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RESULT 1.1B
CORPORATE ENTREPRENEURSHIP EDUCATIONAL OFFERS

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CORSHIP Result 1.1b

CORPORATE ENTREPRENEURSHIP EDUCATIONAL OFFERS

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1. EXECUTIVE SUMMARY

The following report is the result of conducted research on the topic of educational offers in the field of corporate edupreneurship and innovation. The research was divided between desk research on best practices regarding corporate and educational tools/offers provided by universities (online and offline) and interviews with business representatives of different organizations regarding training and development in the area of corporate entrepreneurship. The report starts with an introduction to the area of corporate entrepreneurship and provides arguments for the urgent recent need for education, training and development in the area of corporate entrepreneurship for students, entrepreneurs and corporate managers.

The findings of the report suggest that the educational offers dedicated specifically to corporate entrepreneurship are scarce and scattered. The analysis on corporate entrepreneurship education was conducted based on the interrelated multi-level perspective framework combining individual, corporate and system learning opportunities. Online courses in the field of corporate entrepreneurship are offered by different universities and business schools around the world. A detailed analysis showed that the majority of courses currently offered, both offline and online, are related to general entrepreneurship in combination with innovation and various aspects of management and business issues. There are only a few courses dedicated specifically to corporate entrepreneurship. The report provides examples of the few online and offline courses dedicated to corporate entrepreneurship specifically and examples of entrepreneurship/innovation/management courses where corporate entrepreneurship is only partially included in the content.

The qualitative field research consisting of 10 interview with representatives of international corporations engaged in corporate entrepreneurship confirms that the educational, training and development on corporate entrepreneurship does not fully meet market demand both in terms of alignment and scope. Also online training was not described as matching specific needs of the company. Companies rely mostly on their internal resources and learn from their own or others' experience of corporate entrepreneurship. The findings deriving from the interviews are presented in the following thematic areas:

1. Corporate Entrepreneurship experience
2. Existing training and development corporate programmes
3. Evaluation of the up-to-date training experience
4. Needs and gaps analysis

The study recognized several research projects dedicated to corporate entrepreneurship. The first group of projects focused on corporate entrepreneurship include issues on enhancing the entrepreneurial competences as well as promoting entrepreneurship in general. Research findings suggest that organizations are increasingly implementing corporate entrepreneurship practice as a way of innovation development. The second group of projects concerns new trends in corporate entrepreneurship, especially regarding the development of startups and the creation of accelerators to link the most promising European startups with the large and medium corporations who are committing capital, human capital and procurement channels. Such projects aim at enhancing the accelerator ecosystem combining environmental startups to large enterprises. Finally, the third group of projects is related to the development of the startups and entrepreneurship ecosystems. These developments support the multi-level perspective framework on new trends in corporate entrepreneurship education.

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2. INTRODUCTION

This report aims to identify the current offer of education and training in regard to corporate entrepreneurship, both traditional programmes, blended learning schemes and fully online programmes, offered by universities and corporate training centres. In addition, the report will identify the existing gaps and opportunities related to growing the potential of corporate entrepreneurship within the business community at the European Union level.

The knowledge necessary to generate innovation is scattered and to a growing extent resides outside a single organization's boundaries (Weiblen and Chesbrough, 2015; Kohler, 2016). The last decade has encountered a renewal of corporate entrepreneurship, a firm-level phenomenon, which has received much recognition since the 90s and refers to the entrepreneurial behaviours of a firm (Zahra et al., 1996). As repeatedly found by authors, firms pursue firm-level entrepreneurship by exploiting new venture opportunities and implementing strategic renewal (Guth and Ginsberg, 1990; Kuratko and Audretsch, 2013; Kuratko et al., 2015). Corporate entrepreneurship, as the pursuit of opportunity, determines the ability of the whole organization to be entrepreneurial, provides a stimulus for corporate renewal and adaptation to environmental change (Birkinshaw, 1999). In 1990 Guth and Ginsburg wrote in their Editor's introduction to the special edition of Strategic Management Journal dedicated fully to corporate entrepreneurship: "studies of corporate entrepreneurship have tended to focus on internal innovation or venturing. However, we believe that studies of strategic renewal will command increasing attention in corporate entrepreneurship research" (Guth and Ginsberg, 1990). These words have proven to be true and still are.

Today, corporate entrepreneurship increasingly takes the form of strategic renewal at large, established companies, which change their strategy, culture, way of doing things and introduce innovation with agility and speed. To become more proactive, opportunity oriented and innovative, large companies team up with startups to leverage their entrepreneurial drive. This approach has received recognition in the past; in 2001 Thornberry suggested that many organizations put too much effort into organizational change as a prerequisite to corporate entrepreneurship (Thornberry, 2001). He claimed that more emphasis on experimentation and venturing first, and delivering a few wins, would do more to change the culture than the other way around. It seems contemporary business leaders are doing just that.

In pursuit of market opportunity, corporations increasingly look to startups as a source of external innovation and so corporate efforts to reach out to the startup ecosystem is on the increase. Many corporations are willing to learn from startups, willing to transform and become more like startups; testing for example lean startup methods to pocket projects, giving extended autonomy to teams or creating separate budget centres for innovation. In its quest for speed and innovation, numerous corporations have produced a variety of ways of engaging with startups. Existing models, such as corporate venture capital, corporate accelerators or joint projects are now complemented by emerging models that bridge the gap between both worlds. However, the vast differences between corporations and startups make collaboration a challenge; it is much easier said than done, as the two parties are nothing alike. The corporation has resources, scale, power, and the routines needed to run a proven business model efficiently. The startup has none of those, but typically has promising ideas, organizational agility, the willingness to take risk, and aspirations of rapid growth.

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The gap between the corporate and startup ways of working poses real challenges to getting both sides together. This is why new educational and training content is necessary. Students need to be aware of the many faces of corporate entrepreneurship, entrepreneurs seek information how to team up with corporates without jeopardizing their autonomy and corporate managers are looking for proven to work frameworks of cooperation with startups. As part of the Corship project („CORSHIP – CorporateEDUpreneurship - Benefitting startups, Universities and Corporates across Europe), an in-depth analysis was carried out during the first phase of the project in order to identify the existing education and training programmes, as well as research projects, dedicated to Corporate Entrepreneurship. The analysis on corporate entrepreneurship education was conducted based on the interrelated multi-level perspective framework combining individual, corporate and system learning opportunities.

The report presents research outcomes in regard to four areas: educational offers provided by universities, training and development offers provided by companies and existing research project in the area of corporate entrepreneurship.

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3. METHODOLOGY

The aim of the research was to identify:

- existing educational offers in regard to corporate entrepreneurship,
- existing research projects dedicated to corporate entrepreneurship and
- corporate training practices in regard to corporate entrepreneurship (in companies pursuing corporate entrepreneurship)

This research is based on mixed methods approach; desk research, as well as field research was necessary to deliver the research objectives.

3.1 DESK RESEARCH

Desk research involves collecting data from existing resources and it is very effective in the starting phase of a research project. The desk research conducted within this study involved the identification of existing corporate entrepreneurship educational programmes (online and offline), as well as research projects pursued in this domain. The online desk research method was chosen, as today, all significant educational programmes and research projects can be accessed online.

Two approaches were applied:

1. Directly browsing information from relevant sites (leading business schools, educational programmes rankings and research projects repositories) and extracting the information out of these sites.
2. Using the various search engines for modulated searching. The important aspect here is to refine the searching techniques in such a way that results are promising and relevant.

The first phase of the research involved the selection of keywords, which serve as a base for conducting online search. Using the keywords in search engines, relevant sources that may contain into useful information/data were identified. The relevant information was deducted from the websites and processed for our research purposes. The analysis on corporate entrepreneurship education was conducted based on the interrelated multi-level perspective framework combining individual, corporate and system learning opportunities.

3.2 FIELD RESEARCH

Qualitative interviews are a potentially powerful means of exploring the intricacies of different sectors and subsectors (Broom, 2005). Within the context of this study, a qualitative approach offers different means of exploring the subjective and complex experience of the business community and other organisations, for example in relation to decision making processes both for day-to-day activities and strategic planning.

In order to determine the corporate practices regarding corporate entrepreneurship training and education, a semi-structured in-depth interview protocol was developed. This style of the interview was chosen due to its flexibility, as it allows open dialogue to occur, enabling discussion beyond the parameters set by the interview questions.

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Using existing literature in the field of qualitative business research, and in line with research focused on MOOCs, training and development, clear interview guidelines were developed. The final interview protocol comprised of 24 questions focusing on key aspects such as corporate experience with corporate entrepreneurship, general approach to training and development (internal/external), providers of training and development, decision makers and budgets, experience with corporate entrepreneurship training and development, evaluation of corporate entrepreneurship training and development, usage of online tools and courses, existing needs regarding training and development, recognized gaps on the training and development market in regard to corporate entrepreneurship.

The target respondents were representatives of large, mostly international or global, corporations engaged in corporate entrepreneurship projects, including in startup collaboration. The aim was to target corporations involved in corporate entrepreneurship practice, but also knowledgeable in the training and development agenda of the company. The initial list of potential respondents was created by analysing data available online regarding corporate startup cooperation projects in Poland and Portugal. The final selection was based on respondent accessibility and willingness to share. The interviews were loosely structured, as within the applied research framework, it is the respondent who largely sets the course of the conversation (Creswell, 1998). A total of 10 interviews was carried out in Poland and Portugal. Follow-up interviews were conducted via skype. All respondents were assured of their anonymity. A total of approximately 15 hours of recorded material was collected.

Each interview was first transcripted (translated to English whenever necessary) and carefully read with an attempt to recall the stories and details of accounts. Secondary data was employed to back up the evidence provided by the respondents. During this phase respondents were sometimes recontacted to clarify or elaborate certain facts or themes.

Transcribed interviews contain data that can be analysed and organized using various computer programmes, from creating own coding and notes in word processors, to programmes specially designed for this purpose. Computer programmes facilitate the analysis of transcription, allowing to organize information, but the stage of interpretation and analysis belongs only to the researcher. The programmes allow only coding, making notes and comments, searching for keywords, counting words or creating charts. The most popular method of material analysis is coding, which consists of categorizing text fragments while reading transcripts (Rowley, 2012). This procedure allows to later find encoded fragments and combine them into different codes. However, the tool itself will not find meaning in transcription, this can only be done by the researcher. It was also decided to create a tool for data coding in Microsoft Excel, created for the purpose of this particular study. Selected fragments of interviews, needed for the analysis, are transcribed to it and they will be used to create this overview. Hence in the second phase significant excerpts were highlighted and transported to an excel sheet along with interview notes. This excel sheet served as the basis for joint analysis and pattern identification.

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4. TOOLS AND TRAINING APPROACHES PROVIDED BY UNIVERSITIES

Corporate entrepreneurship education is an important condition for innovation and growth management in global business environments. In highly uncertain environments creating new opportunities and implementing entrepreneurial initiatives in well-established and new industries, requires an integrated view of corporate entrepreneurship and entrepreneurship education. This part of the report presents an interconnected multi-level framework of education in the field of corporate entrepreneurship, taking into account theory and practice in the international context. The presented analysis of didactic offers at various universities shows that both researchers and practitioners involved in designing comprehensive corporate entrepreneurship programmes should look for new ways of taking into account the dynamic and complex relationships occurring in business environments. Therefore, corporate entrepreneurship education should combine individual, corporate and system learning from a multi-level perspective.

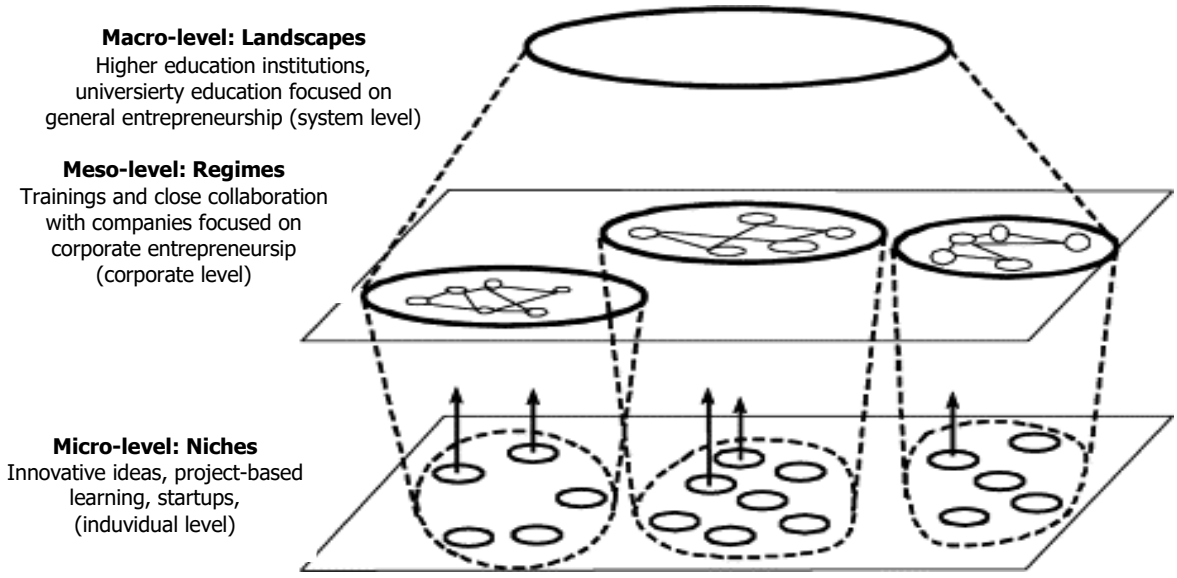

Figure 1. The multi-level perspective framework on corporate entrepreneurship education

Source: Own study based on Loorbach and Wijsman (2013, p. 23).

Given the aim of the research, this section focuses on identifying existing educational offers regarding corporate entrepreneurship. Selected examples of online courses and face-to-face courses are presented accordingly in the subsection 4.1.1 and subsection 4.1.2.

The online courses in the field of corporate entrepreneurship are offered by different universities and business schools around the world. A detailed analysis showed that the majority of courses currently offered are related to general entrepreneurship in combination with innovations and various aspects of management.

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Only some universities offer an educational perspective in the field of corporate entrepreneurship, e.g. the online course in Lean Intrapreneurship at the IMD Switzerland or the offline course in Entrepreneurship and Innovation (Msc) at the Lancaster University Management School (UK). The available educational offers are aimed at selected issues related to startups development or cooperation with startups, e.g. the offer of Babson College (USA) provides 38 entrepreneur-related courses for more than 2000 students, enrolled in entrepreneurship classes.

Analysing trends in education for corporate entrepreneurship, it can be seen that they focus on developing analytical and intuitive skills necessary in the entrepreneurial process (Bessant, Tidd, 2011; Hisrich, Kearney, 2012). While intuition and experimental thinking seem particularly important in identifying opportunities, analytical reasoning and thinking seem to be particularly important in the assessment and implementation of opportunities. According to Lans et al. (2008) corporate entrepreneurship education may focus on entrepreneurial learning in the enterprise through the development of entrepreneurial mentality (individual and corporate) and by strengthening entrepreneurial behaviour (e.g. Recognition and Exploitation of Opportunities) or learning corporate entrepreneurship through understanding the situation and the context of entrepreneurship (e.g. know-how to write a business plan). To develop entrepreneurial competences (at individual, team and organizational level), emphasis should be placed on the assessment of competences and identification of knowledge gaps in relation to a specific job and business environment. Therefore, competence assessment can be a strategic starting point for entrepreneurship education at individual and collective level.

Bearing in mind an interrelated multi-level framework of education in the field of corporate entrepreneurship, the following criteria for choosing an exemplary educational offer were defined: (1) educational offer of the best or leading universities in the field of entrepreneurship worldwide, (2) educational offer addressed to international candidates (manager community), (3) educational offer focused on the practical implementation of entrepreneurial solutions (e.g. in the form of projects).

The exemplary educational offers contribute to corporate entrepreneurship development by shaping of entrepreneurship competencies, reinforcement of intrapreneurship and entrepreneurship potential of companies as well as supporting of ecosystems for startups. Despite the fact that within the available educational courses various innovative approaches were developed or used, the conducted analysis shows that the online or face-to-face training offers for managers supporting the corporate-startup collaboration are relatively limited in terms of availability and content. However, according to a multi-level perspective framework the courses and trainings assigned to the corporate level indicate useful approaches that can be partially applied for the CORSHIP project, e.g. selected educational issues offered by the IMD Switzerland, the Stanford University, the Babson College, the Wharton School of the University of Pennsylvania, the Lancaster University Management School or the City University of London.

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4.1 SELECTED ONLINE COURSES

Analysing the educational offer on corporate entrepreneurship, the evaluation criteria based on the multi-level perspective (individual, corporate and system) can be taken into account (Table 1).

Table 1. Online educational offers on corporate entrepreneurship

Higher education institutions (country)	**Selected educational offers**	**Main focus of the multi-level perspective**
Massachusetts Institute of Technology (USA)	***various aspects of entrepreneurship***, e.g. customer, product, finance, starting a business, entrepreneurial negotiations (via edX)	Individual level System level
College Park of the University of Maryland (USA)	course on "***Corporate Entrepreneurship: Innovating within Corporations Specialization***", e.g.: • Developing the Opportunity for Corporate Entrepreneurship • Building the Business Model for Corporate Entrepreneurs • Crafting Strategies for Innovation Initiatives for Corporate Entrepreneurs • Financing and Profiting from Innovation for Corporate Entrepreneurs • Master Class for Corporate Entrepreneurs	Individual level System level
Harvard University (USA)	***different entrepreneurship courses*** conducted by Harvard Business School, e.g.: • Entrepreneurship Essentials (via HBX) • Entrepreneurship in Emerging Economies (via edX) • Launching Breakthrough Technologies, • Fundamental Business Skills	Individual level System level
MIT Sloan Executive Education (USA)	non-degree executive programmes providing business professionals with the cutting-edge ***leadership training*** (including more than 50 short courses, executive certificates, online courses, custom programmes for organizations, and the five-week Advanced Management Programme)	Individual level Corporate level
IMD Switzerland	the IMD online programmes designed for high potential executives at middle management level, e.g. the "***IMD's Corporate Learning Network***" provides global networking opportunities, and strengthens the skills needed to solve real challenges in organizations by: • working with a dedicated coach and receiving personalized feedback at every step of the programme • combining the flexibility of a cloud-based programme	Corporate level
	the online programme in "***Lean Intrapreneurship***" enabling organizations to maintain a competitive edge, increasing agility and strengthening innovation potential. This programme is: • designed for teams - both pre-existing teams and cross-departmental teams; teams work in a hands-on fashion across a number of project phases: ideation; business model design; market testing and validation; prototyping; developing a solid business plan; and presenting their project to the executive committee • Intensive hands-on coaching support from experts.	Corporate level
University of Queensland (Australia)	the MicroMasters programme in "***Corporate Innovation***" (via edX) focused on how to understand, integrate and promote innovation in a variety of settings, including public, private and not-for profit organizations and research institutions, with special focus on: • how to foster creativity and design thinking in the initial idea generation phase, • how organizations can utilize idea management tools to select the most feasible ideas for development, including how to manage and commercialize those ideas as intellectual property,	Individual level System level

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Higher education institutions (country)	Selected educational offers	Main focus of the multi-level perspective
	• how an evidence-based approach to innovation management can be utilized to improve the decision-making process, and • how to build innovation into the strategy, capabilities and culture of an organization.	
Indian Institute of Management Bangalore (India)	the ***Entrepreneurship MicroMasters*** programme focused on learning how to become a successful entrepreneur and gain the management skills (in finance, accounting, marketing, and people management) needed to develop, organize and manage own business. This MicroMasters programme: • is dedicated not only to aspiring and current entrepreneurs, but also to those who are in companies and would like to engage in intrapreneurial activities, • is suited for Individuals who intend to start their own venture, small business owners, first-time managers, product developers and entrepreneurs who are currently scaling their business.	Individual level Corporate level
TU Delft (The Netherlands)	the course in "***Business Model Innovation***" focusing on how to innovate business models and learn the tools to improve, grow and sustain business. This programme: • develops the skills and knowledge needed to improve business from fellow entrepreneurs, innovators and leading experts on business model innovation, • is dedicated to business owners, entrepreneurs, business consultants or business developers who seek better understanding of business models and the tools to develop them.	Individual level Corporate level
RWTH Aachen University (Germany)	the MicroMasters programme in "***Managing Technology & Innovation: How to deal with disruptive change***" focused on leading an organization to success by anticipating and leveraging disruptive change brought about by technology and market trends. This programme: • combines elements from innovation, entrepreneurship, and strategy research, using a standard toolkit to assess real life cases and learn using a practice-oriented approach. • involves leading entrepreneurship and innovation experts such as Malte Brettel, who was named the #1 Professor of Entrepreneurship in Germany.	Individual level
University of Bath (UK)	the online MSc in "***Entrepreneurship Management and Innovation***" (3 years), run by the School of Management, which is EQUIS accredited. The study programme is focused on the following learning outcomes: • understand the principles of innovation management • navigate the entrepreneurial journey from idea to venture • explore unique business models and action your ideas • think creatively about contemporary business issues • develop the art of pitching winning propositions • unlock the power of persuasion to garner support for ideas • evaluate risk and adapt to challenging environments and situations. The key online benefits include engaging video material and real-life case studies, interaction and networking with students and lecturers as well as digital resources.	Individual level System level
Wharton School of the University of Pennsylvania (USA)	the Wharton Executive Education in "***Entrepreneurship Acceleration Program: Scaling Your Business***" Wharton Executive Education is collaborating with online education provider EMERITUS Institute of Management to offer a portfolio of	Individual level Corporate level

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Higher education institutions (country)	**Selected educational offers**	**Main focus of the multi-level perspective**
	high-impact programs for working professionals. With over 30,000+ students from more than 150+ countries, EMERITUS delivers management education programs with a live-teaching model coupled with group work and graded assignments. Program Topics include: • Module 1: Evidence-based Entrepreneurship • Module 2: Building the Right Team • Module 3: Lawyers, Advisors, and Mentors • Module 4: Business Models and Customer Lifetime Value • Module 5: Customer Acquisition and Demand Generation • Module 6: Pricing and Distribution Strategies • Module 7: Gearing Up for Scale • Module 8: Financing: Funding and Valuation • Module 9: Financing: Venture Capital vs. Alternative Funding Channels • Module 10: Elements of the Pitch • Module 11: Business Plan Competition	

Source: Own study.

Given the best entrepreneurship courses, tutorial, training, class, and certification available online it can be highlighted that the existing MOOC platforms include largely a wide range of corporate entrepreneurship trainings, although a majority of entrepreneurship related courses focus on new venture creation, general entrepreneurial skills, technology entrepreneurship and innovation. Only a relatively small number of courses is related to corporate entrepreneurship (Table 2).

Table 2. Online platforms offering corporate entrepreneurship courses

Online platforms	**Selected training offers**	**Main focus of the multi-level perspective**
Coursera	***Entrepreneurship Degrees and Certifications (Coursera)*** Offers of master's programmes by renowned academic institutions or courses that cover one or multiple skill required to become a successful entrepreneur, e.g. on design thinking for innovation, becoming a change maker, digital transformation, and fostering a culture of innovation. Selected Coursera corporate entrepreneurship courses: • Corporate Entrepreneurship: Innovating within Corporations Specialization (University of Maryland) • Design-Led Strategy: Design thinking for business strategy and entrepreneurship (The University of Sydney) • Innovation: From Creativity to Entrepreneurship (University of Illinois) • Startup Entrepreneurship (Technion – Israel Institute of Technology) • Innovation & Entrepreneurship – From Design Thinking to Funding (EIT Digital)	Individual level System level
edX	***Professional Entrepreneurship Courses by Global Universities (edX)*** These professional certification programs are conducted by top institutions like MIT, IIMB, and many others, the courses focus on all the theoretical aspects of entrepreneurship, from teaching the fundamental concepts and analytical tools such as the lean startup process to providing case studies of successful entrepreneurs. Selected edX corporate entrepreneurship courses: • Applied Entrepreneurship (UMUC, USMx) • Becoming an Entrepreneur (MITx)	Individual level System level

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Online platforms	Selected training offers	Main focus of the multi-level perspective
	• Launching Breakthrough Technologies (HarvardX) • Entrepreneurial Leadership Toolbox (BabsonX) • Entrepreneurial Operations: Launching a Startup (BabsonX) • Entrepreneurial opportunities (AdelaideX) • Corporate Innovation (UQx) • Business Model Innovation (DelftX)	
FutureLearn	A wide range of online courses across business, tech, design, etc. Selected ***entrepreneurship courses***: • Perspectives on Entrepreneurship (Coventry University) • Business Model Thinking (Coventry University) • Decision Making in a Complex and Uncertain World (University of Groningen) • Technology Entrepreneurship: How to Start a New Venture (University of Twente)	Individual level System level

Source: Own study.

In summary, it should be stated that taking an online course in entrepreneurship can provide skills and inspiration to develop own business. Generating an entrepreneurial mindset can improve how to think about business opportunities whether it's for a small or large business, family-owned or venture-backed, or a social media entrepreneurship venture. Entrepreneurship trainings contribute to implementing fundamental concepts and analytical tools such as the lean startup process, case studies from successful entrepreneurs.

Nevertheless, despite the fact that the current online offers on corporate entrepreneurship take into account a wide spectrum of knowledge and tools useful in the development of entrepreneurship, however, in most cases they do not deal with new trends and challenges faced by corporations. Educational offer on corporate entrepreneurship requires not only knowledge but also agile skills to constantly generate innovative ideas and take advantage of market opportunities by international corporations.

4.2 SELECTED OFFLINE COURSES

According to the Financial Times' ranking of the Top 10 MBAs for Entrepreneurship 2018, four leading Business Schools were from US, four from UK, one from Germany and one from Switzerland (Table 3).

Table 3. Ranking of the Top 10 MBAs for Entrepreneurship 2018

Rank	School	Country	Corporate entrepreneurship related courses
1	Stanford Graduate School of Business	US	Executive Education programme: The Corporate Entrepreneur: Driving Innovation and New Ventures (2 months)
2	Babson College: Olin	US	Master of Science in Management in Entrepreneurial Leadership (9 months)
3	Dartmouth College: Tuck	US	MBA at the Tuck School of Business at Dartmouth (8 months)
4	Lancaster University Management School	UK	MSc: Entrepreneurship and Innovation (3 terms)
5	City University: Cass	UK	MSc: Entrepreneurship (3 terms) BSc: Business Management, Digital Innovation and Entrepreneurship (3 years)
6	WHU – Otto Beisheim School of Management	Germany	Master in Entrepreneurship Programme

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Rank	School	Country	Corporate entrepreneurship related courses
7	IMD Business School	Switzerland	IMD's Corporate Learning Network
8	University of Oxford: Saïd	UK	Oxford MBA (1 year) / Oxford Executive MBA (21 months)
9	Harvard Business School	US	Executive Education: Entrepreneurship
10	University of Cambridge: Judge	UK	Postgraduate Diploma in Entrepreneurship (1 year) Master of Studies in Entrepreneurship (2 years)

Source: http://rankings.ft.com/businessschoolrankings/top-mbas-for-entrepreneurship-2018

Corporate entrepreneurship development is the process of improving entrepreneurial skills. Through training programs, such as entrepreneurship courses and classes, one can learn about various requirements to become successful as an entrepreneur including conducting opportunity analysis, developing a business plan, starting a small business, acquiring financing to start the company, and scaling the business. Most of the courses requires having a fundamental understanding of business skills such as accounting and finance, marketing, and strategy.

As with online courses, the offline offer can also be analysed according to the evaluation criteria from the multi-level perspective. Analysing selected educational offers based on the Top 10 MBAs for Entrepreneurship 2018, it can be stated that they mostly concern general issues of entrepreneurship or innovation management or strategic management (Table 4).

Table 4. Offline educational offers on corporate entrepreneurship

Higher education institutions (country)	**Selected educational offers**	**Main focus of the multi-level perspective**
Stanford University (USA)	a Stanford GSB Executive Education Programme in "***The Corporate Entrepreneur: Driving Innovation and New Ventures***" focused on five modules: • Corporate Entrepreneurship • Competitive Strategy for Corporate Entrepreneurs • Harnessing Stories for Innovation and Growth • Financing Innovation • How Strategic Innovation Happens The main goal is to engage with the people who've educated and nurtured generations of the world's most successful business visionaries. And profit from connecting with other gifted peers.	Individual level Corporate level
Babson College (USA)	• offers 38 ***entrepreneur-related courses*** for more than 2000 students who are enrolled in entrepreneurship classes, • about 321 startups were launched by graduates in last 5 years	Individual level Corporate level System level
Lancaster University Management School (UK)	• Master of Sciences (Msc) in "***Entrepreneurship and Innovation***", focused on the following courses: • Building Competitive Advantage • Business Planning and Finance • Design thinking and innovation • Entrepreneurial ideas and skills • Corporate entrepreneurial mind-set • Entrepreneurial lab • Family Business Management • Research Project • Researching Entrepreneurship, Strategy and International Business • Strategic Purpose and Leadership	Individual level System level

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Higher education institutions (country)	**Selected educational offers**	**Main focus of the multi-level perspective**
City University of London, Cass Business School (UK)	Master of Sciences (Msc) in "***Entrepreneurship***", including the following issues, e.g.: • New Venture Creation • Managing Innovation • Accounting for Entrepreneurs • New Product Development • Funding the New Venture • High Growth Entrepreneurship • Managing Operations for Scaling Up • Leading Entrepreneurial Teams • The Entrepreneurial Adviser: Problem Solving for Early-stage Companies or new initiatives • Business Research Project Besides that offer, this programme offers an international module which includes the following electives: • Strategic Innovation in Hyper Competition (taught in Bologna, Italy) • Startups: International Field Trip (taught in Krakow, Poland) • Startups: International Field Trip (taught in Buenos Aires, Argentina) • Procurement (taught in Mannheim, Germany)	Individual level Corporate level System level

WHU – Otto Beisheim School of Management (Germany)	Master in "***Entrepreneurship***" includes different modules, e.g.:
	• Core modules
	  ○ Corporate Entrepreneurship
	  ○ Sprint2Berlin
	  ○ Accounting and Financial Analysis
	  ○ Industrial Organization
	  ○ Advanced Entrepreneurial Marketing Finance
	• Optional modules
	  ○ Venture Capital Finance
	  ○ Planning and Pitching your own Venture
	  ○ Managing IT, Coding Developers
	  ○ E-Commerce Operations Management
	  ○ Entrepreneurial Selling and Customer Development
	  ○ Social Entrepreneurship
	  ○ Value Generation in Family Firms
	• Special programme modules
	  ○ Die Start-up-Perspektive – Sprint2Berlin
	  ○ Die Unternehmens-Perspektive – Corporate Entrepreneurship
	  ○ Advanced Marketing and Finance for Entrepreneurs
	
	The programme also includes an international component: a semester abroad (120 credit programme) or the Capstonemodule (90 credit programme). At the end of the study programme, students have the opportunity to present their ideas and business concepts to German and international investors during the concluding Demo Day in Berlin.
		Individual level
		Corporate level
		System level

University of Oxford (UK)	an ***Oxford MBA*** developing fundamental and real-world skills, e.g.: • fundamental skills: ability to think logically, laterally and independently; shaping career goals through industry specific electives; global leadership • real-world skills: teamwork; leadership, entrepreneurship; conflict management; negotiation; strategy building	Individual level Corporate level System level
ESMT Berlin (Germany)	• founded by 25 leading global companies and institutions • offers a full-time MBA, an executive MBA, a master's in management, as well as open enrolment and customized executive education programmes. Exemplary, the Executive Programme "***Managing Technology and Strategy***"includes: • Entrepreneurship in new and existing organizations	Individual level Corporate level System level

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Higher education institutions (country)	**Selected educational offers**	**Main focus of the multi-level perspective**
	• Bringing ideas from inception to market • Articulating and testing assumptions • Developing scalable business models Pitching and selling ideas	
Chicago Booth (UK)	Executive Education programmes, delivered through components such as: case studies, interactive group discussions, and simulations, working on special projects (co-designed with the client) applying relevant content to the client business imperatives, e.g. • ***Entrepreneurial Discovery*** - an experiential lab course that teaches an entrepreneurial design method to discover pressing needs in complex problem areas that will enable the design of innovative solutions	Individual level Corporate level System level
Harvard Business School (USA)	***a broad offer in entrepreneurship***, e.g.: • Launching New Ventures: Jump-Starting Innovation for Entrepreneurs and Business Owners • Leading Growing Ventures • Families in Business: From Generation to Generation	Individual level System level
NOVA School of Business & Economics (Portugal)	an ***executive education*** offering among others following courses: • Innovation and Entrepreneurship • Leadership for Sustainable Innovation • Marketing, Strategy and Innovation • Innovation & Decision Making	Individual level System level
Cambridge Judge Launchpad (UK)	• Postgraduate Diploma in "***Entrepreneurship***", • Master of Studies in "***Entrepreneurship***" delivered through a combination of: immersive residential learning and networking in Cambridge; working through online learning content and tools, with an 'action learning set' of fellow innovators and creators; coaching and mentoring from experienced entrepreneurs.	Individual level System level
Michigan School of Business (USA)	• a course in "***Entrepreneurial Business Basics***", focused on how to make a product or service idea real in the form of a tangible, marketable product and an organization that can produce and distribute it. • topic areas covered include: motivation and social purpose of entrepreneurship, market research and product development activities, people resource management, capital resources management, and go-to-market management.	Individual level System level
INSEAD (Singapore and France)	over 50 Open Programmes in executive education for more than 10,000 executives from leading international organizations each year, e.g. • the ***INSEAD Social Entrepreneurship Programme*** (ISEP), integrating cutting-edge theory and practice for impact business, potential to create social and economic value through collaboration among entrepreneurs, companies, investors and public sector	Individual level System level
Porto Business Schools (PT)	Porto Business School provides: • advanced management training activities and interventions in the field of consulting and coaching for businesses, as well as for public administration and other non-profit organizations • course in "***Digital, Entrepreneurship and Innovation***" focused on Digital Transformation, Design Thinking, Data Mining, and technological disruption	Individual level System level
School for Startups (UK)	• offers a ground breaking training courses, curricula, and policy advice, • launched the "***Entrepreneurs & Education Programme***" to deliver introductory and advanced sessions, encouraging and developing employability and enterprise skills amongst all educational institutions contributing communities,	Individual level Corporate level

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Higher education institutions (country)	**Selected educational offers**	**Main focus of the multi-level perspective**
	• corporate trainings include a range of interactive workshops, engaging seminars and challenge activities that inspire startup thinking and empower staff.	
The Singularity University	• a global network of experts from Canada**,** Netherlands, Denmark, Sweden, Norway, Finland, Portugal, South Africa • across ***a wide range of topics***, including exponential technologies, global grand challenges, entrepreneurship, and organizational innovation.	Individual level

Source: Own study.

Based on the analysis of the face-to-face courses it can be emphasized that there is a broad offer on entrepreneurship. Some courses discuss how to come up with an idea, how to discover innovative products, understand economic development, learn about financial risk, and how to assess opportunities. Other courses will dive into how to do market research, how to choose your target audience, how to position your company, how to pitch and finance your company, and how to manage people as an entrepreneur. Nevertheless, the educational offer on corporate entrepreneurship is only limited available.

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5. EXISTING LEARNING TOOLS AND TRAINING APPROACHES USED BY COMPANIES

10 interviews have been conducted among diverse companies from different industries: PGE Accelerator (energy sector), Philip Morris International (tobacco sector), Azoty (chemical sector), Tauron (energy sector), Philips (electricity utility), EDP (electricity utility), Altice (telcom), Rohe (pharmaceutical sector), Nestlé (food and beverage sector) and Fidelidade (insurance). All the companies have at least a few years of experience with working with startups in various cooperation forms.

Individual in-depth interviews were aimed at talking to representatives of the company's management team, every day dealing with the problems of enterprises cooperating with startups and knowing the specificity of this kind of cooperation. The assumption of these interviews was to conduct talks with experts. Because the interview scenario contains only open questions, there were no good or bad answers - only opinions and expert knowledge of the respondents.

The results are presented within four broad themes which emerged through the content analysis process. These are:

1. Corporate Entrepreneurship experience
2. Existing training and development corporate programmes
3. Evaluation of the up-to-date training experience
4. Needs and gaps analysis

5.1 INNOVATION ORIENTATION

"Innovative" is something that all companies consider themselves to be. This is especially true when talking about technical innovations linked to their specific businesses areas. Nevertheless, "corporate entrepreneurship" is still being something new for the majority of them. The first initiatives started on the last 2/3 years and were born out of the necessity of doing things differently and in order to pick up the pace in an ever changing world.

During the interviews, we felt a huge barrier from corporates regarding training. In general, corporates feel they are on top of the theme. Several companies revealed some arrogance regarding training needs.

On the other hand, there's a curiosity about how others (entrepreneurs and startups) are doing things and how this way of working can add value to a company. This narrative arises the feeling of emergency – the need to do something right now in order to not be left behind and staying relevant.

For example, a manager of an interviewed company said that "there is more and more the awareness of changing needs. We believe there are easier ways to get a changing culture. Different ways that can be more agile and, then, can facilitate and democratize processes."

Most of the cooperation between entrepreneurs and startups is made through "open innovation" programmes. Two main interests were reinforced about open innovation programmes:

- Learning with startups mindset, culture, methodologies and agility.
- Doing business with startups, creating a more robust go-to-market solution or service.

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"We are determined to diversify our product portfolio, so innovation is now our priority. The industry is moving on very quickly!".

For corporates, the outcome of the interaction with startups is faster in a company with an internal changing culture. Corporates are looking for a bigger outcome through the dissemination of more creative and agile approaches that can help them prepare and foster the future. Thus, corporates believe they need to create a strong network of partners or providers in the innovation and entrepreneurship ecosystem:
"We are partners in a startup accelerator programme. We are currently running 3 programmes for different business units at our company. We see a huge potential in collaborating with startups".

Consequently, when talking about the entrepreneurship and innovation mindset, training is more linked to "learning by doing", not theoretical courses.

5.2 EDUCATION AND TRAINING

The educational offers in entrepreneurship and innovation that are being currently proposed by companies are linked with the specific strategic moments of the companies. Despite of entrepreneurship and innovation being highly visible themes, companies are dealing with it in different ways.

Companies, in general, see face-to-face workshops as the best way of providing training. Corporates believe these activities are more engaging and, consequently, result in more knowledge acquisition and career growth.

Even so, it is still an option that is expensive and slower when it comes to an urgent need of providing training to a large number of employees.

Some companies are starting now introducing workshops and courses on entrepreneurship and innovation subject through internal training. As examples of internal training initiatives, we have the Corporate University and the partnerships with providers like Linkedin Learning:
"I think we have different offers... It's all about working agile and fast... It's mainly focused on customer centric, design thinking, lean canvas model, and some new methods. Also, we have some external providers to deliver these trainings."

We realized that online courses (MOOCs) are seen, sometimes, as a good introduction to the entrepreneurship theme (when is has an interesting level of gamification/engagement/pace):
"The inspiration part counts a lot! Online training takes out this dimension. It takes away the emotional and inspirational aspect that we believe is helpful. When we try to capture the attention and time of our colleagues, 95% of the time we use subjects and themes on top of everything they already have to do on a daily basis. There is only one way to achieve this. Somehow, they feel inspired and connected to the project."

The main subjects of interest in MOOCs is connected to questions regarding the need of understanding startups (who they are? how to connect/engage with them? How to work and learn from startups by using methodologies such as design thinking, lean startup, agile, scrum and prototyping? How to establish meaningful partnerships?).

This is still a movement that is being made by corporates, whose aim is to try to get a hold of a new reality and a new way of doing business.

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5.3 TRAINING AND DEVELOPMENT EXPERIENCE

The next step of the study was to evaluate the experience that the companies had with training programmes and their evaluation.

Table 5. Evaluation of training offer based on respondent's statements

Number of respondent	Type of training offer	Selected respondent's statements
4	none	Best learning is through action, not through courses or training.
3	many different areas of training	Employees are happy with the trainings provided. The company pays little attention to evaluation.
1	own "university"	Automated detailed evaluation after each course.
1	starting own training programme	Too early to say, only starting the programme.
1	own training programme	Very well evaluated

Source: Own study.

Four of the studied companies do not conduct any training, because they value learning through action more than trainings (even training programmes dedicated to a specific company) – "*the accelerator is our training ground, we learn a lot along working with startups*". They believe that employees learn by practicing in real time activities as a part of a supervised process.

Some of the companies pay great attention to detailed feedback after any type of training – "*we get a link right after classes on the email to assess the lecturer, which was good, what was not, what was wrong*", "*the evaluation is based on questionnaires with questions such as: How many percent was new knowledge? How many percent was useful? Why?*" Those questionnaires are automated, which helps in evaluation of the results.

Most companies admit to having trainings provided by external companies - "*We had very good trainings in business models, provided by external firm, many trainings on technology development specific for energy sector, but also IT security*" and admit that employees are satisfied with those trainings - "*people are generally very happy with our trainings*".

One company that has their own learning platform shared information, that the online course they created worked very well, because startups helped prepare the outline of the content –"*it worked very well, these startups helped tackle questions regarding our service in order to make it more efficient.*"

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Table 6. Evaluation of corporate experiences with MOOCs

Number of respondent	Tried / not tried	Respondent statements about MOOCs
4	no	I don't see value in online training
1	no/yes	We don't use open resources due to company policy, but employees use MOOCs in their own time.
1	no/yes	I looked into MOOCs but still haven't tried
2	yes	The online trainings we had were very good, but I prefer face to face trainings
2	yes	We want to prepare our own MOOCs

Source: Own study.

Although four of the interviewees don't see value in online training in the context of their company, 2 of participants were so enthusiastic about MOOCs, that they already worked on creating dedicated online courses for their companies.

The authors of the study believe that the negative approach towards online training might be a result of not having enough experience with MOOCs. The managers who replied so have not had previously participated in any MOOCs.

The two companies mentioned having their own online learning platform admitted that they'd rather create their own online training, tailored especially to their needs and expectations, rather than using external tools, but in general they were open to external good quality MOOCs. They were so enthusiastic about internal online training programmes, because they could teach and explain how the cooperation with startups looks in this specific company - "*One of the trainings that could be taught is to really get people to know what entrepreneurship is about, what is this thing about startups, how is the programme inside the company structured, how does it work, how can you help people.*", "*People do not see the value that these kinds of programmes can bring, since they are very closed in on themselves and sometimes have some difficulties in accepting what comes from the outside. I would start out there, by the definition of what is entrepreneurship, what are startups, and then how do the programmes that companies promote really work and what are the benefits the programme can give to different stakeholders within a company.*".

Companies also treat this kind of learning tools as promotion of their success stories – "*We're even thinking about creating our own videos so that we can create online learnings ourselves. Maybe examples of teams that have applied, maybe innovation in affiliates... we make a short video and they start sharing it. We're already creating some videos where people share some experiences. It's a bit about knowledge sharing as well*".

There were also doubts that a MOOC on corporate entrepreneurship could not offer a practical approach, although some topics that might be interesting in the online form were mentioned "*the methodologies of a startup, the tools of trade, the cycles of startups, interactions with startups*", but only when provided with practical examples.

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Then the managers were discussing logistic details of online courses. They underlined that for MOOCs practical approach and business examples are crucial and there is no point in having only theory-based online learning.

On one hand the interviewees replied that MOOCs are very useful and helpful for the learning process - "*It's very like self-service, it's easier to access the materials, to book a week off and then go into a training and easily get to it. […] It's a bit about knowledge sharing as well*". On the other hand, there was a fear that employees will not have enough time and energy to engage in this learning process - "*Employees do not pay much attention to them and just want to finish the course as fast as possible with as little effort as possible*." When talking about creating their own learning platforms or MOOCs, they unanimously declared that "*this [creating own online courses] is a continuous process that requires large investments*.".

The interviewees were not keen on talking about costs and curriculum. The only conclusions we can draw in terms of the curriculum is again that the more practical approach – the more valuable the training is.

Table 7. Self-discipline and completion rate of online trainings

Number of respondent	Tried	Respondent statements
4	no	No information if employees use online training in their free time.
4	yes	High self-discipline, high completion rate.
1	yes	Employees use MOOCs only in their free time. It is not recognized by the company.
1	yes	"The internal e-learning platform is obsolete. People aren't even engaging a bit."

Source: Own study.

Again, four of the interviewees admit that they're not using the online training as well as they don't monitor if their employees use online training in their free time.

Four of the participants declare that their employees who engage in MOOCs or online training, finish the courses and are well self-disciplined to do so - "*Our internal online tutorials have a very high completion rate*". Some of them are probably also obligatory for specific employees.

Additionally, the company demands that they finish the courses they submitted to, because the company pays for it - "*Yes, of course. If we sign up for a training it must be completed, the company pays for it.*"

The participants also underlined the importance of certificates that the participants might achieve after finishing the course - "*In addition to our platform and online webinars, there are also annual programmes that end with a certificate*". A formal document stating that the participant has finished the course is a valuable reward for the participant and is recognized by employers.

One of the managers admitted that he and his staff use online training and MOOCs, but only in their private time and it is not recognized by the company - "*Me and my people do follow stuff online, but it is purely informal training*". This also shows that people are interested in gaining new knowledge and skills through online courses even though the company will not recognize it.

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Another company has such obsolete online learning platform, that people don't use it any more. They are investing right now in creating new tools and more modern platform, but it's only a beginning of a complex process. It is difficult for them to say what will be in the future. They also do some online training in terms of educating employees about corporate strategy – these trainings are obligatory for all the employees.

Companies also underline the necessity of flexibility of the course - "*We have multiple dates that people can subscribe to, they can book it online. So quite flexible, depending on the person availability we try to offer multiple possible dates. [...]*".

An interesting opinion has also been shared about the power of word, networking and competition - "*More and more people are coming to these workshops and trainings, there's more and more demand - I saw my colleagues do something and now I want to do the same or a leader did a workshop and I also want to do so. People are imitating each other and you get a domino effect. You have early adopters and followers but some people will never want it and maybe a decision comes in time to see if these people are still fit in this company*". It's been observed that employees want to follow good examples of their colleagues and they don't want to miss out on new knowledge/competencies. Those trainings are perceived as professional/personal growth, so people take chances to participate in them, especially if they have already been tested by their co-workers.

When talking about profits from those trainings, the interviewees mention "*New mindset, more open, proactive, teamwork oriented, agile approach, lean startup approach, fast forward approach - these methodologies are now within our system*". One participant also mentioned gamification as a new strategy for educating employees. This solution engages participants even more and creates an atmosphere of fun and cooperation but also competition.

Companies also mentioned that they need diverse skills on different posts, so training programmes might vary among employees - "*we need very complex sets of skills and knowledge, so it depends on the individual*", but in general most of the companies invest big money in the development of their employees - "*In general, the company invests a lot in the development of employees*".

5.4 NEEDS AND GAPS ANALYSIS

The next step was to investigate the current gaps in training inside the studied corporations cooperating with startups. This part was aimed at exploring if corporate entrepreneurship fits into the needs of companies. In this case the answers were very diverse and specific to the stage of development of the company/accelerator and their individual assets.

The manager of one of the corporate accelerators stated, that because they already hire experienced professionals with all necessary competences and knowledge, they don't need to train them any more - "*We hire people who already have experience and necessary skills, so we don't have many training gaps. If we do - we hire a consulting company to help us.*" This is an attitude possible for new accelerators which hire experts because they cannot afford to spend time on teaching new people. Probably, when the accelerator grows, new employees will be hired and mentoring will be implemented as well as possible external help. If any needs occur – the company admits to hiring a consulting company to help them.

Another company is right now in a situation, where new skills and knowledge are required and at this particular stage of growth the company needs external help in order to fill these gaps - "*We are in a*

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situation where we need to reskill the organization and there is no time. So some skills we need to buy, we have urgent need of new talent and experts." This is an interesting stage, because it offers the biggest opportunities for cooperation with external trainers, consulting companies and using online training. This is an excellent example of a company which is aware of its gaps in skills and know-how and is creating a whole strategy of cooperation with educational environment.

This is not the only example of clear awareness of training needs and engagement in the training process." *The company has dedicated people in individual regions that are responsible for measuring competences and talking to superiors, and plan actions in this area. For example, the company has launched a special Talent Management programme for future management staff.*" As clearly visible, most companies take the education area very seriously.

As the presented above companies, most of the interviewees admitted that their company gives full support to developing employees – "*we have full support from our superiors to find the necessary trainings and take part in them. We address our needs instantly every time*".

In terms of accelerators, important gaps seem to be involved in innovation management and governance, as well as open innovation issues, agile/ lean methodologies. Soft skills such as mentoring (especially educating tech mentors) and skills connected with all types of interactions with startups (like how to contact/work with/give feedback to startups) are also perceived as crucial. It was underlined during the interviews, that corporations and startups have different perception of time, different decision-making processes, different obligations and official paths of every decision, that is why it is essential to teach both parts how to cooperate with each other, understand each other and create value from those differences. "*Mainly changing the organization mindset - becoming more agile and prepared for the future*" is the goal of all of the participating companies.

There were many difficulties addressed concerning cooperation with startups, that are interesting areas for training programmes - "*The internal resistance about working with startups. There's always the question regarding the resilience of the startup, what kind of difficulties it will have and if it can hold itself in the market context. If we are selling that product to a customer, what guarantee that do we have that that product will remain in the market in the near future? [...] Than there's the question of believing that the startup has the capability of working with being with us. Then, there are the internal resistance, which are common in large companies... Someone comes from the outside saying how you should do something. If the perceived value from working closely with a startup and what can be gained from this collaboration becomes clear, I believe people will start looking at this ecosystem differently*". Also differences between corporation and startups seem to be of high importance, such as decision making process, expectations towards cooperation, attitude towards time/change/money etc. - "*The biggest problem is with common understanding between corporates and startups - they have different decision making processes and different expectations - this is the biggest challenge for the future.*"

In terms of future needs, the most common answer was "*We need innovation experts*" as well as agile thinking - "*in the future, one competence of agility will be important. This is transversal competence. We were taught for years through the so-called Lean Basic Leadership, being rather standardized. Agility is a completely different range of methodologies. For sure it will go in the direction of combining agility with this thinness and creating something new. Agility also requires learning what has already been done and checking if someone has already done it before we do not take something in, that is, knowledge management skills in the company, knowledge of completed projects, case studies that have arisen, learning from own failures and learning from the failures of others.*"

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Modern technologies, industry 4.0 and digital evolution also appeared to be challenging - "*I think it would be great if there could be topics, emerging topics, emerging trends being part of that, be it machine learning, robotics, automation, digitalization of healthcare... […] And maybe benchmarking, different industries speaking about how they approach it, how is healthcare industry doing it or the tech industry doing it.. because we can also learn from others*". It's obvious that corporations need to monitor the changing environment and keep in track of what new solutions are created – that is why the corporate accelerators work with startups. This affects the company's competitive advantage and helps to develop the business.

Those information, gathered in this part of the study, are identified by interviewees who are responsible for mapping these gaps – "*Because I am responsible for the accelerator and these areas are new to us, before we just had our R&D, now we are faced with new challenges, legal, organizational, cultural etc.*". They are the managers responsible for change management and organizing the cooperation, that is why they are the perfect source of knowledge in terms of training gaps.

Table 8. Expectations towards MOOCs

Number of respondent	Respondent statements
2	Not interested in participating in MOOCs
5	Enthusiastic about participation in a new one, that would relate to their field and very practical
1	Haven't heard of MOOCs before
2	Haven't tried before, but would be interested under some circumstances

Source: Own study.

What is interesting, one interviewee has never heard of MOOCs and that's why it was hard for him to express his expectations towards it. The one who has previously engaged in this type of education, was enthusiastic about participating in the MOOC about corporate entrepreneurship – "*I have done MOOCs in the past and it was a great learning experience, some MOOCs deliver up to date knowledge, in very high quality, so I always expect to learn new things, relevant to my work.*"

Two interviewees underlined, that gamification would be extremely interesting; "*imaginary levels, to retry and feel fulfillment*". The interaction and practical examples were mentioned numerously – "*For me the online courses would need to have: numerous consumer interactions, practical examples, adapting content to each company would be great. If it is in a visual way it can even be fun!*"

One more important thing was mentioned – time and engagement. In the participants' opinion, time dedicated to the MOOC should be well spent. The materials should be engaging, interesting and effectively spreading knowledge - "*We need to be on the collaborator shoes, someone who is in stress during those seven hours of the day and yet, when a teacher for the online training appears he realizes that it's worth taking a 20-minute break to see what they want with him... and he starts taking the course, makes it to the end and has an interest in continuing - effectively gets the knowledge. [...] There are so many external stimuli that the training must be something that attracts attention, that captivates. Everything we do has to be responsive, it has to go from one screen to another.*"

As time is a crucial sphere of every business person, we also wanted to find out if the interviewed corporations allocated special time for employee training in their schedules.

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Table 9. Time allocated especially for training employees

Number of respondent	Opinion
5	Yes
5	No

Source: Own study.

Half of the participants easily replied, that their companies fully support employee development and that it's connected with their organizational culture - "*Yes. It is related to the company's culture.*", "Yes, we have full support from our superiors". They also stated that employees can book their time in their own calendars for any type of training - "*Yes, people can book time in their calendars for training*". It shows that innovative companies see value in training (both in-person and online) and are willing to not only pay for it, but also allocate time in their busy schedules.

The conducted interviews gave an interesting insights in corporate strategies towards employee development and education. The responses were diverse, but through choosing companies with such different attitude towards online training and MOOCs, we were able to see the full picture and prepare properly for the next phase of the project.

Based on the conducted interviews we were able to identify crucial success factors for the prepared MOOC:

- clear definition of entrepreneurship and intrapreneurship,
- clear definition of a startup,
- benefits of cooperation between corporations and startups,
- methodologies of startups,
- interactions with startups,
- social and legal context of this cooperation,
- innovation management, and governance,
- open innovation issues,
- agile/lean methodologies,
- soft skills (mentoring and educating mentors),
- skills needed in interactions with startups,
- internal resistance about working with startups and how to deal with it,
- differences between corporations and startups (decision making processes, time management, expectations towards cooperation, attitude towards money, attitude towards change etc.).

All these areas should be filled with practical examples, good practices and knowledge-sharing. It was also suggested, that a certificate after finishing a MOOC is a valuable document confirming qualifications and new knowledge and skills.

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6. CURRENT CORPORATE ENTREPRENEURSHIP RESEARCH PROJECTS

Given the aim of the research, this section provides an analysis of the existing research projects dedicated to corporate entrepreneurship or similar issues related to it. Analysing the selected projects on corporate entrepreneurship, the evaluation criteria based on the multi-level perspective (individual, corporate and system) were applied. Given the interconnected multi-level perspective framework, we included in this section selected projects focused on: (1) skills development for corporate entrepreneurship, (2) startup and acceleration activities, and (3) ecosystem and fundamental entrepreneurship issues.

The criteria for selecting exemplary projects include: (1) entrepreneurship projects financed by the EU (e.g. within the Horizon 2020 Programme, Erasmus + Programme, 7th Framework Programme), (2) international projects implemented by interdisciplinary stakeholders (not only universities), (3) projects currently being implemented or completed no more than three years ago.

Research findings suggest that organizations are increasingly implementing corporate entrepreneurship practice as a way of innovation development. This is a requisite for companies seeking to remain competitive, especially in uncertain and turbulent times. According to the meta-analysis perspective, the exemplary projects contribute to corporate entrepreneurship development by shaping of entrepreneurship competencies, reinforcement of intrapreneurship and entrepreneurship potential of companies as well as supporting of ecosystems for startups. Although various innovative tools were developed or used in these research projects, the conducted analysis shows that there are no available online or face-to-face trainings supporting the corporate-startup collaboration given the needs issued by managers. However, according to the interconnected multi-level perspective framework on corporate entrepreneurship education the projects assigned to the corporate level indicate important approach that can be applied for the CORSHIP project, e.g. based on the following projects: Startup Europe Partnership, Startup Europe Partnership 2.0, Speed UP! Europe.

6.1 RESEARCH PROJECTS ON SKILLS DEVELOPMENT FOR CORPORATE ENTREPRENEURSHIP

The first group of projects focused on corporate entrepreneurship includes issues on enhancing the entrepreneurial competences as well as promoting entrepreneurship and diminishing the fear of failure by encouraging young entrepreneurs to take the path in an interactive, proactive and innovative way. The purpose of these projects was also to determine whether entrepreneurship education and action learning projects support managers and corporate entrepreneurs in their management activities.

Analysing the research projects on skills development for corporate entrepreneurship, different evaluation criteria based on the multi-level perspective (individual, corporate and system) were applied (Table 10).

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Table 10. Selected research projects on corporate entrepreneurship

Selected projects (Start date / End date)	**Key goals and/or results**	**Main focus of the multi-level perspective**
SCOPE – Skills for Corporate Entrepreneurship (2017 / 2019)	The overall project objectives: • to foster innovativeness and company growth in European companies; • to establish intrapreneurial structures within companies; • to enhance the competences and intrapreneurial skills of employees • to fit the real needs and expectations of managers and leaders, and increase the quality of VET education The expected intellectual outputs: • Corporate Entrepreneurship Good Practice Catalogue • Corporate Entrepreneurship Competence Matrix for Managers and Employees/Students • Corporate Entrepreneurship Training Programme • Corporate Entrepreneurship Guide Book & Promotional Video There are two separate training programmes: • first, to nurture intrapreneurs on employee-level, • second, to equip managers to generate the necessary structure and frameworks to stimulate intrapreneurship within their companies. The free intrapreneurship courses were taught using contemporary training methods, such as problem-based learning, game-based learning, case study analysis, and blended learning.	Individual level System level
FACE Entrepreneurship (2015 / 2016)	• focused on promoting entrepreneurship and diminishing the fear of failure, taking the path of entrepreneurship through the use of gamification methods • dedicated to encourage aspiring entrepreneurs to take the path in an interactive, proactive and innovative way, thus diminishing the fear of entrepreneurship The main outputs: • Creating a game with 63 squares that reflect the different stages of entrepreneurship. • Launching an important communication action in order to make a great impact in Europe, via social net networks, the media and different partners who work together with us, including Wayra (Telefonica) and Microsoft who offer their full support: infrastructures across Europe, specific actions, expertise in entrepreneurship and dissemination	Individual level System level

Source: Own study.

6.2 RESEARCH PROJECTS ON NEW TRENDS IN CORPORATE ENTREPRENEURSHIP

The second group of projects concerns new trends in corporate entrepreneurship, especially regarding the development of startups and the creation of accelerators to link the most promising European startups with the large and medium corporations who are committing capital, human capital and procurement channels. Such projects aim at enhancing the accelerator ecosystem combining environmental startups to large enterprises. This leads to development of a multidimensional network

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in which startups find the chance to commercialization of their projects and to gain the necessary experience and large enterprises inalienable resource as implemented innovation.

Analysing the research projects on new trends in corporate entrepreneurship, different evaluation criteria based on the multi-level perspective (individual, corporate and system) were applied (Table 11).

Table 11. Selected research projects on new trends in corporate entrepreneurship

Selected projects (Start date / End date)	**Key goals and/or results**	**Main focus of the multi-level perspective**
Startup Europe Partnership (2015 / 2016)	• The SEP project was under the umbrella of the EU Startup Europe initiative launched by the Entrepreneurship 2020 Action Plan, and aims to bring Europe back to innovation and economic growth. • Established by the European Commission in January 2014, the SEP was the first pan-European open platform dedicated to supporting the growth and sustainability of European startups able to compete and raise funds at international and global levels. • SEP was developed in partnership with key actors in the EU startup ecosystem, including leading corporates (Telefónica, BBVA, Orange), educational institutions (Cambridge University, IE Business School, Alexander von Humboldt Institute for Internet and Society), and investors (AngelList and the European Investment Bank Group/European Investment Fund). • SEP was focused on scaling up new innovative ventures, by scouting the most promising European startups and connecting them with the large and medium corporations. • To reach the goal of helping the best European startups to scale-up, SEP initially used the following activities: – Matching-Through a series of international events where the best European startups have the opportunity to meet decision makers of corporates with a specific and concrete interest in procurement, investment and acquisition. – Mapping-In parallel with the Matching Events, relevant information about startups will be collected. The goal is to map the most interesting European startups and to track their performance and evolution. – Sharing-SEP identifies key forms of support that leading European companies provide to scale startups, including corporate acceleration, intrapreneurship, corporate venturing and acquisitions. SEP will produce and share an online repository of best practices to encourage more and stronger corporate-startup relationships.	Corporate level
SEP 2.0 - Startup Europe Partnership 2.0 (2018 / 2019)	• an integrated pan-European platform to help the best startups emerge from local ecosystems and scale-up • connecting top European startups to established Corporates and Stock Markets/Investors, including financing to encourage growth and business development, and expose them early to concrete strategic options • supporting European tech scaleups for opportunities such as exit and going public (IPO) • engaging different stakeholders of the project (scaleups, investors, and corporations) during organized Scaleup Summits hosted by the main European stock exchanges.	Individual level Corporate level

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Selected projects (Start date / End date)	**Key goals and/or results**	**Main focus of the multi-level perspective**
	Startup Europe Partnership (SEP): • ranks "Europe's Corporate Startup Stars", a ranking of the most startup friendly corporates in Europe, each year, • connects the European ecosystems with Silicon Valley (SEC2SV mission) and Israel (SEC2IL mission).	
ACCELERATE -A Platform for the acceleration of go-to-market in the ICT industry (2013 / 2016)	• The aim of the Accelerate project was to create services to accelerate the speed from ideas to business, based on the needs of the European technological industry. • The services were implemented in technological innovations, streamlined processes and new software technologies.	Individual level Corporate level
Speed UP! Europe (2014 / 2016)	• SpeedUp!Europe was an disruptive end-to-end acceleration and support programme to foster entrepreneurial education, innovation and ramp-up to finance, covering the entire entrepreneurial process from idea inception to prototype development and public-private funding. • The project provided disruptive specific coordination and innovative support actions for team formation, seed funding, coaching/mentoring/training and finally access to CrowdFunding, EU financing and Risk-Finance. • The project issued and managed a call to allocate 5.52M Euros of sub grants for project teams developing innovative services based on the Future Internet Platform "FI-WARE" (the OpenSource Generic Enablers Building Bricks) in the areas of AgriBusiness, SmartCities and CleanTech. • The project was supported by a combination of virtual tools (online platform for matchmaking, idea generation and call management) and a series of physical workshops organized across Europe, where entrepreneurs can meet, grow their ideas, develop their product and receive feedback from customer, partners and investors. • The project also interacted closely with key stakeholders such as corporate industry clusters, national innovation agencies and large corporates and associations in the three target domains. • It was focused on targeting entrepreneurs and SME´s in the field of Future Internet and related products and services.	Corporate level

Source: Own study.

6.3 RESEARCH PROJECTS ON CORPORATE ENTREPRENEURSHIP ECOSYSTEMS

The third group of research projects includes various issues related to entrepreneurship ecosystem and financial resources. In this context, institutional arrangements and their ability to mobilize Europe's human, financial and knowledge resources for entrepreneurial activity play an important role.

Analysing the research projects on ecosystem-related issues for corporate entrepreneurship, different evaluation criteria based on the multi-level perspective (individual, corporate and system) were applied (Table 12).

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Table 12. Selected research projects on ecosystem-related issues for corporate entrepreneurship

Selected projects (Start date / End date)	**Key goals and/or results**	**Main focus of the multi-level perspective**
Financial and Institutional Reforms for the Entrepreneurial Society (2015 / 2016)	• The project focused on the broader contexts of smart, inclusive and sustainable growth in Europe to support implementation of the Commission's 'Europe 2020' growth strategy and to restore Europe's ability to innovate, grow and create jobs over the coming decades. • The objective of the project was therefore to thoroughly analyse European institutional arrangements and their current (in)ability to mobilise Europe's human, financial and knowledge resources for entrepreneurial activity. • The project developed and provided the tools for policy makers to assess the quality of national and regional entrepreneurial ecosystems and to identify the main strengths and weaknesses with regard to making the transition. • Based on this assessment, the specific proposals to enhance the allocation of talent, finance and knowledge to new value creation were formulated.	System level
WELCOME: Pan-European Web Entrepreneurship and Startup Ecosystem (2015 / 2016)	Targets for WELCOME activities: • To create a Pan-European tech entrepreneurship ecosystem, based on 5 different major EU local ecosystems (Berlin, Dublin, Milan and Madrid/Salamanca areas), identifying and connecting the most relevant players (e.g. investors, mentors, corporates, media, successful tech entrepreneurs) with prospective tech entrepreneurs, emerging and successful startups, in which every tech entrepreneur in one of the local ecosystems feels that they belong to WELCOME ecosystem. • To bring the best players of each local ecosystem into the WELCOME Pan-European Ecosystem by providing them with the best support and services to efficiently launch and scale up their operations across EU, exposing them to new financing opportunities and linking tech entrepreneurs with key actors to increase the number of business relationships between startups and existing companies as well as investments in startups and acquisitions by medium and large corporates. • In addition WELCOME also aimed to bridge the divide between the tech entrepreneurial world and policy makers.	Individual level System level

Source: Own study.

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7. CONCLUSIONS

This report aimed at analysing of current educational offers in regard to corporate entrepreneurship, provided by universities and corporate training centres. In addition, the report identified the existing gaps and opportunities related to growing the potential of corporate entrepreneurship within the business community at the European Union level.

The outcomes of this report suggest that there is no clarity where and how to access corporate entrepreneurship education, training and development. Because corporate-startup cooperation is a fairly new phenomenon there are no universal frameworks or guidebooks on how to start and pursue this cooperation effectively. Universities do launch education on corporate entrepreneurship related topics, however, there is only a limited offer in the field of startup-corporate collaboration and specifically no offer in terms of innovative online trainings to support the new trends in corporate entrepreneurship given the needs issued by managers. That is why the CORHIP project is important to fill the gap of the existing online educational offer on corporate entrepreneurship.

Based on the state of the art it can be stated that the current educational offers include selective issues of the corporate entrepreneurship development, e.g. by shaping of entrepreneurship competencies, reinforcement of intrapreneurship and entrepreneurship potential of companies as well as supporting of ecosystems for startups. According to the interrelated multi-level perspective framework, owing to the existing online or face-to-face entrepreneurship courses only the general skills and the qualifications in entrepreneurship can be improved.

Online educational offers, including MOOCs, are fairly limited, just emerging in the field of corporate entrepreneurship. However, the courses offer regarding entrepreneurship, technology and innovation is relatively vast. The report established that when it comes to corporate entrepreneurship, enterprises exhibit conservatism regarding MOOCS and the role they can play within organizations; currently they seem to rely on face to face training of employees.

Offline corporate entrepreneurship related internal trainings are varied across companies. The majority of companies emphasized that the best way to provide internal education to employees is though practical training, and not theory-based. Hands-on proactive approach definitely dominates in the corporate world and it takes different forms. Companies joining open innovation programmes with startups, going to innovation summits, entrepreneurship events and conferences. This gives them a feeling of belonging and direction - an opportunity to learn from other corporations, more advanced in corporate entrepreneurship. But, on the downside, especially when talking about a big number of employees, it is not feasible to have an entire workforce dedicated to open innovation. There is a certain hope that individuals that were involved in these events can be leaders of corporate entrepreneurship in the company. In reality this is a slow process, and it leaves much room for improvement.

Developing an internal entrepreneurship culture inside organizations is recognized as being a very important issue that adds value both for the present and in the future. However, many companies do not know how exactly they should do this. All respondents strongly emphasize that their organizations are determined to become more entrepreneurial, more innovative. This reorientation is done mainly by a trial and error approach that includes success stories, bumps and closed roads.

Given the research projects on corporate entrepreneurship it can be emphasized that despite of various innovative tools developed or used to support the corporate-startup collaboration, however, there are

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no offers dedicated specifically to the innovative online trainings for managers supporting the new trends in corporate entrepreneurship. This analysis demonstrated also that there is only a limited offer in the field of development of startup-corporate collaboration and specifically no offers in terms of modern online trainings on corporate entrepreneurship for managers.

When talking about online trainings, the majority of companies have used it to a varied extent, but not on entrepreneurship or innovation. Companies signal that they prefer to rely on training and development programmes customized to their specific needs. In spite of online training being seen complementary and non-effective in all areas, companies still use it because it has the potential to reach many employees at once (much more when comparing with practical training). What it lacks in profundity is overcome by simplicity and its transversal reach. Ironically, this transversal reach and the poor deployment of similar platforms in the past can be seen as an additional risk. Employees have grown tired of additional "work" that only takes time and does not add anything of value that can help them perform better.

Online training is, therefore, presently seen as somewhat boring, lacking in dynamic and also inconsequential, since its use is isolated in time and pace. Any online platform that wants to become a reference needs to overcome these obstacles.

Translating this obstacles from corporate jargon to real tangible actions means making online training not only a place where you can learn about entrepreneurship and innovation, but also a place where you see real business cases regarding the way other partners and corporates from different industries managed to tackle the need for cultural change and to become innovative in true sense - not only by creating new technical artefacts, but by reinventing themselves and their businesses in a world in constant change where competition is key. Online learning needs to be also about creating a community, a place where different corporate entrepreneurship actors can share their story and listen and learn from others.

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