



Supporting the entrepreneurial potential of higher education

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Case Study No. 17:

University Rotterdam, Netherlands: Building the Erasmus Centre for Entrepreneurship and advancing corporate entrepreneurship

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About the sepHE Study

The study "Supporting the entrepreneurial potential of higher education" was based on a contract between the European Commission, Directorate General Education and Culture (DG EAC), and empirica Gesellschaft für Kommunikations- und Technologieforschung mbH (co-ordinator – Bonn, Germany) as well as the University of Wuppertal, UNESCO Chair of Entrepreneurship and Intercultural Management (Wuppertal, Germany).

The study's main purpose was collecting 20 case studies about insightful practice in entrepreneurship education at European universities. This is one of them. The findings from a cross-case analysis are included in the Final Report which is available at the study's homepage and at DG EAC's website.





17 University Rotterdam, Netherlands: Building the Erasmus Centre for Entrepreneurship and advancing corporate entrepreneurship

Overview of contents

17.1	The university's entrepreneurship education profile	4
17.1.1	<i>The university's overall approach to entrepreneurship education</i>	4
17.1.2	<i>Leadership and governance</i>	4
17.1.3	<i>Resources: people and financial capacity</i>	6
17.2	Entrepreneurship in curricula and teaching	6
17.2.1	<i>Overview about curricular offers</i>	6
17.2.2	<i>Target groups</i>	8
17.2.3	<i>Designing lectures and courses – basic curricular decisions</i>	9
17.2.4	<i>Setting of entrepreneurship teaching</i>	12
17.2.5	<i>Instructors: teachers and mentors</i>	12
17.3	Extra-curricular activities related to entrepreneurship education	13
17.3.1	<i>Overview about extra-curricular entrepreneurship activities</i>	13
17.3.2	<i>Target groups of extra-curricular activities</i>	14
17.3.3	<i>Designing extra-curricular activities</i>	14
17.3.4	<i>Setting of extra-curricular activities</i>	17
17.3.5	<i>Persons involved in extra-curricular activities</i>	17
17.3.6	<i>Management of extra-curricular activities</i>	18
17.4	Institutional aspects of entrepreneurship education	19
17.4.1	<i>Organisational set-up and change</i>	19
17.4.2	<i>Mindsets and attitudes</i>	21
17.5	Impact and lessons learned	22
17.5.1	<i>Evaluating impacts of the entrepreneurship education approach</i>	22
17.5.2	<i>Lessons learned</i>	22



Abstract



Erasmus University Rotterdam has a long track record in entrepreneurship teaching and research, notably both in entrepreneurial management and also in the economics of entrepreneurship through its Rotterdam School of Management and Erasmus School of Economics. The central hub for extra-curricular entrepreneurship education, training, and coaching offers is the new Erasmus Centre for Entrepreneurship within the university. Erasmus University has recently expanded its already well-established entrepreneurship education profile by adding corporate entrepreneurship to its agenda of master degree programmes in entrepreneurship and targeting small business owners and corporate intrapreneurs also in its entrepreneurship training offers within the entrepreneurship centre. This entrepreneurship portfolio and the organisation of corresponding education activities in cooperation with a community of entrepreneurs contribute to the valorisation of the university's expertise in entrepreneurship through the Erasmus Centre for Entrepreneurship. This provides instructive insights and options for transfer to one's own university in terms of further developing existing curricular entrepreneurship programmes as well as building self-sustainable entrepreneurship centres based on a resource-efficient set-up of premium education activities together with external entrepreneurs as educators.

Case study fact sheet

■ Full name of the university and location:	Erasmus University Rotterdam, Rotterdam, Netherlands
■ Legal status	Public
■ Location:	Rotterdam
■ Year of foundation:	1973
■ Number of students:	22.367
■ Number of employees (broken down by teaching, research and administrative staff):	2.817 (faculty and support staff; total)
■ Budget in most recent financial year:	545 Million euro
■ Academic profile:	The university is home to the Erasmus School of Economics, Erasmus Law School, the Faculty of Social Sciences, Faculty of Medicine and Health Sciences, Faculty of Philosophy, the Erasmus School of History, Culture and Communication, Rotterdam School of Management, and the International Institute of Social Studies (http://www.eur.nl/english/eur/organisation/).
■ Entrepreneurial profile:	Erasmus University Rotterdam offers entrepreneurship master programmes in both entrepreneurial management and economics and has an excellent ranking in entrepreneurship research. Extra-curricular entrepreneurship activities are hosted by the university's Erasmus Centre for Entrepreneurship.
■ Activities focused in this case study:	Advancement of curricular corporate entrepreneurship master (including a new business development course with external business entrepreneurs); institutional establishment of a self-sustainable entrepreneurship centre through scalable entrepreneurship education and training offers (the Get Started programme to coach start-up founders is discussed in detail)
■ Case contact person(s):	Ferdinand Jaspers, Erasmus Centre for Entrepreneurship

The status of information provided in this case study is February 2015 unless stated differently.



17.1 The university's entrepreneurship education profile

17.1.1 The university's overall approach to entrepreneurship education

In the history of Erasmus University Rotterdam the business community of the City of Rotterdam and individual entrepreneurs played a central role in the university's initial foundation back in the early days of the 20th century – and today entrepreneurship at Erasmus University builds on its humanistic entrepreneurial tradition with the mission to *empower entrepreneurs* (Erasmus Centre for Entrepreneurship, 2013). In terms of entrepreneurship education (EE) in particular, the university has a unique and strong footprint in teaching and research of entrepreneurial management as well as entrepreneurial economics through the Rotterdam School of Management (RSM) and the Erasmus School of Economics (ESE). The established undergraduate and postgraduate degree programmes in entrepreneurship are without doubt insightful on their own terms.¹ The case will zoom in on the rationale of further developing an entrepreneurship teaching profile with a new master programme in Strategic Entrepreneurship. This programme also takes corporate entrepreneurship on board and addresses new target groups for EE such as small business owners, corporate intrapreneurs, and innovation or business development managers.

Integrating corporate entrepreneurship to the curricular and extra-curricular teaching and training portfolio in addition to start-up entrepreneurship is also a key aspect for the university's new Erasmus Centre for Entrepreneurship (ECE). ECE is a company fully-owned by the university and serves as the central hub for entrepreneurship on campus in close cooperation with RSM and ESE. At the same time, ECE's path towards becoming a self-sustainable entrepreneurship centre funded internally through its own extra-curricular education and service offers is very informative (see 17.4 further below). ECE's entrepreneurship training and coaching formats are delivered together with a community of entrepreneurs and other stakeholders contributing to the hands-on and practice-oriented approach in extra-curricular EE within the centre (17.3). In sum, this case is about recent change in terms of further development of curricular entrepreneurship programmes within university faculties and establishing extra-curricular entrepreneurship training in an entrepreneurship centre in close cooperation with a community of entrepreneurs.

17.1.2 Leadership and governance

Importance of government strategies

In the second half of the last decade, the Dutch government supported the establishment of entrepreneurship centres at higher education institutions in a number of different regions and education institutions of the Netherlands, with Erasmus University Rotterdam amongst them. For the province of Zuid-Holland (South Holland) Erasmus University co-operated with two other universities, Delft University of Technology and Leiden University, in a programme called HOPE (Holland Program on Entrepreneurship (<http://hope-rdam.nl/>; HOPE Entrepreneurship, 2011). Although the organisation of the entrepreneurship infrastructure changed significantly with the advent of the ECE in 2013 (see 17.4.1 on organisational change), the HOPE programme has been instrumental in

¹ In 17.2 below the degree programmes and one course in the entrepreneurship master will be discussed in detail.



funding some of the university's and ECE's extra-curricular entrepreneurship education activities. Today, one of the entrepreneurial objectives is to run the ECE on a self-sustainable economic fundament in close co-operation with the university, however, without taxpayers' money from the public part of the university.²

Importance of entrepreneurship in the university's strategy

Reportedly, the ECE has been created in a bottom-up initiative by entrepreneurial students, graduates, and academic staff with the university – as an education institution – buying into the centre's mission to “empower entrepreneurs” (ECE, 2013) in a people-oriented approach. Further, strategies implemented by ECE to valorise education activities (e.g. offering entrepreneurial training and consulting to business entrepreneurs) becomes increasingly important for the faculties of Erasmus University (e.g. the Medical School and the Rotterdam School of Management) as government funding for regular (curricular) education activities decreases. For this valorisation, ECE's community of entrepreneurs taking entrepreneurship education is an important target group (<http://ece.nl/community/community-updates/>; also see 17.3 and 17.4.1).

Level of faculties' and units' autonomy to act

ECE as the central entrepreneurship unit of the university is fairly independent in organising and running its entrepreneurship activities – “university leaders gave us the opportunity to build the ECE...and provided a mandate to do things” as one interviewee phrased it. At the same time, ECE has been set up as a company fully-owned by the university. Through ECE's board of directors, which includes the deans of the RSM and ESE, the centre is firmly anchored also at the faculty level. In fact, the link to RSM and RSE is essential for the validation and reputation of ECE's activities (e.g. the design of entrepreneurial training programmes with academic experts in the field of entrepreneurship from the management and economics faculties).

Organisational implementation

With the recent establishment of the ECE as a hub within the university, entrepreneurship is now organised centrally (see 17.4.1 for this development). Most importantly, ECE organises, operates, and markets all extra-curricular entrepreneurship education activities under one common ECE brand in co-operation with the business and economics faculties who run their curricular entrepreneurship modules and degree programmes (see 17.2). The centre also provides facilities to accommodate start-up businesses, host events on the ECE campus in the Rotterdam Science Tower (17.3.4), and teams up with the ECE students association to bring entrepreneurship to Erasmus University students on campus. The strategic implementation of ECE has been to build a show case of an up-and-running entrepreneurship centre in co-operation with two departments (RSM and RSE) and to take things from there to get other university departments on board as their students show an interest in entrepreneurship.

² Note though that public funds, e.g. from the EU, have been employed to finance the initial establishment of the centre's operations in 2013 and 2014.



17.1.3 Resources: people and financial capacity

Human resources for entrepreneurship education

Given that Erasmus University has a long-standing tradition and track record in entrepreneurship, both in entrepreneurial management and economics, there are numerous faculty members involved in teaching and researching entrepreneurship in different degree programmes (<http://www.erim.eur.nl/centres/entrepreneurship/people/> and, in particular for the university's prominence in applied entrepreneurship research, <http://www.erim.eur.nl/centres/entrepreneurship/news/detail/3469-erasmus-university-rotterdam-ranked-first-in-research-on-entrepreneurship/>). The extra-curricular activities run by ECE are supported by the centre's management and operative team of around ten people (<http://ece.nl/about/the-team/>) and the entrepreneurship faculty.

Financial resources for entrepreneurship education

Most importantly, the entrepreneurship centre aims to run its activities on a self-sustainable basis by offering paid education formats (e.g. entrepreneurship trainings) and renting out its facilities to business. Initial public funds from the EU have been employed to set-up the centre and finance growing education formats to run on a sustainable basis in the future (see 17.4.1). Curricular entrepreneurship education at the faculty level is supported by regular government funding and tuition fees of enrolled students.

17.2 Entrepreneurship in curricula and teaching

17.2.1 Overview about curricular offers

As a Continental-European institution of higher education Erasmus University Rotterdam has a long tradition in offering entrepreneurship education to students on campus as well as to the wider community of entrepreneurship stakeholders. Regarding curricular entrepreneurship, Erasmus University offers entrepreneurship electives at the bachelor level and fully-fledged master programmes in entrepreneurship for postgraduate master students.

For *bachelor* students at Erasmus University, the Rotterdam School of Management and the Erasmus School of Economics offer two campus-wide electives to undergraduates (minors in entrepreneurship): a) Minor *Entrepreneurship and New Business Venturing* and b) Minor *Entrepreneurship in the Modern Economy* (see <http://www.eur.nl/minor/minoren/faculteit/>).

A notable characteristic of entrepreneurship at Erasmus University is the strength of its teaching and research faculty being well versed and established in both entrepreneurial management as well as entrepreneurial economics (see <http://www.erim.eur.nl/centres/entrepreneurship/people/> for the breadth and depth in entrepreneurship research within in the Erasmus Centre for Entrepreneurship Research comprised by faculty from both RSM and ESE). Correspondingly, entrepreneurial management and economics *master* programmes are well established in *Strategic Entrepreneurship* (offered by RSM; <http://www.rsm.nl/master/msc-programmes/msc-strategic-entrepreneurship/>) and *Entrepreneurship and Strategy Economics* (by ESE; http://www.eur.nl/ese/prospective/master/master_programmes/msc_in_economics_and_business/entrepreneurship_and_strategy_economics/) as well as in *Cultural Economics*



and Entrepreneurship (at the Erasmus School of History, Culture and Communication, ESHCC; <http://www.eshcc.eur.nl/english/culture/maacs/>) (ECE, 2013). A selection of important curricular EE offers (at the course level) is provided in the exhibit below.³

Exhibit 1: Overview about curricular EE offers at the Erasmus University Rotterdam

No.	Name	Objectives	Target group
1	New Venture Creation (RSM; Master <i>Strategic Entrepreneurship</i>)	After the course students will a) know what elements make up a start-up business plan, and they will understand how (and to what extent) these elements interrelate, b) understand the inherent uncertain and iterative nature of the business modelling process, c) be able to apply numerous tools, techniques, and theories to develop a comprehensive and coherent value proposition and business model, and d) be able to develop and discuss their arguments and findings in a multidisciplinary student team as well as in a professional context of business relationships (e.g., mentors, investors, internal stakeholders, etc.)	RSM master students in Strategic Entrepreneurship and other RSM master programmes
2	Entrepreneurial Strategies (RSM; Master <i>Strategic Entrepreneurship</i>)	The course provides students with a) the knowledge and ability to recognise, understand, and apply main strategies that individuals and organisations use to exploit opportunities (based on projects with real entrepreneurs) and b) a better understanding and appreciation of the usefulness and limitations of entrepreneurship theory in real-life situations	RSM master students in Strategic Entrepreneurship
3	Economics of Corporate Entrepreneurship (ESE; Master <i>Entrepreneurship and Strategy Economics</i>)	Introducing students to a) the challenges of organising and managing research in established firms, b) the implications of corporate entrepreneurship for industry evolution, and c) the role of public policy in determining the success of corporate entrepreneurship	ESE master students in Entrepreneurship and Strategy Economics
4	Economics of Entrepreneurship (ESE; Master <i>Entrepreneurship and Strategy Economics</i>)	Students learn to assess the effects of entrepreneurship on the economy and society in terms of outputs and functions; also students learn about the determinants and drivers of entrepreneurial behaviour from an economics perspective	ESE master students in Entrepreneurship and Strategy Economics
5	Getting Started: An Effectual Approach & Entrepreneurial Marketing (RSM; Bachelor Minor <i>Entrepreneurship and New Business Venturing</i>)	Develop an entrepreneurial mind set in students, in particular for identifying and evaluating new business opportunities; students experience the whole entrepreneurial process, plan their own business, and learn to handle starting-up and venture marketing on a limited resource base	Bachelor students at Erasmus University
6	Essentials of Small Business Management & Entrepreneurship (ESE; Bachelor Minor <i>Entrepreneurship in the Modern Economy</i>)	The ESE entrepreneurship minor offers a bird's eye view on the role of entrepreneurship in the economy and in society; from a managerial economics perspective, students also learn how to evaluate and write business plans for new ventures or small businesses at the micro level; at the macro level students gain insights into entrepreneurship policy and the characteristics of an entrepreneurial economy	Bachelor students at Erasmus University

³ The course descriptions in the exhibit are based on the corresponding syllabus texts from the websites of Erasmus University's master programmes and bachelor minors in entrepreneurship.



As noted in the introduction to EE at Erasmus University in section 17.1.1, its EE positioning has been changed recently. In particular, the flagship M.Sc. programme in entrepreneurship run by the RSM faculty has been adapted and renamed from “Entrepreneurship and New Business Venturing” to “Strategic Entrepreneurship”. The rationale behind this repositioning in terms of the university’s intentions towards curricular EE is addressed in section 17.2.3. The context of overall organisational change in its approach towards entrepreneurship with the new Erasmus Centre for Entrepreneurship at the university is discussed in 17.4.1. Extra-curricular education with regard to new venture creation and start-up support in the first place is now domiciled within the entrepreneurship centre (see section 17.3.3). The focus of the new strategic entrepreneurship master effective from spring 2015⁴ is more on corporate entrepreneurship, in particular including business development and innovation in existing businesses and established corporations. Within the main part of this chapter on central decisions in the design of curricular EE offers (section 17.2.3), the focus will be on this change. In particular, the case study is to portray one of the elective courses in the strategic entrepreneurship master – “New Business Development (NBD)”.⁵ The NBD course is an example of the approach of Erasmus University – and in particular of the ECE and RSM – to actively involve the community of entrepreneurs in teaching based on real business development challenges from (corporate) entrepreneurship.

17.2.2 Target groups

Main target groups of entrepreneurship education

Erasmus University serves the wider community of entrepreneurs (or those interested in establishing and growing their own business) as well as students at the university (ECE, 2013). The extra-curricular training and education services offered to people from outside the university (and some also for internal students, e.g. the Get Started programme) will be discussed in detail in 17.3 below. In terms of (potential) internal participants in curricular EE on campus the entrepreneurship-related bachelor electives are offered for students from all disciplines within Erasmus University; namely, these are the entrepreneurship minors offered by RSM (Entrepreneurship and New Business Venturing⁶) and ESE (Entrepreneurship and the Modern Economy⁷). The entrepreneurship minors are part of a rich set of minor electives to be chosen from by bachelor students at the university (see <http://www.eur.nl/minor/minoren/faculteit/>). In the interviews it was reported that ECE is in the process to establish or has recently established further entrepreneurship minor electives in collaboration with different Erasmus faculties and schools, such as Erasmus University College.

At the post graduate level the distinct entrepreneurship masters at RSM and ESE are offered for students having finished their first degree and seeking further training and education. Some of the electives in these master programmes are also open to other master students from the same faculty, providing access to entrepreneurship also for students outside the main entrepreneurship masters. Typically, the master programmes

⁴ See <http://www.rsm.nl/master/msc-programmes/msc-strategic-entrepreneurship/> again.

⁵ The “New Business Development” master course has in fact also been part of the former entrepreneurship master programme in new business venturing. This is also why it has been selected as a course to be presented in detail based on an established course history.

⁶ See <http://www.eur.nl/minor/minoren/faculteit/rsm/entrepreneurship/>.

⁷ See <http://www.eur.nl/minor/minoren/faculteit/ese/entrepreneur/>.



at RSM and ESE are fairly international in terms of their respective groups of students and programmes are offered in English.⁸ For example, in the most recent year of study in the RSM entrepreneurship master (57 students) around one-third of students had an international background.⁹

Continuous education

ECE and Erasmus University offer a wide range of further education formats for people coming back to university to learn about entrepreneurship and undertake training, e.g. in entrepreneurial management; these offers are mainly extra-curricular and will be addressed in 17.3 below. As regards curricular EE, commonly, business and economics master programmes are offered as formats of further education. In principle, this is also the case for the Strategic Entrepreneurship and Entrepreneurship and Strategy Economics master programmes of RSM and ESE; note though however, that these degree courses are also conceptualised as pre-experience masters for students continuing postgraduate education immediately from their bachelor studies.

17.2.3 Designing lectures and courses – basic curricular decisions

Intentions

Curricular entrepreneurship education at Erasmus University in general has been centred mainly on start-up creation, development, and economic policy support in the past. This has been with a focus on creating awareness for entrepreneurship as a career option and its role in the economy at the *bachelor* level (Erasmus Centre for Entrepreneurship, 2013). The focus also includes developing a portfolio of entrepreneurial skills to support student entrepreneurship through a practice-oriented curriculum combining “thinking and doing” within the RSM entrepreneurship *master* programme (<http://www.rsm.nl/master/msc-programmes/msc-strategic-entrepreneurship/>). Supporting nascent and early-stage student entrepreneurship is, of course, still supported and in the focus of the university – the creation and support of growth-oriented ventures is now organised within the ECE (see 17.3.6). However, the positioning of the curriculum of the master programme at RSM has shifted towards corporate entrepreneurship and entrepreneurial strategy in the context of established firms (this is the new M.Sc. in Strategic Entrepreneurship). This curricular change within the degree programme has reportedly been initiated to meet the needs of students and companies: alumni of the programme were found to frequently have corporate entrepreneurship careers (rather than founding their own business), working in innovative entrepreneurial roles in SMEs or larger companies (e.g. in innovation management or corporate business development)¹⁰. Therefore, including elements of corporate entrepreneurship in the curriculum, fits with the training needs of both students and companies.

⁸ Bachelor studies in the area of management and economics are offered both in Dutch and English with the entrepreneurship minor electives usually being offered in English (since they are open to bachelor students from different faculties).

⁹ See <http://www.rsm.nl/master/msc-programmes/msc-strategic-entrepreneurship/factsheet/>

¹⁰ This was discussed in the on-site interviews; see also <http://www.rsm.nl/master/msc-programmes/msc-strategic-entrepreneurship/your-future-career/>



Contents

The focus of the case study is more on the institutional establishment and extra-curricular EE activities of the ECE; however, as noted in the overview above, also the *New Business Development* course will be presented in detail as an example from the M.Sc. in Strategic Entrepreneurship offered by RSM at Erasmus University. To put the course in context, the master programme itself is based on a one-year programme of study designed as a pre-experience master (60 ECTS) with core courses in the first half and a choice of electives in the second half of the programme. The course “New Venture Development” is one of the electives in the Strategic Entrepreneurship master but may also be chosen by students from other M.Sc. programmes at RSM (see <http://www.rsm.nl/master/msc-programmes/msc-strategic-entrepreneurship/curriculum/>).¹¹ Most students will, however, come from the entrepreneurship master and the course typically has around 40 participants.

The focus throughout the course is on students to master real-life business development projects in teams in co-operation with external companies (see <http://www.rsm.nl/master/msc-programmes/msc-strategic-entrepreneurship/curriculum/> for examples). For instance, past projects have been provided by the research institute TNO. In these projects students were asked to find promising applications for patented technologies. In one case, students even managed to initiate a joint-venture between a large company and TNO for the commercialisation of a patent. A further selection of participating firms includes Heijmans, Philips, IHC Merwede, and many SMEs. The main outcomes of coursework of the student teams together with their company coaches are the finalisation of a written business development plan as well as interim and final management presentations on the evaluation and exploitation of the challenging new business opportunities set at the start of the course. In particular, such business opportunities centre on the ambitions of participating companies to grow their business in the context of product/ service innovation or general business model change.

The input of business opportunities will be organised in advance before the course starts by the course co-ordinator of RSM. This input stems from the faculty's network of entrepreneurs and businesses that work together with RSM and ECE. Student projects can be with a range of companies, both larger multi-national enterprises and SMEs, or start-up firms. Students will get an initial idea of the project challenges before the course kicks off, based on one-pagers describing the business development challenge and the expectations of the company. Student teams will be formed by the course coordinator from the university based on students' preferred projects. However, team selection will also appreciate student business expertise and aim for a maximum of team diversity also in terms of study background, gender, and nationality. Setting of business development projects and team establishment are organised before the start of the course in order to ensure effective use of time during the course for the business challenge itself and the collaboration with the companies involved.

During the course students will meet and work together with designated company coaches who will be entrepreneurs/ founders or business managers involved in business development and product/ service innovation. The company coaches also provide feedback and evaluate the coursework of their student teams together with the course co-ordinator. The university co-ordinator and other teaching personnel involved commonly also take a coaching role when discussing students' approaches to tackle their projects

¹¹ Master students at RSM may choose one elective from another master programme.



and providing feedback on interim presentations of project progress. Additional (theoretical) course material is provided mainly to speed up the process of students to apply instruments such as feasibility and financial analysis and business model generation during their work on the set business development challenges. The business development projects executed by the student teams often gain in priority in the companies and students will take on internships or first jobs within the organisations.

Methods

In the course presented above, the practical new business development projects with the companies involved play a major role. Correspondingly, real-life experiences both in terms of presenting challenging business opportunities to students by the companies (e.g. entrepreneurs or managers) and the work of student teams on the projects and reporting this to peers and instructors are important methods in class. Teaching management instruments and theory relevant to the projects (e.g. business models) follows a flipped classroom format where students study input material (texts, illustration cases) at home while contact time in class is utilised for class discussion, reporting and feedback on the business development projects of student teams.

Action-based, practical approaches are a principal focus on teaching entrepreneurship at Erasmus University. For example, in a new venture planning course in the entrepreneurship master and in the RSM entrepreneurship minor for bachelor students (“Entrepreneurship and New Business Venturing”) exercises around developing, evaluating, and exploiting business ideas or entrepreneurial opportunities by students are centre-stage. In the entrepreneurship minor, in particular an effectuation perspective operating on a (realistic) small resource base is employed so that students “will personally experience what it takes to become an entrepreneur by dreaming up their own business idea in a team of students and will develop this idea into a real business under the supervision of expert entrepreneurs”.¹²

Using results of entrepreneurship research

Erasmus University’s track record in both the management *and* the economics perspective of entrepreneurship is surely specific. This also holds for the educational activities by RSM and ESE respectively having established full master degree courses in both domains which have been recognised for their strong underpinning in entrepreneurship research (see <http://www.erim.eur.nl/centres/entrepreneurship/news/detail/3469-erasmus-university-rotterdam-ranked-first-in-research-on-entrepreneurship/>). The two faculties use and leverage their expertise in entrepreneurship research also in education, offering degree programmes for careers in both general (entrepreneurial and innovation) management and entrepreneurship and SME policy positions.¹³ In practice, research output and teaching entrepreneurship are linked, for example in qualitative research studies on the innovation and entrepreneurial activity of SMEs conducted by RSM where authorised company cases are in turn used in class discussion or offer scope for management projects by student teams in experiential courses like New Business Development.

¹² See <http://www.eur.nl/minor/minoren/faculteit/rsm/entrepreneurship>.

¹³ See http://www.eur.nl/ese/prospective/master/master_programmes/msc_in_economics_and_business/entrepreneurship_and_strategy_economics/career/.



17.2.4 Setting of entrepreneurship teaching

Locations

Commonly, curricular entrepreneurship teaching takes place at the Erasmus University campuses. However, in courses like New Business Development where students work with external companies often learning will take place also at the premises of the external business stakeholders involved. Some of the curricular education also takes place at the Erasmus Centre for Entrepreneurship in the context of ECE's entrepreneurship activities in the Rotterdam Science Tower (see 17.3.4 below).

Formal evaluation of learning outcomes

Formal assessment in the focal New Business Development course is a straightforward mix of deliverables contributing to students' overall grading. Following an experiential learning format, the final assessment is based mainly on students' written business development plans from their company projects, an interim report, and a final presentation of project results (with additional team assignments on a pass/fail basis). Some of the evaluation concerning the presentation and reporting on the business development projects with the companies is conducted by the external entrepreneurs and business managers themselves.

17.2.5 Instructors: teachers and mentors

Professors, other employees and external lecturers of the university

There is a strong human resource base of academic research and teaching personnel in entrepreneurship at RSM and ESE. In fact "[t]he Erasmus School of Economics was the first faculty in the Netherlands to establish a chair in entrepreneurship", and today there exist three professorships in entrepreneurship and more than 30 researchers are involved in the field (ECE, 2013, 6). Academic staff comprises research, teaching, and dual positions which are either directly associated with the entrepreneurship units of RSM and ESE or work in adjacent fields like technology management or economics of innovation. For an overview of entrepreneurship personnel in RSM's Department of Strategic Management and Entrepreneurship and ESE's Department of Applied Economics (which is also home to the entrepreneurial economics staff of the faculty) see <http://www.rsm.nl/research/departments/strategic-management-entrepreneurship/faculty/> and http://www.eur.nl/ese/english/departments/department_of_applied_economics/staff/faculty/. Beyond the two business and economics faculties, there are also people from other faculties involved in teaching entrepreneurship sessions.

"Real entrepreneurs" as teachers

Expert entrepreneurs and intrapreneurs from SMEs and innovating larger companies are involved in teaching entrepreneurship as an integral part of curricular courses such as New Business Development or the entrepreneurship minor, as well as of extra-curricular programmes such as Get Started (see 17.3.3 and 17.3.5 below). In the focal New Business Development course, entrepreneurs take on a coaching role providing input, guidance, and feedback to the student teams working on the project challenges related to their businesses as well as to the other teams in class (e.g. in the final presentation of end results of all project challenges). When involving entrepreneurs in its



entrepreneurship teaching programmes, the university taps its substantial network and community of entrepreneurs and SME owner-managers who are involved in regular ECE activities.¹⁴

17.3 Extra-curricular activities related to entrepreneurship education

17.3.1 Overview about extra-curricular entrepreneurship activities

Erasmus University Rotterdam offers a range of extra-curricular EE formats; some of them pioneered by the university and expanded internationally like the famous “Get in the Ring” investment battle format for entrepreneurs. Educational activities are offered in addition to regular undergraduate and postgraduate curricula.

Exhibit 2: Overview about extra-curricular EE activities at the Erasmus University Rotterdam

No.	Name	Objectives	Target group
1	Get Started	Providing kick-start support for start-up projects of nascent entrepreneurs from the Erasmus campus and outside; participants learn to evaluate their business ideas and turn them into scalable ventures	Student and graduate entrepreneurs; business founders
2	StEEP	“Mission of StEEP is to have its participants graduate...due to their and not despite of their study”; support programme for active entrepreneurs among the community of Erasmus students	Erasmus University students
3	Training Reeks	Training programmes to really make a change in participants’ entrepreneurial leadership and management skills through training courses in small groups, guided by business trainers and coaches	Entrepreneurs; small business owners, corporate entrepreneurs in larger companies
4	New Business Cycle	Supporting and guiding innovation projects in SMEs and new businesses; programme moves from initial ideas to arrive at implementing innovations in the organisations of participants	Entrepreneurs, small business owners
5	Master Classes	One-day classes or lecture-type sessions to promote a specific topic and provide entrepreneurial management tools for a certain target group, e.g. an entrepreneurship class for employees of companies	Different target groups: companies and their employees, individual business managers and owners
6	Boot Camps	Compact workshops to familiarise participants with a certain area of entrepreneurial management, or specific tools such as business modelling or strategic entrepreneurship	Entrepreneurs; small business owners, corporate entrepreneurs in larger companies
7	Day@theCampus	Jour fixe networking event for the Erasmus community of entrepreneurs	Erasmus entrepreneurship community; people interested in entrepreneurship inside and outside the university
8	Get in the Ring	Start-up/ business idea battle in a boxing ring competition format; run word-wide and pioneered by Erasmus University Rotterdam	All participants with a start-up idea who intend to compete in an international entrepreneurial

¹⁴ Mentoring activities by experienced entrepreneurs and managing support with regard to student start-ups is explicitly organised in extra-curricular formats at ECE and is thus discussed in 17.3 below.



			idea challenge
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Extra-curricular activities are hosted and organised by the ECE in co-operation with the faculties of the university, in particular RSM and ESE. In fact, extra-curricular offers are conceptualised and validated by academics from the business and economics faculties of Erasmus University with regard to their content and achievement of learning objectives (for example intensive *training reeks (series)* for entrepreneurs and small-business managers or the *Get Started* programme for start-up entrepreneurs; see 17.3.3). Typically, the training sessions, lectures, and workshops in these programmes are co-ordinated and run together with faculty staff and entrepreneurs from the ECE community. One important aim in designing and establishing these extra-curricular programmes is their scalability, offering some of them countrywide in the Netherlands and, partly, also in the international arena.

In their mission to empower entrepreneurs and putting people centre-stage in education, the university and ECE offer extra-curricular activities for different target groups alongside the entrepreneurial life cycle (ranging from student start-up founders via growth-oriented SME entrepreneurs to intrapreneurs in large companies; see 0 below, <http://ece.nl/programmes/>, and ECE 2013 for the portfolio of extra-curricular EE offers).

17.3.2 Target groups of extra-curricular activities

In the past, the university's extra-curricular entrepreneurship education efforts focused on its own campus with potential students, former graduates, and staff interested in starting their own business constituting the main target group. Today, the university's entrepreneurship centre increasingly also focuses on business owners, SME managers, and corporate managers, triggering these target groups also to follow continuous academic education (e.g. in personal training programmes or workshop formats). Within the ECE there is the belief that concentrating education offers mainly on corporate entrepreneurship contexts adding to traditional start-up education will make the most significant impact on fostering entrepreneurship in the region around Erasmus University Rotterdam. This will also pave the way for the centre's further financial sustainability by offering paid education. The people participating in the education programmes from the domain of established companies are typically managers and management teams working in new business development, product development, or business innovation in their corporate roles.

With ECE's community approach attracting people from this target group to become a network member, some of these experienced entrepreneurs and managers later also contribute to entrepreneurship education for students (e.g. in providing study projects in new business venturing and development or acting as coaches to campus start-ups and as instructors in team-teaching curricular entrepreneurship courses; see the section on using the results of extra-curricular activities in entrepreneurship education in 17.3.3 below).

17.3.3 Designing extra-curricular activities

Intentions

Overall, ECE's activities aim at covering (further) entrepreneurship education needs along the entrepreneurial life cycle from student start-ups, growing small businesses, to corporate entrepreneurship in established large companies. This involves changing



personal education needs ranging from managing initial start-up challenges, functional management issues in small business finance and marketing, to training needs for personal leadership in growing larger organisations. These education contexts are addressed through extra-curricular education services offered by the ECE and a selected example offer is described in detail in the next section.

Some of the activities are organised in a concise form (such as one-day boot camps, e.g. on strategic entrepreneurship or business development; <http://ece.nl/program-type/bootcamp/>) with the idea to provide background knowledge and practical management tools (e.g. the business model and value proposition canvases). Other activities are set up as intensive training programmes to further develop specific personal skills for a small group of people over a period of several weeks or months with intensive personal feedback from trainers or academic instructors and group peers. Examples of this are the training weeks, e.g. on entrepreneurial leadership (<http://ece.nl/program-type/trainingweeks/>), or the Get Started programme, which is discussed below.

Contents

As noted in 17.3.1 above, the university offers numerous extra-curricular entrepreneurship education activities through its ECE for different target groups and in different time formats. And ECE has chosen to enlarge the scope of entrepreneurship education also to embrace corporate entrepreneurship in its education portfolio, while education and support of start-up entrepreneurs also still plays an important role. All programmes are hosted and run by ECE. One of ECE's extra-curricular activities will be presented in detail in this case – the *Get Started* programme for nascent entrepreneurs. A further programme, StEEP, will be discussed in section 17.3.6 on managing student support for entrepreneurship.

As described on its website (<http://ece.nl/programme/getstarted/>) “ECE Get Started is an intense, ongoing ten-week programme created specifically to empower ambitious first-time start-up entrepreneurs”.¹⁵ Potential entrepreneurs can be either from the university campus (e.g. students or alumni) or come from outside. The practical goal of Get Started is to “give them [the participants] sort of a kick start in ten weeks to develop their business models, sometimes even get to first sales”, as one interviewee put it. Overall, the programme provides know-how in starting-up, networking opportunities with other start-up and experienced established entrepreneurs, and office infrastructure to be used at ECE's premises in the Rotterdam Science tower (ECE, 2013). The programme is facilitated by support staff from the ECE team and led and coordinated by an academic ECE team member also associated with RSM. Most importantly, coaching of participants in the programme is done by experienced entrepreneurs from the ECE community. Get Started also has two central company sponsors from banking and accounting who also offer specific coaching on financial, legal, and accounting issues. One example of a successful participant in the Get Started programme is the company Nestpick, which was acquired by Rocket Internet in 2014.

The structure of the programme within the ten weeks entails the initial intake of participants, five sessions at ECE, and a concluding pitch battle (ECE, 2014). Selection of students for the programme at *intake* is done by ECE on the basis of flexible criteria, most importantly the potential participants' ambition and the scalability and viability of

¹⁵ Note that there is also a companion programme for established entrepreneurs aiming to grow and further develop their existing businesses called Get Business.



their business idea. ECE will put together groups of four to five participants and select coaches for the groups who will be present during the sessions. Before kicking-off with the *first session* the participants in Get Started will be prepared by the programme coordinator. Up-front preparation at home will involve going through material and trigger questions around the business model and value propositions as well as financial and marketing issues of their start-up idea. The further *four sessions* at the heart of the programme have a three-hour intensive coaching format (both in the group and one-to-one). Session activities unfold around entrepreneurial challenges in the start-up process as participants report on what they have done to develop/ refine their business model and get their business established. The group and the coach contribute to resolving challenging issues and discuss what should be the next steps in a repeated progression for the next sessions. In the sessions, different management tools are introduced with focus on the practical insights and applications that entrepreneurs can take away from these instruments; theoretical concepts are only employed to facilitate conversation during the sessions, for example principles from lean start-up management and effectuation (for class preparation at home, short one-pagers of tools and concepts with additional reference material like videos, blog links or papers are provided). The programme concludes with a *pitch* where participants present their start-up business to successful entrepreneurs and investors in a large ECE pitching event and receive feedback, as well as further networking contacts.

The university has run the Get Started programme a number of times and the programme has recently been redesigned and developed further. This change has been triggered by increasing interest in the programme with growing numbers of participants and the possibility to run Get Started all around the year on ECE's new premises. Overall, change came about with the idea to make the programme more accessible and improve its contents for participants as well as with the aim to make its operation more efficient and self-sustainable for ECE in the future. Often, individual start-up coaching and support for university members (and externals) is organised on a one-to-one basis which was assumed to be very time consuming and inefficient by interviewed members of Erasmus University. Get Started enables offering start-up coaching with the additional bonus of peer interaction and support by fellow entrepreneurs in the format of group coaching. This more efficient and less personnel-intensive format will allow ECE to run the programme on an almost self-sustainable basis¹⁶ with real entrepreneurs from the ECE network and community acting as coaches (instead of university staff). In the past, Get Started has been offered at two starting dates per year. Recently, the structure has been changed. The programme is now running all around the year with continuous intake open for university members and externals to participate. This results in mixed groups traveling through the sessions with heterogeneous levels of experience enabling further peer coaching by those who are already closer to the end of the programme.

Methods and Media

Get Started and other ECE programme use a flipped-classroom approach. This is with the aim that participants prepare at home for on-site sessions with their programme group

¹⁶ Note that self-sustainability is not achieved yet (with current programme fees of 250 Euro for students and 500 Euro for others). However, it could be in the future when the programme is to be run independently by the pool of entrepreneurs from the ECE community without much input by ECE itself beyond academic quality assurance. Currently, Get Started may be considered as an important "feeder for the community", as one interviewee coined it, providing new entrepreneurs to become members of the ECE network.



and coaches/ trainers so that in the sessions at ECE a maximum of time can be allotted to interactive discussion and coaching with the peer entrepreneurs in the group and the entrepreneurial coaches. Provision of study-at-home material, coaching and group interaction is expanded further through using an online learning environment (myECE) speeding up students start-up process during the programme.

Using results of extra-curricular activities of entrepreneurship education

Frequently, start-up founders, small business entrepreneurs and corporate intrapreneurs who follow an extra-curricular programme at ECE and become part of the ECE community later get involved in entrepreneurship teaching. This may be, e.g., by providing start-up or business development projects for class discussion and acting as instructors in curricular courses (in the entrepreneurship master and bachelor minors) or serving as consultants and mentors in programmes to support young start-up entrepreneurs.

17.3.4 Setting of extra-curricular activities

Locations

A specificity of entrepreneurship at Erasmus University is surely the location and infrastructure of the ECE domiciled in the Rotterdam Science Tower. This includes the centre's own floor with teaching, meeting, networking spaces, and flexible offices as well as additional floors hosting the university's Start-up Campus offering a home base for start-ups from the university (ECE, 2013). ECE's facilities for accommodating education programmes, network events, and individual start-up teams are developed and managed by members of the ECE management team.

Timing

Principally, time formats of the different programmes are designed according to the education goals of each specific activity and the requirements of the target audiences. For example, the training weeks have a regular schedule for participants to apply what they have learned between weekly two-hour sessions which take place in the morning hours before the entrepreneurs start the business day in their own companies. Where busy entrepreneurs are themselves integrated as coaches, e.g. in the Get Started programme, coaching sessions are concentrated in a three-hour format every fortnight.

Most importantly, ECE aims to build bridges between the offers by meeting at ECE for different activities on the same day to enhance networking and community spirit. For example, sessions of some programmes or one-day events are organised around the regular Day@theCampus event taking place every first Tuesday each month, and a specific day is regularly set for coaching activities and "get-togethers".

17.3.5 Persons involved in extra-curricular activities

In the above portfolio of extra-curricular entrepreneurship education activities different types of people are involved, both from inside and outside the university. Externally, entrepreneurs from the ECE community and expert trainers certified by ECE serve in coaching and training programmes. ECE takes these people on board to maintain flexibility and integrate expert knowledge from outside – "we do not need to do



everything...rather, we, at ECE, put these things together accordingly” as one interviewee framed it. Internally, there are three pillars of personnel with different roles:

- Academic staff from university faculties and ECE who develop and design the structure and contents of programmes and who coordinate and teach in some of the activities such as in the training weeks.
- ECE Students (the student association of ECE; <http://ecestudents.com/>) who are involved in organising and operating activities to raise awareness for entrepreneurship amongst Erasmus University students and build a platform for social activities around entrepreneurship on campus.
- Members of the ECE management and operations team (<http://ece.nl/about/the-team/>) who manage and co-ordinate education affairs of the centre and who work at ECE facilitating and supporting individual education activities and the centre's community and network of entrepreneurs.

17.3.6 Management of extra-curricular activities

Managing student support

ECE supports potential and active student entrepreneurs from the university in the segment of its extra-curricular activities. Beyond providing a home for student start-ups on the ECE Startup Campus within the Rotterdam Science Tower and through the above Get Started programme and other training or networking activities, there is also a specific support programme for ambitious campus entrepreneurs called StEEP (<http://ecestudents.com/index.php/stEEP/about>). StEEP is the Students Entrepreneurs Excellence Programme initiated by ECE in 2012. Similar to support programmes for students who are competitive athletes, the idea of StEEP is to assist high-potential student entrepreneurs from Erasmus University in combining their studies with establishing and running their businesses. Students are selected for the excellence programme by experienced entrepreneurs and academics from the university. In StEEP, participants have a personal study advisor to address aligning study duties and business obligations such as meeting investors or customers. While StEEP students, of course, will have to finish their study assignments and course work like all other students, the programme allows to organise their studies more flexibly according to their business needs, e.g. in terms of time schedules and class participation. ECE runs the StEEP programme in cooperation with the university (and RSM in particular) and integrates participants in its growth programmes like Get Started, as well as in its overall entrepreneurial community.

Management of possible integration of extra-curricular elements and networks

As noted in section 17.3.4 on the setting of extra-curricular entrepreneurship education, ECE pursues the strategy to further develop a network and community of external entrepreneurs (including those interested in entrepreneurship from different angles like start-up consulting or enterprise policy) and entrepreneurship people from inside the university by bridging across education events held at one location – the ECE campus. In particular, this involves entrepreneurs who may take on both a participant role in the activities as well as become active as coaches and management peers, effectively taking a (co-)instructor role in team-teaching with faculty personnel (e.g. in running a coaching session in the Get Started programme). The overall idea of ECE is to form a vibrant



entrepreneurial community that is active all year long which is why, for example, the Get Started programme has been redesigned to now allow a continuous intake of new participants instead of running the programme only twice a year. Also, regular social networking activities and large individual events like the annual entrepreneurship research congress provide platforms for deepening integration and exchange.

Management of continuous education

ECE's offers in continuous education are managed independently in the centre by a member of ECE's management team responsible for education affairs. These activities include the college and training weeks as well as the master classes and boot camp activities held on a regular basis within the ECE community.

17.4 Institutional aspects of entrepreneurship education

17.4.1 Organisational set-up and change

The Erasmus Centre for Entrepreneurship (www.ece.nl) is at the heart of the university's further evolution towards anchoring entrepreneurship education in its organisation. The centre is organised as a company which is fully-owned by the university. In line with the humanistic, non-technical, tradition of Erasmus University Rotterdam, the mission of the centre to "empower entrepreneurs"¹⁷ (ECE, 2013) reflects ECE's goal to build a global entrepreneurial community (with 20.000 entrepreneurs by 2020) and valorise the knowledge of the university through education, in particular, training and consultancy work, to this community. This focus of the centre corresponds to the target groups of education offers in 17.2.2 and 0, making SME owners and managers of established larger corporations more entrepreneurial. Corporate entrepreneurship (in addition to catering for start-ups) is also an important element in achieving the financial sustainability of the centre (see the section on managing resource acquisition below).

Measures for coordinating and integrating entrepreneurship education across the university

Institutionally, the ECE has been founded and officially opened in 2013 as an entrepreneurship hub for the whole university and the region (see the timeline at <http://ece.nl/about/timeline/>). Historically, the centre has evolved from earlier institutionalisation activities related to entrepreneurship in the first decade after the millennium change. Namely, this has been through the HOPE programme initiated and funded by the Dutch government to build entrepreneurship centres and collaboration networks (see 17.1.1 above and HOPE Entrepreneurship, 2011). While the other two universities in the HOPE programme had specialised centres in supporting technology (Delft) and medical (Leiden) start-up entrepreneurship, Rotterdam, at that time, had many different activities and people involved in entrepreneurship within its faculties and on the Erasmus campus.

This de-centralised structure of entrepreneurship activities scattered across the university organisation in the HOPE programme impeded co-ordination and has been changed significantly with the emergence of the ECE as a new platform. While the initial structure

¹⁷ Rather than pursuing a mission dedicated to businesses and corporations.



at the time of the HOPE programme may be called “radiant”, today the university with its ECE has a centralised “magnet” approach co-ordinating and branding entrepreneurship education activities to external stakeholders and the community of entrepreneurs under one roof and name. Internally, ECE has the central task of aligning the interests as well as the offered curricular and extra-curricular activities across the different university partners and customer groups involved, in particular (see 17.2 and 17.3):

- The RSM and RSE faculties with their curricular entrepreneurship education and research programmes.
- The ECE Students’ board representing students interested in entrepreneurship, and, externally.
- The business community of start-up and corporate entrepreneurs participating in entrepreneurship training offered by ECE.

This collaboration between academic staff from the two faculties¹⁸, the community of entrepreneurs, and the initiative of ECE Students to spread entrepreneurship across the Erasmus campus is “what ECE essentially consists of”, as one interviewee put it. Strategically, the central unit of co-ordination is the Board of Directors with ECE’s Managing Director and three academic directors from faculty together with a supervisory board including the two deans of ESE and RSM, as well as its Dean of Education (ECE 2013, <http://ece.nl/about/the-team/>).¹⁹ This structure ensures that the academic education and research needs of the university faculties involved in ECE are appreciated with the centre focusing on offering extra-curricular EE activities. These ECE activities regularly also involve faculty staff (e.g. in the training weeks) allowing the faculties to market their education formats jointly with ECE.

Operationally, ECE’s management team and operative team (see 17.3.5 above) co-contributes to integrating the EE activities bringing the faculties and the centre together (e.g. hosting the introduction of the entrepreneurship master programme on the ECE Campus together with the association of master students or co-ordinating the demands of entrepreneurial business and academic study in the StEEP programme). Reportedly, entrepreneurship centres in the Netherlands are either organised as a university hub focusing on education and research or as a commercial centre (e.g. organised as an incubator for technology entrepreneurship), whereas ECE considers itself as a unit that is home to both university-led entrepreneurship education and research and a business-led community of entrepreneurs participating in and contributing to extra-curricular entrepreneurship training.

Managing the acquisition of resources

Similar to other government-funded initiatives to establish entrepreneurship at European higher education institutions, also the HOPE programme provided resources only for a certain period of time. Today, one of the prime objectives of the ECE management team is to organise the entrepreneurship centre so that financial sustainability can be achieved by internal financing from its own operations and without money from the public part of

¹⁸ RSM and ESE are the two largest schools respectively faculties of Erasmus University Rotterdam. While the two business and economics faculties with their entrepreneurship teaching and research staff have been instrumental in establishing the entrepreneurship centre in the first place, ECE intends to integrate more faculties of the university in the future.

¹⁹ In addition, there is also an advisory board with members from business entrepreneurship and government.



the university. The initial establishment of the ECE in 2013 and 2014 has been supported by external knock-on financing, in particular from the EU. This has been with the idea to fund “growth activities” (as one interviewee put it) in entrepreneurship education which will “stand on their own feet” in the future.

In a first step, financial sustainability has already been reached for the centre’s facility operations (renting offices to start-ups and young businesses and hosting events on the ECE Campus in the Rotterdam Science Tower). In a second step, ECE’s management aims at making the centre’s core education activities self-sustainable. The key element on this path is to offer training and consulting services along the complete entrepreneurial life cycle, i.e. also in the field of corporate entrepreneurship to SMEs and large enterprises (like the training and college reeks) in addition to start-up support (e.g. the Get Started programme). Overall, the management of ECE envisages that a broad portfolio of paid education in corporate entrepreneurship and start-up entrepreneurship offered to ECE’s community of entrepreneurs will lead to a more stable entrepreneurship centre as compared to pure start-up centres. In fact, the community of SME owners, entrepreneurs, and business and innovation managers will play an important role in achieving self-sustainability by engaging community members as coaches and mentors²⁰ in education activities of ECE with the centre mainly providing the platform and bringing people together (e.g. student start-ups and experienced entrepreneurs).

17.4.2 Mindsets and attitudes

Raising awareness for the importance of entrepreneurship

From the point of view of the centre’s management team, the ECE Student Association is most important in raising awareness for entrepreneurship as an activity (e.g. to solve societal problems through social entrepreneurship) and career option. The ECE Students’ board organises different activities (<http://www.ecestudents.com/index.php/events>; <http://www.ecestudents.com/index.php/programs>). Some of these events and programmes are low-barrier activities to get students of the university interested in entrepreneurship in the first place while others encourage funding one’s own venture and support in business planning, for example:

- A 24 hour business game where participants bring their entrepreneurial idea and develop a business model and plan in student teams supported by business consultants and the university’s IT department (e.g. to prepare websites)
- SEM – a social entrepreneurship master class where students develop solutions for pressing social problems together with coaches and guest-lecturers
- European and global study trips to learn about the local start-up scenes of other places (e.g. to Berlin in 2015)
- Formats like Brain Busters, Clean Tech Challenges, and Idea Labs where students work on innovation projects, often in co-operation with other universities.

Encouraging entrepreneurial behaviour

Overall, ECE Students is visible across the Erasmus University campuses providing a platform for social events and extra-curricular activities related to the entrepreneurship

²⁰ On a pro-bono basis or compensation below market rates.



theme. And for the entrepreneurship centre, reportedly its focus on people (rather than on businesses and ventures as corporate organisations) make it easier to offer entrepreneurship formats at the university as an education institution. Erasmus students who come out of these extra-curricular activities with a definite motivation to set-up their own business can then join the Get Started programme to further map out and implement their business idea (17.3.3). Disseminating initial curricular activities integrated in different bachelor degree programmes in the different faculties of the university, e.g. offering entrepreneurship minors to non-business/economics students is intended but entails the challenge of getting teaching personnel from these faculties on board.

17.5 Impact and lessons learned

17.5.1 Evaluating impacts of the entrepreneurship education approach

Overview of impact evaluation methods applied

Beyond the institutionalised accreditation of degree programmes (e.g. of the RSM entrepreneurship master by AACSB, AMBA, and EQUIS) and university-wide evaluation of course modules, the university and the ECE employ two more entrepreneurship-specific evaluation instruments: the GUESSS – Global University Entrepreneurial Spirit Students' Survey and an own longitudinal entrepreneurship survey of Erasmus University students.

GUESSS

The Erasmus University Rotterdam and the ECE are the country leaders of the Dutch GUESSS poll conducted at 28 higher education institutions in the Netherlands in 2013/2014 by a team around Roy Thurik from RSE (<http://www.erim.eur.nl/centres/entrepreneurship/news/detail/3552-dutch-guesss-team-wins-award-for-excellent-data-collection/>; GUESSS 2013/ 2014; ECE 2014a). ECE reports that “[t]hrough GUESSS we assess the effectiveness of the university's entrepreneurship programmes by systematically recording and tracking students' entrepreneurial spirit, intentions and activities on a global scale” (www.ece.nl/research).

Longitudinal Entrepreneurship Survey of Erasmus Students

While GUESSS as an international evaluation instrument enables benchmarking the entrepreneurship education activities at Erasmus University Rotterdam to those of other education institutions, the university and ECE have established an additional longitudinal survey instrument so as to gain even deeper insights with regard to the organisation's own students and graduates. This self-developed survey has been administered twice so far and allows to tailor the analysis of Erasmus students more specifically to the curricular and extra-curricular education and support offers of the university's faculties and the ECE (e.g. in terms of how entrepreneurship is perceived at the university, and students' awareness and impressions of specific courses and activities).

17.5.2 Lessons learned

Summary of lessons learned from this case



Erasmus University Rotterdam is well established in both entrepreneurship education and research. The university and the Erasmus Centre for Entrepreneurship (ECE) offer complete entrepreneurship degree programmes and a differentiated portfolio of extra-curricular entrepreneurship training, coaching, and support across the whole spectrum of start-ups, SMEs and established corporations. What can be learned in particular from Erasmus University relates to two interlinked domains:

- Further developing an established entrepreneurship teaching profile;
- Managing the sustainability and operational efficiency of an entrepreneurship centre together with a network of entrepreneurs participating in and contributing to entrepreneurship education in the entrepreneurship centre.

Given the first point, Erasmus University has been running bachelor modules and complete postgraduate entrepreneurship programmes and corresponding research activities for many years. The particular strength is clearly to teach and research entrepreneurship from both the management and economics angle with established master degrees and renowned research tracks in entrepreneurial management and business innovation as well as in the economics of entrepreneurship. The challenge to make these offers future-proof has been tackled by the university, advancing the former “Entrepreneurship and New Business Venturing” master offered by the Rotterdam School of Management. The management school has recently set up a novel “Strategic Entrepreneurship” programme with corporate entrepreneurship taking a more prominent role adjacent to start-up management (which is also still part of the programme). **Actively leading change in one’s educational profile provides opportunities for tapping new or expanding target groups**, in this case established entrepreneurs, SME owners, and corporate intrapreneurial managers in addition to traditional nascent entrepreneurs and start-up founders. Taking these new target groups on board allows maintaining a master programme focused on entrepreneurship over time within a competitive portfolio of postgraduate education.

While particularly insightful in the context of business schools with funding based on tuition fees, expanding entrepreneurship teaching portfolios towards SMEs and corporate entrepreneurship in established firms may also be an interesting strategy generally. This may be especially in times of declining government funding for regular higher education and corresponding needs to market degree programmes with economically viable tuition fees across different target groups. And students seeking first-time start-up education and training can still be catered for, e.g. through a master programme blending corporate entrepreneurship and new business venturing education as well as start-up support in cooperation with an entrepreneurship centre as is the case at Rotterdam. The broadened mix of target groups also benefits the entrepreneurial community around the ECE overall, with experienced entrepreneurs and business managers supporting and coaching junior start-up entrepreneurs (e.g. from the university).

Considering the second point, the establishment and operation of the ECE is instructive in many ways, in particular regarding its positioning within the university, its path towards financial independence, and the management team’s approach towards running the centre. As discussed in 17.4, the centre’s fundament entails the education and research input from the university’s schools of management and economics, the engagement of ECE students in entrepreneurship activities, and the community of business people and entrepreneurs as members of the centre. The centre benefits from Erasmus University’s strong market recognition in management and economics education. At the same time, the centre provides a platform for university faculties to market their research knowledge



and education expertise through ECE's training, workshop, and programme formats (e.g. entrepreneurship boot camps, training weeks, or master classes) under the roof of one university-wide entrepreneurship brand.

The centre has been started on the basis of public funding in the beginning. Yet today the centre is run so that it becomes more and more self-sustainable over time by generating cash flows through its education products, services, and facilities (see 17.4.1) offered to its expanded corporate target groups in addition to supporting start-up entrepreneurship. Moreover, teaching and coaching formats have a scalable and flexible structure within the centre. For example, in its Get Started programme (see 17.3.3) ECE offers start-up coaching and support for individual start-up entrepreneurs (students, alumni, university staff) similar to other entrepreneurship centres. However, the Get Started programme has a staged structure and coaching format allowing entrepreneurs to take part in the programme individually all around the year and learn from each other as a group and from experienced entrepreneurs serving as coaches. This structure allows ECE to scale start-up support and run the programme with decreasing dependence on the centre's own personnel resources.

Generally, also the other extra-curricular entrepreneurship training and teaching formats of ECE are designed to be highly instructive by involving entrepreneurs and entrepreneurial managers (together with university experts) to coach and train other entrepreneurs and business managers. Both the **scalable structure of extra-curricular activities** and **the integration of the community of entrepreneurs contribute to operate the centre in a resource-efficient way** and integrate real entrepreneurs or other entrepreneurship practitioners (e.g. start-up consultants and corporate intrapreneurs) in education; both scalability and integration are important for running entrepreneurship centres in higher education in general.

Transferability to other universities

First of all, for other higher education institutions aiming to build complete postgraduate education programmes in entrepreneurship the case of Erasmus University's degrees in *Strategic Entrepreneurship* (at the Rotterdam School of Management), *Entrepreneurship and Strategy Economics* (at the Erasmus School of Economics), and *Cultural Economics and Entrepreneurship* (at the Erasmus School of History, Culture and Communication) will be inspiring as regards their structure and focus. This is in particular in view of the above lesson learned for positioning a programme (the new Strategic Entrepreneurship master) for the future with corresponding target groups and teaching contents. Since comprehensive education offers in the economics of entrepreneurship are rare (adjacent to widespread entrepreneurial management formats in higher education across Europe), Erasmus University is an interesting benchmark and blueprint for those universities with strong economics faculty teams. Clearly, the university and Erasmus School of Economics in particular have built a strong base of faculty staff in entrepreneurial economics (and management) over many years. Still, however, taking on board selected education and training activities or cooperating in the field with Erasmus University may well be a workable path for growing the economics strand of entrepreneurship in one's business and economics departments at home.

In addition to the entrepreneurship education efforts of the Schools of Management and Economics, also the Erasmus Centre of Entrepreneurship constitutes a very interesting blueprint. This is especially in the case of the ECE's humanistic mission to empower entrepreneurs and its management perspective to build an entrepreneurship centre to



stand on its own feet based on its own education and training offers in collaboration with the same community of entrepreneurial people it envisions in the above mission. In this respect, ECE's approach to extensively integrate its member community of entrepreneurs in its teaching offers by engaging them as coaches and instructors is a meaningful way forward. This may be an option in particular for those entrepreneurship centres at European universities which would like to expand their entrepreneurship education and start-up coaching offers from a limited base of own university staff. Regarding specific education activities to achieve this integration of a community of entrepreneurs into entrepreneurship teaching, ECE has designed activities that can be scaled and coordinated efficiently such as the Get Started programme for nascent entrepreneurs or the New Business Cycle programme for SME Entrepreneurs. Both programmes involve experienced entrepreneurs in instructor roles and teach other entrepreneurs in the ECE community. For this it is essential to keep the wheels in motion within a vibrant network of entrepreneurial people at the heart of the centre. Towards this end, ECE has set-up events and network structures such as Day@theCampus and other specific meeting and training activities that are valuable to study and transfer to one's own education institution.

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