- The LMETB TEL strategy will support the development and enhancement of a world class FET sector.
- To support staff as they upskill and increase competencies and skills to support requirements of the education/Training work environment.
- To encourage the development of communities of practice across FET centres so as to encourage sharing and opportunities for collaborative actions which have benefit for teachers and learners.
- To support the administrative requirements of the FET sector, thereby enabling and supporting enrolment, recruitment, recording of progression and certification., reporting requirements of DES and SOLAS/ certifying bodies.

Successful implementation requires support to teachers in the form of opportunities to learn (both formally and informally), embedding digital learning in continuing professional development and initial teacher training, direction and leadership within a school, functioning digital equipment and tools, and an environment that gives teachers the flexibility to introduce and use digital learning.”

<http://www.gov.scot/Resource/0048/00489224.pdf>. (p.44)

Elements of Technology Enhanced Learning

(As identified by the TEL strategy)



(i) Programme design

Building innovative approaches such as the flipped classroom; 'bring your own device'; blended learning; social media; interactive, individualised learning plans; feedback mechanisms and assessments into FET programmes as appropriate.

(ii) Learning content

eBooks; video; virtual animations; simulations and eLearning resources supporting the course learning outcomes as appropriate for the subject area or client group across the full spectrum of FET provision as appropriate

(iii) Continuous professional development

Building expertise and confidence in using technology to teach and to enhance learning for existing staff and as part of initial teacher training programmes

(iv) ICT Technology infrastructure

Broadband and wireless internet and network access; virtual learning environments; collaborative online communities of learning and practice; internal content management systems; course calendaring; learner registration and learner support system software that should be integrated so as to reduce the duplication of effort currently in place. The need to prioritise funding based on metrics for return on investment.”^v

Strategy Implementation

Theme 1: Building on existing capacity and good practice (as per TEL Strategy)

Actions within this theme aim to embed a systemic culture, structures and practices so that technology-enhanced learning becomes an intrinsic part of Further Education and Training in LMETB. To ensure success, a set of interconnected elements are required. These are:

- Staff with technologically-appropriate pedagogical skills and confidence.
- Access to digital learning content and resources.
- Appropriate technology infrastructure and supports.
- High-quality programme design and assessment.

Each component relies on the other and each must be in place in order to avoid the challenges that have at times been reported as part of the adoption and embedding of technology in education and training

Actions	Performance Indicators	Lead and Partners	Proposed Time Scale	Update Q1 2018
1.1 Promote the advantage and benefits of technology –enhances learning in LMETB region	LMETB, DES & SOLAS has ongoing awareness of promotion campaign to support TEL strategy.	SOLAS, ETBI, LMETBs	Q2 2016 ongoing	Significant number of Courses/Programmes delivered across region to raise awareness and skills base of Digital technology
1.2 Establish baseline technology-enhanced learning provision within LMETB.	Baseline review of existing provision to support the development and work of the LMETB digital TEL strategy.	ETBI SOLAS LMETB	Q2 2017	Completed
1.3 Develop an action plan within LMETB using headings which identify organisational requirements to include: (i) infrastructure, including ICT (ii) Pedagogy and ongoing CPD (iii)Content creation, access and sharing (iv) Organisational structure and practice	LMETB is implementing an action plan for technology – enhanced learning and accompanying quality assurance procedure.	LMETB	Q4 2017	Initial plan complete , Review in progress
1.4 Equip all further education and training learning centres with appropriate broadband and Wi-Fi capacity.	LMETB locations to be reviewed and a planned implementation of appropriate broadband and Wi-Fi services to be put in place.	SOLAS, LMETB	Q1 2018	Complete Limitations being: Building stock not suitable for WIFI, alternate systems utilised where apt, Community settings, requiring mobile ICT, enabled and supported.

1.5 Review 'Bring Your Own Device' (BYOD) strategy	Review to take place in LMETB.	LMETB	Q2 2018	
1.6 Review all existing infrastructure and Learning devices in FET Centres so as to inform the development of a plan for purchase/upgrade of ICT as required.	Planned Centre and Stock checks Ensure devices are fit for purpose and future proofed for any new development	LMETB SOLAS	Q2 2017 and ongoing	Complete and ongoing
1.7 Identify and roll out IT infrastructure and supports, including VLE (Moodle), content management, virtual classroom and IT services supports in mainstream FET programmes.	LMETB to enable provision /access to VLE and appropriate IT support services to support teaching and learning on all mainstream courses.	LMETB SOLAS	Q2 2018	Work has progressed here re Moodle , IT supports to a significantly high level as apt per FET setting
1.8 Enable and support CPD opportunities for staff both FET administration and Teaching and learning, So as to support use and integration of digital technologies in FET services.	Planned systematic roll out of CPD opportunities for all FET staff.	LMETB SOLAS Further Education Support Services (FESS)	Q3 2017 and ongoing	All staff FET requiring CPD supports have been supported and enabled so as to support both FET Teaching and learning and administration. On going FET staff CPD events enabled and support sharing of experiences and CPD opportunities (Teach Meet)
1.8 Develop learning content and resources and development supports for use by all further education	Digital Resources /provision - Teaching and Learning and administration to be developed LMETB.	LMETB SOLAS	Q3 2017	LMETB have developed a Portal site to house teaching and learning supports and resources for FET staff teams. Information and CPD is currently being rolled out to staff.

1.9 Develop a content sharing and management infrastructure to facilitate sharing and development of learning resources among all teachers.	Learning content management system in place and in use with workflows for content, access development and sharing.	LMETB SOLAS	Q1 2018	LMETB have developed a portal site for enabling and supporting teaching and learning FET, the site is accessed by password FET staff only. LMETB have supported similar developments in other ETBs
1.10 Develop shared on line platform and procedures for technology based assessment methodologies.	Share on-line system in place for online assessment methodologies included in LMETB quality assurance procedures – pilot.	LMETB SOLAS	Q4 2017	This action has been complete, but review and on-going updates continue.
1.11 Expend, develop and support staff as appropriate to support technology – enhanced learning within ETBs.	Learning technology and IT support staff are in place in each ETB location.	SOLAS DES LMETB	Q1 2017 Ongoing	ICT support staff are in place in LMETB and are essential to supporting the Maintenance, upgrade, installation and CPD of staff teams in LMETB.

Theme 2: Expanding Access

The actions within this theme aim to expand and increase access to Further Education and Training for staff and Learners whose learning might be enhanced and enriched by flexible learning opportunities. Target groups include those in employment who wish to/need to upskill and those disadvantaged due to their circumstances such as their remote location.

Actions	Performance indicators	Lead and Partners	Proposed Timescale	Update Q1 2018
2.1 Use the further education and training funding model to support and incentivise technology enhanced learning.	Planned funding for upgrade. Review number of courses using technologies / increasing levels of engagement and positive feedback.	LMETB SOLAS	Q4 2016	Application for funding to support TEL strategy is made annually, Every effort is made to enable and support upgrade and introduction of technologies which support and enable Teaching and Learning and upskilling of learners. Ongoing annually
2.2 Increase the use of digital technologies as part of work-based learning (apprenticeship, traineeship, Skills for Work other work-based learning)	Digital technologies are a constituent part of Curriculum and Teaching and Learning environments of all work-based learning provision.	LMETB SOLAS	Q1 2017	LMEB has actively supported and enabled access to technologies in the learning environment. All FET learners are encouraged to use technology as appropriate to the level of the learner. This action is ongoing

2.3 Develop and implement guidelines for technology-enhanced learning as a part of quality assurance curriculum and assessment development, delivery and evaluation.	Review of QA processes to reflect developmental work and innovation in use of Digital technologies in Curriculum development and assessment methodologies in FET	LMETB QQI SOLAS	Q2 2017	Complete , Portal site developed for staff and Technology introduced into all FET premises so as to support Teaching and Learning Ongoing
2.4 Use funding and supporting guidelines to promote access and active inclusion through use of technology in particular for learners with disability, those with fewer or no previous qualifications or low levels of digital, numeracy or literacy skills and those in remote locations.	Increased participation of target groups in FET courses, accessing and using technology in both teaching and learning in LMETB.	LMETB SOLAS	Q2 2017	Participation has been supported and enabled by using Interactive white board technology, Moodle, Assitive technologies in classrooms to support and enable Teaching and Learning e.g. Loop system. This action is ongoing

Theme 3: Continuous improvement and innovation.

Actions within this theme aim to support continuous improvement in provision of technology-enhanced learning, drawing on national and international policy and good practice. Collaboration with the wider education and training system – primary, post primary and higher education, as well as with the enterprise community – will support high quality, expert teaching and learning.

Actions	Performance Indicator	Lead and Partners	Proposed Timescale	Update Q1 2018
3.1 Use technology to enhance communities of learning and practice (COP) among teachers and learners	LMETB enabling and supporting communities of practice in place to expand and enhance.	LMETB FESS	Q 2017	
3.2 Share good models of practice on technology enhanced learning as well as on research on emerging trends (such as increase of increasing role of informal learning and use of social media in formal settings)	<ul style="list-style-type: none"> • Technological development in FET • Opportunity to share good practice. Opportunity for sharing practice with national and EU colleagues to support innovation. 	ETBI	Ongoing	
3.3 Monitor and evaluate progress locally and nationally to learn from what works and continuously improve policy and practice.	Increase in provision and effectiveness of technology-enhanced learning.	ETBI	Q4 2017 and ongoing	

Theme 4 ICT Infrastructure

ICT Development LMETB FET

Actions	Performance Indicator	Lead and Partners	Proposed Timescale	Update Q1 2018
4.1 The Key action plans to align ICT development within LMETB with the Department of Education and Skills Digital Strategy for Schools 2015-2020	To developed a Digital TEL strategy , which will support the dynamic developments within this sector in LMETB	LMETB SOLAS	Q 2 2017	Complete and ongoing updates
4.2 The core infrastructure is the foundation of any system or systems, therefore investment must be carried out in order to maintain local infrastructure so that efficient and cost effective ICT solutions are available to all Tutors and Learners in LMETB FET Systems must be capable of running latest software, so as to take advantage of new technologies and be at the leading edge of technology.	Planning for ICT infrastructure in the FET area, will include a review of the following: <ul style="list-style-type: none"> • Hardware refresh. • New Hardware Purchases • Wireless Networks.; installation of new and upgrade of existing • Mobile device planning and management. • Mobile classrooms. 	LMETB SOLAS	Q2 2017 ongoing	Completed but ongoing FET work in Partnership with ICT section to enable and support the introduction, upgrade and development of innovative technologies Tremendous work completed <ul style="list-style-type: none"> • Mobile Classroom in place • Mobile devices in place for staff and Learners • Wireless networks in place

<p>As part of the digital FET TEL strategy, LMETB will develop a 5 year ICT plan (with the Department of Education <i>key Principles underpinning the strategy</i>.¹) which, subject to available funding/resourcing will underpin the LMETB digital FET TEL strategy</p>	<ul style="list-style-type: none"> • Communications (Digital signage solutions) • Teaching models: Group, One to One, Peer learning etc. • Security , (CCTV, Alarms , Monitoring) (GDPR) • New and innovative learning spaces. • Internet Connectivity. • Access to Computing Devices and Other Technologies. • Technical Support and Maintenance. • Purchasing and Procurement. • Staffing of ICT, IT as a service. • CPD 			<ul style="list-style-type: none"> • All learners on mainstream programmes have a 365 account • Hardware programme of refresh and upgrade dependant on funding is planned for • Portal sites developed for staff using Innovative resources and for curriculum development • Digital assessment tools piloted. • Digital signage introduced. • Digital Technologies/ Initial CPD completed , Refresh and systematic CPD all staff ongoing

Hosted cloud systems

Hosted Cloud Systems enable and support: Teaching, Learning and Assessment Using ICT and Teacher /Tutor Professional Learning

Hosted platforms allow for the development of a collaborative and cohesive approach to Teaching and learning. Key areas and requirements for the implementation and success of a hosted solution are

- Integration with the *key Principles underpinning the strategy*²
- Integration with existing systems within the FET centre /LMETB.
- Coherent cloud that provides a consistent service at local level and make the same service available for all subject areas and programs.
- A hosted solution platform, Using Office 365 to be put in place and supported across FET centres/services as applicable

The hosted solution will include

- Email system.
- Cloud storage for Tutors/Trainers/Teachers, students and admin staff.
- File sharing within a College/Centre environment and the wider learning communities.
- Collaboration tools, to support document editing, learning resource creation and online collaboration.
- Intranet, to include or allow for the development of Colleges/Centres and admin collaboration spaces.
- Virtual Staff rooms, to support planning and Teacher collaboration.
- Virtual classrooms to support differentiation and assessment.
- Other cloud based tools and applications to support learning.
- Development and integration of online systems in LMETB FET.
- Teacher/Tutor Capacity building (professional development tools to support Teachers)
- Single sign on between systems

⁵ Department of Education and Skills Digital Strategy for Schools 2015-2020, p16

Hosted Learning Platforms

A standard cloud platform to be adopted by LMETB FET centres and admin offices, where applicable where email, document storage, Intranet, and collaboration can take place. Integration with existing ETB systems (such as Moodle, Office 365, etc.) to be considered where single sign on would be a distinct advantage. Hosted solution which fall under current Educational licences should be explored as a cost effective and cohesive approach to developing a solution for Teaching, Learning and collaborative practice

Under new Data Protection Guidelines, the location of the data is extremely important and all systems proposed must meet GDPR guidelines. (Data stored in Ireland and EU locations only)

Options to be explored for an online learning solutions

Microsoft Office 365

- Email
- One Drive
- OneNote
- OneNote Class Notebook
- Microsoft Classroom (will be available later in 2017)
- SharePoint Intranets
- Office online and desktop
- Sway
- Skype for Business (education)

Advantages of such a solution include:

- Financial/Economic long term benefits to enable and support good practice methodologies.
- Single sign on
- Risk management - Secure, Data stored in EU

- Education specific application available under current Microsoft Educational licences.
- Free Office downloads for all Tutors/Trainers/Teachers and Learners.
- Integration with most MIS system already available.
- Office 365 has most of the features of a LMS system (SharePoint) and can be developed to meet schools changing needs.
- ePortfolio ready.

Actions	Performance Indicators	Lead and Partners	Proposed Time Scale	Update Q1 2018
4.6 Review existing ICT infrastructure in FET centres/services	Review to be effected	LMETB	Q3 2016 ongoing	Complete
4.7 Planned systematic introduction and upgrade as apt of ICT infrastructure	ICT solutions to be identified so as to enable and support Digital FET TEL strategy as appropriate	LMETB SOLAS	Q4 2016	This has been completed and work is ongoing
4.8 CPD to support Teaching and Learning	CPD plan to be developed to support ICT upgrade and developments	LMETB SOLAS	Q4 2016	Complete and refresher for new staff ongoing

Security and Data Protection

Security and Data protection is an area which needs additional attention to prevent data loss or data breaches.

The following areas need to be considered as part of a 5 year ICT plan.

- Mobile Device Management
- Centre owned devices
- Hybrid solution: BYOD and LMETB owned devices.
- Management of WI-FI networks, (in relation to the models listed above)
- Encryption
- Migration to the cloud.
- Management of third party contractors.
- Backups and disaster recovery.

Suggested Policies for development may include:

- Acceptable Usage Policy
- Internet Access Policy
- Email and Communications Policy
- Network Security Policy
- Remote Access Policy
- Encryption Policy
- Privacy / Freedom of Information / Data Protection Policy
- All other IT and Information Security policies

Actions	Performance Indicators	Lead and Partners	Proposed Time Scale	Update Q1 2018
4.9 Review current ICT systems	Review Data storage systems to be effected	SOLAS, LMETB	Q2 2017 ongoing	Complete
4.10 Develop policies	Policy development to support Digital strategy	LMETB	Q3 2017	Policy review and development has progressed and will be ongoing <ul style="list-style-type: none"> • Acceptable Usage Policy • Internet Access Policy • Email and Communications Policy • Encryption Policy • Privacy / Freedom of Information / Data Protection Policy • All other IT and Information Security policies

LMETB Digital TEL strategy FET

Outcomes

Outcomes: LMETB Further Education and Training services

- Review of existing hardware and software systems,
 - Construct of a plan for systematic investment in ICT as per strategy priorities.
 - Planned systematic investment /upgrade of hardware and software as appropriate.
- Hosted system for learners and Tutors/Teachers/Trainers.
 - Services to be developed so as to enhance and enable working both on site in centre and remotely where applicable.
 - Development of platforms to enable and support secure storage and management of secure content exchange
 - Available both in class and remotely.
- Collaboration
 - Plan for the support and encouragement of the use of innovative technologies /strategies to support teaching and learning environments, regardless of subject or course level/discipline.
 - Between Tutors/Trainers/Teachers and Learners as collaborative actors in a learning community of practice using various digital tools.
 - Using collaborative tools (classroom Notebook , OneDrive, SharePoint, Moodle)
- Shared vision for learning
 - Teachers/Trainers /Tutors and Learners work collaboratively to achieve common goals
 - ICT strategies and technology as a tool to support teaching/learning interaction across the education/training environment
 - To promote equality of access and opportunity in the FET sector.

- By extension the use of innovative technologies/tools/devices support innovation in the workplace and engagement with employers.
- Intranet: SharePoint, Moodle etc.
 - Staff to be facilitated with on-going CPD to enable and support upskilling in use of innovative teaching, learning, assessment and feedback strategies within confines of secure environments.

Outcomes: for Learner's

- Dependent upon entry point, that as appropriate FET learners would attend introductory ICT courses /assessments so as to enable and support College staff to adequately plan for upskilling of learner groups as is necessary to enable and support engagement in the learning environment.
- Have a Positive experience of a learning environment in which ICT is a tool to enhance and support learning.
- Increased opportunities for Learners to use various mediums/ICT technologies.
- Supports to be available to Learners in workshop format so as to dispel fears and support engagement in ICT
- Increased level of competency of digital skills
- Awareness of the use of ICT as an assessment tool and building confidence and competency in use of same.
- Interaction across the virtual classroom both in centre and across FET centres and learning environments to be encouraged / supported.
- Reignite Peer learning opportunities for Staff and Learners.
- Develop ICT Ambassador scheme each centre
- New course development is enabled and supported by Infrastructure development

Technology is one of the key drivers of change and improved digital skills will be vital for Ireland's Future, both in higher-end dedicated ICT jobs and, More widely, as a basic core competence National Skills Strategy 2025 P10

Summary

It is the hope that this TEL strategy will support the wonderful work already ongoing in the LMETB FET sector, that it will enable and support all members of the FET learning community to engage and see the benefits of digital technologies .That barriers, perceived or real be dispelled, so as to enable and support all FET learners to address fears and embrace digital skills as an aid to improved life chances /opportunities in both social and economic aspects of their daily living.

LMETB FET and ICT Senior management teams welcome your contributions and comments.
