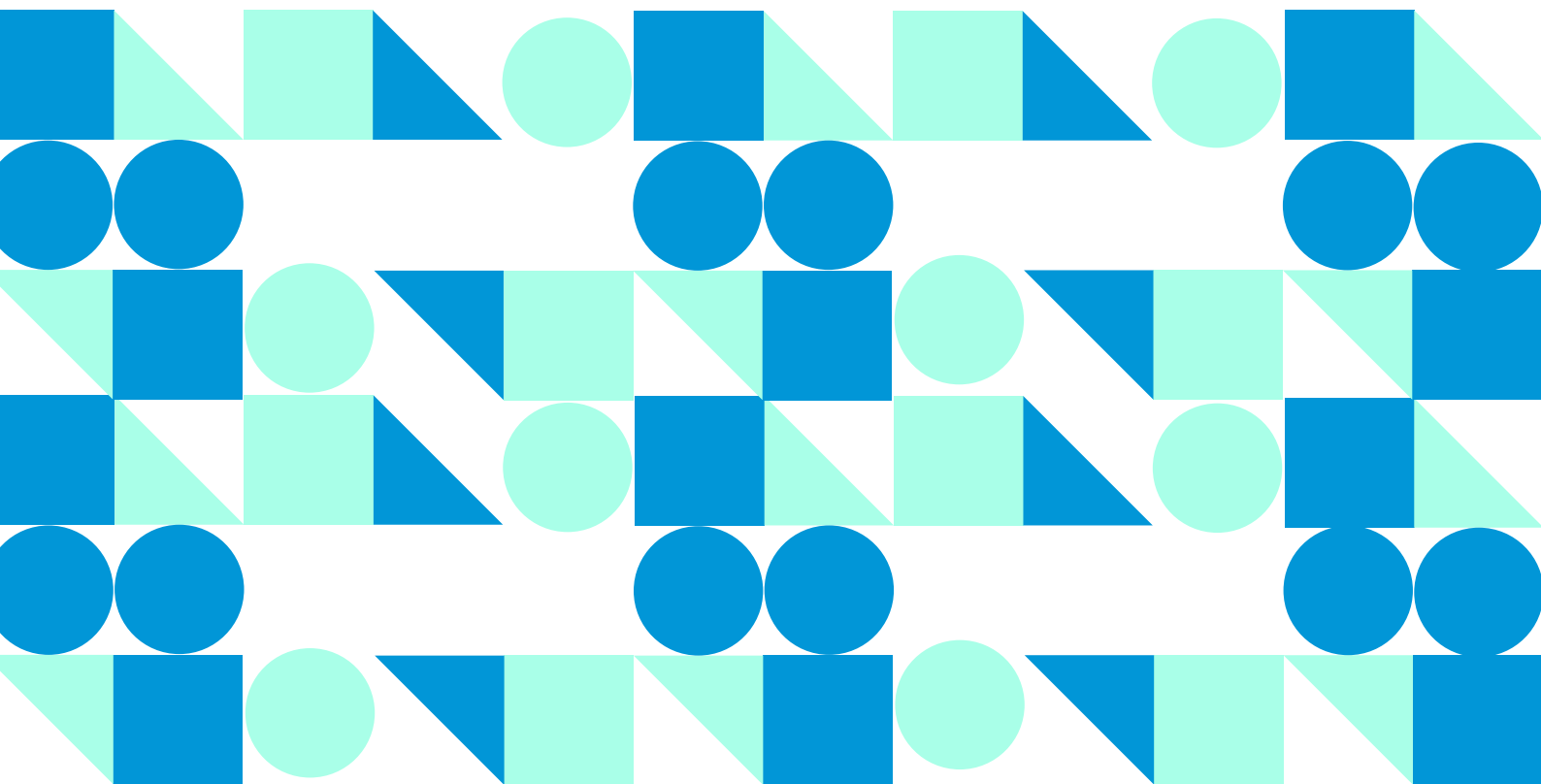




Research paper

Entrepreneurship competence in vocational education and training

Case study: Sweden





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Foreword

Modern society is changing rapidly the way we live, work, and learn. Technological developments, climate change, demography, crises (pandemic, humanitarian) require adapting to new realities. To manage these changes, we need the right skills and competences. Resilience, flexibility, adaptability, acting upon opportunities and ideas are just a few elements of entrepreneurship competence, a key competence for all.

European cooperation in vocational education and training (VET) has an important role in promoting entrepreneurship competence. In 2020, the *European skills agenda* for sustainable competitiveness, social fairness and resilience stressed the importance of fostering entrepreneurial and transversal skills. The *Council Recommendation on VET for sustainable competitiveness, social fairness and resilience* calls for adapting and expanding VET by supporting the acquisition of entrepreneurial skills together with digital and green skills. The *Osnabrück Declaration* on VET as an enabler of recovery and just transitions to digital and green economies sets an objective, by 2025, of promoting resilience and excellence through quality, inclusive and flexible VET that includes entrepreneurial education, empowering learners to open new businesses.

Responding to this EU priority, Cedefop launched a study to provide VET stakeholders with new evidence on how entrepreneurship competence is embedded in VET. This report presents findings of the research carried out in Sweden, underpinning the dimensions of learning ecosystems that nurture entrepreneurship competence in VET.

Entrepreneurship competence is highly valued in Swedish VET policy and practice, playing a significant role in fostering innovative thinking and business creation. VET stakeholders view entrepreneurship competence as an action-oriented skill set that enables individuals to navigate unfamiliar situations and overcome challenges. However, Sweden also highlights the importance of carefully considering the potential consequences associated with curriculum changes, such as the introduction of dedicated entrepreneurship courses and teachers, and their impact on the cross-disciplinary approach to teaching and learning.

We hope that this country case study and the others from the series – [Spain](#), France, Croatia, [Italy](#), [Latvia](#), Austria and Finland – will help policy makers, social partners and VET providers continue their successful cooperation to nurture entrepreneurship competence in VET and make sure all learners are equipped with it.

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Executive summary

This case study examines the integration of entrepreneurship competence and entrepreneurship education in vocational education and training (VET) in Sweden. It explores to what extent and how the dimensions of the entrepreneurial learning ecosystem support the acquisition of entrepreneurship competence in VET. The study also identifies policies, methods, tools, and approaches that help embed entrepreneurship competence into education and training.

To gain a deeper understanding of how entrepreneurship competence is embedded in the VET policy, and to identify methods, tools, and approaches that support it, a literature review was conducted. The findings were then supported with the empirical data from VET stakeholders, including six VET providers. The data were collected through a series of field research activities, including interviews with school management (or company managers or owners, or human resources managers in the case of apprenticeships), VET teachers/trainers (company trainers/mentors in apprenticeships), interviews or focus groups with VET learners, interviews with former graduates, and observations of class interactions during the delivery of entrepreneurship activities.

Sweden has had a strategy for entrepreneurship in education since 2009. The strategy covers virtually all education and training levels, including VET. It has been useful in promoting entrepreneurship in the school system. For example, in 2010-14, the Swedish National Agency for Education (*Skolverket*, SNAE) commissioned universities to develop and deliver entrepreneurship courses for teachers. The course providers have also developed a resource portal at SNAE.

However, the implementation of this strategy poses some challenges. Recently the Royal Swedish Academy of Engineering Sciences (*Kungliga Ingenjörsvetenskapsakademien*, IVA) launched a project to facilitate the integration of entrepreneurship in the entire Swedish school system, including VET. Based on their analysis, the current strategy for entrepreneurship in the education system reveals several issues (IVA, 2022), including lack of guidelines for governance and financing, quality assurance procedures, blurry definition of entrepreneurship competence and insufficient development of competence and training of teachers and trainers. The strategy was not followed up with an implementation plan.

According to SNAE (Swedish National Agency for Education, 2022), one of the goals of VET (and other programmes at upper secondary level) is to 'stimulate learner creativity, curiosity and self-confidence, as well as a willingness to try and turn ideas into action and to solve problems. All learners should develop their ability to take initiative and responsibility and to work both independently and together with others. The [VET] school should contribute to all students developing

knowledge and attitudes that promote entrepreneurship, business creation and innovative thinking, which increase learner opportunities for future employability, through entrepreneurship or employment’.

According to the field research, entrepreneurship competence is perceived by VET stakeholders as an action-oriented ability to navigate in new situations and overcome difficulties.

Initial VET (IVET) and continuing VET (CVET) are distinct in Sweden. While IVET programmes ⁽¹⁾ are generally part of the regular upper secondary school system and the programme profiles are similar across Sweden, CVET is more tailored to local labour market needs; local industry councils (or equivalent bodies) participate in developing CVET programmes. In IVET, the development of entrepreneurship competence mainly takes place through workplace training, although dedicated courses are also available at upper secondary level.

While these courses are useful in integrating entrepreneurship competence into VET, paradoxically they are also seen as a barrier. Before the courses were launched in 2011, entrepreneurship was almost always a cross-disciplinary endeavour in VET, where teachers of different subjects collaborated and found appropriate links to their own subjects. The field research interviews showed that the introduction of entrepreneurship courses affected this cross-disciplinary dimension: what seemed to be an unequivocal step supporting entrepreneurship in the education system, at the end may lower the commitment from teachers and trainers, who now seem to rely heavily on the fact that entrepreneurship is taught by dedicated teachers. One VET provider principal, trained in entrepreneurship, even declared that he was reluctant to require teachers other than those who teach the entrepreneurship course, to promote entrepreneurship competence.

Junior Achievement (JA) has been an important actor in supporting the development of entrepreneurship competence in IVET. Its concept (*UF-företag*) is applied in entrepreneurship courses in all upper secondary education programmes to enable learners to start and maintain a business during a school year. The support mechanism has recently changed focus from business competences to entrepreneurship competences, and to sustainability, making it fit better in promoting the competence in IVET.

Other tools that strengthen the development of entrepreneurship competence in VET are also available. They allow monitoring learner progress during their in-company training, and help learners see better their own competence development at work.

(1) There are also initial VET providers who focus on adult learners (provide more personalised training, including work placements).

CHAPTER 1.

Introduction

The aim of this case study report is to show how entrepreneurship competence and entrepreneurship education are integrated into vocational education and training (VET) in Sweden. The findings may be of interest to policymakers, social partners, VET providers and researchers. They also add to the current knowledge base on methods, tools and approaches to supporting entrepreneurial learning, teaching and assessment of the competence at national level and beyond.

The research in Sweden was carried out in 2022 as part of Cedefop's case study series on entrepreneurship competence in VET. Similar case studies have been conducted in seven other European countries: namely Spain, France, Croatia, Italy, Latvia, Austria and Finland.

1.1. Research questions and core terms

This study aims to answer the following main research questions:

- (a) to what extent, and how, do the dimensions of entrepreneurial learning ecosystems facilitate acquiring entrepreneurship competence in VET in Sweden?
- (b) which policies, methods, tools and approaches best support embedding entrepreneurship competence in VET in Sweden?

To explore these questions, entrepreneurship competence is conceptualised as a key competence which applies to all spheres of life: from nurturing personal development to actively participating in society, (re-)entering the job market as an employee or as a self-employed person and starting new ventures. The study explores entrepreneurship competence from this wider perspective rather than as a competence for business creation only.

The concept of an entrepreneurial learning ecosystem paves the way towards embedding entrepreneurship competence in VET as an interplay between elements at policymaking, provider and learning environment levels.

1.2. Methodological note and data

The country case study report describes existing practice and policy within the ecosystem of entrepreneurial learning embedded in VET in Sweden. It investigates entrepreneurship competence from different perspectives: from policy concept to

its practical implications. The findings are rooted in both literature analysis and empiric evidence:

- (a) literature review/desk research at national level;
- (b) field research at policy and stakeholder level, including VET providers.

The literature review has allowed obtaining an in-depth understanding on how entrepreneurship competence is (supposed to be) rooted in VET in Sweden. Empirical data from the field research supported the literature review findings. It included interviews with policy makers, school management (or company managers or owners in the case of apprenticeships) and VET teachers/trainers ⁽²⁾ (or company trainers/mentors in the case of apprenticeships), focus groups with VET learners (or interviews in the case of apprenticeships), interviews with former graduates, and, where possible, observations of class interactions during the delivery of entrepreneurship activities.

Table 1. **Research in numbers**

Research activity	Total
Interviews with policy makers	3
Interviews with school managers	6
Interviews with teachers and trainers	12
Interviews with company managers	2
Interviews with VET graduates	4
Focus groups with learners	6
Class observations	6

Source: Authors.

Annex 1 contains a list of VET providers participating in the study. Case-sampling was purposive: the aim was to gain valuable insights into how entrepreneurship competence is embedded in VET.

⁽²⁾ In addition to teachers and trainers, two of the selected IVET providers had staff, whose main task was to find suitable companies/organisations for apprentices. They were often referred to as 'matchers' and liaised between the VET provider and companies offering training.

CHAPTER 2.

Overview of the Swedish VET system

This chapter briefly presents the main features of the Swedish VET system, providing contextual information for the study findings. More detailed information about the VET system is available at Cedefop's [VET in Europe database](#) (Cedefop and Swedish National Agency for Education, 2022).

National VET curricula in compulsory education and training (up to upper secondary level) are developed by the Swedish National Agency for Education (SNAE). The National Agency for Higher Vocational Education (*Myndigheten för yrkeshögskolans*, NAHVE) is responsible for deciding the content for CVET. IVET for adults is run by municipalities, with a more flexible approach to programmes. Community high schools are run by non-profit organisations and offer a few VET programmes, for example for journalists.

IVET offers traditional upper secondary programmes across Sweden, e.g. hotel and tourism programme (HT), vehicle and transport programme (FT). Local/regional industry councils strengthen the cooperation between schools and companies. VET programme curricula cannot be modified by the industry councils; their main role is to help learners become familiar with the working life through curricular and extracurricular activities, including the opportunity to work and be part of different projects.

CVET offers programmes (from 6 months to 3 years) that are more flexible and tailored to local/regional/national market needs; here, industry (including representatives from both companies and unions) has a strong voice. The programmes (and their courses) are based on actual demands from industry. In practice, CVET providers have a continuous dialogue with industry actors to discuss current and upcoming needs. The NAHVE is involved in developing ideas for new programmes mainly in study areas that are not covered by existing CVET providers. Regardless of whether CVET providers are active in the development of the programme requirements, the NAHVE always has the final say on content and delegating delivery to the specific CVET provider.

Apprenticeships as part of formal VET were introduced in 2011, as part of implementing the strategy on entrepreneurship in the education system launched in 2009. For both IVET and CVET, apprenticeship is based on an education contract or learning agreement between a learner, VET provider and the company, leading to a vocational qualification.

According to the SNAE, the main goal of VET is to offer learners skills and competences relevant to the labour market. For entrepreneurship competence, creativity, curiosity and self-confidence, a willingness to try new ideas and to solve problems are among VET objectives.

IVET programmes have the same general goals related to entrepreneurship competence as all other upper secondary education programmes, except for four programmes which have entrepreneurship as an explicit programme objective: crafts ⁽³⁾, sales and services, hotel and tourism, land management. These programmes have a compulsory, general entrepreneurship course called Entrepreneurship, optional for other VET programmes; an advanced entrepreneurship course Entrepreneurship and business management is optional for all VET programmes (see Section 4.2 for details).

This provides learners with the opportunity to develop their entrepreneurship competence. The courses are often provided in collaboration with Junior Achievement (*Ung företagsamhet*) offering *UF-företag* programmes which fit well with the course requirements and provide extra opportunities for learners to practice entrepreneurship competence and receive feedback on their work.

Career guidance is available for VET learners, with a common career guidance model giving learners the opportunity to try out different VET courses. However, according to the field research, career guidance is still an area of concern and initiatives are under way to strengthen the counselling function further so that learners can make wise and informed decisions about their studies.

According to Cedefop (2023) Spotlight on VET, the Swedish VET system has several key characteristics.

- (a) The modular structure of upper secondary education in Sweden allows learners to transfer courses flexibly, which makes it possible to change study paths. Municipal adult education, which, with a few exceptions, offers courses similar to those at secondary school, enables learners to continue their education and potentially gain access to higher education.
- (b) Upper secondary education is managed by the State and financed by municipalities through a voucher system financed by taxes. This decentralised system brings competition between private and public education providers on the school market. The voucher is paid by the municipality to the education provider.
- (c) In adult education, knowledge, skills, and competences acquired through training and work experience can be validated and recognised. Education providers are responsible for the validation.
- (d) social partners, including representatives from education and employment, have an important role in ensuring a close link between education and the labour force. These partners are represented in various councils and committees, including national programme councils for upper secondary VET programmes and the Labour market council, an advisory body to the NAHVE.

⁽³⁾ The crafts programme allows learners to acquire florist, hairdresser, carpenter and other craft qualifications.

CHAPTER 3.

Entrepreneurship competence

3.1. From the past to the present

The first entrepreneurship courses in colleges and universities appeared in the early 1970s under the name of small business management. In the USA and the UK, such courses were reported as early as the 1940s. The Harvard Business School is said to have offered the first entrepreneurship course in 1947, according to Carlsson et al. (Carlsson et al., 2013). The early entrepreneurship courses focused more on theoretical understanding but, over time, the focus shifted to practical aspects such as new ideas and creating new businesses. Initially, entrepreneurship education in the literature was centred on business, particularly new venture creation (Westerberg, 2022). As time passed, non-business components gained increased attention, and Gibb (1987) played a significant role in shaping the 'enterprise' aspect of entrepreneurship education. According to Jones (2019), it is essential to recognise the form of entrepreneurship education one is participating in: either the more transactional entrepreneurship education, which primarily involves self-selected students working on ventures and businesses, or the more transformative enterprise education that allows any student to undergo personal growth.

Entrepreneurship in education was not a major issue at the policy level in Sweden before the mid-1990s. One important reason for this is that the concept of entrepreneur had a negative connotation in the public's mind and government bodies. In 1996, the Swedish entrepreneurship professor Bengt Johannisson was commissioned by the Swedish Ministry for Trade and Commerce (NUTEK) together with Torsten Madsén, professor of pedagogy to study the conditions for entrepreneurship and business education (Johannisson and Madsén, 1997). Although the study was supposed to cover the business aspects, Johannisson and Madsén focused instead on the learning aspects and saw entrepreneurship as an enactment of an aspired ideal in education where learners were individual 'doers', who implemented ideas collaboratively. This has become the starting point for policy work to help implement entrepreneurship in the education system at all levels in Sweden.

A few years ago, Hoppe (2016) reviewed the work on entrepreneurship at policy level in the country and found that it has been limited mainly to business aspects. The official strategy on entrepreneurship in education launched in 2009 (Regeringskansliet, 2009), seeks a balance between the business and non-business aspects of entrepreneurship. It highlights apprenticeships as part of VET as a way of bringing education closer to the world of work and thus promoting

entrepreneurship. Although there were signs of a shift from promoting entrepreneurship to promoting an entrepreneurial culture or even entrepreneurial learning, thus turning from the narrow to the broad perspective, Hoppe (2016) concluded that the policy as a whole 'indicated a hesitant approach' at the time of his study.

3.2. Understanding the competence

Since the introduction of the *Recommendation on key competences for lifelong learning* (European Commission, 2007), entrepreneurship competence has become visible at policy level in Sweden. Implementation of entrepreneurship competence in VET is challenging because it has been seen mainly as an economic phenomenon and has focused too much on the narrow perspective associated with venture creation and the pursuit of economic prosperity (e.g. Hoppe, 2016). It has been less about equipping people with the competences that help them live well in a dynamic, ever-changing world regardless of where one is (running a company, working in industry, working in the public sector or working in non-profit organisations).

EntreComp, the European framework for entrepreneurship competences (Bacigalupo et al., 2016) encompassed both the broad (generic competence linked to lifelong learning) and narrow (specific competence related to business creation/development) perspectives of entrepreneurship competence and nuances within these perspectives.

In the Swedish upper secondary education, including VET, the approach to entrepreneurship, is inspired by EntreComp ⁽⁴⁾: 'The school should stimulate students' creativity, curiosity and self-confidence, as well as a willingness to try and put ideas into action and to solve problems. All students should develop their ability to take initiative and responsibility and to work both independently and together with others. The school should contribute to all students developing knowledge and attitudes that promote entrepreneurship, business creation and innovative thinking, which increase the students' opportunities for future employment, through entrepreneurship or employment.' (Skolverket, 2022)

This definition strikes a balance between the broad and narrow aspects of entrepreneurship and thus provides support for both in IVET programmes. According to interviews at the SNAE, entrepreneurship is clearly seen as a competence for lifelong learning and the recent description of entrepreneurship competence in EU's key competences for lifelong learning – '[...] ability to act upon opportunities and ideas, and to transform them into values for others [...]' (European Commission. DG Education Youth Sport and Culture, 2019) – is seen

(4) [The European Entrepreneurship Competence Framework \(EntreComp\)](#).

as an opportunity to improve the work on entrepreneurship policy in Sweden. This approach – to equip learners with an ability to cope with future challenges in life, including supporting oneself economically – will motivate more actors from other government agencies to promote entrepreneurship broadly in society.

According to the VET school leaders, teachers, other staff and learners interviewed, entrepreneurship competence is mainly about ability to handle uncertain situations as part of the broader definition (Table 2).

Table 2. **Aspects of entrepreneurship competence mentioned by interviewees**

School leaders	Teachers and other staff	Learners
Curious, autonomous, outspoken, communicative, problem-solving, navigate in uncertainty	Take initiative, being strong in yourself, take action, being innovative, value creation, proactive (e.g. being service-minded), creative, collaborative, thinking outside the box	Responsibility, collaboration, action, problem-solving

Source: Authors.

The respondents associated entrepreneurship competence more with the practical, work-based part of training than with the in-school part.

Box 1 presents the core values of Changemaker Educations ⁽⁵⁾, a CVET provider in Sweden. According to the interviews and observations, these values were clearly important in their teaching. The provider had integrated entrepreneurial behaviour into their operations, aiding entrepreneurship competence development by all actors: leaders, teachers, learners and collaborators. The idea that success is based on collective activity was emphasised, as without ‘happy’ actors there is no one to work with in upcoming projects.

⁽⁵⁾ [Changemaker Educations](#)

Box 1. **Core values of Changemaker Educations, CVET provider in Sweden**

Learn to change. Change to learn.

Learning creates change and change creates new learning. That's why we are Changemakers. Moving from thought to action is in our DNA. We exist because we develop, create and change. Together. We do this through 'learning by doing' and 'learning by reflection'. We want to activate all your thoughts and senses in learning processes and projects.

Actionability. The ability to move from thought to action. Venturing. Doing right and doing wrong. To try and do it again. Until it sits. With us, it is OK to make mistakes. It takes both curiosity and courage to break new ground and open new doors. That's what Changemakers do.

Win-win-win-win. Our best-case scenario is when we create a four-stage rocket where everyone wins; You win, the school wins, the co-creator wins, and the community wins. We don't always succeed, but very often we do. And then we create sustainable change and a better world for many.

Co-creating. You are our co-creator and you are invited to participate in creative projects and processes from the very beginning. Competence and commitment go hand in hand. And then our co-creators must be given the opportunity to act and participate. To engage and set goals. Don't just go towards ready-made goals that someone else has already decided on. We can do a lot alone but together we can make it even better and take it even further towards sustainable growth.

Playfulness. Playfulness is one of our core values. Creative joy and the joy of work/creation. Alone and in creative teams. The genius takes shape where it is filled with play, joy and constructive dialogue. A playful and permissive atmosphere is the basis for having fun and daring to test our thoughts and ideas.

Learning first. Techniques, software, models, methods, experiences and clear processes are tools for creation. Customer and user needs are the purpose of our creation. Hand in hand with your goals and needs. We need to learn first, then test and implement in different ways.

Source: Changemaker Educations, 2023b.

CHAPTER 4.

Entrepreneurial learning ecosystem

4.1. Policy level

The 2009 national strategy on entrepreneurship in education (Regeringskansliet, 2009) provided support for entrepreneurship in education generally and for VET specifically, launching apprenticeship programmes in VET. Before adopting the strategy in 2009, entrepreneurship competence mainly focused on business. Many education actors could not see their role in working with entrepreneurship. For instance, companies offering apprenticeships were concerned that learners were groomed to become their competitors.

Since its launch, the national strategy has received attention but also criticism. Recently, there has been a renewed interest in developing the national strategy. In 2019, the Royal Swedish Academy of Engineering Sciences called for a meeting where a project to work broadly with policy support for entrepreneurship in education was presented. Participants were researchers, policy actors and industry representatives. One output was a report specifying the problems with the current strategy from 2009. They concluded that (IVA, 2022):

- (a) guidelines on governance, leadership and financing were not addressed;
- (b) procedures for measurement, evaluation, quality assurance, and monitoring were not in place;
- (c) definition of entrepreneurship was not sufficiently clear;
- (d) strategy did not address competence development and training of teachers and other professionals in and around the school. Equal teaching of entrepreneurship competence is still lacking in teacher training colleges across the country;
- (e) no real implementation plan has been developed. Instead, it has been left to leaders, teachers, and principals to develop ways to promote entrepreneurship in schools.

An updated policy on entrepreneurship could improve the promotion of entrepreneurship competence in VET as such competence would be even more associated with its broader definition and not limited to business creation. According to the interview with SNAE, the broader view on entrepreneurship (as a key competence for lifelong learning and coping with changes) aids communication and helps in building a common understanding of entrepreneurship in education.

One development related to the strategy was SNAE commissioning the creation of a competence development course for teachers in 2010-14. The course, Entrepreneurial learning (7.5 ECTS), focused on non-business aspects of

entrepreneurship competence. It was available for all teachers at all levels of the education system, including IVET and had the following aim: 'The goal of the course is to help participants understand what entrepreneurial learning means from an education perspective and to develop basic approaches and skills to be able to work in an entrepreneurial way in their own school'.

However, few VET teachers attended this course. One of the reasons for this is they felt they were already working in an entrepreneurial way. The few VET teachers who attended the course were generally able to provide many examples of how they worked, thus inspiring other participants. At the same time, the more specialised the teachers, the harder it was for them to understand how to work with entrepreneurship competence in their classes.

A key outcome of the national policy for entrepreneurship is the inclusion of entrepreneurship courses in upper secondary education in 2011.

4.2. Entrepreneurship courses

Upper secondary VET comprises two entrepreneurship courses (Entrepreneurship and Entrepreneurship and business management) ⁽⁶⁾.

The Entrepreneurship course is available as optional in all VET programmes and is compulsory in four:

- (a) crafts;
- (b) sales and services;
- (c) hotel and tourism;
- (d) land management.

The course provides 100 credits (the total VET programme is 2 500 credits) and has the following learning outcomes (Skolverket, 2023b):

- (a) understanding of what entrepreneurship means for individuals, organisations, companies and society;
- (b) ability to transform ideas into practical and goal-oriented activities to launch a project or simulated business;
- (c) ability to implement a project or run a simulated business;
- (d) ability to complete and evaluate a project or simulated business;
- (e) knowledge of how ideas and products are protected by law and other regulations;
- (f) ability to apply business economics methods.

The content of the course is (Skolverket, 2023b):

- (a) importance of entrepreneurship for individuals, organisations, businesses and communities in areas relevant to the learner education;

⁽⁶⁾ The courses are also available in other upper secondary education programmes.

- (b) idea development processes: how to create, evaluate, implement, develop or abandon ideas within the scope of the project; how products and ideas are protected by law and other regulations, for example copyright;
- (c) basic project methodology: how to formulate goals, plan, organise and allocate tasks, implement, present and evaluate a project; how to identify, create and collaborate in networks;
- (d) basic negotiation techniques and document management;
- (e) leadership and group processes; problem solving;
- (f) applied marketing within the project's area of operation in accordance with laws and other regulations;
- (g) presentation techniques adapted to the purpose, the addressee and the situation;
- (h) forms of financing, financial planning, documentation and monitoring within the project's area of operation.

The evaluation criteria (Section 5.2 for details) include the launching and operation of a project, including the management of problems encountered during the process, and the presentation of the project to different audiences. However, most evaluation criteria are related to theoretical knowledge of entrepreneurship, leadership and patents.

The Entrepreneurship and business management course is part of the business administration subject and also provides 100 credits. It is optional and only available in the four VET programmes where the Entrepreneurship course is compulsory. This course is geared towards understanding entrepreneurship as starting and running a business and has the following learning outcomes (Skolverket, 2023a):

- (a) knowledge of the different types of companies and their operating conditions in the form of laws and other regulations and other conditions affecting the companies' operations;
- (b) knowledge of how to start and run companies and how the different functions within a company work together to implement a business idea;
- (c) knowledge of business concepts, methods, theories and models and ability to apply them;
- (d) ability to manage processes and to translate ideas and theoretical knowledge into practical and goal-oriented activities;
- (e) ability to evaluate work processes and results.

The content of the course is as follows (Skolverket, 2023a).

- (a) Important laws and regulations governing the operation of companies. How products and ideas are protected by law.
- (b) Path from idea to start-up; how different forms of networks can be identified, created and how to cooperate within their framework. The development and importance of a business idea.

- (c) Different stages of the product development process and their content.
- (d) Content and structure of the business plan; application of basic methods of market research, environmental analysis and environmental monitoring; financing issues.
- (e) Business presentation techniques for marketing purposes adapted to the recipient and the situation.
- (f) Sales techniques and argumentation.
- (g) Business concepts and methods in estimating, marketing and accounting.
- (h) Meeting technology in different contexts and with different purposes and documentation; problem-solving and decision-making methods.
- (i) Leadership and organisation; conflict management.
- (j) Evaluation of the operation of a fictitious company by monitoring financial results, in connection with the evaluation of the group or own work process.

The assessment criteria are similar to those used for the Entrepreneurship course. Some criteria relate to the development of entrepreneurship competence around setting up and running a business, including handling problems that arise and presenting the business to different audiences. The others are more theoretical, dealing, for example, with the legal aspects as well as concepts and methods of business administration.

The entrepreneurship courses are built around running a project or a (simulated) business. This is partly because Junior Achievement (JA) often provides course materials, coaching and structure in the form of competitions and fairs through their concept *UF-företag* which matches that of the VET entrepreneurship courses. Currently there are 11 850 JA-companies in the entire upper secondary education system (including VET) involving 36 850 learners and 1 804 teachers.

In CVET, there are no compulsory entrepreneurship courses. Instead, aspects of entrepreneurship are included in project courses and subject courses (see Section 4.3 for details).

4.3. VET providers and companies

In CVET, training providers often design courses and programmes ⁽⁷⁾ together with municipalities, regional development organisations and industry boards. The National Agency for Higher Vocational Education (NAHVE) approves CVET courses and programmes. One CVET provider interviewed noted that it was more difficult to get approval by NAHVE of programmes and courses comprising soft skills (e.g. leadership, creativity and initiative) as opposed to programmes with occupation-specific (hard) skills (e.g. coding, design). However, as VET

⁽⁷⁾ A programme is a bundle of courses.

stakeholders (such as industry companies) consider soft skills important, they found ways to train and evaluate them as well. For instance, while hard competences were focused on courses for specific roles, such as project manager, programmer, and designer, soft competences came to the fore in project courses where learners worked in teams on an authentic task, for instance developing a game.

The field research showed that these project courses played an important role in developing entrepreneurship competence among CVET learners. However, without the hard competence developed in the specific-role courses, learners would not be able to develop their entrepreneurship competence. Figure 1 shows how soft and hard competences complement each other. Without the soft competences (using an example of the six CRITICAL competences, Westerberg 2020), the occupation-specific competences would not be applicable and therefore not as valuable. Yet without the hard competences, the activity would not be meaningful. Learners require both types of competences and balancing the development of them is crucial for enabling learners to become actors 'capable of self-negotiated action' (Jones, 2019). CVET providers seem to have found a way to do this in cooperation with their partners and so have a system for developing both professional competences and the entrepreneurship competences needed to apply them in real-life situations.

Figure 1. **Complementary relationship between hard subject competence and soft entrepreneurship competence**




Source: Authors.

In IVET, both soft and hard competences can be less visible as programmes are standardised and there is less room for project-based learning. Learners in different programmes have very different opportunities to develop hard and soft competences. For example, in the hotel and tourism programme, the industry council (and the companies and networks behind it) provided learners with several opportunities to practice both hard and soft competences through the year.

Box 2 presents an example where learners had to work on suggesting sustainable novel activities for visitors and those living in the area. As this task allows the learners to work with a 'real' problem and display their work to the public, it is likely to spur development of entrepreneurship competence.

Box 2. Exhibition of hotel and tourism learners from *Praktiska gymnasiet* at the Luleå Airport



In the arrivals hall of Lulea Airport, through which around one million travellers pass every year, this roll-up and about 50 posters featuring pupils' suggestions for new activities were displayed. The exhibition is a collaboration between the VET provider and two network organisations supporting trade and tourism in the Luleå region. The main goal was to make Luleå a more attractive city with sustainable development ⁽⁸⁾.

© Photo by authors

Source: Authors.

In other IVET programmes (e.g. service and trade), the industry councils and the companies behind them struggle to get companies to provide training for learners. In these sectors it is more 'business as usual' and not so much development projects and other opportunities for augmented learning.

⁽⁸⁾ More information about [Praktiska gymnasiet](#) (in Swedish)

Sweden is different from other countries when it comes to who can be a VET provider. Apprenticeships, where a company fully runs an apprenticeship programme, do not exist. *Peab-skolan* ⁽⁹⁾ is the IVET provider that most closely resembles traditional apprenticeships as it works alongside the construction company. Adhering to the Swedish system, the principal emphasised that they are independent from the construction company and the school is in a building that is not linked to the company. However, the link between the company and the IVET provider is obvious and is seen as an advantage by both management, teachers and learners. Learners know that a good performance will get them a job at Peab after graduation. Few learners at other VET providers have acknowledged this clearly. However, the research did not find major differences in how entrepreneurship competence was developed through this IVET provider compared to the others examined.

4.4. VET as a catalyst of entrepreneurship competence development

Although several VET programmes in Sweden aim at preparing learners to start their own company ⁽¹⁰⁾, none of the learners interviewed had an intention to start a business after graduation. However, all had a positive view of entrepreneurship in the sense of starting and running a business. Those who have worked with JA's *UF-företag* as part of their education liked the experience.

The field research also demonstrated a broad agreement among the interviewees that VET includes a lot of concrete on-the-job learning in local companies, giving them an insight into the world of work and putting them in touch with potential employers. This was especially evident in VET programmes for adults, where the tailored work placements are a way to gain confidence and (re-) enter the labour market after graduation. In addition, on-the-job learning helps integrate migrants into the world of work when combined with Swedish language learning.

To obtain a training licence from authorities, new CVET programmes need to meet current and future labour market demand. CVET providers need to be entrepreneurial and identify programme opportunities that match their own competence profile and attract learners. Such programmes are tailored primarily to developing a skilled workforce for companies willing to hire (e.g. games development), as well as for current entrepreneurs who want to develop their

⁽⁹⁾ More information about [Peab-skolan](#) (in Swedish)

⁽¹⁰⁾ Crafts, sales and services, hotel and tourism, and land management VET programmes that have the Entrepreneurship module integrated into their curricula.

competences together with other entrepreneurs, e.g. in the area of craft food. In Box 3, a CVET provider describes the possible outcomes of such a programme.

Box 3. **How Changemaker Education describe the programme outcomes (Craft food development) in terms of job opportunities / opportunities to start or develop a company**

Craft food developer

After completing the training, you can work as a food craftsman, small-scale food processor, restaurateur, business developer, employee in restaurants and food tourism or employee in food crafts and food processing.

During the training, you get the tools to start up a small-scale business in the food industry yourself, and time to spend on developing your concept and your business.

For those who already run a business in the food industry, the training offers the opportunity to develop or expand your business and your concept, and the projects studied can be directly linked to the development of your own business.

The training is also for those who work or want to work in food companies, restaurants or the food tourism sector, and who want to take on greater responsibility in their current role or help find new opportunities or develop their work in food craft and small-scale food processing.

Source: Changemaker Educations, 2023a.

The field research showed that CVET has advantages over other forms of VET in developing entrepreneurship competence. Learners are generally highly motivated, as they can work with advanced ‘real-life’ tasks both in project courses and through work-based learning. Companies are also highly motivated since they are looking for future employees. It is therefore easier to create conditions in which learners can train and develop both occupation-specific and entrepreneurship competences; this makes learners attractive to future employees and also better prepared to start their own businesses.

CHAPTER 5.

Nurturing entrepreneurship competence in VET

5.1. Methods, tools and approaches

To implement the entrepreneurship curricula available in IVET, the Swedish National Agency for Education (SNAE) offers three packages of support material for teaching at upper secondary level and in adult education (Skolverket, 2023c).

The first package introduces what entrepreneurship in upper secondary education is about and outlines the design and implementing principles. These take the form of general advice and instructions, followed by examples of how to design a project. The package also explains how principals should work to make it easier for teachers to facilitate entrepreneurship in their schools: advice and recommendations include how to fund work on entrepreneurship in the school and collaborate with actors outside the school. The material also explains where entrepreneurship can be found in curricula, with a link to a commentary on it. Entrepreneurship is then discussed as one of the eight key competences in the EU framework on lifelong learning. Finally, links to further support for entrepreneurship in upper secondary education are provided.

The second package includes a webinar on the importance and role of entrepreneurship and innovation, but no other specific material.

The third package addresses entrepreneurship in adult education. It is similar to the first type but focuses more on study counselling (SYV) and the need for learners to master decision making, to make the best decisions for future studies and work.

These three packages represent the beginner-level support for teachers and principals who are interested in developing entrepreneurship in their schools.

The SNAE also promotes other sources on entrepreneurship for secondary education that are suitable for IVET providers. Some of the authors (organisations) have received funding from the agency to work in schools with entrepreneurship-related aspects (Skolverket, 2023c).

- (a) *Ung Företagsamhet* (Junior Achievement) is the largest actor that receives annual funding from the agency to run its programmes, also in VET. Its concept (*UF-företag*) is applied in entrepreneurship courses in all upper secondary education programmes to enable learners wishing to start and maintain a business during a school year.

- (b) *Blixtlåset* is an annual contest for learner teams in upper secondary schools. It results from collaboration between industry, education providers and local authorities to increase innovation in upper secondary education.
- (c) *Gen F/Förebildarna* is a programme like Junior Achievement but with a sustainability focus. It is a module-based programme that fits into both entrepreneurship courses and other courses.
- (d) *Science centres* offer programmes related to STEM. The 20 science centres around Sweden work with local and regional schools to promote science education and entrepreneurial behaviour.
- (e) *Unga innovatörer* (Young innovators) is a non-profit organisation that aims to strengthen innovative capabilities (i.e. 21 century skills) through programmes, competitions and material.

Materials for entrepreneurship and innovation in upper secondary schools, including VET, can also be found in projects focusing on entrepreneurship education. The most well-known projects are:

- (a) *Ifous*: an action research project aiming to provide schools with support in developing entrepreneurial learning while also studying its impact;
- (b) *FOrSE*: an Erasmus+ project aiming to develop principles and guidelines for entrepreneurship education at all levels (Westerberg; Oganisjana and Hietanen, 2022).

The two national entrepreneurship courses described in Section 4.2 (Entrepreneurship and Entrepreneurship and business management) are also valuable tools for teachers and principals to develop entrepreneurship competence. However, entrepreneurship teachers found it easier to collaborate with other teachers on entrepreneurship before the course was launched in 2011. Today, this is not always the case. There is much less collaboration among VET teachers in promoting the entrepreneurship competence. A VET school principal who had previously received extensive training in entrepreneurship education and had run an entrepreneurship-oriented school was hesitant to ask his staff to work on entrepreneurship outside the specific courses, according to the field research. So, while entrepreneurship used to be important for many teachers, it is now only relevant for teachers of entrepreneurship courses. Usually, only one entrepreneurship teacher is involved in each course: the work has changed from being transdisciplinary, involving many subjects and teachers, to being a single subject and a single teacher.

A framework for working entrepreneurially, based on research and practical interaction, guides the development of entrepreneurship education. It is applied by all VET providers to some degree, where the CVET provider Changemaker

Educations has come the furthest is being proficient on all five pillars of the framework (Box 4).

Box 4. **Framework for entrepreneurship education in the Swedish education system**

Striving towards a growth mindset (Dweck, 2017): Entrepreneurs must constantly learn to be able to cope and prosper wherever they are and whether they are pursuing commercial, social, or other goals. This is true for any entrepreneurial activity where uncertainty and ambiguity are present. A mindset focused on development and learning is crucial. The pursuit of a growth mindset provides a good basis for education activities.

Experimental learning (Dewey, 1938): Learning by doing is a well-known term associated with experimental learning. However, as Dewey noted, experience without reflection does not lead to learning. Regardless of the model, entrepreneurial educators must work with both experience and reflection.

Developing entrepreneurship competence alongside subject knowledge (Palmér and Johansson, 2018; Westerberg, 2020): It is important to understand that entrepreneurial action is always linked to subject knowledge outside the entrepreneurial domain. By reflecting on these linkages, it is possible to develop better both entrepreneurship competence and subject competences. If the educator can help the learner see the link between better entrepreneurship competence and better subject skills, this can boost learning.

Working with real problems and real users: creating real value (Lackéus, 2016): Creating value is the essence of entrepreneurship. Entrepreneurial action has the potential to create value; that is what makes it highly motivational. Experiencing that your actions create value for others makes it meaningful and provides intrinsic motivation. Therefore, the educator should facilitate value creation and help learners to see how they create value for others.

Striving to develop individuals capable of self-negotiated action (Jones, 2019): By focusing on lifelong learning and development, involving real problems and real users, and constantly applying action and reflection, that lead to value creation and develop both entrepreneurship and subject-specific competences, individuals will become increasingly capable of self-negotiated action (Jones, 2019).

Source: Westerberg, 2022.

The framework Conceptualising entrepreneurial mindset and entrepreneurial competences in a school context (Box 5) has been adopted by several schools in Northern Sweden as a way of working with entrepreneurship competence; this includes *Luleå Gymnasieskola*, an IVET provider. A teacher can use it to provide formative feedback to learners while working in their company, helping them becoming more active during their placement. She also uses it to challenge learners in projects: to make them see that what is hard and tough to accomplish makes them better equipped for the future. However, it is not yet formally linked to the curricula.

Box 5. **Conceptualising entrepreneurial mindset and entrepreneurial competences in a school context**

Courage: dare to be on the edge of your comfort zone and do what you are not (yet) fully comfortable with.

Responsibility: take responsibility for both your own learning and that of your peers by being a driving force with patience and the ability to keep going despite setbacks.

Initiative: be proactive and able to act without being told to do so by the teacher so that you are not dependent on a leader / teacher to set the agenda.

Tolerance for ambiguity: be able to solve tasks even when the situation is ambiguous and not fully understood.

Interactivity and ability to collaborate: be able both to give (share) thoughts and knowledge and receive (take in) other's ideas and knowledge and, on this basis, work with others to carry out tasks and solve problems.

Creativity: be able to contribute to finding new, non-trivial/unconventional solutions.

Source: Westerberg, 2020.

5.2. Formative and summative assessment

The Entrepreneurship course in upper secondary VET (Section 4.2) is followed by a summative assessment against the framework below (Skolverket, 2023a).

Table 3. **Assessment criteria for the Entrepreneurship course in VET**

Result	Learner
'E' Satisfactory	<ul style="list-style-type: none"> The learner gives a few examples of what entrepreneurship means for individuals, organisations, companies and societies. In addition, the learner briefly discusses the connection between entrepreneurship and social development. The learner draws up a simple project plan in consultation with the supervisor. The learner takes responsibility for and completes the project according to the plan. In the work, the learner follows with some certainty routines for the project's administration, documentation, communication and collaborations. In addition, the learner identifies and solves problems that arise in the project. The learner provides simple reasoning about how a group process works and what significance leadership has for the group's work process. Furthermore, the learner gives an overview of the importance of networks in various projects. The learner markets and presents his project with some certainty and adapts the marketing and presentation to the purpose, recipient and situation. The learner evaluates with simple judgments the work process and the result in a project evaluation. The learner briefly describes how ideas and products are protected by laws and other regulations. The learner draws up financial plans with some certainty and carries out simple calculations and simple financial follow-ups. When the learner consults with the supervisor, she or he assesses with some certainty their own abilities and the demands of the situation.

Result	Learner
'D'	A mix of 'C' and 'E'.
'C' Good	<ul style="list-style-type: none"> • The learner explains in detail, with the help of examples, what entrepreneurship means for individuals, organisations, companies and societies. In addition, the learner discusses in detail the connection between entrepreneurship and social development. • After consultation with the supervisor, the learner draws up a simple project plan. The learner takes responsibility for and completes the project satisfactorily according to the plan. In the work, the learner follows with some certainty routines for the project's administration, documentation, communication and collaborations. In addition, the learner identifies and solves problems that arise in the project. The learner makes well-founded reasoning about how a group process works and what importance leadership has for the group's work process. Furthermore, the learner identifies networks for the project and gives a detailed account of the importance of networks within various projects. • The learner markets and presents his project with some certainty and adapts the marketing and presentation to the purpose, recipient and situation. The learner evaluates with nuanced judgments the work process and the result in a project evaluation. • The learner describes in detail how ideas and products are protected by laws and other regulations. • The learner draws up financial plans and carries out simple calculations and simple and structured financial follow-ups. • When the learner consults with the supervisor, she or he assesses with some certainty their own abilities and the demands of the situation.
'B'	A mix of 'A' and 'C'
'A' Excellent	<ul style="list-style-type: none"> • The learner gives a detailed and nuanced account, with the help of a few examples, of what entrepreneurship means for individuals, organisations, companies and societies. In addition, the learner discusses in detail and in a nuanced way the connection between entrepreneurship and social development. • After consultation with the supervisor, the learner draws up a thorough project plan and, if necessary, revises the plan during the work. The learner takes responsibility for and, after consultation with the supervisor, completes the project in a good way according to the plan. In the work, the learner reliably follows routines for the project's administration, documentation, communication and collaborations. In addition, the learner, after consultation with the supervisor, identifies and solves problems that arise in the project. The learner makes well-founded and nuanced reasoning about how a group process works and what importance leadership has for the group's work process. Furthermore, the learner identifies networks for the project, creates and collaborates in these and gives a detailed and nuanced account of the importance of networks within various projects. • The learner confidently markets and presents his project and adapts the marketing and presentation to the purpose, recipient and situation. The learner evaluates with nuanced judgments the work process and the result in a project evaluation and gives suggestions on how the work process can be improved. • The learner describes in detail and in a nuanced way how ideas and products are protected by laws and other regulations. • The learner draws up financial plans with certainty and performs simple calculations and simple and structured financial follow-ups. In addition, the learner evaluates the financial results with nuanced judgments.

Result	Learner
	<ul style="list-style-type: none"> When the learner consults with the supervisor, she or he assesses with certainty their own ability and the requirements of the situation.

Source: Skolverket, 2023a.

There is no big difference between ‘satisfactory’ and ‘excellent’ in the assessment criteria (responsibility, problem solving, cooperation) for entrepreneurship competence in the Entrepreneurship course. Other criteria are used, more related to theoretical knowledge, the ability to execute a detailed plan or the ability to reason about group processes and leadership. So, even in the assessment criteria for the Entrepreneurship course, entrepreneurship competences are overshadowed.

Formative assessment, i.e. providing learners with feedback or other information, is the most important tool to help learners progress and is widely used by all teachers interviewed, both in IVET and CVET. In IVET, formative assessment is a key responsibility for the teacher. Helping learners see their own progress, both in terms of subject knowledge and entrepreneurship competence, can be highly motivating. During observation of an entrepreneurship class, one teacher kept reminding the learners of where they started and where they are now, to reduce anxiety about the project they were working on. This teacher also said that when she visited learners in their apprenticeship placements, she always focused on what they had learned and to see their progress. She also challenged them to learn new aspects for their next appointment, especially where the learners were working on simpler tasks.

The [Loopme tool](#) is used by *Malmö lärlingscenter*, an IVET provider, for formative assessment during apprenticeships. By giving the apprentices tasks related to their work situation (e.g. perform a customer interaction and reflect on the outcome) teachers and supervisors engage in dialogue with the apprentice. One feature of the tool is task tagging, covering aspects such as ‘handling uncertainty’, ‘taking initiative’ and ‘being creative’. They allow supervisor to ask follow-up questions on how the tasks helped to develop the competence. Teachers find it very useful, but apprentices are not so positive as it is extra work for them. Without good feedback, learners only see the work related to the assignment, not the learning. Even without feedback the tool can be useful in indicating how the competence development is happening, but it only achieves its full impact if both the learner and the teacher are engaged in a conversation about the task performed.

CHAPTER 6.

Conclusion

Developing entrepreneurship competence in the Swedish VET is not a simple task. Sweden has a general national policy on entrepreneurship for the education system, including VET.

Johannisson and Madsén's (Johannisson and Madsén, 1997) report described how entrepreneurship education should be addressed in Sweden. Over time, increasing attention has been paid to the broader definition of entrepreneurship, which sees it not only as a competence for starting a business, but also as a competence for lifelong learning, enabling individuals to adapt to change and lead a good life both at work and in their free time. Paradoxically, the development of this broader entrepreneurship competence is not prioritised in VET as a formal objective; summative assessments focus mainly on 'hard' occupation-specific competences.

While policy alone can never get things done on the ground, strong support from national actors can be a gamechanger. The work spearheaded by the Royal Swedish Academy of Engineering Sciences (IVA, 2022) to create a new national strategy for entrepreneurship in the education system seems promising.

The whole education system can learn from the way CVET is organised as it is highly market-oriented and well-suited to making learners highly employable quickly. An important part of this is to equip learners with entrepreneurship competence alongside occupation-specific competences.

The industry councils are important actors for IVET providers, facilitating learner access to good work placements and initiating or supporting projects in which learners can develop their professional skills as well as the broader, more generic entrepreneurship competence. However, the ability of industry councils to supply this support varies significantly.

The Swedish situation presents both opportunities and challenges.

- (a) Although VET stakeholders acknowledge entrepreneurship to be an important competence, policy support for entrepreneurship competence specifically in VET does not have a specific champion in Sweden. The work by the Royal Swedish Academy of Engineering Sciences to bring the main policy actors together and bring forth a 'new' strategy for entrepreneurship is timely. By agreeing on a strategy that is better linked to entrepreneurship as a key competence for lifelong learning, stakeholders at different levels (from local to national) would be in a better position to work together and fuel both current and new initiatives to improve entrepreneurship education.

- (b) The only dedicated spaces for entrepreneurship in IVET education are two generic courses, provided by dedicated teachers, but mostly without involving colleagues teaching other subjects. There is a room for initiatives within the current curricula framework once VET teachers explore together how they can collaborate so that both subject knowledge and entrepreneurship competence can be developed side-by-side. This particularly holds for digitalisation and sustainability, both excellent 'partners' to entrepreneurship.
- (c) By making entrepreneurship a subject of its own in VET curricula, it has become harder for non-entrepreneurship teachers to promote entrepreneurship competence. Entrepreneurship that is essentially cross-disciplinary is taught as a discipline of its own. However, it clearly covers a wide range of subject fields, including business administration, psychology, and sociology. The lock-in effect could be overcome. In CVET, this is already done by placing learners with different knowledge and competences in cross-disciplinary projects, getting them to work on a common goal.
- (d) There is no systematic way to assess the development of entrepreneurship competence. EntreComp is a good starting point but is too complex. Both IVET and CVET also tend to disregard entrepreneurship competence and other soft skills in terms of goals and assessment but see them as occupation-specific competences. However, many VET teachers view the development of entrepreneurship competence as an important task and find ways to include it in their courses and formative assessment, even though they are not part of formal evaluation. A commonly accepted framework dealing with both formative and summative assessment of entrepreneurship competences could be beneficial. It would legitimise the important work that is now often done covertly.

VET entrepreneurship teachers, like most teachers in the Swedish school system, have a heavy workload, leaving little room for taking initiatives and finding new ways to work entrepreneurially. Providing more resources to collaborative entrepreneurship projects may be an important way to improve the situation and VET. Once entrepreneurship course teachers involve and collaborate with teachers of other subjects, there is great potential to set in motion the virtuous circle between development of subject competence and entrepreneurship competence. This will ensure VET learners are better prepared to deal with the opportunities and challenges that they face in life.

Acronyms

CVET	continuing vocational education and training
IVA	Royal Swedish Academy of Engineering Sciences (<i>Kungliga Ingenjörsvetenskapsakademien</i>)
IVET	initial vocational education and training
JA	Junior Achievement
NAHVE	National Agency for Higher Vocational Education (<i>Myndigheten för yrkeshögskolans</i>)
NUTEK	Swedish Ministry for Trade and Commerce (<i>Verket för näringslivsutveckling</i>)
SNAE	Swedish National Agency for Education (<i>Skolverket</i>)
VET	vocational education and training

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Annex 1.

Participating VET providers in Sweden

Name	Region	Type of VET (fieldwork focus)
Luleå kommun Gymnasium	Norrbottn, North Sweden	A public school initial VET provider with long experience of working with VET
Praktiska gymnasiet i Luleå	Norrbottn, North Sweden	An established free school provider of initial VET
Changemaker Educations	Norrbottn, North Sweden (although present all over Sweden)	Established education company and continuing VET provider that constantly work to identify competence gaps in the labour market and develops programs to fill these gaps.
Malmö lärlingscenter	Skåne, South Sweden	Public municipally based centre for a multitude of initial apprenticeship educations
Peab-skolan	Skåne, South Sweden	Free school closely associated with the large construction company Peab. Provides initial VET with placing in Peab
Lärlingsakademin	Skåne, South Sweden	A collaboration between four municipalities in Skåne – initial VET provider that works with adult learners

Entrepreneurship competence in vocational education and training

Case study: Sweden

This report describes how entrepreneurship competence is embedded in vocational education and training (VET) in Sweden. It complements existing knowledge with examples of methods, tools and approaches that can help policy-makers, VET providers and other stakeholders build better entrepreneurial learning ecosystems.

The report is based on the research of Cedefop's study *Entrepreneurship competence in VET*. It is part of a series of eight national case studies (Spain, France, Croatia, Italy, Latvia, Austria, Sweden and Finland) and a final report.

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