

# Deep.

Module title:

## **Basics of Digital Entrepreneurship for Business Competitiveness**

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**At the end of this module you will be able to:**

- Exploit the fundamentals of digital markets
- Have a full understanding of the opportunities emerging from the IT ecosystem
- Support your growth through digital solutions for management
- Identify EU funding solutions for your business



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Unit 1:

## ICT and Digital Solutions for Business Competitiveness

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The basic assumption of a “data-driven” organisation is that data and digital information are as relevant and strategic as any other financial, economic and tangible resource detained by the firm.

Data management professionals represent a key figure to guide and orientate the organisation within digital landscapes.



Unit 1 - ICT and Digital Solutions for Business Competitiveness  
Section 1.1: Fundamentals of Data-driven culture

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Data-driven culture is the new “dictionary” for firm profitability in digital ecosystems and as such it requires in-depth educational and training commitment.



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Although Data Science Methodologies found their first applications in Nature and “Hard” fields of research (i.e. mathematics, biology, physics, etc.), even social sciences greatly exploited the opportunities granted by such a whole new set of tools.



In business and entrepreneurial frameworks, data play a pivotal decision making role within a great number of settings.

# Unit 1 - ICT and Digital Solutions for Business Competitiveness

## Section 1.1: Fundamentals of Data-driven culture

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The Data Analytics cycle, Source: [www.yokogawa.com](http://www.yokogawa.com)



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## Sales and Advertisement:

Data support Marketing executives in the assessment of numerous customers-related and strategic information, such as: loyalty, turnover, demographics, purchasing behaviour, brand perception, etc.



## Competitors:

Large sets of data allows firms and executives to match, analyse, and possibly intercept, highly meaningful market trends that might impact their economic and financial sustainability. Being in the position to know something that others currently ignore stands as one the most precious competitive advantage ever detachable by an organisation.



## Benchmarking:

Sometimes, it might happen that others have been the first to gain a “private” insight within relevant market dynamics. For all these cases, data-driven benchmarking activities allow firms to narrow a very concerning strategic gap.



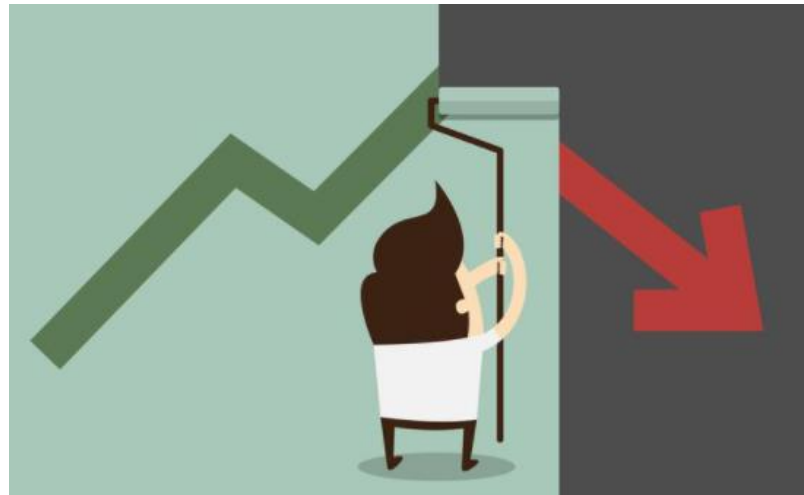
## Scenario-making:

Plausible future scenarios in which firms orientate their objectives, plans and strategies.



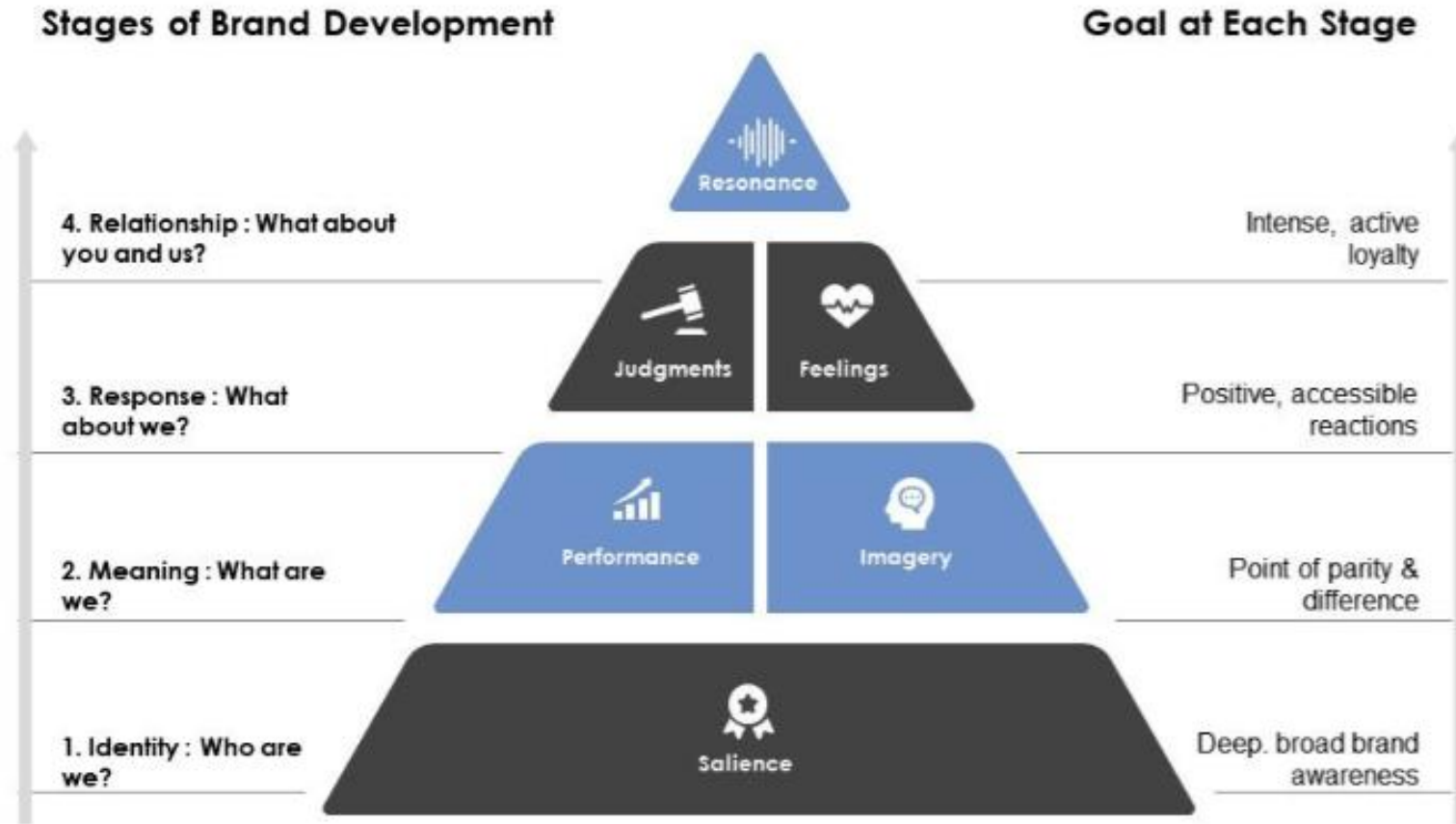
Scenario-making activities are highly time consuming tasks that most of the times are outsourced to external specialists with strong statistical and quantitative backgrounds.

In marketing studies, “Branding” is defined as that practice aimed to valorise and mainstream among the general public a product, a service and/or the organisation’s image: organisations are able to differentiate their offer among their competitors reserving for themselves a specific sector or niche within the markets of interest.



Unit 1 - ICT and Digital Solutions for Business Competitiveness  
Section 1.2: Branding in digital settings

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Source: The Brand Resonance Model (K.L. Keller)

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Brand analysts collaborate in close contact with product specialists and the Public Relations department of a firm – such pooled knowledge contributes to the definition of a very detailed communication strategy aimed to enhance and valorise the public perception of the firm and its offer.



Digital branding concerns the transposition of these concepts from traditional marketing tools (i.e. billboards) to digital marketing solutions (i.e. social media management, email marketing, etc.).

With the booming of digital economies, branding opportunities have increased exponentially.



Nowadays, the main branding vectors are represented by Social Media and online positioning. There are two ways in which a brand can circulate and gain visibility through digital ecosystems:

- Directly
- Indirectly



## Direct Branding



The overall in-first-person efforts sustained by the firms to promote its core corporate values through online posting activities, online community management, etc: is aimed to advocate a trustworthy and reliable perception of both the organisation and the product/services provided.

## Indirect Branding

The final outcome that results from online branding it is not decreed by what communicated by the firm, but from how the public received its message.

Indirect Branding is highly tricky: it emerges from online customer communities, forums, private groups and any other land of the online environment where the organisation has no full control over the content that directly affects it (reviews, comments, opinions, etc.).

## Indirect Branding



This principle might generate two opposite effects:

- A positive one: customers are persuaded by the message and legitimise the image of the brand
- A negative one: customers evaluated the message as misleading of the reality and do not credit the firm for what it promotes

## Indirect Branding

In worst case scenarios, what eventually started as a remote “buzz”, quickly escalades in a Public Image and Branding crisis.

When it happens (and it happens very frequently\*), PR functions are called to program a Resiliency-plan so to re-establish a sort of ordinary *status quo* – one of the hardest challenges ever addressed by communication departments.

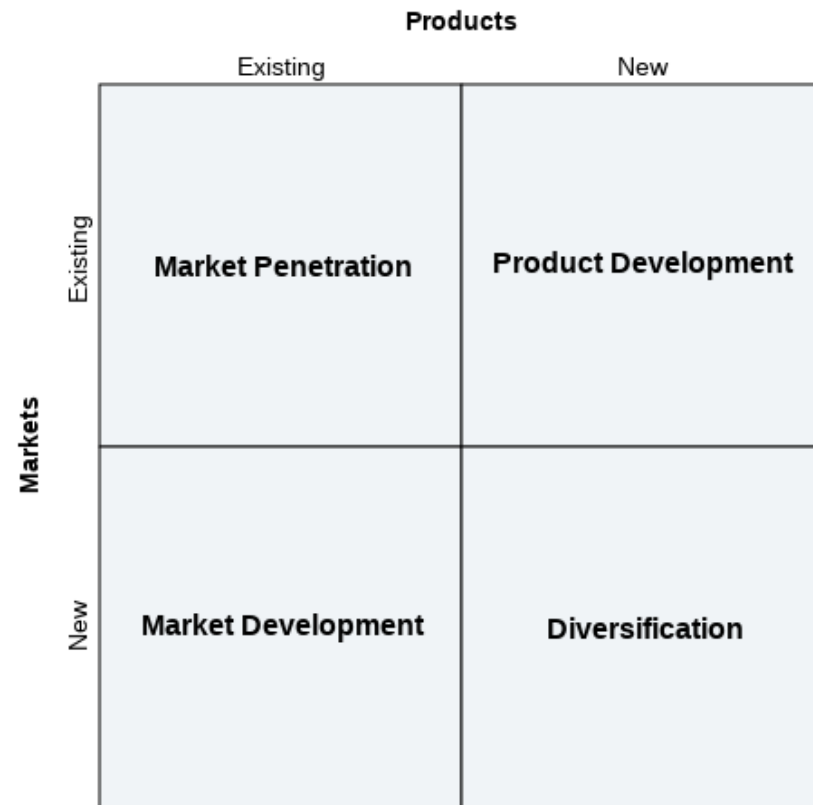
\*For instance: [The Biggest PR Crises Of 2017](#) (Forbes)

Throughout the establishment of digital economies and online markets, traditional means of Strategic Management Studies have conserved their theoretical and operative relevance.

These tools represent a very precious resource for effective business planning and allow for the streamline of the decision-making processes.



## Ansoff Matrix



It depicts the different growth strategies of a firm depending on the Market and Product variables. For instance: if the firm is developing a new product/service that exploit the opportunities within new (and unknown) markets, the emerging strategies will go through Diversification models. If the firm is developing a new product/service on the basis of already well-known needs, the consequent strategy is a Product (Service) Development.

**Source:** Meldrum M., McDonald M. (1995) The Ansoff Matrix. In: Key Marketing Concepts. Palgrave, London

## TOWS Analysis:

		Internal	
		<b>W</b> List of weaknesses: W1. .... W2. .... W3. .... .....	<b>S</b> List of strengths: S1. .... S2. .... S3. .... .....
External	<b>T</b> List of threats: T1. .... T2. .... T3. .... .....	<b>WT: mini-mini strategies:</b> W1T1: .... W2T1: .... W1T2: .... W2T2: .... .....	<b>ST: maxi-mini strategies:</b> S1T1: .... S2T1: .... S1T2: .... S2T2: .... .....
	<b>O</b> List of opportunities: O1. .... O2. .... O3. .... .....	<b>WO: mini-maxi strategies:</b> W1O1: .... W2O1: .... W1O2: .... W2O2: .... .....	<b>SO: maxi-maxi strategies:</b> S1O1: .... S2O1: .... S1O2: .... S2O2: .... .....

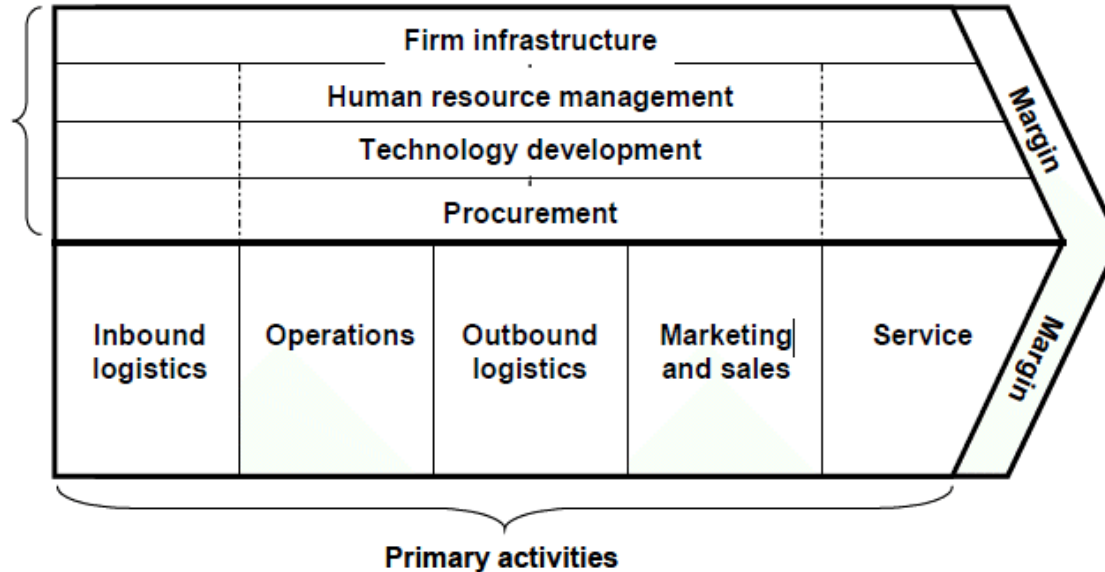
TOWS Analysis is a further extension of the SWOT Analysis:

While the latter identifies strengths, weaknesses, opportunities and threats; through TOWS analysis the user correlates each variable to the others and develops a potential strategy and action plan for each case scenario (i.e. what might happen if we combine our strengths with market opportunities?)

**Source:** Kulshrestha S., Puri P. (2017) Tows Analysis for Strategic Choice of Business Opportunity and Sustainable Growth of Small Businesses; Pacific Business Review International Volume 10 Issue 5

## Value Chain Model:

Support activities

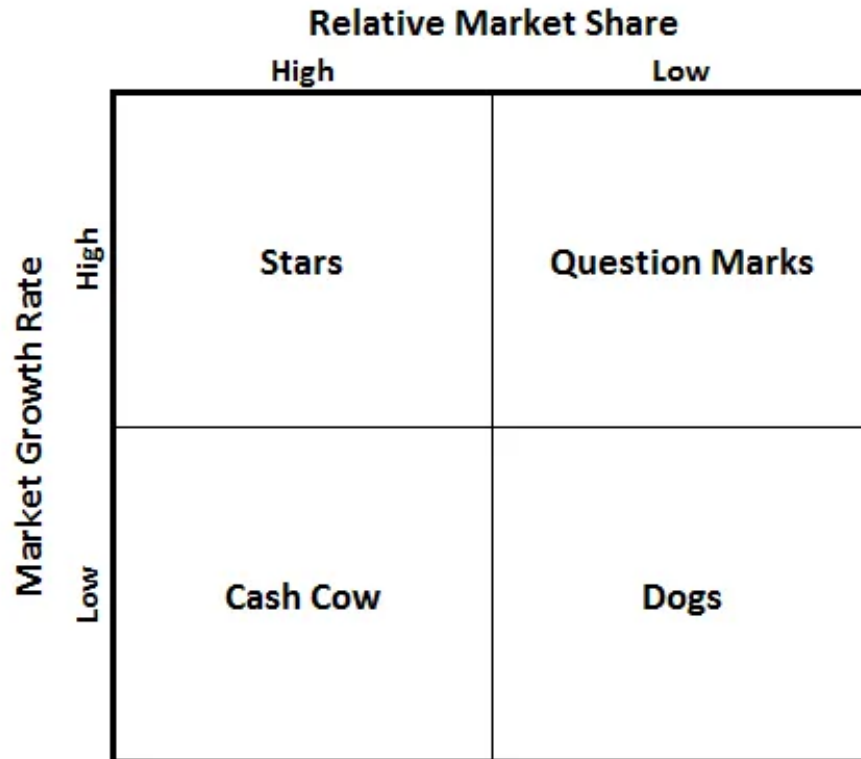


It defines the organisation as a systemic structure of processes and functions. Activities are further clustered in Primary (the ones who directly contribute to output production) and Support/Secondary – which are functional to the first.

**Source:** Yun, Jinhyo (2017). Editorial Open Innovation in Value Chain for Sustainability of firms. Sustainability. 9. 811



## Boston Consulting Growth Share Matrix:



- **Star** consist of markets in expansion with very high profit margins, as so they deserve great financial commitment and full exploitation of any existing opportunity.
- **Cash Cow** are businesses positioned in saturated markets: they are functional to generate cash flow to be later reinvested in *Stars* (i.e. make the most out of them).
- **Dogs** are dying businesses in dying markets - to be abandoned as soon as possible.
- **?** represents businesses in very rapid growth but still not fully defined: depending on several contextual factors, they have the potential to become a *Star*.

Source: [What Is the Growth Share Matrix?](#)

Pic from: <https://philmusconsulting.com/2017/02/13/expanding-the-bcg-matrix/>

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EXTRA:

Success stories to draw inspiration from

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EXTRA

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Founded in 1916, “La Bottega del Calzolaio” is a well-renowned shoe repair shop in Italy. For five generations, Del Vecchio’s family represented a unmatched standard for handicraft excellence. The brand gained even grater notoriety at the beginning of the last decade, when Orazio and Luca (great-grandchildren of Luca Del Vecchio, original founder of the family business) decided to set-up an e-bay store – the first real digital-experimentation of the business. In just three years, Del Vecchio increased their revenue stream by 400%.

Encouraged by this exponential success, Del Vecchio’s launched their own website in 2016 – [in the words of Orazio](#): “an intuitive move to keep up with times”.

Since then, La Bottega del Calzolaio built an international reputation overseas and contributed to mainstream the “Made In Italy” worldwide.



EXTRA

# Deep.



Traveller Collective designs custom-made products (rings, necklaces, wallets, etc.) intended to remain as a valuable “piece of memory” of a travel.

Most importantly, Traveller Collective is a great example of how Social Media (and Social Media Marketing) should be exploited so to boost the online visibility of a brand.

In the case of Traveller Collective, the major driver force is represented by [their Instagram account](#). The firm engages its public through audio and video content published by its same audience. This mechanism allowed for the nurture of a community highly passionate and active.

Such effect translates into a strong and reliable strategy of indirect marketing, allowing the firm to reduce cost otherwise destined to communication and promotion. The echo obtained by the brand is self-powered by the people who joined the mission of Traveller Collective.



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Before 2012, Dollar Shave Club was a semi unknown company selling personal grooming products online.

In a very competitive market dominated by giants as Gillette, DSC found a unique way to stand-out and scale its way to success. Just ten years after its foundation, Its current market value stands at \$1B.

Silly to say, but it all started with a [commercial](#) (Our Blades Are F\*\*\*ing Great) uploaded on YouTube back in March 2012. The entire production costed less than \$5.000 and it took one day to shoot but the extravagance of tones and the satirical approach towards “traditional” business communication proved to be an incredibly effective move.

The video went viral immediately after, [becoming later topic of news and serious discussion](#), and it brought to DSC the attention of more than 25 Million spectators.



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## Unit 2:

# Novel Technological Trends for Business

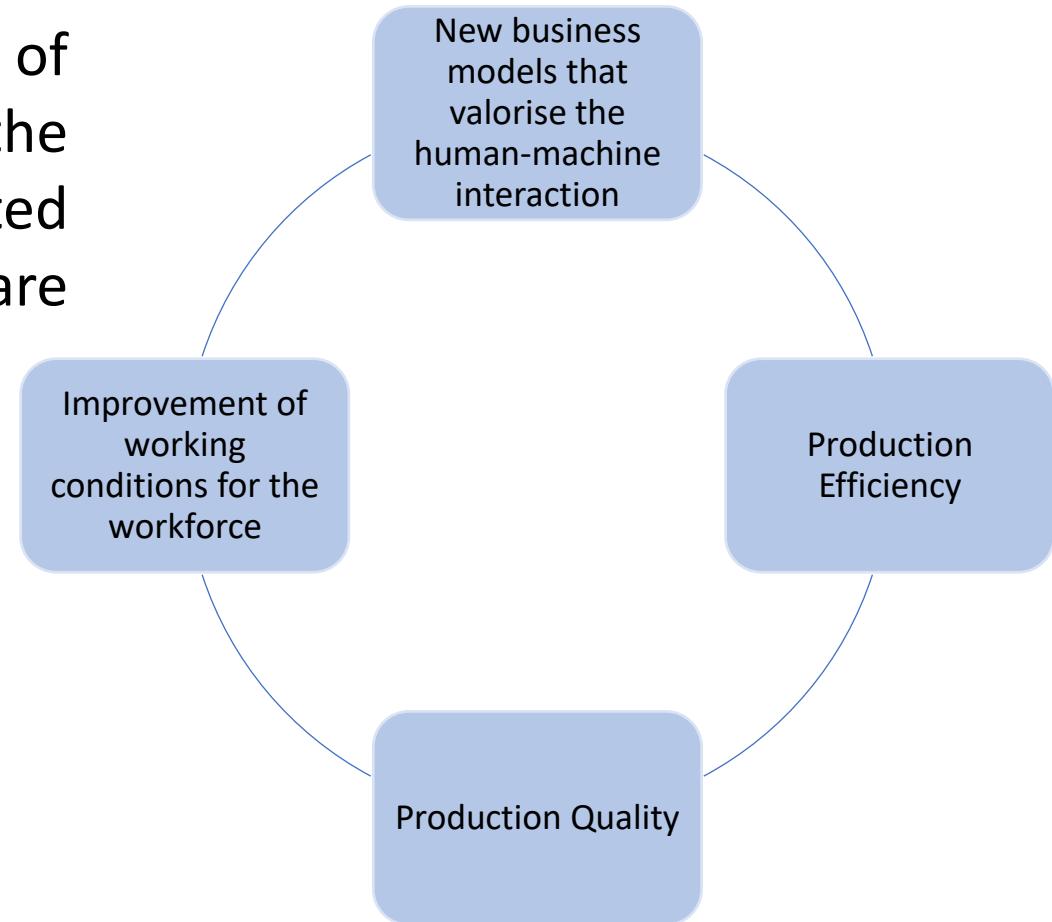
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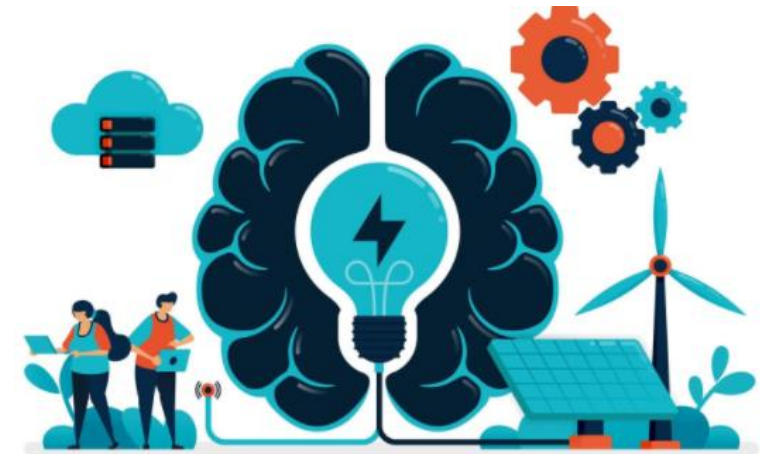
## Unit 2 – Novel Technological Trends for Business Section 2.1: Industry 4.0

“Industry 4.0” refers to the automation of the production process thanks to the intense exploitation of sophisticated machinery. The substantial priorities are related to four main dimension:



The Human-Machine interaction that is at the core of the Industry 4.0 Paradigm is valorised through at least one of the following resources:

- Smart Production Technologies
- Smart Service Technologies
- Smart Energy and Environmental Solutions



All of the above, allow firms and entrepreneurs to sustain their competitiveness paths leveraging on smart and inclusive opportunities.



The establishment of a “4.0 environment” requires the development and implementation of a series of enabling technologies. The taxonomy literature of such technologies is very large and heterogeneous – despite so, in all cases there are some recurring elements:

1. Internet of things and “smart networks”
2. Industrial analytics (i.e. Data Literacy)
3. Cloud and Automatised Production
4. Cyber Security and IT Crisis Management





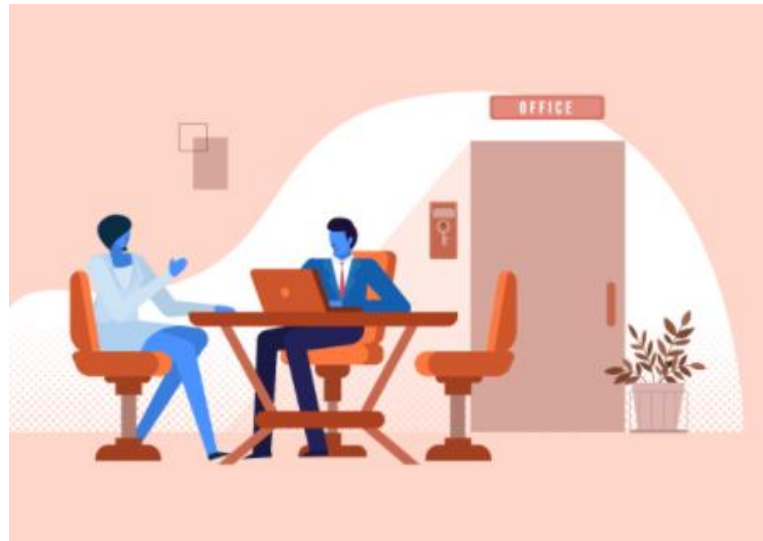
Source: [www.essentracomponents.com](http://www.essentracomponents.com)

Further references:

- [Industry 4.0—a glimpse](#)
- [Industry 4.0: state of the art and future trends](#)
- [Opportunities of sustainable manufacturing in industry 4.0](#)
- [Industry 4.0 concept: background and overview](#)
- [A complex view of industry 4.0](#)
- [Industry 4.0: the industrial internet of things](#)
- [Industry 4.0: managing the digital transformation](#)
- [The expected contribution of Industry 4.0 technologies for industrial performance](#)

Unit 2 – Novel Technological Trends for Business  
Section 2.2: Support Territorial Networks for DE

Business digitalisation might be a long and tough process with serious and irreversible implications both from a cultural and structural perspective. Several socio-economic actors intervene to support organisations and entrepreneurs throughout the process highlighting, developing and implementing the best business-tailored solutions.



Unit 2 – Novel Technological Trends for Business  
 Section 2.2: Support Territorial Networks for DE

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Private Consultants and IT providers	Incubators and Accelerators	Universities	Competence Centers (CC)
<p>They fall under the most common category of “support actors” – highly reliable for general and low-medium-specificity services (i.e. social media management, SEO and SEM, Backoffice, etc.).</p>	<p>Even if they are formally (but not exclusively) engaged to sustain new born businesses at the inception of their life-cycle, Incubators and Accelerators represent both a very important poles of technical and theoretical knowledge – established entrepreneurs can exploit the intense networks of competences existing within these dimensions.</p>	<p>Academics and researchers in the field of automatization and digital economy can provide great contributions on the cause. Combining the operational perspective detained by the entrepreneurs and the theoretical one brought by competent scholars, their consultancy might results and translates in long-terms impacts.</p>	<p>CCs detain the most advanced sectorial knowledge on ICT and Innovation – their activities fall under the research, development, test and implementation of high-tech custom-made solutions for businesses. Firms can finance their innovation projects through dedicated public funds.</p>



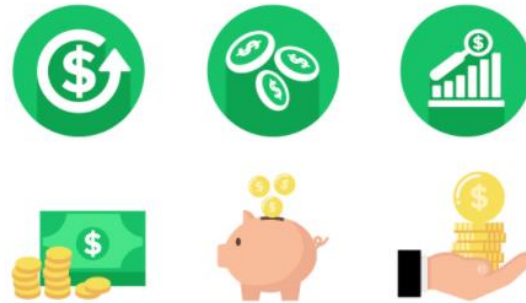
All EU Countries are currently committed at National level to comply with several EU priorities in the domain of business competitiveness, digital economy, innovation and entrepreneurship.

Each EU country translated the content and objectives of the Digital Agenda for Europe in their own policy framework through the development and implementation of national strategies to nurture IT awareness among citizens.

A very relevant part of such initiatives is dedicated to the digital empowerment of MSMEs.

Unit 2 – Novel Technological Trends for Business  
Section 2.3: Policy Actions for Tech and Innovation

This kind of contributions came in the form of financial funds, tenders and tax relief to incentivise the embracement of the digital paradigm among latecomers and entrepreneurs still too “attached” to traditional business models.



Funding opportunities are available on ministerial portals and local administration websites – depending on the national, regional or local origin of the fund.

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## Unit 3:

# EU Funding Opportunities

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Unit 3 – EU Funding opportunities  
Section 3.1: EU Funding – General Overview

According to the official guide to EU funding published by the EU Commission, there are four (+ another one) types of funding opportunities:

- Grants
- Loans, guarantees and equity
- Subsidies
- Prizes
- (Public Contracts)

Reference: [A guide to EU funding](#), EU Commission, 2017 (latest version available)

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## Unit 3 – EU Funding opportunities Section 3.1: EU Funding – General Overview

### Grants



“A grant is funding for projects contributing to EU policies. Grants may be awarded in different fields, from research or education to humanitarian aid. Grants are awarded to private and public organisations, and exceptionally to individuals.

Grants are a form of complementary financing. The EU usually does not finance projects up to 100 %. In other words, the project will be co-financed by the beneficiary organisation [...].

Grants are mainly awarded through calls for proposals. The European Commission uses calls for proposals to advertise funding opportunities and explain how to apply for them. Another way of accessing funding is through prizes.” (pp. 8)



## Loans, guarantees and equity



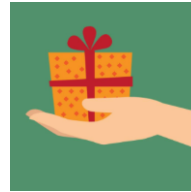
“The EU provides loans, guarantees and equity as forms of assistance, in relation to EU policy and programmes.

The financing goes through local financial institutions. These institutions — banks, guarantee societies or equity investors — determine the exact financing conditions: the amount, duration, interest rates and fees.

For example, the EU provides loans to beneficiaries for investment in research and innovation. Or it provides guarantees to beneficiaries so that they can obtain loans more easily or at better conditions from banks and other credit institutions. The EU may also financially participate in a project by owning parts of it.” (pp. 9)

Unit 3 – EU Funding opportunities  
Section 3.1: EU Funding – General Overview

**Subsidies**



“Subsidies and other types of funding are managed directly by EU national governments, not by the European Commission. For instance, agricultural subsidies are awarded to support farmers.” (pp. 9)



## Public Contracts

“Public contracts are not a part of funding. Instead the European Commission purchases service, works or goods from the public for internal use.

Some examples of public contracts are: conducting studies, providing technical assistance, training, conference organisation and consultancy.

The service providers of public contracts are selected via calls for tenders issued by the Commission departments, offices and agencies in Europe.” (pp. 10)

Unit 3 – EU Funding opportunities  
Section 1.3.1: EU Funding – General Overview

The existing difference between Grants, Tenders and any other funding opportunity rests on the fact that: while Grants and Tenders are directly available through the EU Commission, Loans and Guarantees are managed at national level (i.e. funding opportunities for regional agriculture and maritime policies, etc.)



Unit 3 – EU Funding opportunities  
Section 3.2: EU Funding – Grants & EU Programmes

The guide to EU funding\* provided by the EPRS (European Parliamentary Research Service) offers a very comprehensive snapshot of all main EU funding themes and consistent programmes.

Because of their scope and strategic framework, some programmes are more aligned to NGO's profile and typical operative settings; while some others have much more appeal for MSMEs, such as: Horizon 2020 and COSME.

\*Source: [Guide to EU Funding 2014 – 2020](#), EPRS

Further references for the 2021 – 2027 period: [2021-2027 long-term EU budget & Next Generation EU](#)



## Horizon Europe

“Horizon Europe will incorporate research and innovation missions to increase the effectiveness of funding by pursuing clearly defined targets [...] 5 mission areas have been identified, each with a dedicated mission board and assembly. The board and assembly help specify, design and implement the specific missions which will launch under Horizon Europe in 2021”:

- Adaptation to climate change including societal transformation
- Cancer
- Climate-neutral and smart cities
- Healthy oceans, seas, coastal and inland waters
- Soil health and food



## COSME

“COSME stands for Competitiveness of Enterprises and Small and Medium-sized Enterprises. Managed by the European Commission, it is a new programme specifically designed to support SMEs. COSME aims to make it easier for small and medium-sized enterprises (SMEs) to access finance in all phases of their lifecycle – creation, expansion, or business transfer. Thanks to EU support, businesses have easier access to guarantees, loans and equity capital.”

(pp. 40)



Unit 3 – EU Funding opportunities  
Section 3.2: EU Funding – Grants & EU Programmes

Useful links:

- The EU Commission website lists [more than 50 EU Programmes](#).
- Calls for funding are also distributed in [34 topics](#)

In the context of this training module, we specifically recommend:

1. Business and industry
  2. Competition
  3. Digital society and economy
  4. Consumers
  5. Employment, social affairs and inclusion
- Etc.



Tenders follow a similar “department-related” categorisation: in total, there are [nearly 40 clusters of tender opportunities](#).

Firms and entrepreneurs can monitor business opportunities resulting from EU tenders via the [TED Platform](#) (Tenders Electronic Daily) – the consultation of the website is completely free, each day TED is updated with thousands of procurements from the EU and the European Economic Area that can be filtered by Country, Region and Business Sector.

## CASE EXERCISE

- On the basis of the Ansoff Matrix, an in-depth financial commitment to research and development (R&D) is a typical sign of a Product Development Strategy: **TRUE / FALSE**
- On the basis of the Value Chain Model, team management and trust building fall under the support activities category: **TRUE / FALSE**
- On the basis of the BCG matrix, the 3D printing services represent a Cash Cow business: **TRUE / FALSE**
- Data science in business organisation is an exclusive tool for finance and risk management: **TRUE / FALSE**
- The Industry 4.0 paradigm aims to exploit machines so to replace the human work once and for all: **TRUE / FALSE**

## CASE EXERCISE

- Branding strategies are not relevant to improve the competitiveness of your good/services: **TRUE / FALSE**
- TOWS Analysis can be considered as a further extension of the SWOT Analysis: **TRUE /FALSE**
- “Industry 4.0” refers to the automation of the production process thanks to the intense exploitation of sophisticated machinery: **TRUE /FALSE**
- EU Grants usually does not finance the 100% of projects implementation: **TRUE / FALSE**
- COSME is the EU Programme tailored for small and medium-sized enterprises (SMEs) to access finance in all phases of their lifecycle – creation, expansion, or business transfer: **TRUE / FALSE**

## CASE EXERCISE

- Grants and Tenders are managed at National Level: **TRUE / FALSE**
- Indirect Marketing refers to the opportunity to outsource communication activities to specialised agencies: **TRUE / FALSE**
- Cyber-Security has nothing to do with Internet of Things: **TRUE / FALSE**
- Scenario Making is about the elaboration of the worst case possible: **TRUE / FALSE**
- Marketing and brand specialists should rarely interface so to not contaminate their opinions: **TRUE / FALSE**





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