# Governance of Technological Innovation

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***COURSE AIMS AND INTENDED LEARNING OUTCOMES***

The course aims to teach students the foundations for strategically managing technological innovation in a company, adopting a *resource- and knowledge-based* perspective that emphasises the primary role of the knowledge resources (both individual and organisational ) and relational contexts (both interpersonal and interorganisational) in which the processes of innovation development are born.

Finally, the course aims to encourage:

a) the learning and understanding of the managerial and organisational dynamics of consumer knowledge and satisfaction;

b) the development of *problem-solving* and *team-working* skills through group work, aimed at addressing real-life scenarios;

c) the development of communication and critical analysis skills for interpreting phenomena, scenarios and companies in the light of the most advanced management techniques.

At the end of the course, students will be able to:

1) read and interpret the management of innovation in today's world;

2) know and discuss the basic processes of innovation management in companies;

3) know and apply the tools for analysing the evolution of a competitive context in which companies operate;

4) know and apply the basic operational tools for making managerial decisions in data-driven contexts;

5) possess the basics for further subsequent study of the modules that interest them, specifically management processes;

6) interpret the innovation of business modelsand value propositions for existing companies or new business ideas;

1. learn the basic knowledge and main analytical methods in strategic innovation management, together with more advanced knowledge and methodologies related to advanced aspects of the discipline;
2. understand complex issues of strategic management and to use these to draw conclusions, even original ones;
3. use the knowledge and understanding referred to in the previous points in the processes of strategic innovation management;
4. identify and integrate the knowledge needed to conduct assessments and solve complex problems inherent in strategic innovation management, considering also the main ethical and social implications, especially those relating to sustainability issues;
5. acquire useful language and communication skills for sharing, with an audience of specialists and non-specialists, the outcomes of their own evaluation processes on issues of innovation and their related strategic management processes and underlying rationale;
6. further develop the learning skills needed to progress independently, and to adopt a strategic perspective in the study of business-economic disciplines.

***COURSE CONTENT***

The module consists of lectures, scenario analyses, the discussion of business cases and best practices, and may be further enriched by testimonies from the professional and entrepreneurial world.

The course is split into three parts:

1. The general part of the course introduces the concept of innovation and examines the main dynamics of technological innovation, framing the innovation in a strategic perspective and describing the fundamental aspects of the company's innovation strategy. The part general focuses on the implementation of an innovation strategy, with particular reference to the organisational aspects.

In detail, the following topics will be addressed: The economic and social relevance of innovation - Sources of innovation - Forms and models of innovation - Dominant design and technological standards - Choosing the time to enter the market - The selection of innovation investment projects - Innovation collaboration strategies - Capturing the value of innovation: protection mechanisms - The organisation of innovation processes - Team management for new product development - Governing the development process of a new product.

2) The special part of the course embraces ideally five areas:

 TM (Theories and Models) AREA. Theoretical and doctrinal framework of business theories and models (Industry 4.0). KM (Knowledge Management) AREA. The role of knowledge and intangible assets. The sources of innovation. DBM (Digital & Business Model) AREA. The technological revolution and innovation of business models. Exponential Organisations. START UP & DESIGN THINKING AREA. Smart Manufacturing and Design Thinking, Competitive dynamics, Internationalisation, Open Innovation for SMEs and Large Corporations. STRATEGIC AREA & INNOVATION PLANNING. Data-Driven Scenario Analysis, Positioning, Targeting and Strategic Innovation. Planning, Consistency and Strategic Control.

3) The applied-practical part includes the study and examination of case studies and case histories of 10 successful companies, which have initiated the technological innovation and digitalisation of business models. The business case presentations are accompanied by video presentation lectures by the lecturer, uploaded on Blackboard.

***READING LIST***

M. Schilling-F. Izzo, *Gestione dell’Innovazione, McGraw-Hill, Milan* (third or fourth edition), chapters 1, 2, 3, 4, 5, 8, 9, 10, 11, 12, 14 (+ presentazioni materiale didattico Organizzazioni Esponenziali + Business Model Innovation + Start Up e Design Thinking).

R. Panzarani, *Viaggio nell’innovazione. Dentro gli ecosistemi del cambiamento globale*, Editore Guerini, 2019.

The slides and supplementary material that Prof. Papa and Prof. Panzarani make available on the dedicated Course page on the Blackboard platform, constitute additional teaching material (e.g. book chapters, essays, cases). This material will be considered an integral part of the exam syllabus, even for students not attending lectures. Similarly, the case studies analysed during lectures will be considered an integral part of the exam syllabus.

***TEACHING METHOD***

The Technological Innovation Governance Course is designed to be highly innovative and interactive. Students are assessed not only on their performance in the exam but also, and above all, on their intra-course and interactive activities, for which mini-bonus points will be awarded towards the exam. WORKGROUP/BUSINESS GAME ACTIVITIES. Students are assessed on their drafting of a group project involving the setting up of a new business idea. The ability to present (public speaking) is assessed as well as the presentation of the idea (slides, prototypes, web tools, etc.). CASE ANALYSIS Students are given a case history and case analysis related to the course topics and generally drawn from the experience of companies that have reconverted or technologically innovated their business models.

***ASSESSMENT METHOD AND CRITERIA***

Oral exam without an interim test. The exam is designed to ascertain the student's knowledge of the subject through questions related to the course programme. The content, terminology and adequacy of the student's answers will be assessed according to the parameters from sufficient to excellent. For a detailed description of the exam procedures, refer to the course webpage on the Blackboard platform.

There are two ways of carrying out the test.

ATTENDANCE MODE: PROJECT WORK + ORAL EXAM

An elevator pitch that students will develop in teams of 5/6 people and which they'll send to us for assessment between the first and second week of May. The presentation of the project work is an integral part of the assessment, to which is added the oral exam comprising open-ended questions that focus on the GIT Course programme and the video lectures presented by Prof. Pope and Prof. Panzarani.

NON-ATTENDANCE MODE: ORAL EXAM

Anyone who has not participated in the PW is considered "non-attending".

The exam will be taken in the scheduled sessions in ORAL FORM on the TEAMS platform with a committee composed of Prof. Pope and Prof. Panzarani. This option constitutes the least impactful mode for both lecturer and student in exam preparation terms, and also guarantees a more honest result.

THE ORAL EXAM COMPRISES OPEN-ENDED QUESTIONS related to the GIT Course programme and the video lectures presented by Prof. Pope and Prof. Panzarani.

***NOTES AND PREREQUISITES***

Students are advised to attend regularly in person and via the Blackboard platform. Participate actively in lectures, and study continuously, these all being necessary conditions for an effective understanding and gradual assimilation of the topics addressed. The positive correlation found over the years between these conditions and exam results supports this piece of advice.

It should also be noted that a profitable participation in lectures and an effective learning process presuppose adequate basic knowledge of strategy and strategic management.

*In case the current Covid-19 health emergency does not allow frontal teaching, remote teaching will be carried out following procedures that will be promptly notified to students.*

Further information can be found on the lecturer's webpage at http://docenti.unicatt.it/web/searchByName.do?language=ENG, or on the Faculty notice board.