

IO1 - In-service Training Programme PART 1 - Trainers Manual



SIS-SME

Building strategic innovation skills within SMEs



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Introduction to the Using EduZines In-service Trainers Manual

The In-Service Training Programme is the first Intellectual output of the Using EduZines – interactive, trans-medial learning materials for smartphones – to build strategic innovation skills of SMEs project. The In-service training programme will support a progressive recovery of European businesses from the impact of Covid-19.

This first output is composed of two parts, the Trainers Manual being the first part focused on the methodology that VET tutors will implement during their training. The second part (Part 2), which will be produced in the near future, will include the training material. These two parts are, thus, complementary.

Purpose of the In-Service Trainers Manual

Trainers delivering the In-Service Training Programme will use this Handbook as a guide. The handbook is in fact designed to educate VET tutors on strategic innovation in the SME sector and to build their pedagogic and digital skills to help managers harness the potential of online learning, in order to deliver high-quality training.

In fact, through this Handbook, VET tutors will be able to correctly move forward from traditional teaching methods to innovative and remote new learning techniques. VET tutors will play a crucial role in the recovery of businesses after the impact of COVID-19, as they will train managers to focus on strategic innovation and educate them on different types of innovation. Therefore, this training programme is broken down into two learning units; the first focuses on learning about innovation, the second one addresses knowledge, skills and competences needed in order to boost innovation.

To achieve this, Using EduZines proposes a curriculum that comprises 70 hours of learning divided into:

PART 1 – Trainers manual	PART 2 – Training material
21 hours of face-to-face training	21 hours of face-to-face training
14 hours of self-directed on-line learning	14 hours of self-directed on-line learning
TOTAL 35 hours	TOTAL 35 hours
TOTAL 70 hours	

Both learning units will comprise face-to-face training and self-directed online learning.

Background of the Handbook

Numerous studies have highlighted the importance of innovation as a critical success factor in business performance. However, many companies struggle in their attempts to become successful innovators. As government restrictions and emergency regulations start to ease, businesses are looking at ways to recover from the impact of COVID-19. Even though nearly every industry has suffered from the economic crisis resulting from the pandemic, only a small percentage feels equipped to pursue growth.

According to surveys, most organisations will be focusing on recovery efforts and short-term plans for improving revenue. Yet, research and history have demonstrated that is not just how companies survive a crisis in the long run. In order to pursue sustainable growth, businesses have to focus on strategic innovation, that is make a plan for growth and change.

As research has demonstrated, innovation is the key to sustainable growth. By innovation, we do not necessarily mean technological progress; in fact, five other kinds of innovation exist, which tackle different aspects of a business. However, most managers are not aware of this.

We (the partners) believe that VET trainers have a crucial role in this context, as they will inject a culture of innovation in businesses recovering from the crisis. Developing their skills is therefore fundamental, in order to enable them to effectively work online, foster new training methods and develop robust learning resources for online use. In addition to this, following the pandemic, developing VET services to address new needs has become a core issue, the most important one being strategic innovation.

VET providers have struggled in the past to satisfy the businesses' needs for accessible, agile, and on-demand work-based learning resources and opportunities. While COVID-19 has presented a challenge to VET providers, this can also be considered to be an opportunity to make VET services responsive to businesses' needs.

The in-service programme will address three key roles of VET tutors (tutors as learners themselves, tutors as facilitators of remote online learning and tutors as developers and producers of media-rich digital learning content) and will be divided in two modules, as follows:

1. Building an understanding of strategic innovation in a business context: this module will focus on knowledge, skills, and competences that trainers will pass on managers in order for them to innovate their business;
2. Introduce different typologies of innovation: this module will focus on analysing and defining different types of innovation and distinguishing between innovation and technical progress.

Curriculum overview – Trainers Manual

Type of learning	Module	Hours	Responsibility
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Face-to Face learning	Building an understanding of strategic innovation in a business context	10,5	BRCCI
	Introduce different typologies of innovation	10,5	Boréal Innovation
Self-directed learning materials	Building an understanding of strategic innovation in a business context	7	BRCCI
	Introduce different typologies of innovation	7	Boréal Innovation
TOTAL		35	

Delivering the In-Service Training Programme

In this Trainers Manual are presented the face-to-face contents of the In-service Training Programme. Those will be delivered through classes, workshops, and discussions around two main complementary topics:

1. Identify eight different types of innovation, knowing the difference between innovation and technological progress – 10,5 hours;
2. How to implement strategic innovation in a business, identify internal and external resources that can boost innovation – 7 hours.

Using EduZines training programme being designed to empower entrepreneurs, the face-to-face training will be supported by self-directed learning materials, which will be provided by tutors and be accessible online and printed. The face-to-face training and the self-directed learning materials being two complementary resources, they will cover the same topics.

Learning Outcomes

Using EduZines proposes a learning programme that tackles innovation in a theoretical and practical way, in order for trainers to raise awareness on the benefits linked to innovation, for managers to build a culture of innovation in their business and to adopt a

transformational leadership. In fact, in order for innovation to be at the core of a business' strategy, the whole team has to actively participate.

Indeed, VET trainers will be at the heart of the learning programme, delivering knowledge, fostering skills and competences in managers. Where businesses tend to respond with tactical management, which only temporarily produces cash flow, VET trainers will introduce managers to strategic innovation, that creates value in the long run.

Learning Outcomes Matrix

Upon concluding this training programme, participants should have achieved the knowledge, skills and competences listed in the tables below and acquired the EQF level 6:

EQF level 6 – LEARNING OUTCOMES		
Knowledge	Skills	Responsibility and autonomy
Advanced knowledge of innovation in business. Critical analysis of theories and principles.	Cognitive and practical skills required to develop creative solutions to abstract problems.	Manage innovation in business, taking responsibility for decision-making and managing professional development of individuals and groups.

Source: europa.eu/europass

The first table (table 1) outlines the first training module, which is divided into three learning units. Those are focused on the strategies that managers have to implement in order to initiate strategic innovation. Based on being able to identify the processes and tools, managers will implement innovation at the correct pace and use all the resources at their disposal.

This second table (table 2) concerns the more theoretical part of the training programme, which contains three learning units. Those focus on the creation of a culture of innovation and the establishment of a transformational leadership within businesses. At the end of this second module, managers should be able to identify different types of innovation and distinguish between innovation and technological progress. Drawing on this knowledge, the participants will have the means for communicating on “new innovation” models, transform their management in transitional and inject a culture of innovation in their business.



Table 1 – Building an understanding of strategic innovation in a business context

	Learning Units	Knowledge	Skills	Autonomy and responsibilities
Building an understanding of strategic innovation in a business context	LU 1	Estimate the benefits linked to innovation	Identify the circumstances in which different kinds of innovation can create business opportunities	Elaborate strategies to adapt to an innovative environment
	LU 2	Outline the process to maximise a business' innovative potential	Prioritize the steps in an innovation plan and implement it gradually	
			Predict and evaluate the challenges that managers have to face when innovating	
	LU 3	Identify the tools that boost innovation	Motivate learners to elaborate innovative strategy plans for their firms	Value learners' improvements
			Identify internal and external resources that boost innovation	Adapt a business' Business Model in order for it to evolve with its innovating environment
				Adapt teaching methods to learners (and to their experience with innovation)



Table 2 – Introduce different typologies of innovation

	Learning Units	Knowledge	Skills	Autonomy and responsibilities
Introduce different typologies of innovation	LU 1	Compare and contrast incremental and radical innovation	Build a culture of innovation	Develop a transformational leadership
	LU 2	Define all eight types of innovation	Elaborate on "new models" and prove the need for change	Find new kinds of innovation
	LU 3	Define, compare and contrast "innovation" and "technological progress"	Elaborate on "new models" and prove the need for change	Find new kinds of innovation

Module descriptors

MODULE 1 – Building an understanding of strategic innovation in a business context

If the training programme is designed for managers, innovation should not concern only them. In fact, in order for a strategic change to happen, the whole team has to actively participate.

Therefore, VETs will first have to introduce managers to transformational leadership, a leadership type that truly inspires co-workers and allows for innovation culture to be injected in a firm. Briefly, a transformational leader can intellectually stimulate his employees, values and inspire them.

As research shows, new businesses tend to prefer “open innovation”, which highly takes into account external resources such as consumers in order to innovate their firm. This kind of innovation allows a firm to innovate more flexibly, test new processes or products rapidly and adapt easily. Online marketing research and consumer feedback and FabLabs are only two ways for doing this and both move the focus back to the final consumer, in order to adapt the production process.

BPI France has outlined the first steps of the strategic innovation process.

Firstly, one has to analyse their business through two questions, in order to understand what kind of innovation to take on:

1. How is my business innovative for my clients?
2. How can I be different from my competitors?

Secondly, and only once the framework has been established, managers can focus on what their business needs in order to innovate:

1. Human capital;
2. Advanced-skills employees;
3. Financial resources for their prototype and first tests;
4. Continuous financial support.

MODULE 2 – Introduce different typologies of innovation

Numerous studies have highlighted the importance of innovation as a critical success factor in business performance. By innovation, we do not necessarily refer to

technological progress. «Innovation” indicates the implementation of a new product, service, or process in a business.

We can divide “non-technological” innovation in two categories, which can be further detailed:

1. **Organisational innovation:** radical changes in the internal organisation of a business (policy, office, PR, ...);
2. **Commercial innovation:** radical marketing changes.

Both of these innovations affect a firm’s business model, and impacts its way of creating value. Both are of high importance as they allow a company to be more competitive by finding new ways of creating value.

A company’s business model encompasses different aspects. A manager can innovate different aspects, whereby all types of innovation do not have to be intended separately, but as a whole.

BPI France highlights the difference between incremental and radical innovation and distinguishes eight types of innovation.

- **Radical innovation VS Incremental innovation**
The first creates a new market, while the latter betters the existing market, but involves no significant changes.
- **Product, process, marketing, business model, technological, social innovation**
Product innovation: a new product or service is presented.
Process innovation: a new production or managerial process is adopted.
Marketing innovation: an innovation is introduced in a product’s 4Ps.
Business model innovation: adoption of a new revenue and cost structure.
Technological innovation: a new technology is developed or an existing one is significantly advanced.
Social innovation: the project responds to a social need which has not been addressed.

MODULE 1 – Building an understanding of strategic innovation in a business context

“Without problems there would be no reason to improve.” – Benjamin C. Jones

If the training programme is designed for managers, innovation should not concern only them. In fact, in order for a strategic change to happen, the whole team has to actively participate. Module 1 is focused on knowledge, skills, and competences that trainers will pass on to managers in order for them to innovate their business.

Module 1 is developed to introduce the relevance of building a culture of innovation and proving the need for change, as well as developing a transformational leadership. Those skills, autonomies and responsibilities are in fact a crucial pre-requisite for innovating a business.

Therefore, VETs will first have to introduce managers to transformational leadership, a leadership type that truly inspires co-workers and allows for innovation culture to be injected in a business. In short, a transformational leader can intellectually stimulate his employees and inspire them.

As research shows, new businesses tend to prefer “open innovation”, which takes into account external resources such as consumers in order to innovate their firm. This kind of innovation allows a firm to innovate more flexibly, test new processes or products rapidly and adapt with ease. Online marketing research, consumer feedback and FabLabs are ways for doing this and move both the focus back to the final consumer, in order to adapt the production process.

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1. Human capital;
2. Advanced-skills employees;
3. Financial resources for their prototype and first tests;
4. Continuous financial support

Learning Outcomes

Upon completion of this course, you should be able to:

- Identify the circumstances in which different kinds of innovation can create business opportunities;
- Prioritise the steps in an innovation plan and implement it gradually;
- Predict and evaluate the challenges that managers have to face when innovating;
- Motivate learners to elaborate innovative strategy plans for their businesses;
- Adapt a company's Business Model in order for it to evolve with its innovative environment;
- Develop an in-depth understanding of innovation and creativity;
- Acquire a way of thinking that promotes innovation.

Course Structure

This Module is comprised of 3 learning units for 35 hours of blended learning, as indicated in the training outline:

- face-to-face learning - 10,5 hours;
- self-directed learning materials – 7 hours;

The activities were designed to be easily adapted to online format and in that case, it will be up to the facilitator to decide the time to allocate to each activity.

1. Learning Unit 1: Innovation and the benefits of the innovations in business. Strategic innovations.
2. Learning Unit 2: Building a culture of innovation and proving the need for change.
3. Learning Unit 3: Tools that boost innovation in the companies. Internal and external resources and factors that boost innovation. Innovative strategies and plans.

Face-to-face learning

LU 1 – Innovation and the benefits of the innovations in businesses.

Strategic innovations.

Introduction to the topic

What Does Innovation Mean in Business?

Business innovation is the act of introducing something new to a company—it could be a new product, a new market strategy, a new method, etc. —in order to revive the company and promote new value and growth. Innovation is all about business leaders coming up with (or listening to) creative ideas, and then using strategic planning and decision-making to implement the new business ideas successfully. When a business innovates, it can either improve its existing products, processes, or methodologies, or it can create new ones from scratch.

Innovation can mean a single major breakthrough – e.g., a totally new product or service. However, it can also be a series of small, incremental changes.

Whatever form it takes, innovation is a creative process. The ideas may come from:

- inside the business, e.g., from employees, managers or in-house research and development work
- outside the business, e.g., suppliers, customers, media reports, market research published by another organisation, or universities and other sources of new technologies

Innovation is at the heart of entrepreneurship. All aspiring business owners should understand what innovation is, why it's important, and how they can take advantage of it in their own businesses.

Innovation refers to creating more effective processes, products, and ideas. For a business, it could mean the implementation of new ideas, improvement of services or creation of dynamic products. The innovation could act as a catalyst that can make every business grow and can help the managers to adapt in the marketplace.

In the world of business, there are many different types of innovation that a company might pursue. These are often related directly to individual products, internal processes or workflows, or business models. Some companies even embrace all three in an effort to spearhead growth while adapting to the ever-changing market.

Introducing innovation can help the managers to:

- improve productivity;
- reduce costs;
- be more competitive;
- build the value of their brand;
- establish new partnerships and relationships;
- increase turnover and improve profitability.

Businesses that fail to innovate run the risk of:

- losing market share to competitors;
- falling productivity and efficiency;
- losing key staff;
- experiencing steadily reducing margins and profit;
- going out of business.

Approaches to innovation

Innovation in a business can mean introducing new or improved products, services, or processes.

1. Step 1: Analyse the marketplace

There's no point considering innovation as a fixed process. To move their business forward, managers need to study their marketplace and understand how innovation can add value to their customers.

2. Step 2: Identify opportunities for innovation

Every manager can identify opportunities for innovation by adapting their product or service to the way your marketplace is changing.

Example: if you're a specialist hamburger manufacturer, you might consider lowering the fat content in your burgers to appeal to the health-conscious consumer.

OR

You could develop your business by starting to produce a completely new product – a vegetarian burger.

OR

You could innovate by introducing new technology or working practices – using better processes to give a more consistent quality of product.

Planning innovation

- Innovation as part of your business strategy.
- a strategic vision of how you want your business to develop – if you dedicate your time to monitoring trends in your business sector, you can then focus your innovative efforts on the most important areas.

Strategic innovation

Strategic innovation is an organization's process of reinventing or redesigning its corporate strategy to drive business growth, generate value for the company and its customers, and create competitive advantage. Strategic innovation often refers to innovation projects that occur at the executive level.

Strategic Innovation is the creation of growth strategies, new product categories, services or business models that change the game and generate significant new value for consumers, customers, and the corporation.

How to implement strategic innovation in a business

5 Steps for Developing Your Innovation Strategy

1. Determine objectives and strategic approach to innovation.
2. Know Your Market: Customers and Competitors.
3. Define Your Value Proposition.
4. Assess and Develop Your Core Capabilities.
5. Establish Your Innovation Techniques and Systems.

Benefits of innovation

Improved productivity and reduced costs

A lot of process innovation is about reducing unit costs. This might be achieved by improving the production capacity and/or flexibility of the business.

Better quality

By definition, better quality products and services are more likely to meet customer needs. Assuming that they are effectively marketed, that should result in higher sales and profits.

Building a product range

A business with a single product or limited product range would almost certainly benefit from innovation. A broader product range provides an opportunity for higher sales and profits and also reduces the risk for shareholders.

To handle legal and environmental issues

Innovation might enable the business to reduce its carbon emissions, produce less waste or perhaps comply with changing product legislation. Changes in laws often force business to innovate when they might not otherwise do so.

More added value

Effective innovation is a great way to establish a unique selling proposition ("USP") for a product – something which the customer is prepared to pay more for, and which helps a business differentiate itself from competitors.

Improved staff retention, motivation, and easier recruitment

Not an obvious benefit, but often a significant one. Potential good quality recruits are often drawn to a business with a reputation for innovation. Innovative businesses have a reputation for being inspiring places in which to work.

LU 2 – Building a culture of innovation and proving the need for change.

Introduction to the topic

This Learning Unit will focus on the key external and internal factors that influence a business and how to increase employee's engagement through creating a culture of innovation. It will explain how to implement various creativity tools within the company/organisation. This unit also provides information on what innovation culture is and which factors are indispensable for successful innovation activity.

What is innovation culture?

Innovation is a matter of innovation culture and leadership. Innovations can only develop in a culture of innovation that promotes creativity. Innovation activity in the company is to a large extent determined by an innovation-promoting culture that encompasses both "ability" (innovative ability), "willingness" (willingness to innovate) and "may" (innovation potential).

In order to generate ideas and turn them into sustainable innovations, employees must be supported and encouraged in the development of their creative potential. This requires, on the one hand, innovation-promoting and friendly management and, on the other hand, increasing the innovative capacity of employees through the development of specialized knowledge.

Innovative action cannot occur as a linear process. It must be internally motivated in order to establish a lasting culture of innovation in the company. This means that the company needs committed employees with imagination, who are ready to go beyond the usual ways of thinking and acting in order to develop an innovation from an idea. Motivated managers and the development of innovation culture increase the desire for innovation.

Permission is the necessary precondition for a real transition from "ability" and "will" to action. Therefore, framework conditions must be created within a company to offer employees the opportunity to think and act innovatively and creatively.

Corporate culture versus innovation culture

The culture of a company determines the relationships and actions of its employees within the company and shapes its external appearance. It is not openly visible, but shows itself indirectly through values, norms, attitudes and paradigms that employees share collectively.

The culture of innovation, on the other hand, describes a specific form of corporate culture that is primarily intended to promote the development of innovations within the company. Since innovation processes are generally cross-divisional processes, the innovation culture functions as a kind of cross-cutting culture, whose standards and values are shaped and supported by all process participants. A positive innovation culture creates incentives for employees and leads to an increase in the innovative strength of the company.

Knowing how vital it is in reinforcing creativity and innovation performance, businesses have constantly tried to apply this concept in their day-to-day activities.

“Engaged employees drive innovation”. – Kelleher

In the modern global economy, where ideas and digital skills – rather than physical resources are increasingly where economic value is realised, human resource can be a company’s greatest treasure. In general, the employees can be either a strength or weakness of the company depending on the level of practical skills, attitudes toward work, performance and so on. For example, if a business has skilled and motivated workers, they are sure to be the biggest asset of this enterprise.

In the opposite case, employees who lack training and have negative attitudes towards tasks, will pose challenges for the company to address. In short, the manager should have a strategic and effective human management not only for the sake of company, but also for the positive development of the employees.

Usually, the employees at the front line know what the challenges are and often know how to solve the issues. Shared governance (for example an employee council) provides a strong framework for innovation.

Involving employees in innovation processes requires the existing corporate culture to change and evolve. It is well known that changing culture, which has been established for decades, is not an easy task and is often met with resistance. Therefore, many companies instead look for ideas outside of the organisation. At the same time, they lose the ability to innovate internally.

Companies need to approach innovation and change effectively and proactively. They have to implement policies that encourage change and innovation. Innovation needs to start at the top, with senior management developing policies and empowering staff to implement them.

A company needs to provide the employees with an incentive to innovate. Without a reward, there is no good reason for employees to initiate or implement new ideas. The first step in creating an innovative organization is to incorporate change in the employee's goals, performance management process and remuneration.

Unfortunately, not every innovation technique will succeed. There are many unknown variables associated with any innovative idea that can prevent its success. Once the project is underway, it is not uncommon to find that achieving the goals cost more than expected, which leads to the termination of the project. Many successful entrepreneurs have failed multiple times.

Innovative companies learn from failures and use them as starting points for moving forward. These businesses think of failures not as ideas that have gone wrong, but rather as proof what doesn't work for the company. Failure also enables organizations to measure success.

Strategies capable of producing innovation require resources and energy; it is therefore necessary to discuss in your business plan the organizational structures and practices you will put in place to encourage and support innovation. Amabile (1998) points to six general categories of effective management practices that create a learning culture within an organization:

1. Providing employees with a challenge
2. Providing freedom to innovate
3. Providing the resources needed to create new ideas/products
4. Providing diversity of perspectives and backgrounds within groups

5. Providing supervisor encouragement
6. Providing organizational support

LU 3 – Tools that boost innovation in the companies. Internal and external resources and factors that boost innovation. Innovative strategies and plans.¹

Introduction to the topic

This last Learning Unit will focus on the tools that companies/organisations can use for boosting innovations. It also makes an overview of the importance of internal and external factors that can influence a firm's incentives to innovate, the types of innovation activities that it undertakes, and its innovation capabilities and outcomes. The unit presents the practical application of innovations and importance of innovation strategies.

The creativity tools are used during a regular innovation process. Teams should **generate new ideas** to explore their **feasibility** as proper business models.

The most popular tools for innovation could be divided into two groups:

- Divergence tools – this is to generate as many ideas as possible
- Convergence tools – to analyse, filter and merge ideas in order to select the best ones.

¹ Purcell, W. (2021, May 28). *The Importance of Innovation in Business* | Northeastern University. Northeastern University Graduate Programmes. Retrieved 24 February 2022, from <https://www.northeastern.edu/graduate/blog/importance-of-innovation/>

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Business Environment

Business environment is the sum total of all external and internal factors that influence a business. You should keep in mind that external factors and internal factors can influence each other and work together to affect a business. For example, a health and safety regulation are an external factor that influences the internal environment of business operations. Additionally, some external factors are beyond your control. These factors are often called external constraints.

Innovation can be both internal and external, and which one the company or organisation chooses depends on its goals and resources.

Internal and external environment factors

There are various internal and external factors depending on the size, type, and business status. If a business wants to be successful in the marketplace, it is necessary the managers to fully understand what factors exert impact on the development of their company. Once they know about both positive and negative effects within and outside the company, they can produce suitable strategies to handle any predicted situation. Therefore, examining internal and external factors is considered the most important task for an enterprise before launch any strategic marketing plan.

Internal Environment Factors

The internal factors refer to anything within the company and under the control of the company no matter whether they are tangible or intangible. These factors after being figured out are grouped into the strengths and weaknesses of the company. If one element brings positive effects to the company, it is considered as strength. On the other hand, if a factor prevents the development of the company, it is a weakness. Within the company, there are numerous criteria need to be taken into consideration.

There are 14 types of internal environment factors:

1. Plans & Policies
2. Value Proposition
3. Human Resource
4. Financial and Marketing Resources

5. Corporate Image and brand equity
6. Plant/Machinery/Equipment (or you can say Physical assets)
7. Labour Management
8. Inter-personal Relationship with employees
9. Internal Technology Resources & Dependencies
10. Organizational structure or in some cases Code of Conduct
11. Quality and size of Infrastructure
12. Task Executions or Operations
13. Financial Forecast
14. The founder's relationship and their decision-making power.

External Environmental Factors

On the contrary to internal factors, external elements are affecting factors outside and under no control of the company. Considering the outside environment allows businessmen to take suitable adjustments to their marketing plan to make it more adaptable to the external environment.

There are numerous criteria considered as external elements. Among them, some of the most outstanding and important factors are current economic situation, laws, surrounding infrastructure, and customer demands.

Micro factors:

1. Customers
2. Input or Suppliers
3. Competitors
4. Public
5. Marketing & Media
6. Talent

Macro factors:

1. Economic
2. Political/legal
3. Technology

4. Social
5. Natural

Fostering Innovation

The innovation strategy is a common innovation mission and a detailed plan that aims to create new value that customers are willing to pay for. It includes a set of policies or behaviours aimed at achieving future organizational growth.

Some innovations are based on technology development, while others are based on innovative business processes. Both types are valuable and important. An innovation strategy should include the types of innovation that are priorities for the business.

What is an ideal innovation strategy? A strategy that answers these three big questions is on to a killer start:

- 1. Where are you now?**

Start with Innovation Assessment. This is the 'where are you now?' part of the strategy. In this, you find out what already works in your company for innovation.

- 2. Where do you want to be?**

This is the 'where you want to go' part of the strategy. And this will shape your innovation mission statement. There are 3 different motivations: strategic, financial and hybrid of both strategic and financial.

- 3. How will you get there?**

Find your innovation type. This is the 'how will you get there?' part of the strategy. This is where you map your company's objectives with the types of innovation you want to execute.

Self-directed learning

<i>Self-directed learning resource #1</i>	
<i>Title</i>	A Framework for Strategic Innovation
<i>Duration</i>	1 hour
<i>Where can you find it?</i>	https://www.innovation-point.com/Strategic%20Innovation%20White%20Paper.pdf
<i>Why is this resource important?</i>	The resource provides a blending strategy and creative exploration to discover future business opportunities.
<i>What will you learn from this resource?</i>	The differences between traditional approaches to strategy and Strategic Innovation The seven dimensions of the strategic innovation The sustainable innovation as an ongoing competitive advantage Brief assessment “Does your organisation practice Strategic Innovation?”

<i>Self-directed learning resource #2</i>	
<i>Title</i>	<i>Creating the Culture for Innovation. A Practical Guide for Leaders</i>
<i>Duration</i>	1h 30 minutes
<i>Where can you find it?</i>	https://www.england.nhs.uk/improvement-hub/wp-content/uploads/sites/44/2017/11/Creating-the-Culture-for-Innovation-Practical-Guide-for-Leaders.pdf
<i>Why is this resource important?</i>	This guide is a resource for clinical leads, managers, commissioners, executives, and innovation and service improvement leads in NHS provider, commissioning, and regulating organisations, who, either by themselves or through coaching others, wish to assess and enhance the cultures for innovation in their teams, departments, organisations and systems.
<i>What will you learn from this resource?</i>	This guide describes: <ul style="list-style-type: none"> - the seven dimensions that impact on culture for innovation; - three ways to use the framework of the seven dimensions to identify and address gaps; - the NHS Institute’s online Culture for Innovation survey and benchmarking tool; - thirty-seven tips for enhancing the culture for innovation.

<i>Self-directed learning resource #3</i>	
<i>Title</i>	<i>Innovation Culture – The Ultimate Guide</i>
<i>Duration</i>	30 min
<i>Where can you find it?</i>	https://www.viima.com/blog/innovation-culture#examples
<i>Why is this resource important?</i>	It describes the importance of innovation for businesses, and society in general, and the fact that culture has shown to be one of the biggest barriers for innovation performance.
<i>What will you learn from this resource?</i>	<ul style="list-style-type: none"> - What is an innovation culture? - Why is an innovative culture so important? - What makes a culture innovative? - Examples of innovative company cultures - a better understanding of what innovative company cultures look like in practice

<i>Self-directed learning resource #4</i>	
<i>Title</i>	<i>How to define your innovation goals and innovation objectives (Guide) and CASE STUDY: SUCCESSFUL INNOVATION – HOW IKEA INNOVATES</i>
<i>Duration</i>	30 min
<i>Where can you find it?</i>	https://www.acceptmission.com/blog/innovation-goals-and-objectives/ https://paulshepherd.co/successful-innovation-case-study/
<i>Why is this resource important?</i>	<p>The resource is important as it describes how a goal differs from two other terms that are often associated with it – key performance indicator and target. It provides examples of innovation goals and innovation objectives.</p> <p>In addition, the innovation case of IKEA presents the way that this successful company carries innovation deep within its philosophy, constantly looking for ways to improve or come up with new service propositions.</p>
<i>What will you learn from this resource?</i>	<ul style="list-style-type: none"> - Micro and macro innovation goals, how to turn these goals into objectives and the way to measure the impact of innovations. - What makes IKEA a successful innovation company for 79 years.

MODULE 2

“Innovation is taking two things that exist and putting them together in a new way.” – Tom Freston

Numerous studies have highlighted the importance of innovation as a critical success factor in business performance. By innovation, we do not necessarily refer to technological progress, “innovation” indicates the implementation of a new product, service, or process in a business.

We can divide “non-technological” innovation in two categories, which can be further detailed:

3. **Organisational innovation:** radical changes in the internal organisation of a firm (policy, office, PR, ...);
4. **Commercial innovation:** radical marketing changes.

Both these kinds of innovations affect a firm’s business model, so its way of creating value. Both are therefore very important as they allow a company to be more competitive by finding new ways of creating value.

A firm’s business model englobes different aspects at once, a manager can innovate different aspects of it. Therefore, all types of innovation do not have to be intended separately, but as a whole.

BPI France makes a difference between incremental and radical innovation and distinguishes eight types of innovation.

- **Radical innovation VS Incremental innovation**
The first creates a new market, while the latter betters the existing market, but involves no significant changes.
- **Product, process, marketing, business model, technological, social innovation**
Product innovation: a new product or service is presented.
Process innovation: a new production or managerial process is adopted.
Marketing innovation: an innovation is introduced in a product’s 4Ps.
Business model innovation: adoption of a new revenue and cost structure.
Technological innovation: a new technology is developed or an existing one is significantly advanced.
Social innovation: the project responds to a social need which has not been addressed.

Learning Outcomes

Upon completion of this course, you should be able to:

- Compare and contrast incremental and radical innovation;
- Define all eight types of innovation;
- Define, compare and contrast "innovation" and "technological progress";
- Build a culture of innovation;
- Develop a transformational leadership;
- Elaborate on "new models" and prove the need for change;
- Find new kinds of innovation.

Course Structure

This Module is comprised of 3 learning units for 35 hours of blended learning, as indicated in the training outline:

- face-to-face learning - 10,5 hours;
- self-directed learning materials – 7 hours;

The activities were designed to be easily adapted to online format and in that case, it will be up to the facilitator to decide the time to allocate to each activity.

1. Learning Unit 1: Incremental VS radical innovation.
2. Learning Unit 2: Innovation-S.
3. Learning Unit 3: Innovation VS Technological progress.

Face-to-face learning

Module 2 is developed to focus on analysing and defining different types of innovation and distinguishing between innovation and technical progress. Innovation is known as a critical success factor in business performance; therefore, it is crucial for entrepreneurs to be aware of the different types of innovation and to be able to consider them not separately, but as a whole.

As research has shown, we can distinguish eight types of innovation, which are:

- Radical innovation;
- Incremental innovation;
- Product innovation;
- Process innovation;
- Marketing innovation;
- Business model innovation;
- Technological innovation;
- Social innovation.

Besides focusing on the mentioned knowledge, module 1 will also introduce the relevance of building a culture of innovation and proving the need for change, as well as developing a transformational leadership. Those skills, autonomies and responsibilities are in fact a crucial pre-requisite for innovating a business.

VET tutors are challenged to present learners with the previously mentioned content and skills throughout a session. They can raise awareness among learners using the proposed content and exercises and recommend complementary resources to trainees.

LU 1 – Incremental VS radical innovation

Introduction to the topic

Incremental and radical innovation are similar, yet very different concepts. The first is defined as the ability to develop innovative products for a specific sector or that can be adapted to many. The latter can be defined as the ability to improve existing products, services or processes. Thus, this kind of innovation aims at making progress in the same market.

With **radical innovation**, entrepreneurs aim at producing innovation in order to replace existing products, services or processes. These are radically different than the previous ones, and often lead to the creation of a new market. In fact, when facing new products/services, consumers often develop new needs. Hence, radical innovation often leads to disruption in an industry and in the lives of consumers. The GPS, the internet, the fridge, the television, etc. are all examples of radical innovations that have led to the development of new consumer needs and opened new markets.

It is important to note that when engaging into radical innovation, entrepreneurs have to create a significant financial turnover, allowing them to stay in business even when the radical innovation will be adopted by its competitors. Also, this advantage can give a company the ability to own a whole new market (or even establish a monopoly), at least for a while, allowing it to set the rules for creating profit.

However, radical innovations often require very significant technical, human and financial resources. For this reason, such an innovation has very long-term payback periods. Radical innovations are therefore not easily achieved by all companies. Moreover, they often engage in radical innovation without knowing what the economic return will be. Timing must be perfect, in order to deliver the new product to the right people at the right time. Consumers might very slowly integrate the new product or service in their habits.

When talking about radical innovation, Kodak is often taken as an example. Despite a popular misconception, this business hasn't been outdone by digital photography. At the beginning of the '70s, Kodak almost hold the monopoly on the photography market, at each stage of the development process of photos. Being in this position, this business could have marketed the first digital camera in 1978. But Kodak's marketing and sales

department refused to put it on the market, fearing that it would negatively affect film sales, of which Kodak was the leader. This would have had negative economic consequences. A couple of decades later, Sony, Canon and Nikon developed their own digital cameras. In 1993, the CEO of Kodak finally pushed its company into the digital market and marketed its first digital camera in 1994. However, it was too late, that market was already saturated.

As opposed to the first one, **incremental innovation** takes place gradually: it is not intended to fundamentally change one product or service, nor to overthrow the dominant technology already existing on the market.

This type of innovation is perhaps less noticeable than radical innovation, but it nevertheless transforms deeply the market and, as a consequence, businesses.

For example, incremental innovation can take effect over one of the following elements:

- Improving quality: introducing the use of new, high-performance materials, having better customer relationship, ...
- Adding features: adding “small” new functionalities to smartphones to improve the users’ experience.
- Introducing a new cost reduction strategy, which reduces the final cost for the consumer. We can take as an example the advent of “low cost” air companies (Easy-Jet, Ryan Air).

Incremental innovation involves a lower financial risk, because customers have already used the product or benefited from the service proposed. Therefore, the company needs to put a smaller effort in communicating the innovation to its customers and less R&D resources are involved.

When talking about incremental innovation, the smartphone industry is a perfect example. Although the release of the first iPhone is an example of breakthrough innovation, very quickly many competitors delivered smartphones. At this time, these companies strive to improving their products at the quickest rate and as much as possible, by integrating new features or by improving the quality of the existing ones

(improving the quality of cameras, storage memory, screen size and resolution, weight, battery life, ...).

To conclude, it is possible to use two criteria to differentiate between radical and incremental innovation:

4. Internal criteria, based on the company's knowledge and resources.

If a company wants to engage into incremental innovation, it will build on the knowledge and resources already existing within the company, which means that it will strengthen its competitiveness in the market. Conversely, radical innovation will require completely new knowledge and/or resources.

5. External criteria, based on technological changes and their impact on the market.

A business that wants to create incremental innovation will apply small technological changes to the existing product or service, which will remain competitive in the market. On the other hand, a radical innovation will involve major technological advancements, creating a whole new product that will be more competitive in the market and will make the previous one obsolete.

Self-directed learning

<i>Self-directed learning resource #1</i>	
<i>Title</i>	<i>Radical or Incremental Innovation? (University of Sussex)</i>
<i>Duration</i>	10 minutes
<i>Where can you find it?</i>	https://www.youtube.com/watch?v=c6WK2oHyqT8
<i>Why is this resource important?</i>	It is important for the reader to study students know the two main categories of innovation
<i>What will you learn from this resource?</i>	<ul style="list-style-type: none">- Incremental innovation- Radical innovation- Concrete examples for each of the two categories

<i>Self-directed learning resource #2</i>	
<i>Title</i>	<i>Types of Innovation – The Ultimate Guide with Definitions and Examples</i>
<i>Duration</i>	1 hour
<i>Where can you find it?</i>	https://www.viima.com/blog/types-of-innovation
<i>Why is this resource important?</i>	It is important for the reader to study examples of types of Innovation
<i>What will you learn from this resource?</i>	<ul style="list-style-type: none">- The innovation matrix- Incremental innovation & radical innovation- Other types of Innovation

Self-directed learning resource #3

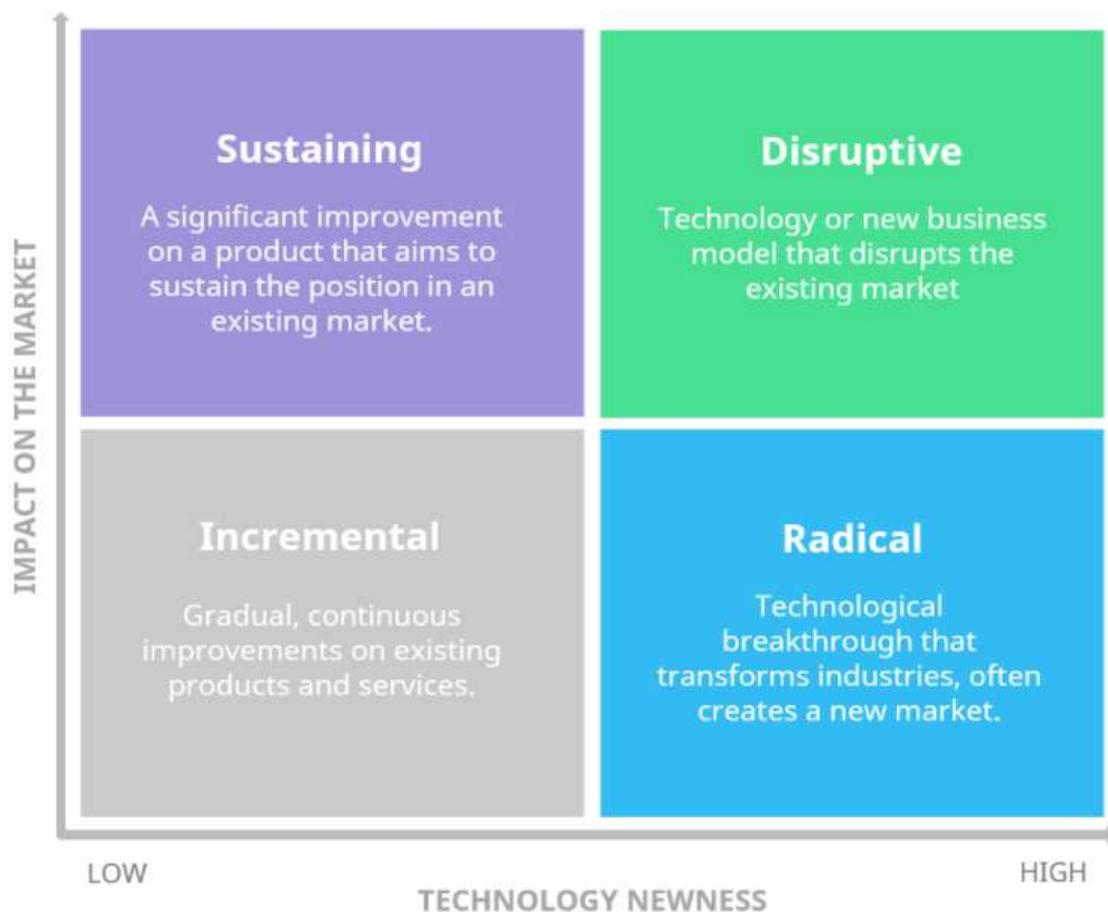
<i>Title</i>	<i>Radical Versus Incremental Innovation: The Importance of Key Competences in Service Firms</i>
<i>Duration</i>	1 hour
<i>Where can you find it?</i>	https://www.timreview.ca/article/781
<i>Why is this resource important?</i>	It is important for the reader to study the importance of key competences in (service) firms
<i>What will you learn from this resource?</i>	<ul style="list-style-type: none"> - How different knowledge-based antecedents influence the ability of service organizations to innovate. - The findings point to managerial challenges in creating and balancing the types of competence needed, depending on type of innovation targeted by an organization.

LU 2 – Innovation-S

Introduction to the topic

Innovation is hardly a unique process. As we learned in LU 1, innovation can either be radical or incremental, but it is important to also analyse innovation based on the aspects of products and services that it addresses.

Already in the 1940s, the economist Joseph Schumpeter identified and analysed five forms of innovation, applied to products, processes, production methods, outlets raw materials. In more recent times, BPI France studied in the book “New Generation Innovation: innovation under a new perspective.²” six types of innovation (product, service, usage innovation; process and organisation innovation; marketing and sales innovation; business model innovation; technological innovation; social innovation). In this publication, the author discusses innovation as the complex process it is, combining both incremental and radical innovation.



² “Innovation Nouvelle Génération : un nouveau regard sur l’innovation”

1. Product, service and usage innovation

The *OECD* defines this first kind of innovation as *"The introduction of a new or significantly improved good or service in terms of its characteristics or of the use for which it is intended."* This definition includes significant improvements in technical specifications, components and materials, embedded software, usability or other functional characteristics.

E.g.: GoPro cameras used for sports.

E.g.: Smartphones and the use of the Apple Store.

2. Process and organisation Innovation

The *OECD* defines process innovation as *"The implementation of a new or significantly improved production or distribution method."* This implies that significant changes have been made in the techniques applied, hardware and/or software exploited.

On the other hand, organisation innovation is *"The implementation of a new organizational method in the practices, the organization of the workplace or the external relations of the firm."*

E.g.: Clothing collection at Zara are continuously renewed thanks to a flexible supply chain management.

3. Marketing and sales innovation

The *OECD* defines this as *"A new marketing method involving significant changes in the design or packaging, placement, promotion or pricing of a product."*

E.g.: The personalized recommendations on Netflix based on the customers' interests and last movies and series watched.

4. Business model innovation

When entrepreneurs innovate their business model, they essentially reorganise their revenue and cost structure.

E.g.: the vast majority of social networks are free of charge for their users, but they sell their personal data to third parties.

E.g.: Originally, many businesses in the video games industry charged consumers a subscription fee or made them pay in order to unlock levels or features. Some of those companies have since then innovated their business model and made their games free of charge, while incorporating in-app advertising and selling merchandise.

5. Technological innovation

Technical innovation is certainly the most visible. It addresses technical aspects of products and services, by improving their performance (adding features, skills, making it more user friendly, ...) or by creating new, technologically advanced, product.

E.G.: Wandercraft is a company that markets exoskeletal robots that enable paraplegic disabled people to walk again.

6. Social Innovation

The European Commission has defined this last kind of innovation as *“The development and implementation of new ideas (products, services and models) to meet social needs and create new social relationships or collaborations.”*. It has to be noted that social innovation is social in “both in their aims and in their means”, meaning that it addresses a social aspect of a service and uses human resources in order to tackle it.

E.g.: the company Aleph Farm is specialised in the production of meat. This business goes through ecological and ethical processes as an alternative to animal exploitation.

E.g.: Repair Cafés are also another example. They are places in which tools and equipment are made available, in order for consumers to repair clothes, household appliances, bicycles, or other everyday objects.

Self-directed learning

<i>Self-directed learning resource #1</i>	
<i>Title</i>	<i>Oslo Manual 2018</i>
<i>Duration</i>	10 hours
<i>Where can you find it?</i>	https://www.oecd.org/science/oslo-manual-2018-9789264304604-en.htm
<i>Why is this resource important?</i>	It is important for the reader to study students know proposed guidelines for collecting and interpreting innovation data
<i>What will you learn from this resource?</i>	<ul style="list-style-type: none"> - Concepts and definitions for measuring business innovation - Measuring business capabilities for innovation - Measuring external factors influencing innovation in firms - Objectives and outcomes of business innovation

<i>Self-directed learning resource #2</i>	
<i>Title</i>	<i>Guide Innovation Nouvelle Generation</i>
<i>Duration</i>	1 hour
<i>Where can you find it?</i>	https://www.bpifrance.fr/nos-actualites/innovation-nouvelle-generation-un-nouveau-regard-sur-linnovation
<i>Why is this resource important?</i>	It is important for the reader to study examples of different kind of Innovation
<i>What will you learn from this resource?</i>	<ul style="list-style-type: none"> - Innovation of product, service, use - Process and organizational innovation - Marketing and sales innovation - Business model innovation - Technological innovation - Social innovation

<i>Self-directed learning resource #3</i>	
<i>Title</i>	<i>Guide to social innovation</i>

<i>Duration</i>	2-3 hours
<i>Where can you find it?</i>	https://op.europa.eu/en/publication-detail/-/publication/12d044fe-617a-4131-93c2-5e0a951a095c
<i>Why is this resource important?</i>	It is important for the reader to study the importance of social innovation
<i>What will you learn from this resource?</i>	<ul style="list-style-type: none"> - What is Social Innovation - Why opt for social innovation? - Foster Social Innovation - Examples of social innovation funded by the Structural Funds

LU 3 – Innovation VS Technological progress

Introduction to the topic

This last Learning Unit will focus on the differences between innovation and technological progress. These two terms are, in fact, confused and often used as synonyms; for example, when we hear about a business developing a new technical feature, we immediately think about innovation. Realistically, technical progress represents innovation, but the two are not always linked, and there can be innovation without any technological progress.

Before moving on to comparing and contrasting technological progress and innovation, it is worth to mention the definitions of the two terms:

- **Innovation:** the process of making an idea or invention into a good or service that creates value and/or for which customers will pay³.
- **Innovation:** the development and application of ideas and technologies that improve goods and services or make their production more efficient⁴.
- **Technological progress:** Invention or discovery of new or improved methods of producing goods or delivering services⁵.
- **Technological progress:** invention and continual improvement of technologies, their release as open source via research and development⁶.

As it appears from these definitions, technology and innovation are not exactly at opposite poles. The latter can, for example, produce new technologies, or the first can be used as a mean to test innovations. However, not all innovation processes result in technological progress. In fact, it is possible to innovate without turn to technology: we can, for example, apply changes in processes or in daily tasks.

In addition, we can state that if technology is tangible, innovation can also be intangible, as it focuses more on human processes, rather than on developing new tools, materials,

³ Canive, T. (2020, June 4). *10 Examples of Innovation*. Online Project Management. Retrieved 2 February 2022, from <https://www.sinnaps.com/en/project-management-blog/examples-of-innovation>

⁴ European Central Bank. (2021, November 18). *How does innovation lead to growth?* Retrieved 2 February 2022, from <https://www.ecb.europa.eu/ecb/educational/explainers/tell-me-more/html/growth.en.html>

⁵ Corporate Finance Institute. (2021, February 9). *Technological Progress*. Retrieved 2 February 2022, from <https://corporatefinanceinstitute.com/resources/knowledge/economics/technological-progress/>

⁶ Corporate Finance Institute. (2021, February 9).

devices⁷. That said, it is important to note that both innovation and technological progress are related to economic growth, as it was demonstrated by the National Innovation System implemented by China and India between 1981 and 2004. During this timeframe, both countries heavily invested in R&D and experienced a substantial increase of GDP⁸. Indeed, both an innovative process and a new (innovative) technology generate competitive advantage.

Furthermore, innovation requires curiosity, a diverse team, iteration and has to diverge from current methodologies. On the contrary, technological progress is built upon former ideas. All technologies have a well determined life cycle: they are first innovative, then they are spread among users before becoming obsolete and being replaced by new ones. It is up to developers to understand current trends, anticipate new ones and apply changes to previous technologies to invent others, more efficient ones⁹. This point is particularly important. Innovation is disruptive: it has to create “new ways of doing things”¹⁰ and it is expensive and hard to implement. Since it targets human processes, it is linked to the context where it is applied, therefore no innovation is adapted to all businesses. On the other side, new technologies can be adopted by various businesses around the world as they can be bought or used for free.

To conclude, in order to carry through innovation, leaders have to establish an innovation culture in their business¹¹, make sure that their employees will accept the radical change and adapt their ways of working to it. This process is not needed if a business starts using a new technology.

Self-directed learning

Self-directed learning resource #1

⁷ Callegaro, A. (2017, July 14). *Why innovation and technology aren't the same*. UNHCR Innovation. Retrieved 7 February 2022, from <https://www.unhcr.org/innovation/innovation-technology-arent-the-same/>

⁸ LUMEN. (n.d.). *Technology and Innovation | Boundless Management*. <https://Courses.Lumenlearning.Com/>. Retrieved 7 February 2022, from <https://courses.lumenlearning.com/boundless-management/chapter/technology-and-innovation/>

⁹ LUMEN. (n.d.).

¹⁰ Broughel, J., & Thierer, A. (2019, 15 September). *Technological Innovation and Economic Growth : A Brief Report on the Evidence*. Mercatus Center. Retrieved 8 February 2022, from <https://www.mercatus.org/publications/entrepreneurship/technological-innovation-and-economic-growth>

¹¹ Broughel, J., & Thierer, A. (2019, 15 September).

Title	<i>Technological Progress, Innovation and Economic Growth; the Case of Turkey</i>
Duration	1 hour
Where can you find it?	https://www.sciencedirect.com/science/article/pii/S1877042815039579
Why is this resource important?	It is important for the reader to study examples of economic growth triggered by technological progress.
What will you learn from this resource?	<ul style="list-style-type: none"> - Economic structure of Turkey and its evolution over the last three and a half decades. - Investments made by Turkey on technological progress. - Relation between technological progress and economic growth.

Self-directed learning resource #2

Title	<i>3 ways that modern technologies are accelerating innovation</i>
Duration	30 minutes
Where can you find it?	https://www.ericsson.com/en/blog/2018/6/3-ways-that-new-technologies-are-accelerating-innovation
Why is this resource important?	This resource is important as it explores the relation between innovation and technological progress shifting the roles: in this article the latter generates the first.
What will you learn from this resource?	<p>How technological progress:</p> <ul style="list-style-type: none"> - Contributes to fund new markets; - Is a vehicle for innovation; - Is an enhancer of human capabilities.

Self-directed learning resource #3

Title	<i>UK higher education institutions' technology-enhanced learning strategies from the perspective of disruptive innovation</i>
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<i>Duration</i>	1 hour
<i>Where can you find it?</i>	https://journal.alt.ac.uk/index.php/rlt/article/view/1987
<i>Why is this resource important?</i>	This case study is interesting because it addresses what relation exists between innovation and technological progress in a higher education context.
<i>What will you learn from this resource?</i>	This resource gives the reader an insight into how disruptive innovation is linked to and promoted by technology-enhanced learning in higher education in the United Kingdom.

<i>Self-directed learning resource #4</i>	
<i>Activity title</i>	<i>Sustainability of SMEs in the Competition: A Systemic Review on Technological Challenges and SME Performance</i>
<i>Duration</i>	1 hour
<i>Where can you find it?</i>	https://ideas.repec.org/a/gam/joitmc/v5y2019i4p100-d297365.html
<i>Why is this resource important?</i>	This resource is important as it proposes an analysis in a well-defined context (SMEs). It is crucial for learners to have real examples of how technological progress (enhanced by innovation) can generate sustainable economic growth.
<i>What will you learn from this resource?</i>	<ul style="list-style-type: none"> - How technological progress is linked to SMEs improvement in the global competition. - Six driving forces of technological progress in SMEs.

How to tackle the learning outcomes matrix

When it comes to completing a curriculum, VET tutors have to establish learning outcomes in order to actively engage learners in co-managing their learning process.

Using a learning outcomes matrix is beneficial on many aspects. For instance, as long as certifications are concerned, it contributes to:

- Better matching of acquired qualifications with labour market expectations.
- Better recognition of learning achievement by any education and training system regardless of where they were acquired.
- Ensure more flexibility for training centres in the process of achieving the defined results.

What are the learning outcomes?

Learning outcomes have been defined as a statement of what a learner is expected to know, understand, or be able to do at the end of a learning process.

Learning outcomes have been classified into various categories in different settings. The EQF classifies learning outcomes into knowledge (facts, principles and concepts), skills (cognitive and practical) and competences (such as ability to take responsibility and show autonomy).

Learning outcomes need to be written so that they are fit for purpose – for setting occupational and educational standards, for describing single qualifications and curricula, for outlining assessment criteria and for orienting learning and teaching processes.

When VET trainers use learning outcomes to judge the learning process of an individual, the attention is directed towards what the learner knows, understands and is able to do regardless of the learning process that he/she has followed.

Using learning outcomes is also likely to enable learners to have a clearer idea of the objectives they are to meet, encourage them to take initiative in the learning process and be more responsible while managing it.

The performance expectations of the learning outcomes approach are higher than ever. Many see the shift towards this approach as:

- An opportunity to tailor education and training to individual needs (to promote “active learning”).
- A way of reducing barriers to lifelong learning.
- A chance to increase the accountability of education and training institutions and systems.
- A common language enabling a better dialogue between the education system and the labour market stakeholders.¹²

In order to ensure continuous improvement of trainees learning, it is important that each programme undergoes formal, systematized, and regular assessment of their learning.

How to make a learning outcomes and assessments matrix

All learning outcomes and assessments matrix should be clearly built and should include the following categories.

- Trainees learning outcomes
List the learning outcomes; one outcome per row.
- Active/collaborative learning activity
List activities (either in class or out) that are related to the learning outcome; if none, record NA. (Active = manipulating something physically or mentally). The emphasis here is on collaborative activities, which are inherently active. There is no to assess this kind of activity.
- Assessment measures – general information
State what you are assessing, who assessed it and how it is assessed (be concrete). If you use rubrics, attach a copy.

¹² https://www.cedefop.europa.eu/files/Using_learning_outcomes.pdf

- Assessment measures: direct
List the assessments that provide performance information regarding the learning outcome. Label each assessment as a, b, c, and so on.
- Assessment measures: indirect
Record any student opinion related to the activity and/or learning outcome; if none, record NA.
- Performance criteria
If you have performance criteria (e.g., 80% of the class will achieve satisfactory status or better on the assessment), state them here.
- Results: data
Present a concise summary of the data from the assessments (direct and indirect). The term data is used to refer to the information gathered from your assessments.
- Reflection and actions to be taken
Present your comments or conclusions about the data related to the learning outcome. State how you plan to address the discrepancy between the results and the outcomes, if any, or state any changes you plan to make. It is ok to state , “Continue with current outcome and assessments,” but not for every outcome.¹³ Changes should be made in order to continuously adapt and improve the teaching and learning processes.

¹³ http://majorrett.people.ua.edu/uploads/1/3/8/0/13807995/gable_matrix.pdf



SIS-SME

Building strategic innovation skills within SMEs



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