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Scanning the Landscape of Security Management Education in Europe



Alexis Below

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ABSTRACT

This paper summarizes the results of a survey of academic degree programs in security management in Austria, the Netherlands and the United Kingdom. The survey serves as exploratory research into current offerings and developments in tertiary security management education to provide new insights and ideas for further research to interested scholars, educators and practitioners in Germany and elsewhere. The research was undertaken as part of a larger project funded by the German Ministry for Education and Research seeking to build the capacity of German companies, especially small and medium-sized enterprises, to participate in security research. The study finds that there is a small number of relatively young programs in each country often based at universities of applied sciences with a strong focus on vocational training. While participants' backgrounds seem similar across countries, most programs are nationally oriented with little to no formal internationalization. Security research conducted at those universities is generally applied in nature and dependent upon topical interests of the respective departments. Nevertheless, there seems to be potential for more European exchange and cooperation in the field of security management.

1. INTRODUCTION: SECURITY MANAGEMENT EDUCATION ACROSS BORDERS

As security managers in the private and public sector face increasingly complex challenges, a growing number of academic education programs in Europe and elsewhere have contributed to the professionalization of the field in recent years. However, a cursory look at existing curricula shows that the required academic coursework and educational aims can vary considerably across programs. This is to a large degree due to the multifaceted and context sensitive nature of security in general. Functions and practices of security tend to vary across disciplines, sectors and industries, constituting a large yet disparate body of knowledge that is neither easily surveyed nor subsumed in an inclusive definition. The lack of a commonly accepted definition as well as a common understanding of what constitutes a body of knowledge for security management is generally seen by academics and professionals as a barrier to further professionalization and the introduction of rigorous formal education standards (Borodzicz and Gibson 2006; Giever 2007; Button 2008; Adolf 2010; Button, Lee, and Kim 2011; Brooks 2012; Wakefield 2014).

Compiling information on relevant academic degrees in Europe poses several challenges. Academic literature on higher education in security management is sparse and tends to focus on English-speaking countries like the United States and the United Kingdom. According to Wakefield (2014), there are two peer-reviewed academic journals dealing with security risk management in general.¹ A cursory search in both journals yields very few contributions on academic security management education in Europe. Borodzicz and Gibson (2006) as well as Lancaster (2007) list several university degrees in the United Kingdom without further inquiry. A more detailed contribution is Ojasalo's (2011) case study of the development of Finland's only master's degree in security management at Laurea University of Applied Sciences. However, the study doesn't draw comparisons with existing programs in Europe or elsewhere. Other relevant English-language contributions in monographs and handbooks like Button (2008) and Wakefield (2014) reference academic degrees in the United Kingdom but don't further investigate their offerings and participants.

Other potential sources of information on relevant course offerings are mostly found in university websites, industry magazines, and other types of

grey literature that is difficult to survey and often only accessible in the national language. Even if there is information provided in English (e.g. on university websites) it is often not sufficient for a more profound analysis of the origin, content and participants of a given program.

To guide survey design and identify potential trends and topics of interests, Germany and the United States were briefly surveyed before the actual research process begun. Both Germany, the author's own country, and the United States offered readily available information on the development and current state of academic security management education and served as useful reference points.

Germany

In Germany, academic programs for security managers only developed in the late 2000s. The creation of the first academic degrees was preceded (if not directly caused) by a major reform of basic and advanced vocational training qualifications for the security industry in the early 2000s. This included inter alia the examination as "Bachelor Professional of Protection and Security CCI" (*Meister für Schutz und Sicherheit*) in 2003, which has since then been successfully passed by over 1,300 security practitioners (Below 2015, 26).² The standard of achievement reflects level 6 of the European Qualifications Framework and while it is not an academic degree, it is comparable to a more operationally oriented bachelor's-level qualification for security managers in the private and public sector. Similarly, the University of Applied Sciences for Administration and Services in Altenholz began offering a part-time higher education certificate in security management in 1999 (*Sicherheitsfachwirt*).

Reacting to a growing demand particularly from the private security industry, the first full-fledged academic programs were started in 2005 by the private Steinbeis Business Academy offering a part-time Bachelor of Business Administration with a concentration in Security Management and the University of Applied Sciences for Administration and Law Berlin (today the Berlin School of Economics and Law) inaugurating a full-time BA in Security Management. This was followed by the first graduate degrees at the Universities of Applied Sciences in Brandenburg (2006) and Bremerha-

ven (2007) as well as for additional undergraduate courses in Altenholz and Hamburg. In 2014, Gerhold et al. identified overall nine academic programs dedicated to security management in general:³

Bachelor's level:

- Berlin School of Economics and Law (BA Security Management, full-time)
- Northern Business School, Hamburg (BA Security Management, part- or full-time)
- Steinbeis Business Academy (BA in Business Administration with a concentration in Security Management, part-time)
- University of Bremen School of Public Administration (BA Risk and Security Management, full-time)

Master's level:

- Berlin School of Economics and Law (MA Security Management, part-time)
- Brandenburg University of Applied Sciences (MSc Security Management, part-time)
- University of Applied Sciences Bremerhaven (MSc Integrated Safety and Security Management, full-time)
- University of Applied Sciences in Saarbrücken (MA Security Management, part-time)
- Ingolstadt University of Applied Sciences (MBA Security & Safety Management, part-time)

Despite some fluctuation, university-level education for security management is now on a solid footing in Germany.⁴ The programs clearly serve a national clientele as all of them are conducted part-time or full-time in German, with the exception being some individual classes taught in English. Aside from several study courses taught at police/security departments of public administration schools (e.g. Berlin, Bremen, Hamburg) there are also more business-oriented programs and a MBA on offer (e.g. Brandenburg, Ingolstadt, Steinbeis). Many programs offer specializations in safety, corporate security, port security, logistics or IT security and include mandatory internships at the bachelor level. A formal doctoral program, however, is missing so far. It is noteworthy that the majority of degrees explicitly train for security management functions both in the private and public sector and were developed in conjunction with experts from the two fields. While industry surveys among German security directors have

revealed some criticism of the new study courses, e.g., an insufficient number of vocational/practical elements and the difficulty to overview a growing field of academic offers, the programs have generally been well received by the professional community and continue to attract a large number of mostly national students (Paulus, Posselt, and Berg 2009; Katschemba 2012)



United States

In the United States (US), university-level education in security management dates back to the 1970ies. Cunningham et al. (1990, 145) reported that courses in "private security" had risen from only five bachelor's degrees in 1977 to 46 bachelor's degrees and 14 master's degrees in 1990. The authors credit the gradual emergence of private security as a discipline, the shift towards private security courses away from traditional police administration courses by academic institutions, and the rapid employment growth in the US private security industry for this development. A quarter century later, ASIS International (2015), the leading global association for security professionals, reported 32 undergraduate and 40 graduate degrees in the field of "security management" for the country, not counting associate degrees and certificates. This includes inter alia programs in national security, homeland security, public safety, criminal justice, terrorism and counter-terrorism, security and intelligence studies, economic crime and fraud investigation, and information security. There are only four doctoral programs listed – two of which are offered by for-profit online universities. In his analysis of undergraduate curricula, Brooks (2010) identified 74 higher education insti-

tutions offering security-related courses in the US. Unfortunately, the author does not name individual programs or offer more information for further investigation. In any case, there has been a large number of university degrees too numerous to list here, providing for a varied educational landscape in security management.

There has furthermore been a more active and diverse academic discussion on the subject. For example, Nalla and his collaborators surveyed executive-level training needs for security managers and identified core topics from the professional and academic community for graduate and undergraduate courses in private security (Nalla et al. 1995a; Nalla et al. 1995b; Nalla et al. 1996; Nalla 2001). One can also find individual case studies of the development of security management programs (McCrie 2004; Hill 2007); analyses of how topics like ethics are incorporated into graduate courses for security management (Adolf and Brown 2013); as well as general overviews of university programs published in academic journals and by professional associations (Lancaster 2007; ASIS International 2015). While there seems to be no systematic analysis of current security ma-

nagement courses in the US, numerous authors have commented on educational offerings and pointed to what they consider to be deficiencies. These include the attachment of many courses to criminal justice departments and a resulting lack of business and other social science content; a dominant law enforcement background of instructors and faculty; the lack of PhD programs and insufficient academic research in security management in general; and a missing accreditation body for university security courses (Nalla 2001; Giever 2007; Adolf 2010). It will be interesting to see how security management degrees will develop in the US, especially in relation to fields like homeland security and emergency management that have emerged since 9/11 and already spawned over 200 specialized academic programs by 2012 (Wallace et al. 2012; Stewart and Vocino 2013).

2. ACADEMIC SECURITY MANAGEMENT EDUCATION IN THREE SELECTED COUNTRIES

This brief review of the German and US educational landscape brought to light similarities and differences in academic offerings for security management, including the number, age, institutional anchoring, language, content, participants and research links of the programs. In addition to these general characteristics, it was decided to also survey the background of students and faculty, current trends in academic research and how, if at all, new trends and research results are transferred into teaching and education.

The research was conducted in three phases. The first phase involved a query of online databases for degrees in security management in the 28 EU states (www.bachelorsportal.eu, www.mastersportal.eu, www.studyineurope.eu, <http://www.xstudy.eu>). Although these databases do not capture the entirety of national offerings and are not necessarily up-to-date, they are nonetheless an effective means to scan the vast range of cross-country

study courses. The search terms centered on organizational security management for private or public sector purposes. They excluded programs solely focused on safety, IT security, emergency or disaster management, security studies, criminal justice or risk management. The query resulted in about eight countries offering at least one degree in security management (e.g. Germany, the United Kingdom, Netherlands, Belgium, Austria, Finland, Denmark, Spain, France). Eastern Europe countries, for example, did not appear at all. For linguistic reasons and geographical closeness to Germany, three countries were then selected for further investigation: Austria, the Netherlands, and the United Kingdom.

In a second step, interviews were conducted with representatives of the programs listed in this publication to gather more information and a better picture of their national educational landscape in this area. Interviews were conducted in person,

via phone or Skype between August and December 2015 based on a questionnaire of 24 questions (programs that didn't respond to interview requests are marked with an asterisk). Finally, BIGS hosted a workshop in November 2015 with representatives from these countries to assess the status quo, discuss differences and commonalities and reflect about ways to promote cooperation and innovation in the teaching and research of

security management in Europe. The discussions and key talking points have been incorporated into this publication. In the following section, the study courses in security management in the three selected countries will be presented. An additional program per country ("Broadening the scope") that was part of the initial online query results and provides a unique take on a topic related to security management will also be briefly summarized.



2.1 Austria

Austrian higher education institutions are currently offering three major programs in security management. At the **undergraduate level**, the *FH Campus Wien*, the country's largest university of applied sciences, has been offering a part-time BSc in Integrated Safety and Security Management under its Public Sector Department since 2007. The great majority of students are professionals from the public security services as well as a variety of industries and corporate functions based in Austria and, to a much lesser degree, Germany. The course aims to provide a holistic understanding of security and includes classes on safety, psychology and risk management. Students acquire professional certificates throughout the program, for example as Safety Inspector, Fire Safety-, Quality-, and Process Manager. For mandatory research projects, students choose from the pre-set topics

of risk management, protection against economic and industrial espionage, and safety and security management and benefit from the program's extensive links with industry, commerce and government agencies. The university's corresponding master's degree (formerly Risk Management and Corporate Security) is being re-launched in 2016 after significant reform under the heading Integrated Risk Management with a stronger business and risk management focus.

At the **graduate level**, there are two programs dealing with security management in general. *Danube University Krems*, a university specialized in postgraduate education, started its part-time MSc in Security and Safety Management in 2004, being the first university in continental Europe to do so. The program, which was created in response to growing demand from the corporate security and

insurance sector, graduates around 20 participants every 18 months. Students mostly hold medium and upper management positions in the private and public sector in German-speaking countries. Individual modules deal with business management, social skills, risk and crisis management, as well as safety and technology. The course is attached to the Center for Infrastructural Safety within the Department for E-Governance and Administration next to a range of certificates and postgraduate degrees in the field of security and safety, e.g. Fire Safety Management or Information Security Management.

Moreover, the *University of Applied Sciences Wiener Neustadt* has offered a part-time MA in Strategic

Security Management since 2009. The program was developed together with the Security Academy, the training and research department of the Austrian Ministry of Interior, and is structured along the fields strategy, security, management, law, personality and scientific skills. While also open to professionals from the private sector, the course mostly attracts senior police officers and civil servants of public security and emergency services from Austria, including a few Germans. The university also offers related certificates in Business and Cyber Crime and Police Instruction as well as a Bachelor in Police Leadership that provides the educational basis for the higher-level police officer track.

Broadening the scope:

MSc Risk Prevention and Disaster Management, University of Vienna (part-time, 90 ECTS / 4 semester, 9.800 Euro)

This new course, started in October 2015, seeks to provide solid knowledge of the disaster management cycle (disaster response, relief and recovery, risk assessment, mitigation, prevention and preparedness) along with research concepts, theories and methods for practical application to professionals with relevant positions and experiences. The first 21 students from Austria and Germany follow a curriculum structured along 8 modules: basics of risk prevention disaster management, disaster impact, disaster prevention and preparedness, disaster response and recovery, a practical exercise, a multiday excursion, electives (e.g. CBRN risks, psychological aspects of disasters, protection of critical infrastructure) and a master's thesis. The programme was developed in collaboration with the Austrian Ministry of the Interior's Subunit for National Crisis and Disaster Management and is linked to national key players like the Ministry of Defense, the Ministry of Agriculture, Forestry, Environment and Water Management and the Federal Firefighter Association. Its practical aspects as well as holistic, interdisciplinary approach set it apart from existing programs in Austria and elsewhere. Several representatives of Austrian security management programs expressed an interest in the new course because of its overlap with questions of business continuity management and risk management.

Austrian university courses in security management address the need for basic and (post) graduate education for both the private and public sector. While the MA program in Wiener Neustadt is more targeted at police and public security officials, the BSc/MSc study courses in Wien and Krems attract more private sector professionals from a variety of industries. Even the country's only undergraduate degree is geared towards working professionals instead of high school graduates (who may nonetheless apply but have to complete an internship during their study). The student body

at all schools is overwhelmingly Austrian, a few German and Swiss students aside, and classes in English are the exception. Teaching is mostly done by part-time or external lecturers in lack of a large faculty able to carry the entire program. However, this also enables a close connection to the professional community and provides opportunities for collaboration, research and future employment. Most interviewees expressed confidence that there will be sufficient demand for their programs in the future and expect student numbers to remain constant or even slightly increase.

Table 1: Austria

	FH Campus Wien	Danube University Krems	University of Applied Sciences Wiener Neustadt
Degree title	<i>BSc Integrated Safety and Security Management</i>	<i>MSc Security and Safety Management</i>	<i>MA Security Management</i>
Credits	180 ECTS	90 ECTS	120 ECTS
Department or Faculty	Department of Public Sector	Center for Infrastructural Security under the Department for E-Governance & Administration	Department of Security
Founding year	2007	2004	2009
Learning mode	Part-Time Face-to-Face (1st semester: 9 attendance blocks, Friday to Saturday or Saturday to Sunday; from 2nd semester: 5-6 attendance blocks, Friday to Sunday)	Part-Time Face to Face (9 attendance weeks, Monday to Saturday)	Part-Time Face to Face (3-day attendance blocks every 2 weeks, Thursday to Saturday)
Duration / Start	6 Semesters / every October	4 Semesters / every 18 months (October and March)	4 Semesters / every September
Language	German	German; some English lectures	German; some English lectures
Cohort size	~40 students	~20 students	~20 students
Tuition fees	363.36 Euros tuition plus 18 Euros to the Student Union (per semester)	14,700 Euros (entire program)	363.36 Euros tuition plus 18 Euros to the Student Union (per semester)
Program objectives	The basic courses will convey an understanding of security issues in its entire scope. Students will acquire detailed knowledge in the field of „people - infrastructure - organization“. Courses on personality, risk management or management will prepare them for sensitive security and crisis management problems.	Management-based, human-centered and holistic approach to providing security and safety for people and assets.	Business-based leadership training program for top priority functions in the field of security services.

Subjects / Areas Covered	6 competence areas: <ul style="list-style-type: none"> • Security and technology • Risk and management • Specialization • Internship • Personal development • Interdisciplinary Methods 	<ul style="list-style-type: none"> • Business management • Security management • Risk and crisis management • IT security • Fire safety 	6 competence areas: <ul style="list-style-type: none"> • Strategy • Security • Management • Law • Personality • Academic skills
Core modules / units / themes	<ul style="list-style-type: none"> • Burglary and Property Protection Lab • Object and Perimeter Protection • Fire safety • Safety Inspector – Legal and Organizational Basics • Safety Inspector – Prevention • Safety Inspector in Practice • Information Security • Process Management • Risk Management • Security Management • Crisis and Emergency Management • Internship • Interdisciplinary Basics • Human Factor – Leadership • Human Factor – Networking • Quality Management • Seminar Paper • Research Methods • Academic Research Project • Bachelor’s Thesis 	<ul style="list-style-type: none"> • Interdisciplinary Basics • Management and Social Competence • Management Concepts for Security - Risk Management • Internal Company Crime - IT Security • Crisis Management • Safety • Fire Protection • Safety Technology • Security Concepts and Services • Master’s Thesis 	<ul style="list-style-type: none"> • Political science • Criminology • Governance • International and transdisciplinary Leadership • Threats to Modernity • Organization • Finance • Leadership • Cooperative Decision Making • Communication • Methodology • Science and Research • Master’s Thesis
Electives	<ul style="list-style-type: none"> • Commercial and industrial espionage • Crisis Management • Fire Safety • Environmental Management • Functional Safety • Vital Leadership • Project Management 	none	<ul style="list-style-type: none"> • Risk Management • Crisis Management
Practical elements	<ul style="list-style-type: none"> • Formal internship requirement but most students are working professionals • Numerous real-world projects in each semester 	<ul style="list-style-type: none"> • No internship required • Real-world project tasks 	<ul style="list-style-type: none"> • No internship required • Workshops • Simulation Game at the Security Academy of the Ministry of the Interior
Security research	<ul style="list-style-type: none"> • Within the B.Sc., there are 3 fixed research areas from which students are assigned topics for their research projects: <ol style="list-style-type: none"> 1.Risk management 2.Protection against economic and industrial espionage 3.Safety and security management • Several national research projects with partners from the private and public sector (e.g. Human Factor in Risk Management, Threats of Industrial and Economic Espionage for the Austrian Economy) 	<ul style="list-style-type: none"> • 10-12 research projects in recent years, including FP7 (e.g. FOCUS: Foresight Security Scenarios) 	<ul style="list-style-type: none"> • Participation in national security research projects (e.g. KIRAS, PARSIFAL)

2.2 Netherlands

The Dutch higher education landscape for security management offers some unique features that set the country apart from the other cases surveyed here. At the **undergraduate level**, there is a nationwide program taught at six universities of applied sciences in *Integrale Veiligheidskunde (IVK)*, or (Integrated) Safety and Security Management Studies, that produce several hundred graduates each year.⁵ The IVK programs were developed after large-scale disasters in the Dutch towns Enschede (2000) and Volendam (2000/2001) as well as the terrorist attacks on 9-11, in Madrid and London had demonstrated the need for specially trained experts that can conceive and implement integrated solutions to prevent and mitigate man-made and natural disasters.⁶ These professionals should adopt a comprehensive approach that seeks to incorporate traditional emergency services (i.e. police, fire brigades, EMS) with relevant concepts and partners from the private sector (i.e. commercial security providers, local businesses, banks, insurance companies) and civil society (i.e. neighborhood organizations, social workers). Accordingly, the 4-year multidisciplinary study program generally comprises subjects like law, criminology, business administration, public management, leadership, risk management and social sciences. The specific curriculum, however, differs from school to school. In all places, theoretical education is also combined with applied research projects throughout the course of study and mandatory internships of up to several months. In the Netherlands, students also complete a minor of 30 ECTS (or one semester) in the third or fourth year of undergraduate study that allows them to take classes within or outside their own faculty, or at a different national or international university altogether. Students therefore have extra flexibility to shape their studies in a way that suits their special interests and career plans.

Each university offers a part-time and a full-time version to serve the needs of both working professionals and high school graduates. In addition, the *Hague University of Applied Sciences* has been offering a Bachelor of Public Administration in Safety and Security Management Studies taught entirely in English since 2010, which attracts students from all over the world. The IVK student body is otherwise overwhelmingly Dutch apart from very few German students i.e. at *Saxion*. The professional background of the part-time students is often in public security (police, fire brigade, military,

intelligence, customs tax etc.), with the private sector less in proportion. According to interviewees, students are very nationally, often regionally oriented towards employment as mid-level policy or safety advisors in municipalities, safety regions⁷ but also increasingly in the Dutch private sector (*The Hague's* English program being the exception with its orientation towards the public and private international sector). Most schools have a sufficiently large faculty and team of teachers that administer most or all of the classes; it is often a mix of academic researchers, PhDs and lecturers with a mostly public safety or security background. Moreover, each university offers different specializations and emphases according to its own strengths and specialties. For example, *Inholland Rotterdam* has a specialty in port security and related issues like trafficking, *Utrecht* in social safety, *Leeuwarden* in cyber security and *The Hague* in international conflict management. Some interviewees mentioned a proposal to establish a uniform and nationally coordinated approach for IVK where all six schools would teach the same basic content in the first years and then offer a unique specialization. However, such a formal agreement, if ever, is not currently on the horizon.⁸



At its Appeldoorn campus, *Saxion University* also offers the country's only undergraduate program in Security Management. In contrast to the more public policy oriented IVK courses, the program is specifically designed for security managers in the private sector in general and operators of cri-

tical infrastructure in particular. Started in 2011, the study program puts emphasis on IT security and features practical case studies and research assignments from various sectors of critical infrastructure, i.e. energy, telecom, water management, health, chemical/nuclear energy, transport. Lecturers as well as students are typically drawn from these industries, but include experts with a public security background as well.

At the **graduate level**, there are several established programs with a public administration and political science focus. The longest running is the MSc in Public Administration - Public Safety Track (*Besturen van veiligheid*) at *VU Amsterdam* that began in 2007. The course grew out of the Department's own research on public security and policing, a growing societal discussion about the relationship between private and public security providers, and an increasing demand for an academic master's course in this field after the introduction of the IVK programs.⁹ The curriculum is a mixture of political and public administration and taught entirely by department staff and researchers. Students with a professional background mostly come from the public security sector, various ministries, the safety regions and the media. A very similar program is also found at *Radboud University Nijmegen* that has a stronger focus on safety issues and crisis management. Finally, *Leiden University's Institute of Security and Global Affairs (ISGA)* in The Hague started a full-time English MSc in Crisis and Security Management in February 2012 that has been in high demand since its inception. The multidisciplinary course, which grew out of a specialized track in the Public Administration program, focuses on the governance of complex crises and incidents around themes like public private partnerships, crisis communication, and the concept of "securitization." About a fifth of the students come from abroad; Dutch nationals tend to have backgrounds in IVK, public administration, political science and liberal arts. Demand has been very high and graduates find work in national, regional as well as international organizations in the public and private sector.

Broadening the scope:

Executive Masters / MSc Cyber Security, Cyber Security Academy (part-time, 4 semesters, 23.500 Euro)

Inaugurated in February 2015, this multidisciplinary course focuses on the technological, as well as the legal, administrative, economic and psychological aspects of cyber security. It is specifically designed to equally address the technical and non-technical side of digital security and enable graduates to design, communicate and implement solutions to cyber risks from a technological as well as policy and administrative approach. The curriculum is structured along four phases: conceptualization of cyber space and cyber risks; specialization in a technical or governance track; electives to broaden or deepen one's knowledge of digital security; and a thesis. During the whole program 4 to 6 extra-curricular activities will be organised on specific cyber security themes and current issues. About two thirds among the first 25 students work in the private sector (i.e. telecom, ISPs, banks, consultancies) and the remaining third has a public sector background (i.e. ministries, police, military, intelligence).

The program was jointly developed by *Leiden University*, *Delft University of Technology* and *The Hague University of Applied Sciences* and several private partners, organised under the Cyber Security Academy. It is taught by scholars and lecturers from these universities and guest lecturers from private and public organizations at the campus of the The Hague Security Delta (HSD), a network organization of private and public organizations and knowledge institutions in the broad field of security and one of Europe's largest security clusters. In the context of the growing importance of digital security for security managers, the program is an important and unique contribution to the growing array of study courses related to security management in general.

In the Netherlands, academic education in security management is clearly oriented towards the public sector. There are a number of well-established programs, including one administered in English, at the undergraduate and graduate level, with IVK as a nationally taught subject at several universities of applied sciences. The inclusion of a minor in Dutch bachelor's programs adds thematic flexibility to students, and all (full-time) IVK programs contain obligatory internships as well as applied research projects throughout the program. While teaching at research universities like *Amsterdam* and *Leiden* is mostly done by scholars and faculty members, the universities of applied sciences tend to rely more on part-time and external lecturers from the private and public sector. According to interviewees, the large number of graduates in particular in IVK has so far been absorbed well by the

national job market. Views on future employment opportunities, however, were mixed. While some voiced concerns that in the context of public sector cuts and a growing saturation of the job market, employment opportunities for IVK students might decrease in the near future, especially at the regional and municipal level, others saw safety and security as a booming field in the Dutch private sector and corporate or commercial security as a promising career field for the foreseeable future. In this context, it is interesting to note that there is currently no strictly business oriented or MBA-like program for corporate and commercial security professionals at the graduate level. Moreover, neither the universities of applied sciences nor the research universities are offering a formal doctoral program in security management.



Table 2: Netherlands
(* - no interview conducted)

	The Hague University of Applied Sciences	Saxion University of Applied Sciences	HU University of Applied Sciences Utrecht
Degree title	<i>Bachelor of Public Management Safety and Security Management Studies</i>	<i>BA Safety and Security Management Studies (IVK)</i>	<i>Bachelor of Public Management - Safety and Security Management Studies (IVK)</i>
Credits	240 ECTS	240 ECTS	240 ECTS
Department or Faculty	Academy of Public Management, Safety and Law	School of Governance, Law & Urban Development	Curriculum taught by a team of lecturers, some from the Research Group Coordination of Security under the Faculty Society and Law
Founding year	2010	ca. 2002/2003	ca. 2002/2003
Learning mode	Full-Time Campus Based (English); Part-time Campus Based (Dutch); Dual program (Dutch)	Full-Time Campus Based / Part-Time Campus Based	Full-Time Campus Based / Part-Time Campus Based
Duration / Start	4 years / every September	4 years / every September	4 years / every September
Language	English or Dutch	Dutch; 6th semester taught in English	Dutch
Cohort size	English program: ~70 students Part-time Dutch program: ~30 students; Dual program: ~140 students	~25-30 students	Full-time: ~150 students Part-time: ~15 students
Tuition fees	Dutch/EU/EEA citizens (2016-2017): € 1,984 per year Other citizens (2015-2016): € 7,900 per year	14,700 Euros (entire program)	363.36 Euros tuition plus 18 Euros to the Student Union (per semester)
Program objectives	<ul style="list-style-type: none"> • Safety is the product of communal action and therefore requires citizens to actively contribute to its public management. • It is the task of specialized professionals to make provisions for such participation, creating a network of all parties involved with safety and security in any way. 	Students learn how to deal with safety and security issues in association with various organizations and institutions, including the police, fire brigade, customs authorities, security companies, government authorities, small-and-medium sized companies, social work and neighborhood organizations, insurance companies, banks and housing corporations.	<ul style="list-style-type: none"> • Graduated safety and security management experts develop and implement concrete plans and guidelines in the field of safety and security and support collaboration with all parties concerned, from citizens to professionals and politicians.. • A safety and security management expert is familiar with workplace safety, security regulations and environmental regulations and is able to apply these.

Subjects / Areas Covered	The program follows a holistic and human centered approach around the three areas of international security, public safety and industrial safety.	The degree centers on the integral approach of safety, security and livability issues, containing subjects like risk management, occupational safety, law, criminology, research methods, public and business administration, communication and policy making.	The program comprises the full range of the security field and contains subjects as law, criminology, business administration, public management, leadership, risk management and social sciences. Besides theoretical education, practical education and research are important parts of the program.
Core modules / units / themes	<ul style="list-style-type: none"> • Civic Safety • Neighborhood safety • City, space and safety • Securing Organizations • Civic engagement • Managing disasters and crises • Safety and Security in international perspective • Innovations in safety and security • Research Lab • Graduation preparation 1 • Graduation preparation 2 • Graduation phase 	<ul style="list-style-type: none"> • Orientation • Occupational Safety • Safety Policy and Juridical Instruments • Capita Selecta • Urban development and safety • Youth and safety • Governance and safety • Safety at companies • Internship • Risk and emergency management in the public sector • Risk and emergency management in the public sector • Bachelor's Thesis 	<ul style="list-style-type: none"> • Integrated Safety and Security • Risk • Living • Mobility • Society • Professional Skills • Analysis and interpretation • Crisis Management • Intervention Strategies • Safety and Security Research Assignment • Internship • Critical Infrastructure: Concepts • Work, Health and Safety: Concepts • Advanced Management • Management skills • Capita Selecta • Bachelor' Thesis
Electives	<p>Minors offered at the Academy of Public Management, Safety and Law include:</p> <ul style="list-style-type: none"> • Advanced Criminology • Terrorism and Counterterrorism (CT) • Applied Intelligence in Security • Peace building after Conflict • Global Geopolitics and Political Economy 	<p>Minors offered at Saxion include:</p> <ul style="list-style-type: none"> • Financial risk analysis / financial risk management • Safety of products and substances 	<p>Minors offered at HU include:</p> <ul style="list-style-type: none"> • Event crowd management • Ethics in security and safety
Practical elements	<ul style="list-style-type: none"> • Two internships required (3rd and 4th year) • Assignments based on real-world scenarios in each module (four per year) • Bachelor's Thesis has to be based on an applied research project with an external organization 	<ul style="list-style-type: none"> • Internship required (5th semester) • Assignments based on real-world scenarios in each semester in the first three years • Bachelor's theses are written in cooperation with an external organization 	<ul style="list-style-type: none"> • Internships required in the 2nd year (two days per week), in the 3rd year (six months) • Assignments based on real-world scenarios in each semester • Bachelor's thesis written in cooperation with an external organization
Security research	<ul style="list-style-type: none"> • Applied research done by students throughout the program • Various multidisciplinary research groups consisting of specialized experts (lectors), faculty staff and external experts (members) e.g. on International Peace, Justice and Security or Cyber & Safety. 	<ul style="list-style-type: none"> • Applied research done by students throughout the program • The Chair for Safety and Risk Management within the university's Research Centre for Urban & Environmental Development focuses on the management of physical risks and social risks in the urban environment as well as safety risks of new (renewable) energy applications. 	<ul style="list-style-type: none"> • Applied research done by students throughout the program • The Coordination of Security research group focuses on the field of security in society and research at the interface of safety and security, including individual or community-based prevention projects through municipalities, the police, the judiciary, the prison and probation services, as well as security and safety research.

	NHL University of Applied Sciences	Inholland University of Applied Sciences Rotterdam	Avans University of Applied Sciences (Breda / s-Hertogenbosch)*	Saxion University of Applied Sciences
Degree title	<i>BA Safety and Security Management Studies (IVK)</i>	<i>BA Safety and Security Management Studies (IVK)</i>	<i>BA Safety and Security Management Studies (IVK)</i>	<i>Bachelor of Business Administration - Security Management</i>
Credits	240 ECTS	240 ECTS	240 ECTS	240 ECTS
Department or Faculty	Faculty of Business and Management Studies	Business, Finance and Law Domain	Academy for Security and Management within the area Economics and Management	School of Governance and Law
Founding year	ca. 2003	2004	n.a.	2011
Learning mode	Full-Time Campus Based / Part-Time Campus Based	Full-Time Campus Based / Part-Time Campus Based	Full-Time Campus Based / Part-Time Campus Based	Full-Time Campus Based / Part-Time Campus Based
Duration / Start	4 years / every September	4 years / every September	4 years / every September	4 years / every September
Language	Dutch	Dutch, some lectures in English	Dutch	Dutch, second half the 2nd semester in English
Cohort size	~150 students	Full-Time: ~28-35 students Part-Time: ~20 students	Full-Time: ~180 students each in Breda and Den Bosch	~75 students (first year)
Tuition fees	Dutch/EU/EEA citizens (2016-2017): € 1,984 per year; Other citizens (2015-2016): € 7,900 per year	Dutch/EU/EEA citizens (2016-2017): € 1,984 per year; Other citizens (2015-2016): € 7,900 per year	Dutch/EU/EEA citizens (2016-2017): € 1,984 per year; Other citizens (2015-2016): € 7,900 per year	Dutch/EU/EEA citizens (2016-2017): € 1,984 per year; Other citizens (2015-2016): € 7,900 per year
Program objectives	To train specialists for the public and private sector that have a comprehensive, generalist view of security and safety issues.	The program trains security and safety experts for positions in areas like emergency response, crisis and disaster management, event management, business organizations, housing companies or non-profit organizations.	The degree centers on the increased need for security. The emphasis is placed on the integral security triangle: protection, perception and control.	The program trains professionals who play a key role in protecting organizations against (criminal) internal and external threats, with a strong focus on critical infrastructure sectors.

Subjects / Areas Covered	There are three learning areas – conceptual learning, integrated learning and professional skills – in which topics like law, psychology, criminology, sociology, economics and business are covered.	The program covers areas like criminal law, (crisis) communication, emergency response, crisis management, administrative law, risk management, public administration, economics and management and leadership.	Students learn to examine security and safety issues from a legal, economic, sociological and administrative point of view.	The program covers security management, risk analysis and risk management, IT security, business continuity management, law, social sciences, economics, statistics, communication, business administration and management skills.
Core modules / units / themes	<ul style="list-style-type: none"> • Policy and Politics • Profession in Context • Professional Skills • Research Methods • Management and Administration • Corporate Security • Financial Management • Business Strategy • Community Safety • Crisis Simulation • Policymaking • Research Methods • Organizational Change and Leadership • Internship • Bachelor's thesis 	<p>Thematic blocks:</p> <ul style="list-style-type: none"> • General Career Guidance • Career Guidance in Security and Safety • Security and Safety Policy • Security • Safety • Physical Security • Europe and Security • Youth and Security • Internship • Bachelor's thesis 	<p>Modules at 's-Hertogenbosch:</p> <ul style="list-style-type: none"> • Introduction to Security and Safety • Security and Research • Neighborhood Safety Analysis • Security and Safety in Organizations • Professional skills • Safety Management • Security Management • Neighbourhood Safety Policy • Regional Security and Safety • Work and Networks • Concepts of Safety and Security • Internship • Bachelor's thesis 	<ul style="list-style-type: none"> • Security Studies • Risk Management • Security Projects • Risk and Threat Analysis • Organizational Studies • ICT and Network Security • Criminology • Security Plans and Policies • Management Skills • Research Methods • Business and systems thinking • Crisis Management • Business Continuity Management • Fraud / Risk Management • Audit and Quality • Change Management • Internship • Bachelor's thesis
Electives	<p>Minors offered at NHL include:</p> <ul style="list-style-type: none"> • Cybersafety • Human Factors in Safety and Security 	<p>Six minors offered at Inholland Rotterdam, including:</p> <ul style="list-style-type: none"> • Security Intelligence • Governance and Integrity • Terrorism • Radicalization 	<p>Minors offered at Avans include:</p> <ul style="list-style-type: none"> • International Conflict Studies • Occupational Health and Safety 	<p>Minors offered at Saxion include:</p> <ul style="list-style-type: none"> • Social Safety • Political Science • Law • Sports Crowd Safety Management
Practical elements	<ul style="list-style-type: none"> • Project assignments based on real world scenarios • Research assignments at external organizations • Internship required in the 3rd year 	<ul style="list-style-type: none"> • Project assignments based on real world scenarios • Project assignment at an external organization in the 2nd year • 6-month internship in the third year 	<ul style="list-style-type: none"> • Project assignments based on real world scenarios • Internship in the third year • Bachelor's thesis based on applied research at an external organization 	<ul style="list-style-type: none"> • Required internship in the first half of the 3rd year • Bachelor's thesis is based on an applied research assignment at an external organization • Guest speakers every Friday from a critical infrastructure sector
Security research	NHL has a well-known Cybersafety Research Group established in 2008, focusing on trends in cyber-crime, youth and cybersafety as well as companies and cybersafety.	In the Business, Finance and Law Department, there is a research group on Law and Security with a special focus on public perceptions of security and public reassurance.	Avans has a Centre of Expertise with five research groups looking at security and safety from three perspectives: a legal perspective on the topic of security and justice; a social-agogic perspective on the theme of social intervention; and an organizational perspective with a focus on public administration.	<ul style="list-style-type: none"> • Applied research done by students throughout the program • The Chair for Safety and Risk Management within the university's Research Centre for Urban & Environmental Development focuses on the management of physical risks and social risks in the urban environment as well as safety risks of new (renewable) energy applications.

	Leiden University Campus The Hague	VU University Amsterdam	Radboud University Nijmegen*
Degree title	<i>MSc Crisis and Security Management</i>	<i>MSc Public Administration – Public Safety Track</i>	<i>MSc Public Administration – Public Safety Track</i>
Credits	60 ECTS	60 ECTS	60 ECTS
Department or Faculty	The program is offered by the The Institute of Security and Global Affairs (ISGA), which is part of the Faculty of Governance and Global Affairs at Leiden University	Department of Political Science and Public Administration under the Faculty of Social Sciences	Nijmegen School of Management
Founding year	2012	2007	n.a.
Learning mode	Full-Time Campus Based	Full-Time Campus Based / Part-Time Campus Based	Full-Time Campus Based
Duration / Start	1 year / every September and February	1 year (full-time), 2 years (part-time) / every September	1 year / every September
Language	English	Dutch, one course offered in English	Dutch
Cohort size	~150 students per year	~50 students	n.a.
Tuition fees	Dutch/EU/EEA citizens (2016-2017): € 1,984 Other citizens (2015-2016): € 16,000	Dutch/EU/EEA citizens (2016-2017): € 1,984 Other citizens (2016-2017): € 13,400	Dutch/EU/EEA citizens (2016-2017): € 1,984 Other citizens (2016-2017): € 9,232
Program objectives	The program emphasizes the ability to understand and analytically apply insights from Public Administration and other disciplines to problems of crisis and security management. The program aims to educate students to become scientifically trained crisis and security management experts in a broad sense.	The program explores questions of social and physical security/safety with the help of public administration theories. Students will learn about the major theories of governance and security/safety studies and apply these theories to practical examples, including the police and judiciary, private security companies and the fire department.	n.a.

Subjects / Areas Covered	The program is rooted in social science research, but is also interdisciplinary (e.g. social sciences, history and law) and strives to convey both general knowledge of the core themes and approaches in crisis and security management and an awareness of specific problems and issues in this field.	The curriculum is drawn from the fields of political science and public administration science, covering topics like crime and disorder, crisis management, physical security and good governance.	n.a.
Core modules / units / themes	<ul style="list-style-type: none"> • Introducing Crisis and Security Management • Local Security Networks • Security in Historical Perspective • Research Design • Privatization of Crisis and Security Management • Internationalization of Crisis and Security Management • Crisis Management • Thesis 	<ul style="list-style-type: none"> • Theories of Governance • Public Policy and Management • Good Governance • Research Methods • Physical Security and Crisis Management • Governance of Public Safety and Citizenship • Governance of Security and Policing • Master's Thesis 	<ul style="list-style-type: none"> • New Public Governance • Monitoring, Evaluation and Enforcement • Research Methods for Public Administration • Governance Ethics • Security and Safety Management I + II • Master's Project • Master's Thesis
Electives	<ul style="list-style-type: none"> • Terrorism & Foreign Fighters • Security and the Rule of Law • Governance of Crime and Social Disorder • Governance of Cyber Security • World of Intelligence Services • Interpersonal Violence 	None	None
Practical elements	No formal internship requirement.	No formal internship requirement.	Optional internship instead of a research project in the module "Master Project"
Security research	<ul style="list-style-type: none"> • The Institute of Public Administration is one of the largest and oldest institutes of academic research and teaching in the field of public administration in the Netherlands, concentrating on the analysis of politics and administration of institutional change. • The Centre for Terrorism and Counterterrorism (CTC) of Leiden University Faculty Campus The Hague, established in 2007, conducts research into terrorism, counterterrorism, political activism and radicalization as well as cyber security and 'cyber terrorism', threat and crisis communication and crisis and security management. 	The program is connected to the Chairs in Security and Citizenship and Police Studies and Security Issues focussing on issues like community safety, crime and criminal justice, the organization of security and policing.	n.a.

2.3 The United Kingdom

The United Kingdom (UK) probably has the longest tradition in academic security management education in Europe. According to Wakefield (2014, 931), postgraduate programs at Loughborough and Leicester began to admit students in 1993 and 1994, respectively. This predates any programs in continental Europe by almost a decade. Nevertheless, all other UK programs in existence today only started in the early or late 2000s, similar to the courses surveyed in the other countries.

At the **undergraduate level**, there are three distance-learning programs at the *University of Portsmouth* (BSc Risk and Security Management), the *University of Leicester* (BA Security and Risk Management) and *New Buckinghamshire University* (BA Security Consultancy). The ones at *Portsmouth* and *Leicester* have been running since 2002 and 2004, respectively, and are among the most well established in Europe. Since courses are taught in English and via distance learning, they not only attract UK citizens (either based in the UK or overseas) but also students from all over the world. The student body is predominantly made up of current and former police and military officers, commercial and corporate security officers as well as security professionals in other fields. At *Portsmouth*, the 4 ½ -year program puts strong emphasis on management and criminology and includes offerings in counter fraud, counter terrorism, global affairs and wider criminology in general. Classes are taught by department staff, which are mix of traditional academics and former practitioners with PhDs, and only very few external lecturers. The program at *Leicester* starts twice a year and is in terms of student numbers the largest in the country, also attracting a large number of international students. It is comprised of a Foundation Degree of 3-4 years that can be converted into a full undergraduate degree by a further 1 ½ years of study. The course features content on management, leadership, safety and crime and electives include a module on managing risk and security in healthcare settings. *New Buckinghamshire University* provides the newest addition to the field that produced the first graduates in 2015. Modules range from project planning and private investigations to information security and management and consultancy. The Department of Security & Resilience, consisting of academic specialists with professional experience in the security industry, also offers a variety of security and resilience-linked higher education qualifications like crowd safety management and organizational resilience as well

as certificates in business continuity management and information security awareness.

At the **graduate level**, *Leicester* and *Portsmouth* provide options for continued academic education in security management with a MSc in Security and Risk Management and a MSc in Security Management, respectively. The distance-learning program at *Leicester* is not only the oldest program in the UK – and probably among the oldest in the world – running since 1994, but also the biggest in the country with two cohorts of around 50 students per year. About half of its participants are British nationals and most have a police or military background, work at international organizations like the UN or in a range of private industries. The program of study is centered around the themes of crime, risk and managing security and can be completed between 2 and 4 years. The course at *Portsmouth* offers a blend of criminology and business management and is taught in a distance learning or on-campus version. Most of the full-time students actually come from abroad and tend to have some professional experience, while the student body in the part-time program is predominantly British also with a police and military background (the remainder mostly hailing from Africa, the Middle East and the Indian subcontinent). Lecturers are drawn mostly from the Institute of Criminal Justice Studies and the university's Business School. The *University of Southampton* has offered a MSc Corporate Risk and Security Management for over decade as well. However, it puts greater emphasis on corporate risk and quantitative aspects more than security in the traditional sense, attracting many international students as well. Another, well established MSc in Security Management at *Loughborough University* was discontinued in 2015 and it is not clear if will be offered again in the future, reducing the competition for the other UK providers of academic education in this field.

Furthermore, the *University of Portsmouth* started a Professional Doctorate in Security Management (DSyRM) in 2014 as perhaps the only university in Europe to offer a dedicated doctoral program in this field. It is 4-year part-time program that begins with a taught element delivered through a small number of workshops in *Portsmouth* for the first two years and then two years of supervised research leading to a thesis. The program aims to develop researching professionals (instead of professional researchers like a traditional PhD) and advance professional practice in the field of secu-

city management. Up to 10 places for applicants from home or abroad are available each year, with about 15 participants at the end of 2015 studying

such topics as the management of complex crises, security in the oil and gas sector and the security of tax havens.

Broadening the scope:

MA Intelligence and Security Studies, Brunel University London (part-or full-time, 2 to 5 semesters)

Established in 2004, the course offers a unique opportunity for practical graduate study of intelligence issues applicable across the private and public sectors around the world. A distinctive feature lies in its practical opportunities to develop intelligence skills through case studies and simulation exercises dealing with intelligence analysis. Current modules cover intelligence concepts and history, contemporary threats and analytical methodology, an intelligence project, an elective i.e. in counterintelligence or intelligence analysis foundation, and a dissertation. The professionally oriented course is offered on either a full-time basis, taught over two terms and a dissertation during the summer, or part-time basis taught over four terms with the dissertation completed during the summer of the second academic year. There are around 30 graduates in the full-time program and the part-time mode is expected take in up to 20 students annually. Fees for UK/EU students are £8,350 (full-time) or £4,175 (part-time) while international students are charged £17,200 (full-time) or £8,600 (part-time).

According to the course director, the job market for intelligence analysts in the private sector has been steadily growing in recent years. However, especially small and medium sized enterprises usually don't consider employing professional intelligence analysts to examine their global competitors or the security environment in overseas markets. As there is no comparable program in continental Europe, this program addresses an important educational need for intelligence-related aspects of security management and threat analysis for both public and private institutions.

Reaching back over three decades, tertiary security management education in the UK distinguishes itself through its distance learning approach, its international appeal as well as strong links between academic research and education for security professionals. The departments involved in delivering these programs i.e. at *Leicester* and *Portsmouth* are among the largest and most renowned research centers in the fields of crime and security in the UK. At the same time, all programs have an explicit vocational focus, which is reflected by the fact that all undergraduate and the majority of graduate courses are delivered via distance learning and targeted at working professionals in the UK and abroad. While many students have a public security background, the programs are mainly orientated for a transition into the private security sector. Interviewees stated that the demand for campus-based education in security management has been negligible, which reinforces the traditional perception of security management as a second career. Moreover, probably due to the

English language and the historical ties of the UK to certain world regions, a significant proportion of the student body is comprised of international students. All programs therefore cater to a global market in security management as much as to national demand, and interviewees were in unison fairly positive about the prospects for employment and career advancement of their graduates in the foreseeable future.

Finally, the country is home to the only formal doctoral program in security management among the cases surveyed here. While other university representatives have mentioned single PhD students at their departments researching a topic in the wider field of security management as well, no other higher education institutions offers a dedicated formal program like Portsmouth. The configuration as a Professional Doctorate, an industry focused type of doctoral degree that was developed in the UK in the early 1990s, again reaffirms the vocational orientation of the tertiary education programs in security management.

Table 3: United Kingdom
(* - no interview conducted)

	University of Portsmouth	University of Leicester*	Buckinghamshire New University
Degree title	<i>BSc Risk and Security Management (Honors)</i>	<i>BA Security and Risk Management (including Foundation degree)</i>	<i>BA (Honors) Security Consultancy</i>
Credits	320 UK credits (160 ECTS)	320 UK credits (160 ECTS)	360 UK credits (180 ECTS)
Department or Faculty	Institute of Criminal Justice Studies under the Faculty of Humanities and Social Sciences	Department of Criminology under the College of Social Sciences, Arts and Humanities	Department of Security & Resilience, Policing and Law under the School of Management & Professional Studies
Founding year	2002	2004	2012
Learning mode	Part-Time Distance Learning	Part-Time Distance Learning	Part-Time Distance Learning
Duration / Start	4,5 years / every September	4-5 years for Foundation degree, 18 months for B.A. / every March and September	Three years / every February and September
Language	English	English	English
Cohort size	~40 students	n.a.	~25 students per cohort / every March and September
Tuition fees	£3,000 per year and £1,500 in year 5	UK/EU students (from September 2016 on): £12,210 for Foundation Degree; £6,105 for BA International students: £14,630 for Foundation Degree; £7,145 for BA	UK and EU students: £2,800 per year International students: £4,200 per year
Program objectives	The program aims to equip security practitioners, and those working in occupations with a significant security role, with the ability to understand and apply relevant approaches, techniques and processes from both general management and their own specialist management field.	<ul style="list-style-type: none"> • The Foundation Degree will further the understanding of the principles and practices involved in the assessment and management of risk in a global society. • The B.A. will provide an advanced knowledge and understanding of the core concepts associated with security and risk and the skills needed to plan and carry out your own independent research project, including exploring different research methods. 	The program aims to provide students with an academically rigorous, relevant and current industry related program that will allow them to provide business-orientated security consultancy based upon knowledge, best practice and regulatory guidance.

Subjects / Areas Covered	It includes questions of strategic and operational management, risk management, security management, business continuity management, cyber security, investigations and counter fraud.	Criminology, risk and security management, leadership and management, information security, global security, as well as research methods.	From an initial focus on the more fundamental elements of security processes, the program will address the requirements for project planning and management skills and knowledge, before moving on his final phases towards the development of strategic and other essential functions.
Core modules / units / themes	<ul style="list-style-type: none"> • Studying Criminology • Introduction to Security Management • Introduction to Management • Introduction to Investigation • Introduction to Counter Fraud Studies • Introduction to Research Skills • Risk Management • Business Continuity & Crisis Management • Information Security • Research Methods • Corporate Security • Internet Risk & Security • Dissertation 	<p>Foundation Degree:</p> <ul style="list-style-type: none"> • Introduction to Security and Risk • Understanding Risk and Security • Understanding Leadership and Management • Safety, Security and Crime • Crime Prevention • Information Technology and Security • Introduction to Research Methods • Research Design • Security Management and Business Continuity • Managing Security in the Workplace • Developing Skills for Managing Security <p>BA</p> <ul style="list-style-type: none"> • Crime and Organizations • Research Methods • Professional Studies • Dissertation 	<ul style="list-style-type: none"> • Threat and Risk • Security Project Planning • Information Security • Security Organizations and Environment • Corporate Security Management • Private Investigation • Security Legislation and Regulations • Security Mini-Project • Security Consultancy Developed Management • Enterprise • Strategic Security Management • Dissertation
Electives	<p>Optional units include:</p> <ul style="list-style-type: none"> • Anti-Fraud Strategies • Cybercrime & Law • Global, State & Corporate Security • Investigation, Psychology & Law • Issues in Criminology • Police, Law & Community • The Fraud Problem • Substance Misuse & Mental Health • Business Administration in the Security & Justice Sectors • Counter Terrorism & UK National Security • Organised Crime 	<p>Foundation Degree (one option)</p> <ul style="list-style-type: none"> • Crime in Context • Managing Security and Risk in Healthcare Settings <p>BA (one option)</p> <ul style="list-style-type: none"> • Risk and Global Security • Managing Security and Risk in Healthcare Settings 	None
Practical elements	No formal internship requirement	n.a.	No formal internship requirement
Security research	<ul style="list-style-type: none"> • Numerous research projects (e.g. on fraud and corruption) and related activities (e.g. evaluating national crisis management exercises). • There is a new Professional Doctorate in Security Management aiming "to provide a framework for security professionals to reflect on and contribute to practice in their area of work" and develop "researching professionals". 	Strong research output on issues of crime, justice and policing, including EU-funded projects e.g. on loss protection.	n.a.

	University of Portsmouth	University of Leicester	Southampton University*
Degree title	<i>MSc Security Management</i>	<i>MSc Security and Risk Management</i>	<i>MS Corporate Risk and Security Management</i>
Credits	180 UK credits (90 ECTS)	180 UK credits (90 ECTS)	180 UK credits (90 ECTS)
Department or Faculty	Institute of Criminal Justice Studies under the Faculty of Humanities and Social Sciences	Department of Criminology under the College of Social Sciences, Arts and Humanities	Southampton Business School
Founding year	2009	1994	2002
Learning mode	Full-Time Campus Based / Part-Time Distance Learning	Part-Time Distance Learning	Full-Time Campus Based or Part-Time Campus Based (two nine months periods and six months work on dissertation)
Duration / Start	1 year full time (campus-based) 2-3 years part time (distance learning) / every September	2 years / every March and September	One year (full-time) or two years (part-time)
Language	English	English	English
Cohort size	Part-time: ~30 students Full-time: 5-10 students	~50 students	n.a.
Tuition fees	UK/EU students (2015/2016): full time: £4,600 part time: £2,050 per year for the first two years of study International students (2015/2016): full time: £11,500 per year part time: £2,050 per year for the first two years of study	UK/EU students (from September 2016 on): £10,830 for entire course International students: £13,015 for entire course	UK and EU students: Full time £10,950 for the entire course Part time: £5,475 each year International students: £16,950
Program objectives	Security management has become an increasingly important issue in organizations, with many now employing specialists to protect their people, assets, information and reputation from risks such as crime, fraud, accidents and protesters. This course is therefore designed to meet this increased need for enhanced professionalism.	The course will enable students to develop a detailed understanding of the key aspects of managing crime, security and risk in organizations through the study of a range of theoretical methods. You will learn how to design, conduct and critically appraise research.	This program is designed to provide training and education in the application of the concepts, techniques, methods and approaches of corporate risk and security management in practical organizational contexts and to support the growing range of risk management professions.

Subjects / Areas Covered	Security, management and criminological research and knowledge as it relates to the security management context.	Criminology, risk and security management, regulation and governance, leadership and management as well as research methods.	The compulsory modules will provide a foundation in risk and security management concepts, while the wide range of optional modules allows you to enhance your knowledge and understanding in many related disciplines.
Core modules / units / themes	<ul style="list-style-type: none"> • Security Management • Crisis Management and Governance • Research Methods and Research Management • Dissertation 	<ul style="list-style-type: none"> • Understanding Security and Risk Management • Exploring Risk • Managing Security in the Workplace • Regulation, Standards and Governance • Research Methods in Security and Risk Management • Leadership and Management • Dissertation 	<ul style="list-style-type: none"> • The Management of Corporate Security • Corporate Risk Management Processes • Principles of Risk Management • Insurance • Quantitative and Qualitative Research • Risk Taking and Decision Making • Project Risk Management • Dissertation
Electives	<p>One optional unit from:</p> <ul style="list-style-type: none"> • Cybercrime, Security and Risk Management • Investigation and Psychology • Countering Fraud and Corruption in the Public and Private Sectors • International and Transnational Offending • White Collar Crime • Organizational Risk and the Environment • Policing and Police Reform • Managing Justice and Security Organizations 	None	<ul style="list-style-type: none"> • Quantitative Methods • Consultancy Skills • Problem Structuring • Business Ethics • Simulation • Enterprise, Entrepreneurship and New Business Venturing • Financial Risk Management • Corporate Finance • Credit Scoring and Data Mining • Healthcare Modeling
Practical elements	<ul style="list-style-type: none"> • No formal internship requirement • Students are encouraged to write their dissertation on a security-related topic in cooperation with an external organization 	<ul style="list-style-type: none"> • No formal internship requirement • Students are encouraged to choose a dissertation topic related to their current position/organization/industry 	n.a.
Security research	<ul style="list-style-type: none"> • Numerous research projects (e.g. on fraud and corruption) and related activities (e.g. evaluating national crisis management exercises). • There is a new Professional Doctorate in Security Management aiming "to provide a framework for security professionals to reflect on and contribute to practice in their area of work" and develop "researching professionals". 	Strong research output on issues of crime, justice and policing, including EU-funded projects e.g. on loss protection.	Dedicated research centers for risk management and related issues.

3. CONCLUSION AND OUTLOOK

The degree programs surveyed here demonstrate that tertiary security management education in Austria, the Netherlands and the UK today rests on a solid foundation. There are numerous courses at both undergraduate and graduate level attracting a steady number of students that face generally favorable employment prospects. Moreover, several observations emerged from the research can help inform future research and innovative thinking on security management education in Europe and elsewhere.

- *All programs are clearly vocationally oriented.* The majority of courses are taught at universities of applied sciences on a part-time basis to working professionals, including the undergraduate degrees. Only the Dutch IVK programs also specifically target high school graduates with a full-time study mode. Lecturers are often employed externally or on a part-time basis and come from the respective professional communities. Interviewees repeatedly expressed that the programs' goal is to train professionals instead of career academics.
- *Curricula generally seem to converge.* While there are some distinct differences in content between business and more public policy/ administration oriented courses, there seems to be a core set of topics that are widely considered to be important like modules on management, leadership and the fundamentals of security and safety. To put it differently, despite the large and disparate body of knowledge that security management can encompass, the curricula are not too far apart or entirely different between individual universities or across countries.
- *Most programs are relatively young.* The majority of courses are only between five and ten years old, a few are older or even younger. It therefore appears that the expansion of security management education in the US predated that in Europe by at least a decade. As most programs were developed together with the professional community they are intended to serve, even newer programs have not had problems with attracting sufficient students. However, representatives from long running programs like those at Leicester stressed the great value of word of mouth and personal referrals of their alumni to generate high student numbers and maintain interest in their programs.
- *Student backgrounds are similar across countries.* The biggest subset of students comes from public security institutions like the police and the military, attempting to transition into the private security industry. The other big group is comprised of practitioners from the corporate and commercial security sector that are seeking academic training to further their career. While several programs could not provide statistical data on the career paths of their alumni, the anecdotal evidence provided by interviewees suggests that alumni generally benefit from their education in terms of finding new employment or advancing within their current organization.
- *With a few exceptions, programs are notably nationally oriented.* For the majority of programs, students and lecturers are nationally or even regionally recruited and courses are conducted in the local language. According to Dutch interviewees, the study abroad option as part of the minor in the IVK programs is used by only few students. The exception are the English-language programs in the UK and The Hague that have strong overseas links and also cater to an international job market. At the same time, there is generally very little formal internationalization in that there are hardly any formal foreign exchange / study abroad programs and not a single double-degree currently on offer.
- *Research is generally applied in nature and idiosyncratic to a department's or university's specific interests.* Interviewees were also queried about the content and type of research conducted at the departments or faculties involved in program delivery. It should be noted that some universities have a strong focus on teaching and some departments little to no resources for additional research activities. Responses from departments that are actively conducting own research included topics like cyber safety and security, counter terrorism, counter fraud, loss prevention, risk communication, crisis management, human trafficking, social safety, urban planning, safety culture, and resilience, amongst others. The range of topics made it difficult to cluster them or draw any generalized conclusions. However, departmental research projects referenced by interviewees, mandatory student research assignments as well as bachelor's or master's theses within individual programs are overwhelmingly applied in nature. Moreover, the

only dedicated PhD program at Portsmouth just started in 2014 and has yet to graduate its first candidates.

These observations likely confirm the experience and expectations of many scholars and practitioners involved in academic education for security management. Despite the expansion of undergraduate programs, it seems that security management, for the most part, is still a “second career” and a national business. At the same time, there are international trends that effect curriculum design and development, i.e. the convergence of security and safety or an increasing importance of all things cyber. Another question that was often implicitly and by some explicitly raised in interviews is the fundamental question of whether these degrees are intended for skill-based vocational training, an academic education that emphasizes critical thinking or a mix of both and how this can be effectively addressed in practice. Moreover, when discussing academic offers for security management it is important to keep in mind the needs and constraints of different target groups that can diverge considerably – small and medium sized enterprises versus large corporations, high school graduates versus seasoned working professionals, executive education versus traditional academic degrees etc.

With regard to internationalization, *the Cooperation Network for Risk, Safety & Security Studies (CONRIS)*¹⁰ needs to be mentioned for being at the forefront of building a European network of higher education institutions engaged in the wider field of security management. Founded in 2007, CONRIS is a network of currently 15 universities with

accredited degree programs in Austria, Belgium, Finland, Germany and the Netherlands that seek to raise consciousness of risk, safety and security issues and increase international exchange. The group engages in joint research projects, joint teaching projects and staff exchange and conducts exchange programs for students. For example, recent summer schools brought together students from participating universities in Utrecht (2014) and Berlin (2015) to discuss tunnel safety and the effects of a large-scale power outage, respectively. The next summer school in 2016 will take place at Laurea University of Applied Sciences in Espoo, Finland. Moreover, the universities are currently developing joint video lectures and consider common modules for the teaching of security management.

In any case, there are numerous issues and are ripe for further research. This entails questions whether an academic qualification in security management demonstrably supports career advancement in different sectors and industries, also as an indicator of growing professionalism; what are the potentials and pitfalls of more international cooperation in research and education of security management; is there a core curriculum or set of core competencies deducible from undergraduate and graduate courses in Europe? As an increasing number of programs have established themselves nationally at the beginning of the 21st century, it is time for a more European perspective on the subject of security management to emerge that can foster exchange and cooperation to the benefit of security professionals as well as the organizations and societies they serve.

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LIST OF FOOTNOTES

1. The *Journal of Applied Security Research* and the *Security Journal*.
2. This certificate replaced the *Werkschutzmeister*, which had been in place since 1989 as the first advanced professional examination for corporate security practitioners in Germany. The new certificate is much larger in scope and contains more elements of business administration and security technology.
3. There are also various executive-level courses and university certificates in security management, i.e. at the Frankfurt School of Finance and Management (Certified Security Manager), EBS Universität (Security Management, Security Management ADVANCED), and the Steinbeis Business Academy (Business Security Management).
4. Undergraduate programs in Altenholz and at the former Police Academy in Hamburg were discontinued due to low demand. The course formerly attached to the Police Academy Hamburg was continued at the Northern Business School in 2013.
5. The six schools are *Avans University of Applied Sciences* with locations in Breda and 's-Hertogenbosch, *HU University of Applied Sciences Utrecht*, *The Hague University of Applied Sciences*, *Saxion University of Applied Sciences* with locations in Enschede and Deventer, *Inholland Rotterdam* and *NHL Leeuwarden*.
6. On 13 May 2000, a catastrophic fireworks explosion in the eastern Dutch city of Enschede killed 22 people, including four firefighters, and injured 947 people. 400 homes were destroyed and 1500 buildings damaged by the explosions and ensuing fires. The other disaster refers to a pub fire on New Year's Eve of 2000/2001 in the city of Volendam, which killed 14 and injured 245 people.
7. In order to improve intermunicipal coordination efforts during large-scale disasters such as those in Volendam and Enschede, twenty five so-called safety regions (*veiligheidsregio's*) were created in 2010 that are in charge of disaster preparation and response. "The safety regions are new public bodies that house both the Fire Department and Medical Services. In addition, the safety regions are responsible for the organization of emergency response rooms, the technical equipment of the first responders and a functioning system of information management when emergencies occur." (Boersma, Wagenaar, and Wolbers 2012, 12)
8. There is, however, a professional profile for IVK jointly written by all six universities that defines core competencies and serves as an assessment framework for future educational development and accreditation. „Landelijk beroepsprofiel. Integraal Veiligheidskundige, 2013" (in Dutch) <http://www.vereniginghogescholen.nl/system/profiles/documents/000/000/083/original/ivk.lbp.2013.pdf?1437563945>.
9. It should be noted that undergraduates from Dutch universities of applied sciences (hogescholen) are required to complete an academic year's worth of preparatory classes before they are eligible to take up study at a research university (universiteit) like VU Amsterdam.
10. <http://www.conris.eu/>

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