



European
Commission

The entrepreneurial employee in the public and private sector

What, Why, How

Authors:

Martin Lackeus

Mats Lundqvist

Karen Williams Middleton

Johan Inden

Editor:

Margherita Bacigalupo

The entrepreneurial employee in the public and private sector

What, Why, How

Authors:

Martin Lackéus

Mats Lundqvist

Karen Williams Middleton

Johan Inden

Editor:

Margherita Bacigalupo



The reuse policy of the European Commission is implemented by the Commission Decision 2011/833/EU of 12 December 2011 on the reuse of Commission documents (OJ L 330, 14.12.2011, p. 39). Except otherwise noted, the reuse of this document is authorised under the Creative Commons Attribution 4.0 International (CC BY 4.0) licence (<https://creativecommons.org/licenses/by/4.0/>). This means that reuse is allowed provided appropriate credit is given and any changes are indicated. For any use or reproduction of photos or other material that is not owned by the EU, permission must be sought directly from the copyright holders.

All content © European Union, 2020, unless otherwise specified. Credits for the images used in the text of this report are specified below each image. Graphic Design and Layout: Massimiliano Fucci (European Commission, Joint Research Centre)

How to cite this report: Lackéus, M. Lundqvist, M., Williams Middleton, K., Inden, J. The entrepreneurial employee in the public and private sector – what, why, how (M. Bacigalupo Ed.), EUR 30108 EN, Publications Office of the European Union, Luxembourg, 2020, ISBN 978-92-76-16651-1, doi:10.2760/460123, JRC117661.

Title: *The entrepreneurial employee in the public and private sector – what, why, how*

Entrepreneurial employees that drive innovation and change have become a sheer necessity for many established organisations in the public and private sector. This report gives a science-based overview of what entrepreneurial employees do, why such behaviours are needed and how any employee can develop entrepreneurial competences.

This publication is a Scientific analysis by the Joint Research Centre (JRC), the European Commission's science and knowledge service. It aims to provide evidence-based scientific support to the European policymaking process. The scientific output expressed does not imply a policy position of the European Commission. Neither the European Commission nor any person acting on behalf of the Commission is responsible for the use that might be made of this publication.

Manuscript completed in March 2020

Acknowledgements

The authors would like to thank Margherita Bacigalupo (Directorate-General Joint Research Centre) for initiating the project, for championing the editing process and for providing ample and insightful feedback on the manuscript in multiple phases of the project. The authors also would like to thank Veronica Mobilio (Directorate-General for Education, Youth, Sport and Culture), Inmaculada Perianez-Forte (Directorate-General Joint Research Centre), Lene Topp (Directorate-General Joint Research Centre), Alison Crabb (Directorate-General for Employment, Social Affairs and Inclusion) and Ioannis Maghiros (Directorate-General Joint Research Centre) for insightful feedback on the manuscript and for institutional support at the European Commission. The authors also would like to thank Johan Wideman, Susanna Williams, Marta Armendia, May Portuguez, Pernille Berg, Lilian Weikert García, Pekka Stenholm, Kathryn Penaluna, Paz Fernández de Vera, John Park, Stefanie Thorne, Martin Bliemel, Mette Lindahl Thomassen, Lisa McMullan, Alison Price, Filip Burgelman, Jackie Cooper and Malin Heimer Nilsson for providing insightful feedback on a preliminary version of the report.

Authors:

Martin Lackéus, Mats Lundqvist, Karen Williams Middleton and Johan Inden (Chalmers University of Technology, Sweden)

Contact information

Margherita Bacigalupo (European Commission, Joint Research Centre)

Margherita.Bacigalupo@ec.europa.eu

EU Science Hub

<https://ec.europa.eu/jrc>

[The European Commission's science and knowledge service](#)

Joint Research Centre

JRC Mission

As the science and knowledge service of the European Commission, the Joint Research Centre's mission is to support EU policies with independent evidence throughout the whole policy cycle.

GETTING IN TOUCH WITH THE EU

In person

All over the European Union there are hundreds of Europe Direct information centres. You can find the address of the centre nearest you at:

https://europa.eu/european-union/contact_en

On the phone or by email

Europe Direct is a service that answers your questions about the European Union. You can contact this service:

- by freephone: 00 800 6 7 8 9 10 11 (certain operators may charge for these calls),

- at the following standard number: +32 22999696, or

- by electronic mail via: https://europa.eu/european-union/contact_en

FINDING INFORMATION ABOUT THE EU

Online

Information about the European Union in all the official languages of the EU is available on the Europa website at: https://europa.eu/european-union/index_en

EU publications

You can download or order free and priced EU publications from EU Bookshop at: <https://publications.europa.eu/en/publications>. Multiple copies of free publications may be obtained by contacting Europe Direct or your local information centre (see https://europa.eu/european-union/contact_en).

JRC117661

EUR 30108 EN

PDF ISBN 978-92-76-16651-1 ISSN 1831-9424 doi:10.2760/460123

Epub ISBN 978-92-76-20653-8 ISSN 1831-9424 doi:10.2760/392286

Print ISBN 978-92-76-16652-8 ISSN 1018-5593 doi:10.2760/265489



Publications Office
of the European Union

1. Introduction

Entrepreneurship impacts societies in profound ways. Entrepreneurs can disrupt entire global markets with their new firms and offerings. This sometimes puts even the largest corporations out of business in a remarkably short time. Some famous examples of firms that failed to renew themselves in a rapidly changing market are mobile phone manufacturer Nokia, photographic film maker Kodak, video-rental chain Blockbuster, toy vendor Toys R Us and photocopy machine maker Xerox ⁽¹⁾.

Powerful business stories of creative destruction make great headlines in media. The destroyers of old ways of doing business are often pictured as charismatic, heroic entrepreneurs. One of the most well-known examples is Steve Jobs, the founder of Apple Corporation, who in fact walked straight out of the Xerox PARC research centre in Palo Alto and used his new insights learned there to build the Macintosh computer that later famously disrupted the personal computer market.

The public sector is also deeply impacted by entrepreneurial people ⁽²⁾. Entrepreneurial world leaders have for example shaped history in profound ways, pioneering initiatives such as going to the Moon (Kennedy), funding research behind the internet (Eisenhower) and inventing universal healthcare (Bismarck). Public entrepreneurship is a growing field of inquiry and practice ⁽³⁾, focused broadly on the creation and implementation of new ideas that create value for society ⁽⁴⁾.

1.1 Being entrepreneurial: an everyday practice that can be learned

While stories about lone, heroic entrepreneurs or charismatic world leaders are indeed pervasive and omnipresent in the news, they also illustrate a fundamentally flawed myth ⁽⁵⁾. Creating new products, services, solutions and markets is neither a one-person show nor an ability that only a few lucky individuals are born with. It is an everyday team-based practice and habit in which any employee can engage, both in the private and the public sector. It involves replicable and well-known patterns of thought and action ⁽⁶⁾. Therefore, if entrepreneurs and world leaders can be entrepreneurial, so can any established organisation and any of its employees. In a famous quote, management guru Peter Drucker ⁽⁷⁾ once wrote:

'The entrepreneurial mystique? It's not magic, it's not mysterious, and it has nothing to do with the genes. It's a discipline. And, like any discipline, it can be learned'.

One way for any employee to get started is to ask oneself a couple of simple questions ⁽⁸⁾: 'What do I truly care for?', 'What can I do now?', 'Whom do I know?' and 'What new kind of value can I create for others?' and then based on one's own hypothesised answers, start soliciting feedback through discussions. Such discussions could be held both internally with people within the organisation, and externally with existing and potential partners, customers, clients, citizens or other stakeholders. Being an entrepreneurial employee thus does not require a great idea to start with, or an organisation-level support system for corporate or public entrepreneurship. It can start with the thoughts and actions of one single employee anywhere in the organisation who chooses to strike up dialogues with other people. When an employee gets used to this new behaviour, he or she can develop an increasingly entrepreneurial work identity, asking a deeply personal question: 'Who am I as an entrepreneurial employee?'

The conceptual journey from the mythical, heroic entrepreneurial person to the everyday entrepreneurial employee is, however, a long and winding road. It entails a broadening of key terms that could cause significant confusion, which in turn could be a source of misguided advice. Many leaders' attempts to make their organisation and its employees more entrepreneurial fail ⁽⁹⁾. The aim of this science-for-policy report is therefore to provide guidance and increased clarity in a number of key aspects regarding the entrepreneurial employee. We will discuss what an entrepreneurial employee is, why some employees are entrepreneurial, why employees should try to be more entrepreneurial, and how an employee can become more entrepreneurial. For this purpose, we define an entrepreneurial individual as someone who tries hard to envision, experiment, learn and collaborate to create new kinds of value for other people ⁽¹⁰⁾. The science-for-policy report ends with some implications for employees, as well as for their managers.

1.2 Entrepreneurial employees: a necessity for many organisations

Most failures and successes to cope with change and innovation never reach the headlines. In a recent example, thousands of shopping malls and brick-and-mortar businesses have gone bankrupt due to Amazon's global growth ⁽¹¹⁾. Yet, some small businesses thrive in the new regime, achieving unprecedented market reach through Amazon ⁽¹²⁾. When the only thing today's businesses can be sure about is constant change, having and supporting entrepreneurial employees is increasingly becoming an indispensable advantage. In an accelerating separation of winners from losers, only those who learn and adapt to increasingly efficient and creative business practices will prosper. If there is a better way to do business in a market, some will learn how to master the new way and reap the rewards, whereas others who are slow to adapt may even perish. This is why more and more business leaders are searching for ways to make their firm more entrepreneurial. Entrepreneurial action is a sheer necessity if organisations (private and public alike) want to stay relevant long-term, especially in fast-changing industries such as IT, electronics, retail, media and service.

The case for public-sector entrepreneurship is less straightforward. Countries seldom go bankrupt or cease to exist ⁽¹³⁾. Still, governments are increasingly expected by their citizens not only to provide stability, but also to produce positive change and deliver modern services. Ageing populations and mounting costs also often make the pursuit for efficiency gains a sheer necessity. This requires increasingly close collaboration between state, private enterprise, the social sector and citizens in entrepreneurial co-creation processes ⁽¹⁴⁾. But instead of acting to 'move fast and break things' as Zuckerberg has proposed to be necessary in innovation, civil servants need to be aware that they are using taxpayers' money. They need to find ways to innovate without destroying things, instead trying to 'move fast and fix things' ⁽¹⁵⁾. Civil servants also need to consider the risk for humiliating media headlines, exposing

any of their mistakes. Journalists frequently reinforce the flawed myth that the public sector is not, and should not be, entrepreneurial (16). Fear of failure in the eyes of a sceptical public is therefore a common barrier to public-sector innovation (17).

1.3 A deliberate focus on the individual employee

While managers often play a crucial role in building structures and cultures that enable employees to become and remain entrepreneurial, the focus of this science-for-policy report is firmly on the individual employee. In fact, the entire report was written based on a conviction that there is a harmful over-reliance on structural and managerial solutions in corporate and public entrepreneurship. Structures and managers can even become an excuse for individual employees to refrain from taking entrepreneurial action, instead saying to themselves and to their colleagues: 'We have a department/ manager for that'. A better balance is therefore needed between the employee perspective and the manager perspective. However, an employee-oriented focus comes with numerous important implications for managers. These will be explored towards the end of the report in the implications section.

We will draw on a broad base of existing research and case studies on corporate entrepreneurship, intrapreneurship and public entrepreneurship. Since research focused on entrepreneurial employees is very scarce (18), we will also draw from research on how to make people more entrepreneurial, taken from the adjacent field of education and training of entrepreneurs and intrapreneurs. This is a field that has already travelled the long and winding road from narrowly conceived business training of high-growth 'heroic' entrepreneurs, to broad-based training of students of all ages and careers to become more entrepreneurial in their everyday work (19). We believe that organisations can learn much from this journey.

This science-for-policy report was produced in four main steps. The first step was to conceptualise the contribution, based on a conviction among the authors that a bottom-up entrepreneurial employee perspective is largely missing in extant work. The second step involved a literature review on corporate and public entrepreneurship in relation to the authors' own research base and practitioner insights into entrepreneurial education and training. In a third step, literature on corporate and public entrepreneurship was carefully integrated with the authors' explanatory model for being and becoming entrepreneurial (see section 2.4). Finally, a preliminary version was circulated to 20 experts and scholars (20) from around the world who provided feedback that informed final revisions.

Notes for section 1

- 1 Xerox built the world's first PC in its PARC lab, but management did not see potential in it; see Smith and Alexander (1999).
- 2 See Spinoza et al. (1999), Mazzucato (2011), Bason et al. (2013) and OECD (2017).
- 3 See Hjort (2013) and Klein et al. (2010).
- 4 See Bason et al. (2013, p. 5).
- 5 See Drakopoulou Dodd & Anderson (2007) and Ogbor (2000).
- 6 For extensive discussions about this, see Morris (1998), Neck et al. (2014) and Schoonhoven & Romanelli (2009).
- 7 See Drucker (1985).
- 8 The questions are taken from entrepreneurial methods such as effectuation, see Mansoori and Lackeus (2019).
- 9 For some challenges, see Bouchard and Fayolle (2018).
- 10 See further in section 2.3-2.4
- 11 See Taplin (2017).
- 12 See for example <http://tiny.cc/r7j5mz>
- 13 An exception is warfare, which is indeed an area with many examples of public-sector entrepreneurship, see Lewis (1988).
- 14 See 'Report of the Expert Group on Public Sector Innovation to the European Commission', by Bason et al. (2013).
- 15 See Conway et al. (2018).
- 16 See Mazzucato (2011).
- 17 See Bason et al. (2013).
- 18 Two recent literature reviews on entrepreneurial employees illustrate this: see Lang & Baltes (2019) and Neessen et al. (2019).
- 19 See Lackeus (2015).
- 20 The authors would like to thank Johan Wideman, Susanna Williams, Marta Armendia, May Portuguese, Pernille Berg, Margherita Bacigalupo, Lilian Weikert García, Veronica Mobilio, Pekka Stenholm, Kathryn Penaluna, Paz Fernández de Vera, John Park, Stefanie Thorne, Martin Bliemel, Mette Lindahl Thomassen, Lisa McMullan, Alison Price, Filip Burgelman, Jackie Cooper and Malin Heimer Nilsson for providing their feedback.

2. What an entrepreneurial employee is

This section focuses on the ‘what’ of an entrepreneurial employee. First, an overview is given on some common meanings around being entrepreneurial. Then a number of problematic myths and misunderstandings are discussed and debunked in relation to the entrepreneurial employee. This forms a foundation for a presentation of the authors’ interpretation of what it means for an employee to be entrepreneurial. It is followed by an outline of fifteen competences an entrepreneurial employee can develop through experiential learning-on-the-job, based on the European Commission’s framework for entrepreneurial competences.

2.1 Being entrepreneurial: some established definitions

Being entrepreneurial has been given many different definitions ⁽²¹⁾. When independent entrepreneurs are entrepreneurial, they engage in behaviours such as thinking about starting a business, saving money to invest in one’s new business, developing a model for a new product or service, preparing a business plan, doing marketing activities, acquiring resources needed for the new firm, opening a bank account and arranging for childcare to allow time for the new business ⁽²²⁾. But such behaviours are all related to an entrepreneur starting a business on his or her own, and are thus not so relevant for the topic treated in this report.

When it comes to established organisations, some common meanings of being entrepreneurial are instead being innovative, proactive and risk-taking ⁽²³⁾. Innovativeness is about organisations that engage in, experiment with and support novel ideas that might or might not result in new products, services or processes. Proactiveness is about organisations taking initiatives that shape the surrounding environment to their advantage, and that lead their field rather than follow trends. Risk-taking is about organisations willing to engage in risky projects and bold acts where some of the organisation’s resources might be consumed with no obvious return on investment.

From these organisation-level meanings of the term ‘entrepreneurial’, it is difficult to say much about what it means for an individual employee to be entrepreneurial, or how to become more entrepreneurial in everyday work-life practice. Research on corporate and public entrepreneurship has so far unfortunately been focused mainly on quantitative survey-based studies of organisation-level characteristics, leaving the issue of the entrepreneurial grassroots employee an under-researched topic ⁽²⁴⁾.

2.2. Myth debunking around the entrepreneurial employee

Another reason for the scarce knowledge about entrepreneurial employees is that static and fixed views grounded in the so-called myth of the lone entrepreneur are widely held among people in general ⁽²⁵⁾. Entrepreneurs, and thus also entrepreneurial people in established organisations, are by many assumed to be rare and special individuals, born with traits that make them think and act entrepreneurially ⁽²⁶⁾. But despite decades of research, such static and stereotypic views have been difficult to prove empirically ⁽²⁷⁾. Attempts to link certain individual traits to successful entrepreneurial behaviour or outcomes has shown to be a largely futile research endeavour ⁽²⁸⁾. Still, the flawed view of entrepreneurial people prevails. This has hampered research on how employees can develop their entrepreneurial competences on the job, leading to a severe neglect of human potential in many organisations. Three resulting sub-myths of particular importance will now be discussed and debunked – underestimated employees, over-reliance on the great idea, and unrealistic beliefs around traits of entrepreneurial people.

2.2.1 ‘Our employees are not very entrepreneurial’

Some organisations attempt to increase their entrepreneurial activity through ‘Open innovation’, where emphasis is on collaboration with people outside the organisation ⁽²⁹⁾. A powerful approach to open innovation is to build platforms that third-party partners can innovate on, such as Apple’s Appstore, Google maps or Amazon AWS. The key assumption in open innovation is that many of the world’s brightest and most entrepreneurial people are not working at one’s own organisation, but in other organisations such as start-ups. An illustrative quote by Sun Microsystems co-founder Bill Joy is: ‘Not all the smart people in the world work for us’ ⁽³⁰⁾. While this could indeed be the case, and while collaborating with external stakeholders around innovation can indeed be a good and often successful approach, a problem could be if it comes with the implicit assumption that one’s own employees are not and cannot become entrepreneurial. Bill Joy’s statement could be overstated into ‘Entrepreneurial people don’t work here’. This would then alienate many of the organisation’s own employees. As an organisation embraces open innovation, there is thus risk of neglecting the potential of one’s own employees to be and become more entrepreneurial.

Another way to underestimate the entrepreneurial potential of one’s own employees is to create separate and often siloed ‘entrepreneurial’ units within the organisation. People from within the organisation identified as entrepreneurial are often recruited to such units, leading to a small group of employees being isolated from the rest of the organisation ⁽³¹⁾. In addition to hampering their ability to collaborate with the rest of the organisation, it also drains the existing organisation from those who were already recognised as change agents. This approach also leans on a static view of some rare special employees being entrepreneurial, and the somewhat unrealistic idea that by isolating them they will be empowered ⁽³²⁾.

2.2.2. ‘Is it a good idea?’ is often the wrong question

When organisations want to be entrepreneurial, the main challenge is seldom a lack of ideas. In their book on intrapreneurship, Kuratko, Morris and Covin (2011, p. 227) distinguish between ‘Dreamers’ and ‘Doers’, stating that there is seldom a shortage of people who dream up new ideas. It is the doers who take an idea into a viable opportunity that are lacking in most established organisations. An idea is just a starting point in the winding journey towards discovering or creating a viable business or public-sector opportunity. If organisations set up comprehensive structures aimed to judge the quality of ideas at a too-early stage, such as through a committee or an investment board, the risk is high that it will kill off many of those initiatives which could develop into viable opportunities. This

often stems from a too static and processual stage-gated understanding of entrepreneurship as a phenomenon. But entrepreneurship is not a strictly linear process, it's an iterative habit and perseverance game ⁽³³⁾. Also, an idea is not the same thing as an opportunity ⁽³⁴⁾. Ideas need to be repeatedly tested in real-world contexts outside the organisation, consecutively destroyed and revived, or at least modified as necessary by a team of resilient entrepreneurial employees. That is how an initial idea can be transformed into a viable real-world opportunity.

A more promising approach is to ask: 'Which people will spend a thousand hours on this so that our organisation can see the potential of this intriguing idea revealed?'. Since people with many ideas often lack both the time and persistence needed to test their ideas in practice, a separation is often needed between 'Dreamers' who come up with initial ideas, and 'Doers' who transform ideas into opportunities by testing their real-world potential through action-taking ⁽³⁵⁾. One approach that has been successful in both the private and public sector is to invite master level students to do the frustrating early-stage 'Doer' job of exploring the potential of an initial idea ⁽³⁶⁾. Students can thus provide the time and entrepreneurial skills that are often lacking for 'Dreamer' employees with many ideas but with less time or aptitude for 'doing' an entrepreneurial journey.

2.2.3 'Who is entrepreneurial?' is often the wrong question

Despite the flawed myth of the lonely, heroic entrepreneur, and the equally flawed idea that there is a set of innate traits that determine people's capacity to be entrepreneurial, managers often end up searching for the already entrepreneurial people. The futile ⁽³⁷⁾ search for answers to the question 'Who is entrepreneurial?' is often conducted both within the own organisation and externally. Managers often try to offer these 'special' people various types of support structures. But it is a risky strategy to base new initiatives and future-proofing of the organisation on only those select individuals who are already seen as entrepreneurial. Especially since being entrepreneurial is necessarily a team-based effort requiring many employees to collaborate. Support structures also often get removed after a couple of years when leadership has changed ⁽³⁸⁾, which means if the entrepreneurial capacity of the organisation is to be sustained, it needs to be in some way embedded in the organisational staff and independent of specialised initiatives.

What managers could do instead of, or at least in addition to, searching for 'special' people, is to try to get many or even all of their current employees to become more entrepreneurial. It requires explaining what this might mean for each individual employee and clarifying how they can get started in their own unique environment and context. A different set of questions then needs to be asked: 'What does an entrepreneurial employee do?' and 'How can any employee become more entrepreneurial?'. These are questions to which we will now turn.

2.3 What the entrepreneurial employee does: creating new value for others

An entrepreneurial employee is someone who cares so much about an issue that she takes collaborative action despite inherent uncertainty and risk, trying to create something new envisioned to be of significant value for others, and who does this in a process characterised by trial-and-error based learning ⁽³⁹⁾. She tries hard to envision, experiment and collaborate in order to create new kinds of value for other people. These other people can be colleagues internal to the organisation. They can also be clients, partners or citizens external to the organisation, or any other stakeholder in society capable of appreciating and providing feedback on a value creation attempt. The valuable new 'something' that is created can be a product, a service, a solution, a technology, a process, a concept or something else material or immaterial.

2.3.1 A broadening framework for different types of value

It is important to have a broad view of value in relation to entrepreneurial employees, since narrow economic and self-oriented views of value can exclude and neglect many important ways for employees to be entrepreneurial. Value can be economic, social, enjoyment-based, influence-based, or simply something perceived as contributing to harmony ⁽⁴⁰⁾. [Figure 1](#) summarises these different facets of value creation and illustrates how value for oneself and value for others are two distinct but interacting aspects of any value-creating process ⁽⁴¹⁾. Egoism and altruism are thus closely related, as illustrated by the common idiom 'Doing well by doing good'. What is good for others, such as an organisation's clients, society's citizens and society more broadly, is often also good for the organisation's own employees, owners and other internal stakeholders ⁽⁴²⁾. Experienced entrepreneurs often start with what is valuable for others, knowing that value will be created also for themselves if they successfully create value for others ⁽⁴³⁾.

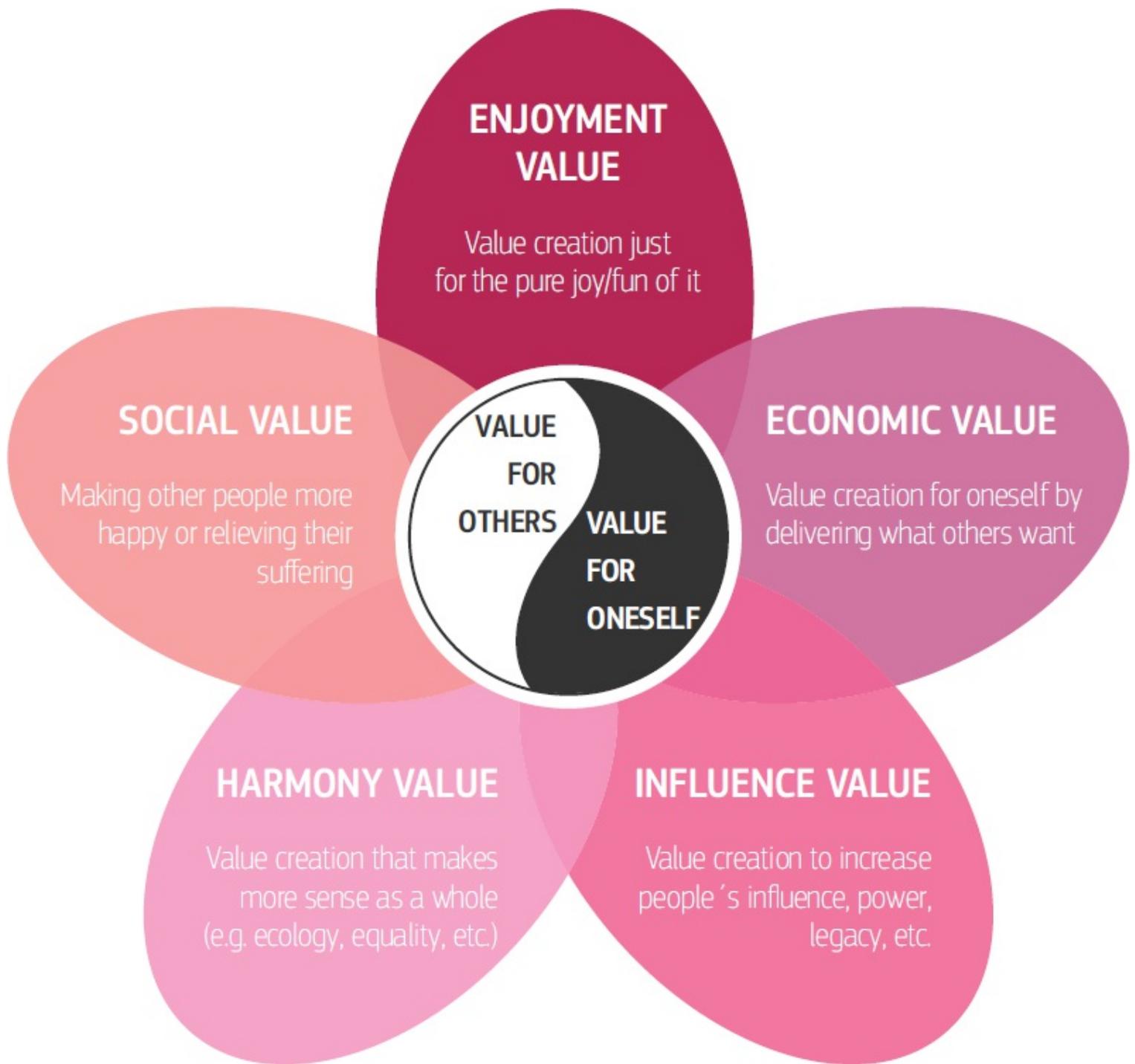


Figure 1. Framework for five different kinds of value (Lackéus 2018).

A brief description of each of the five facets of value in [Figure 1](#) will now be given.

Economic value

is often function-oriented and transaction-based, measured by the money earned or saved when functional goods and services are delivered. There is a strong tendency in society to try to transform other types of value into economic value, to allow for rational cost-benefit calculations ⁽⁴⁴⁾. But this comes with a detrimental risk of overlooking more subjective facets of humanity that are difficult to quantify ⁽⁴⁵⁾.

Social value

is about making people happier or relieving their suffering. It is a broad category, since what people appreciate in life is immensely multifaceted ⁽⁴⁶⁾. Some examples of social value are having close relationships with other people, expressing one's identity, learning new knowledge and skills, improving one's personal health and feeling safe and secure ⁽⁴⁷⁾.

Enjoyment value

is when doing things just for the pure joy and fun of it. It can be deeply engaging work tasks, cultural experiences or genuinely new events together with others. Such activities are often both challenging and inherently inspiring and can lead to a mental state of 'flow' where people are fully absorbed, feel competent and sometimes even lose track of time ⁽⁴⁸⁾.

Influence value

is when people's influence, reputation, power or historical legacy is increased, such as for managers, politicians or celebrities. Influence value can also be about mundane acts that deeply influence another person, such as parents raising their kids, employees helping clients, or colleagues helping each other at work. Central to influence value is a need for achievement, a core human desire ⁽⁴⁹⁾.

Harmony value

is value that makes more sense as a whole, culturally or in relation to fairness, ecology, equality and the common good. It is an often collective and conditional type of value that is situation-dependent and based on shared understandings ⁽⁵⁰⁾. It is therefore often a more complex type of value, emerging in more advanced societies. An illustrative example is the United Nations Sustainable Development Goals framework ⁽⁵¹⁾, specifying 17 global goals for reducing global poverty, hunger and climate change and promoting health, equality, ecological sustainability, safety, resilience and inclusion.

2.4 What the entrepreneurial employee does: an explanatory model

Since the aim of this report is to provide guidance and clarity around the entrepreneurial employee, a simple explanatory model will now be presented. It will be used throughout the remainder of the report, as a way to structure the different answers provided to the 'what', 'why' and 'how' questions around the entrepreneurial employee. It was developed through two decades of action research at Chalmers University of Technology, focused on when, how and why people become more entrepreneurial. The model has been tested on and appreciated by a broad range of researchers and practitioners. Still, like any model, it has flaws and limitations, being a simplification of an immensely complex and elusive social phenomenon.

The model in [Figure 2](#) shows important aspects of what entrepreneurial people do and how they do it ⁽⁵²⁾. The model contains four key dimensions; agency, novelty, value for others and learning. Conceptually stated: entrepreneurial people exercise their *agency* (i.e. an emotionally charged and deeply personal type of action-taking ⁽⁵³⁾) to create something *novel* of *value for others*. They do this through conscious and constant *learning* about what value(s) different actions and new creations may have for others. Being entrepreneurial is not a linear process from A to B, but rather a way of thinking, being and doing in everyday work-life and a habit that can be learned. A way for any employee to become more entrepreneurial is to try to emphasise the four dimensions in [Figure 2](#) more in one's everyday work life. The four dimensions will now be described briefly.

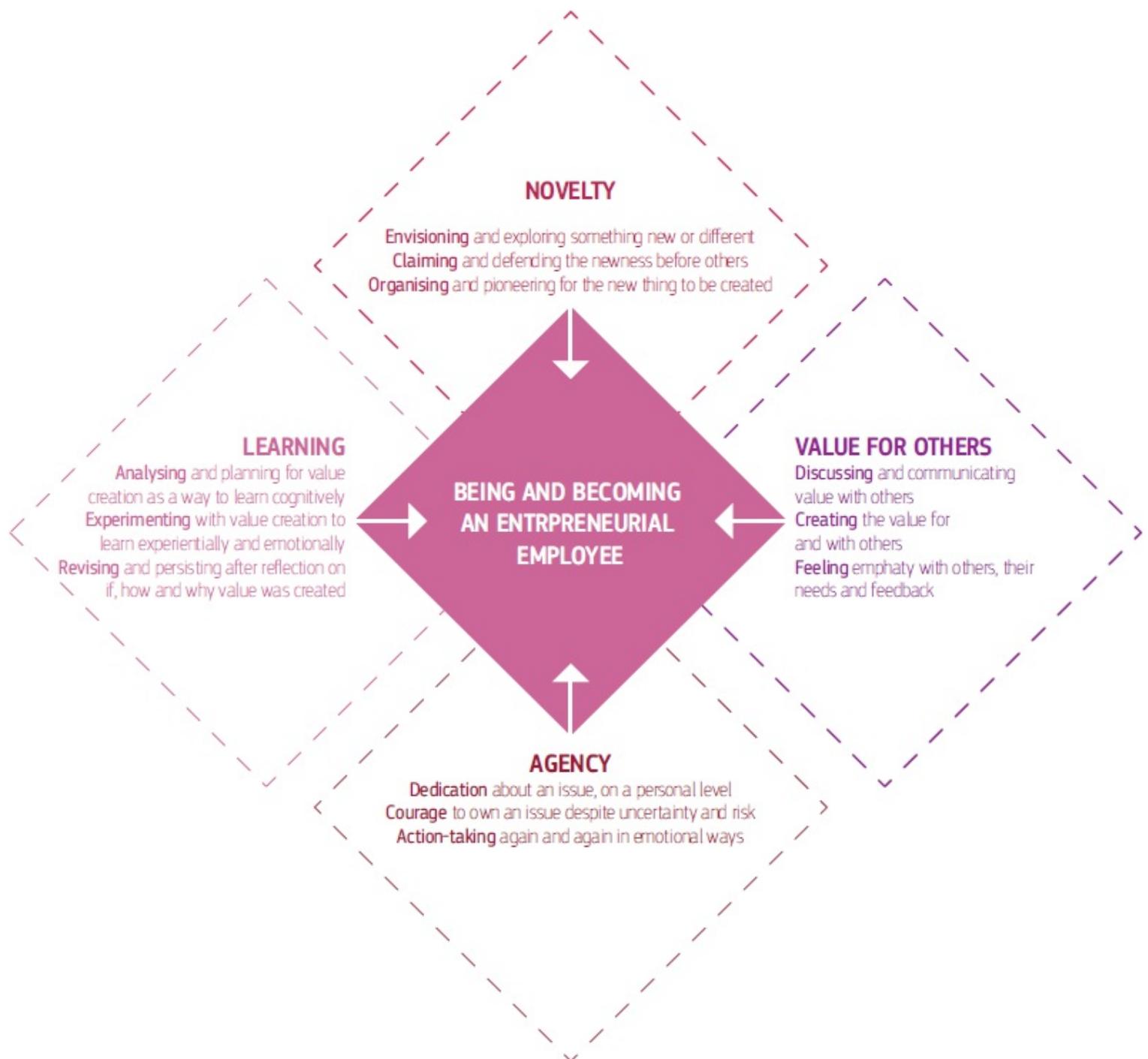


Figure 2. The diamond model of being and becoming an entrepreneurial employee, illustrating four key dimensions that are important for employees to be and become entrepreneurial (adapted from Lackeus, Lundqvist and Williams Middleton 2019).

2.4.1 Agency

An employee showing strong agency is an employee who decides to take action in order to reshape the environment she is a part of, as opposed to merely letting things ‘happen’ to her ⁽⁵⁴⁾. Such action-taking involves both considering the past and envisioning a desirable future, as well as acting in the present ⁽⁵⁵⁾. Agency is also strongly linked to personal dimensions such as one’s values, aspirations, motivations, self-confidence and identity ⁽⁵⁶⁾. Strong agency is thus about dedication and caring deeply about something, so deeply that one dares to confront one’s fears and take action despite uncertainty and risk. It is a deeply emotional action-taking, aimed at changing something that one truly cares about to a better state. Entrepreneurial agency is strongly linked to the other three dimensions in Figure 2. Having agency as an entrepreneurial employee is about acting to create something *new of value to other people*, and to continuously *learn* from taking such actions. When such action-taking becomes a taken-for-granted habit for someone, and when this person deep inside her heart knows *why* she consistently acts entrepreneurially ⁽⁵⁷⁾, an entrepreneurial identity has developed. The following prototypical statement to oneself illustrates what such an identity can mean ⁽⁵⁸⁾:

‘Trying to create new kinds of value for others is a crucial part of who I am as a person and employee’.

2.4.2 Novelty

Entrepreneurial employees are future-focused workers. They take personal responsibility for the fact that we live in constantly changing times that require organisations to always search for new and more efficient or desirable future practices. The focus of an

entrepreneurial project is therefore not the everyday routine value that is created for one's current clients. It is rather about exploring new ways to create value through a new kind of offering to be directed to either existing or to completely new types of clients. An entrepreneurial project can also be directed inwards, trying to develop new and better internal processes for delivering the same kinds of value to its clients. Novelty can thus be either internal or external, or both. Three main aspects of working with novelty are envisioning it, claiming it and organising for it. These three aspects require specific types of actions and also depend upon different types of learning, value and agency. Envisioning is central to being entrepreneurial, since it is needed in the articulation of an idea on what might be valuable in the future. Claiming novelty is largely about taking control of the idea. This is often a requirement for capturing a share of the value that is created for others, such as through a patent, a new brand name or some other intellectual property tool. This safeguards that value can be created not only once or a few times but multiple times over longer periods of time. Claiming novelty can also be seen as a key activity for anyone wanting to capture the economic value deriving from new value creation. Finally, organising for novelty is inherently different from organising for routine value creation. It requires a different take on aspects such as resource allocation, teamwork and decision-making ⁽⁵⁹⁾.

Novelty has two extremes: new to the individual or new to the entire world. An entrepreneurial journey often starts with an idea that is new to the individual but unknown whether it is also new to the world. The entrepreneurial employee then has to take action to find out how novel the idea is to the world. Many times, an idea is new to the organisation but not to the world. Even so, it can still be a valuable idea for the own organisation and its clients, since most organisations struggle in coping with change. Keeping up with a constantly changing outside world is a crucial job for the entrepreneurial employee. An idea can also be new to the organisation's clients, region or local market, without necessarily being new to the world.

2.4.3 Value for others

The most important task for a 'regular' entrepreneur who starts a new business is to develop a new and valuable offering that addresses various needs and wants of potential customers. It is both the main societal function entrepreneurs fulfil and the most important measure of their success. The situation for entrepreneurial employees is in this respect very similar. Their most important activity is to try to create new kinds of value for others, internally or externally. The process can certainly be triggered by something that is deemed valuable for themselves, but value creation also for others is crucial for the endeavour to grow and make an impact. Entrepreneurial value creation often combines three different key activities: discussing value; creating value; and empathising with others. Discussing the value to be created with others is about leading various early-stage and uncertain dialogues, idea sales-pitch processes ⁽⁶⁰⁾ and presentations. It often necessitates acting as if the valuable creation already existed. If others like the idea, creating the value for (and often together with) the intended recipients, comes next. It is in most cases a deeply action-oriented, team-based and relational task. Here, empathising closely with the intended recipients of value is important in order to understand their situation, to learn from attempts to create value for them and from the feedback they provide afterwards. These three key activities are often centred around some kind of creation, such as a prototype, a product, a service or a solution created before or during the entrepreneurial sales process. All three key activities are usually carried out simultaneously and can all be directed towards internal as well as external stakeholders.

Entrepreneurial employees often find themselves having to create both routine value and novel value at the same time. As the existing organisation usually expects employees to focus mainly (or solely) on routine value creation (i.e. what they are primarily employed to do on a day-to-day basis), entrepreneurial employees often need to use their own and others' 'slack' resources to act on opportunities to create new kinds of value. Slack resources are time and resources not used (or under-used) in day-to-day operations that can be allocated opportunistically in small-scale experimentation by entrepreneurial employees. This type of often semi-secret slack-based new value creation is often called 'skunkworks' ⁽⁶¹⁾, i.e. innovative projects involving a small group of people acting in isolation outside the regular development organisation. In organisations with an entrepreneurial culture, the isolated and clandestine 'skunkworks' approach is less prevalent. If the organisation's culture permits employees to be entrepreneurial, they can be more open with their projects. They can then also get support from and collaborate with the regular organisation, which increases the chances of successful outcomes. Still, there will always be those who do not see the value of entrepreneurial endeavours, or even who become jealous.

Creating new kinds of value for others is not a linear process and should not be treated as one. New value creation should rather be viewed as a way of thinking and acting, and a habit that can be acquired or developed by entrepreneurial employees who think and act 'ambidextrously', i.e. who combine routine and explorative value creation activities in their everyday work ⁽⁶²⁾. An entrepreneurial employee thus needs to be able to contribute to the everyday routine value creation, and at the same time devote some time and energy to explore new ways to create value ⁽⁶³⁾ (see [Figure 3](#)). This is a delicate balancing act.

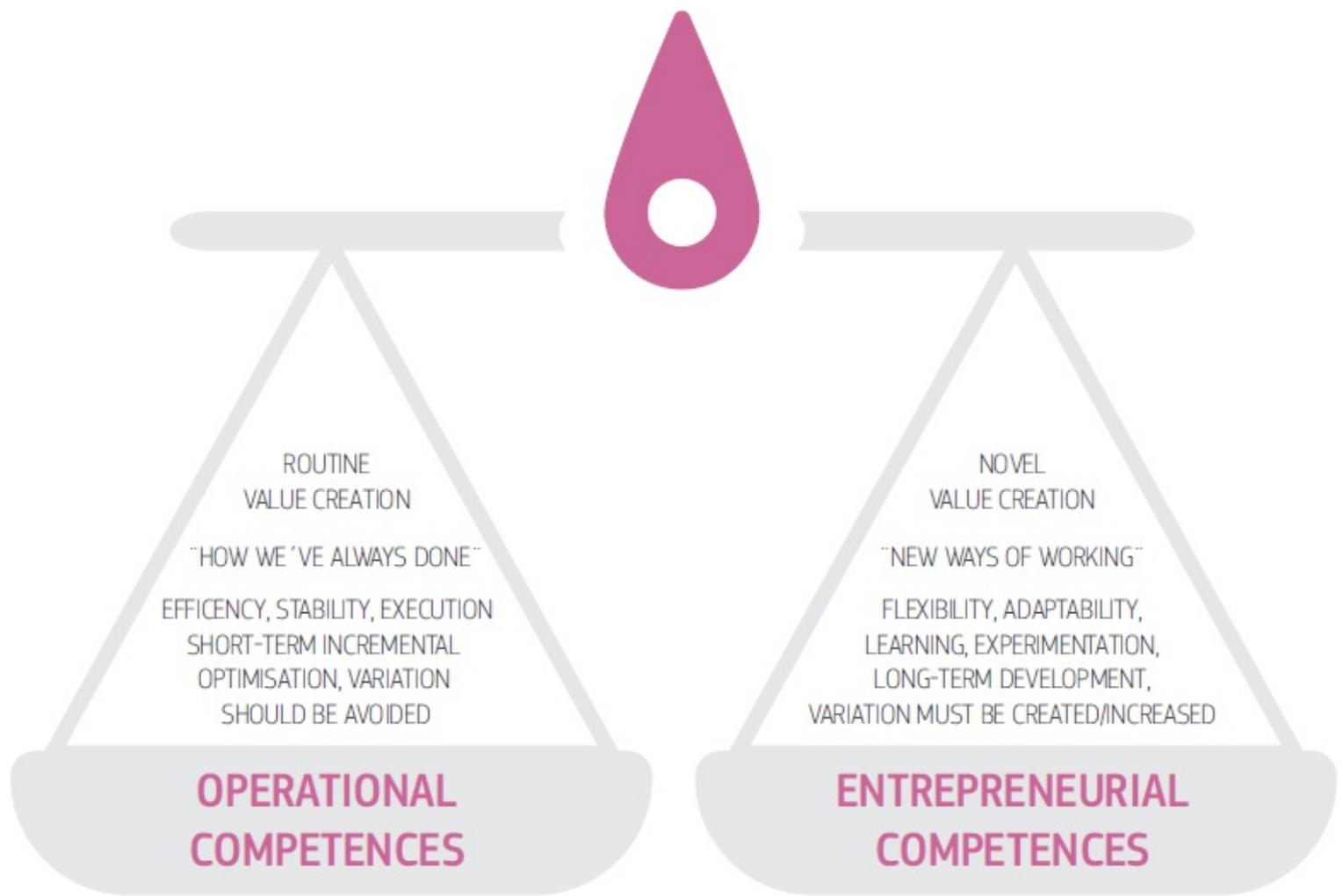


Figure 3. An entrepreneurial employee needs to be ‘ambidextrous’, i.e. be able to balance between routine value creation and novel value creation on a daily basis. This requires both operational and entrepreneurial competences. Read more about perspectives contrasted here in Volery et al. (2015).

2.4.4 Learning

Being an entrepreneurial employee requires being an exceptional learner ⁽⁶⁴⁾. To successfully manage change and challenge status quo, entrepreneurial employees have to constantly learn from clients, suppliers, competitors, colleagues and partners, i.e. from all the key stakeholders who need to be part of new value-creation endeavours. They also have to learn from analysing, from planning, from experiencing, from doing, from re-doing, as well as from what works and does not work. Being an entrepreneurial employee is therefore a deeply social activity, requiring constant interaction with other people to solicit their active participation, contribution and feedback.

Entrepreneurial people learn the most from critical and highly emotional events, especially negative ones ⁽⁶⁵⁾. Some ‘special’ event types that are important in entrepreneurial learning ⁽⁶⁶⁾ are tackling incidents or setbacks that must be managed, experiencing moments of creative inspiration or realisation around an opportunity, and having social encounters with people who provide new and crucial knowledge and insights. Being entrepreneurial requires long and hard work in trying to create new kinds of value together with others, at the same time trusting that this will generate serendipitous and unique moments of powerful transformative learning ⁽⁶⁷⁾. Perspiration thus breeds inspiration. Many such inspirational insights come from deeply negative events that could initially be interpreted as failures but also provide valuable learning and redeeming qualities. Negative events have a unique potential to trigger deep reflection that can make new and innovative ways forward crystallise in people’s minds ⁽⁶⁸⁾. Learning is therefore strongly linked to agency, through the perseverance and resilience required when facing uncertainty, failures and setbacks. The entrepreneurial employee needs to gain the ability to persevere through setbacks by, instead of giving up, pausing to reflect and ask herself ‘What can I learn from this?’, and then revise her assumptions and redirect her efforts as necessary. Embracing uncertainty is also vital, because without uncertainty regarding the outcome of an endeavour, there is little potential for learning.

2.5 Competences of entrepreneurial employees

Strong desire and willingness to create new value for others is not enough for an employee to be entrepreneurial. Ability is also necessary, in terms of having or developing those ‘competences’ needed to perform an entrepreneurial job. But what constitutes entrepreneurial competences has for a long time been difficult to define, describe or agree upon, due to a lack of precise vocabulary and comprehensive synthesis ⁽⁶⁹⁾. The fuzziness and confusion around which abilities to develop in people has been significant. This has contributed to a weak capacity in society to develop people’s entrepreneurial competences. It has been a vexing problem both in education and training, where such competences could be taught and learned, and in work-life organisations, where such

competences are very much in demand.

A recent comprehensive initiative by the European Commission (70) has targeted the fuzziness dilemma by creating a research-informed framework for entrepreneurial competences labeled 'EntreComp'. The aim with such a framework has been to support further development of entrepreneurial competences among European citizens. This is deemed important in order to enable citizens to adapt to changes in society, something which in turn promotes personal development, inclusion, employability and active citizenship. Alongside other key competences such as languages, science, technology, mathematics and digital skills, all European citizens need to develop their 'sense of initiative and entrepreneurship', both in education and throughout their working life (71). The EntreComp framework has, in a short period of time, resulted in a high consensus around what this actually means. EntreComp specifies 15 different entrepreneurial competences (see Table 1). The European Commission opted for a broad definition of being entrepreneurial, viewed as 'when you act upon opportunities and ideas and transform them into value for others' (72).

While there is ample literature on how to make people more entrepreneurial while they are still students (73), employee training of entrepreneurial competences is a much more under-developed area. It is generally known that becoming more entrepreneurial is best learned through experiential learning, i.e. learning-by-doing on the job. But it is not clear what to let employees do in order for them to become more entrepreneurial. Good answers to the question 'Learning-by-doing-what?' are lacking for employees who want or need to become more entrepreneurial. To remedy this, the rightmost column in Table 1 shows some concrete activities in which entrepreneurial employees can engage to develop their entrepreneurial competences. They are based on connections between the model shown in Figure 2 and the EntreComp framework. The resulting 15 actionable recommendations could constitute a starting point for employees aspiring to become more entrepreneurial, or for organisations in need for more entrepreneurial employees.

Table 1. Entrepreneurial competences in EntreComp, recommendations for employees and tentative references to section 4. First two columns are direct quotes from Bacigalupo et al. (2016, p.12-13).

* Value can be economic, social, enjoyment-based, harmony, influence, etc, see Lackeus (2018). Others can be colleagues, current or future clients, partners, etc.

Competences	Recommendations	Recommendations to the everyday entrepreneurial employee
Key area: Ideas and opportunities		
Spotting opportunities	Use imagination and abilities to identify opportunities for creating value	Try to spot opportunities for you and your organisation to create new kinds of value* for others*, internally or externally. Question things, start small, leverage surprises, combine across domains, search for new problems to solve (see e.g. section 4.2).
Creativity	Develop creative and purposeful ideas	Develop and experiment with multiple ideas on how you and your organisation can create new value* for others*, internally or externally. Leave the building, get personal, discuss with people, experiment, craft a story, pitch it (see section 4.1-4.4).
Vision	Work towards your vision of the future	Envision a desirable future vision that can guide decisions on how you and your organisation can create new kinds of value* for others*, internally or externally. Start with your passions, get emotional, visualize your vision (see e.g. section 4.1 and 4.2).
Valuing ideas	Make the most of ideas and opportunities	Evaluate and appreciate the many different kinds of value* that a particular idea or opportunity can create for others*, internally or externally. Discuss potential, search for similarities, solicit feedback, reflect (see e.g. section 4.2 and 4.4).
Ethical and sustainable thinking	Assess consequences and impact of ideas, opportunities and actions	Explore and weigh the wider impact of your idea if acted upon, such as long-term effects and undesired or unethical effects on organisation, society or environment. Analyze potential and actual results (see e.g. section 4.3 and 4.4).

Key area: Resources		
Self-awareness and self-efficacy	Believe in yourself and keep developing	Search for the unique difference you can and want to make for your organisation, when trying to create new kinds of value* for others*. Find your passion, connect formal role to yourself, build on your strengths (see e.g. section 4.1).
Motivation and perseverance	Stay focused and don't give up	Despite setbacks and failures, keep developing and believing in your ideas and visions for how new value* can be created for others*. Love uncertainty, persist, embrace failure, value feedback, reflect, revise (see e.g. section 4.1 and 4.4).
Mobilising resources	Gather and manage the resources you need	Gather and responsibly manage all the resources you need in order to realize your ideas and visions for how to create new kinds of value* for others*. Engage people, ask for resources, be creative with the resources you have (see e.g. section 4.3).
Financial and economic literacy	Develop financial and economic know-how	Manage and simulate early-stage financing, costs, earnings, long-term gains so your idea for how to create new value* is financially viable for your organisation. Distill information, compile plans, calculate return on investment (see e.g. section 4.4).

Mobilising others	Inspire, enthuse and get others on board	Inspire, persuade and communicate with others* so that they take action and engage both cognitively and emotionally in the new value* creation process. Tell a compelling story, pitch the initiative, secure commitment (see e.g. section 4.3).
-------------------	--	---

Key area: Into action		
Taking the initiative	Go for it	Be one of those who initiate the process and keep taking action needed to progress towards your vision for a new kind of value* created for others*. Take action again and again, strike up dialogs, sketch and show your ideas (see e.g. section 4.1).
Planning and management	Prioritise, organise and follow up	Diligently plan, organize, follow up and revise all activities and priorities needed in order to reach your vision for a new kind of value* created for others*. Organize and analyze all information related to your initiative, write plans (see e.g. section 4.4).
Coping with uncertainty, ambiguity and risk	Make decisions dealing with uncertainty, ambiguity and risk	See uncertainty, risk and failure as natural parts of a novel process but use idea testing methods to reveal possible outcomes and learn about what works. Stop worrying, get used to it, trust yourself and people's good hearts (see e.g. section 4.1).
Working with others	Team up, collaborate and network	Be deeply empathetic around what other* people value*, internally and externally, through listening to, respecting and working closely with them. Mobilize allies, solicit commitment, organize yourselves, build legitimacy (see section 4.1-4.4).
Learning through experience	Learn by doing	See every key step in the process as an opportunity to reflect and learn about yourself, about what works and does not work, and about how an organisation learns. Collect information and make plans, conduct experiments, reflect (see e.g. section 4.4).

Notes for section 2

- 21 For a recent overview, see Lackéus, Lundqvist & Williams Middleton (2019).
- 22 See more in Gartner & Carter (2005).
- 23 Researchers on corporate entrepreneurship label these three characteristics an organisation's 'entrepreneurial orientation'. For a recent and accessible review on entrepreneurial orientation, see Bouchard & Fayolle (2018). See also Lumpkin & Dess (1996).
- 24 For a discussion on research traditions in corporate entrepreneurship, see Bouchard & Fayolle (2018, p. 30-33). For a literature review on public entrepreneurship, see Diefenbach (2011).
- 25 For a discussion on the Myth of the Lonely Only Entrepreneur (MLOE), see Schoonhoven & Romanelli (2009).
- 26 See for example Nicolau & Shane (2009).
- 27 For a historical account of trait-based entrepreneurship research, see Landström, Harirchi and Åström (2012).
- 28 See further in Schoonhoven et al. (2009) and in Drakopolou Dodd and Anderson (2007).
- 29 See Chesbrough (2003), p. xxvi.
- 30 This quote was made famous through inclusion in Chesbrough's (2003) pioneering book on open innovation. See also Chesbrough, Vanhaverbeke and West (2006) and more recently Chesbrough (2012).
- 31 For a discussion on the risk for isolation and hampering of collaboration, see Bouchard & Fayolle (2018), p. 133.
- 32 See Bouchard and Fayolle (2018).
- 33 For a discussion on this based on analysis of 40 years of research on stage models, see Levie and Lichtenstein (2010).
- 34 Read more about this in Bouchard & Fayolle (2018), p. 143.
- 35 Researchers call this 'surrogate entrepreneurship', see further in Lundqvist (2014).
- 36 For an extensive case description of how this is done at Chalmers University, see Fredberg and Pregmark (2018).
- 37 Refocusing from who the entrepreneur is to what the entrepreneur does was a major step in entrepreneurship research in the 1980s, see for example Gartner (1989). This move was based on a widespread disappointment in trait-based research.
- 38 See p. 22 in Bouchard & Fayolle (2018) for a discussion on this challenge.
- 39 This definition is based on the authors' two decades of research on how to make people more entrepreneurial.
- 40 For an in-depth discussion on what is deemed valuable, see Stark (2011), Lackéus (2018) and Mazzucato (2018).
- 41 [Figure 1](#) is a simplification, purposively crafted to facilitate discussions among practitioners around value. For a more in-depth discussion and elaboration on [Figure 1](#), and on how value for oneself and for others are intertwined, see Lackéus (2018).
- 42 Read more about a higher ambition in leadership around creating societal value in Beer et al. (2011).
- 43 A common advice from experienced entrepreneurs is to stop thinking about how to make a million dollars for oneself, and

instead start thinking about how to help a million people. See for example DeMarco (2011, p. 223).

44 See for example Lemke (2001).

45 See further in Porter (1996), Barrett (1979) and Stark (2011).

46 See for example Seligman (2012), Costanza et al. (2007) and Korsgaard & Anderson (2011).

47 For an overview, see Costanza et al. (2007).

48 See Hektner et al. (2007).

49 See Fiske (2008) and McClelland (1967).

50 See Boltanski and Thévenot (2006).

51 See United Nations (2015).

52 For a more dynamic explanation of the diamond model, see video on: <https://youtu.be/Nf7vi7259z0>

53 This is a simplified definition of agency that will be used here for purposes of simplicity. Agency is one of the most elusive concepts in social theory; see a comprehensive overview in Emirbayer and Mische (1998).

54 For a related discussion on agency in a profession (teaching), see Priestley, Robinson and Biesta (2013), pp. 93-97.

55 For a deep discussion on temporal aspects of agency, see Emirbayer and Mische (1998).

56 See Bandura (1989).

57 See Williams Middleton and Donnellon (2014; 2017).

58 For a discussion on such statements in relation to passion for entrepreneurship, see Cardon et al. (2009).

59 See O'Reilly and Tushman (2004) and O'Connor (2008).

60 The term 'sales' in early-stage entrepreneurial processes is quite different from ordinary sales of established products and services. Early-stage sales is rather about pitching an idea about some envisioned valuable future, to solicit feedback/resources.

61 This term was originally coined at airplane manufacturer Lockheed Martin in projects where engineers during the Second World War secretly developed new airplane types without formal contracts or authorisation processes in place.

62 Ambidexterity is a metaphorical term, alluding to people who can use their right and left hand (or foot) simultaneously. For a recent review of literature on ambidextrous organisations, see O'Reilly and Tushman (2013).

63 Read more about ambidextrous individuals in Gibson and Birkinshaw (2004) and in Volery et al. (2015).

64 See Smilor (1997).

65 See Cope and Watts (2000).

66 See Rae (2013).

67 See Garud et al. (2018).

68 See Jarvis (2006).

69 For an in-depth exploration around what constitutes entrepreneurial competences, see Komarkova et al. (2015).

70 See Komarkova et al. (2015), Bacigalupo et al. (2016) and McCallum et al. (2018).

71 See European Commission (2007).

72 See Bacigalupo et al. (2016, p. 10), referring to Vestergaard et al. (2012, p. 11).

73 For an accessible overview, see Lackéus (2015).

3. Why entrepreneurial employees

The ‘why entrepreneurial employees?’ question has two quite different but interrelated ⁽⁷⁴⁾ perspectives – the individualist and the collectivist one. Taking a collectivist perspective, entrepreneurial employees benefit the organisation. [Table 2](#) gives an overview of different benefits provided, as discussed in literature. Entrepreneurial employees can contribute to higher profitability and efficiency, they can help future-proof the organisation’s strategy and purpose, they can help the organisation develop new key capabilities and offerings, and they can contribute to a more engaging, collaborative and action-oriented organisational culture. Any single initiative’s eventual success is thus far from the only benefit for the organisation. Even failed initiatives contribute with accompanying benefits, since they generate important learning for the individuals involved, and for the organisation as a whole. Failed initiatives also often trigger new opportunities.

Fredberg and Pregmark (2018) capture the significance of entrepreneurial employees in their observation that an entrepreneurial initiative is a seed that can change the soil ⁽⁷⁵⁾. Birkinshaw (2000, p. 51) calls them ‘the tiny acorns from which great oak trees grow’. Viewed in isolation and in a short time frame, the impact and value for the organisation of one single initiative might seem deceptively insignificant. But taking a long-term perspective and seen as a collective of many interdependent small and large entrepreneurial initiatives, the impact on the organisation can be dramatic. In fact, having managers with a long-term orientation is often characteristic of entrepreneurial organisations ⁽⁷⁶⁾. Managers also need to consider the risk for underestimating the long-term power of compound growth ⁽⁷⁷⁾ when studying the seemingly small financial or client-related impact in early stages of entrepreneurial initiatives. Netflix, Amazon and Uber are all examples of firms that had unimpressive growth in their first years ⁽⁷⁸⁾.

Table 2. Reasons for organisations to engage in corporate or public entrepreneurship

Table notes: A: Bouchard & Fayolle (2018), p.14-18, p.40 and p.125-127. B: Birkinshaw (2000), p.36-37 and p.59-80. C: Fredberg & Pregmark (2018). D: Kuratko et al. (2011), p.31, p.89 and p.147-183.

Reasons for organisations to engage	Why corporate/public entrepreneurship can benefit an organisation
Revitalize the organisation ^{A,B}	Re-engages unmotivated people, triggers action, instills purpose
Capitalize better on R&D ^A	Increases value from costly R&D, e.g. inventions, patents, know-how
Increase speed and responsiveness ^A	Makes responses to market / societal changes and competition faster
Grow local markets ^A	Grants autonomy for local adaptations when entering foreign markets
Leverage industry lock-in effects ^B	Knowledge-intensive industries have first-mover / network advantages
Build future revenues ^A	Generates new revenue streams from slack resources in a low-cost way
Increase employee motivation ^{A,B}	Induces strong positive feelings, teamwork and lateral communication
Improve efficiency and profitability ^B	Triggers profit-increasing internal inefficiency fixes from bottom-up
Develop the organisation’s employees ^{A,C,D}	Challenge, excitement and autonomy stimulates personal growth
Develop the organisation’s strategy ^{B,D}	Over time, new initiatives can impact also large organisations’ strategies
Innovate through individual agency ^A	Puts employees and their social interactions at the center of innovation
Challenge the organisation’s worldview ^B	Previous successes breed inertia that needs to be challenged
Develop new key capabilities ^{B,D}	Speeds up new insights in technologies, products, services, markets etc
Instill an entrepreneurial culture ^C	Initiatives, also failed ones, can change organisational culture from within
Improve organisational learning ^A	Triggers learning processes both on individual and organisational level
Prepare for disruptive market events ^B	Facilitates survival in times of massive upheaval and industry / society change
Many industries simply require it ^B	The faster an industry changes, the more crucial it is to be flat and agile

Build capacity to be entrepreneurial ^{B,D}	Learning-by-doing over time builds capacity in the organisation
Start a chain reaction of opportunity ^{B,D}	Each initiative builds on previous work and triggers new opportunities
Leverage on a successful practice ^D	It is a myth that most initiatives fail. Success rates are above 50%.

3.1 Benefits for the individual employee

Taking a more individualist perspective, employees can also be entrepreneurial because it benefits themselves. Table 3 gives an overview of different benefits for the individual employee of being entrepreneurial (79). Many of these benefits are related to developing one's entrepreneurial competences (see further in section 2.5). This can over time lead to boosted career trajectories, financial and hierarchy-related rewards, and a more meaningful and interesting work-life experience. Being entrepreneurial thus triggers a positive and self-reinforcing cycle of both personal and professional learning and development.

Many of the individual's benefits of being entrepreneurial are more long-term, just like they are for the organisation. Unless the organisation has an incentive system in place that also gives immediate rewards for entrepreneurial acts, the entrepreneurial employee needs to be resilient and long-term oriented, investing their own and others' slack resources into various exploratory value-creation activities based on informal leadership. Over time, this builds up both reputation and ability to be a development-oriented, business savvy and collaboration-oriented leader. With this comes peer and management recognition, informal influence and also more formal rewards for the individual employee. Short-term, however, the main benefit most entrepreneurial employees will enjoy is the inherent autonomy, meaningfulness, personal development and strong motivation of doing interesting things together with like-minded colleagues.

Table 3. Reasons for the individual employee to engage in corporate or public entrepreneurship. First section shows short-term benefits, second section shows more long-term oriented benefits

Table notes: A: Effects observed by the authors in their own practical and research-informed work in around 30 different corporate and public entrepreneurship settings; B: Amabile & Kramer (2011); C: Bouchard & Fayolle (2018), p. 40 and pp. 121-126. D: Kuratko et al. (2011), p. 38.

Reasons for individuals to engage	Why the entrepreneurial employee gains personally
A more meaningful, motivating and satisfactory everyday inner work life ^{A,B,C}	The entrepreneurial job contains many events that give one's work life meaning and satisfaction, leading to a virtuous cycle of motivation
Higher autonomy than normally allowed in one's everyday work life ^{A,C}	Idea development necessitates a certain level of autonomy, which will be granted to the employee if organisational structures allow or encourage it
A more secure way to be entrepreneurial than running one's own firm ^{A,D}	The organisation assumes the risk, absorbs failures, gives access to resources when necessary and if argued for, and facilitates scale-up
Recognition from colleagues for being a development-oriented contributor ^A	Entrepreneurial people often enjoy superior peer and management recognition, as they often deep business and operational understanding
Growth of one's internal and external network ^A	Since idea development involves many people both internally and externally, large networks are often built in a natural way
Acceleration of one's capacity for in-depth and true business / operational understanding ^A	New idea development inevitably exposes people to fundamental issues around the organisation's business/ operations, triggering deep understanding
Acceleration of one's capacity for structured idea development processes ^A	Idea development tools and methods is a new field not important in a changing work-life climate
Acceleration of collaboration, leadership, and cross functional skills and mindsets ^A	Idea development requires constant cross functional collaboration and informal leadership, and therefore builds crucial experience and skills
Increased exposure and visibility in the organisation and among senior managers ^A	Entrepreneurial activities are often strategic and thus pushed upwards in the hierarchy as they deviate from established routines and policies
More frequent inclusion in important discussions and decision processes ^A	Entrepreneurial people are often informally included in important strategic discussions, based on reputation and idea development skills
More frequent eligibility for management positions ^A	Strong previous exposure, visibility and network increase the chances of being considered for interesting positions in internal recruitments
Rewards from the organisation's incentive structures; money, hierarchy, etc ^A	To the extent that the organisation rewards deep business/operational insight, informal leadership and/or entrepreneurial acts, the individual will be rewarded

3.2 Some key challenges for the entrepreneurial employee

The literature on corporate and public entrepreneurship describes many different challenges faced by entrepreneurial employees and organisations. It is important to remember that entrepreneurial initiatives will always face a multitude of challenges. Hardship is one of the most natural and recurring aspects of entrepreneurial processes. Listing different challenges can easily become an inventory of excuses for not persevering, or for not even trying to be entrepreneurial. Gleicher's change formula, shown in Figure 4, serves as a reminder that organisational change will only occur if three crucial aspects, taken together, are stronger than the resistance. First, change requires people who are dissatisfied enough with the current state as to feel ownership around key issues (see Agency in Figure 2). Second, change requires envisioning something new that could address the dissatisfaction (see Novelty in Figure 2). Finally, change requires taking action to try something out that might (or might not) work better for people within or outside their own organisation (see Learning and Value for others in Figure 2). Any given change situation can thus be addressed in two different ways; either by trying to reduce the resistance to change, or by working harder with any or all of the three other aspects in the change formula.

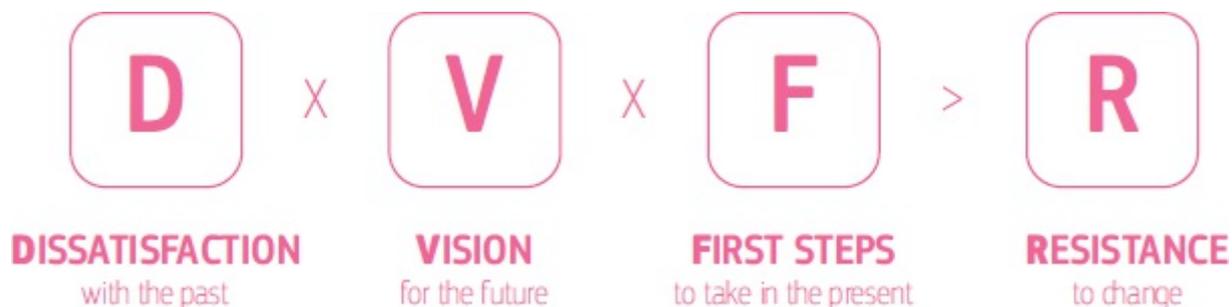


Figure 4. A contemporary version of Gleicher's change formula. Adapted from Cady et al. (2014)

The first challenge any employee wanting to be more entrepreneurial is likely to come across is the need to fulfil dual roles. The formal role one has been assigned by management will continue to be important. The entrepreneurial step is to simultaneously assume a new role of identifying and working with emerging opportunities (80). This may come naturally for some, whereas others can feel a bit like having a split personality. What is becoming increasingly clear, however, is that people's ability and willingness to manage both mundane routine work and exploration in their daily work life is an increasingly crucial factor for organisational performance (81) (see also Figure 3). It is thus not an either/or decision but rather a recurring and necessary 'both/and' situation where employees need to manage inherent 'paradox, contradiction, and complexity' (82). What can make it easier for employees to manage such a complexity is if managers grant them at least some autonomy and trust in how they split their time between the two opposing logics (83).

Once a dual role has been assumed, a broad plethora of new challenges will inevitably emerge around a new initiative. For an overview of challenges and some possible coping strategies, see Table 4. Support from colleagues may be scant, managers might be sceptical or outright suspicious, strategic alignment might be perceived as lacking, and assumed benefits might be difficult to quantify or assess. This is when entrepreneurial competences are particularly vital, either to have them already, or to develop them through learning-by-doing on the job. If the idea or opportunity one is pursuing is met with resistance, it is important to stay focused and not give up, to instead keep learning and developing, believe in oneself and collaborate creatively with others who are mobilised through a desirable and inspiring vision (see Table 1). People's resistance to change and people's entrepreneurial competences are thus two opposing but natural aspects of humanity.

Table 4. Challenges that entrepreneurial employees often meet, and how they might be managed

Table notes: A: Bouchard & Fayolle (2018), p.20-22 and p.131. B: Birkinshaw (2000), p.18-20, p.36-44 and p.131-135. C: Gibson and Birkinshaw (2004).

Challenge	How the entrepreneurial employee might manage the situation
Stressful to fulfill dual roles ^{B,C}	Stretch your schedule, ask for autonomy, set aside time for exploration
New and established activities collide ^{A,C}	Explain why balancing tensions through individual autonomy is needed
Lack of support and help internally ^A	Accept indifference as natural, compensate with own resilience
New activities not in strategic alignment ^A	Reframe to align or hide under the radar until you get external support
Failure is a stigma in the organisation ^A	Reframe failure as crucial learning, revise and try again and again
Small scale makes managers disengage ^A	Explain the power of compound growth or make a long-term ROI case
Benefits are difficult to measure ^A	Frame benefits differently or try to change the metrics to be judged by
Others do not (want to) see the value ^B	Ethnocentrism is a natural reaction, try harder to develop/explain value

Others are suspicious or resist change ^B	People are conservative, hone your political and communication skills
People judge the person, not the project ^B	Build your network, power base and reputation, not only your project

3.3 Organisational culture as reason for why employees are entrepreneurial (or not)

Organisational culture directs employee behaviours in powerful ways, and constitutes a key reason to why employees engage, or do not engage, in entrepreneurial behaviours. An organisation's culture consists of its core values, beliefs and assumptions around the organisation itself, its purpose and its employees. Employees are more entrepreneurial when it is a culturally grounded imperative in an organisation. While the individual employee in most cases cannot change the culture short-term, it is still useful to be able to recognise the presence, or indeed the absence, of key entrepreneurial aspects of an organisational culture.

Some key aspects of an entrepreneurial culture⁽⁸⁴⁾ include rewarding innovation, promoting cross-functional collaboration, accepting and learning from failure, empowering employees to take part in building the future, maintaining a sense of urgency around necessity to innovate and change, and emphasising personal learning, growth and responsibility. Important sources of an entrepreneurial culture are founders, managers and training initiatives⁽⁸⁵⁾. Practices that can strengthen an entrepreneurial culture⁽⁸⁶⁾ include introducing key vocabulary such as acronyms, jargons or slogans like 3M's 'never kill a product idea', specifying methodologies as to how employees can be entrepreneurial, leveraging rituals at conferences, parties and ceremonies, and engaging in storytelling around key events and people from the more or less mythical entrepreneurial history of the organisation. Since learning is such an important part of being entrepreneurial, many scholars have studied how learning, culture and entrepreneurial orientation are interrelated. Studies have shown how a commitment to organisational learning makes an organisation benefit much more from its employees being entrepreneurial⁽⁸⁷⁾. Gupta et al. (2014, p. 167) explain⁽⁸⁸⁾:

To reap the full benefits of its entrepreneurial capability, an organisation must be committed to learning. It is through organisational learning that an organisation maximizes the impact of entrepreneurial orientation on organisational performance.

Notes for section 3

- 74 Humans are inherently prosocial helping beings, i.e. they do many things simply because it benefits others (Batson et al. 2008).
- 75 This claim is based on careful empirical study of 12 different corporate entrepreneurship initiatives over three years.
- 76 See Arz (2017).
- 77 The famous entrepreneur Paul Graham illustrates this with a simple calculation, see: <http://paulgraham.com/ds.html>
- 78 See <http://tiny.cc/6gr5mz>
- 79 Since individual perspectives are much under-researched in corporate and public entrepreneurship (see Belousova and Gailly 2013, p. 375; Mustafa, Gavin and Hughes 2018, p. 317), this table is mostly based on the authors' own intrapreneurship practice and research. This is particularly the case for more long-term individual benefits of being entrepreneurial.
- 80 For a discussion on assigned versus assumed roles, see Birkinshaw (2000), pp. 19-20.
- 81 See for example Gibson and Birkinshaw (2004) and O'Reilly and Tushman (2013).
- 82 Ideas and citation are from Denison et al. (1995), p. 528.
- 83 See Gibson and Birkinshaw (2004).
- 84 See chapter 10 in Kuratko et al.(2011).
- 85 See Bouchard & Fayolle (2018), p. 140.
- 86 For a full list, see Kuratko et al. (2011), p. 269.
- 87 See Wang (2008), Brettel & Rottenberger (2013), and Gupta et al. (2014).
- 88 In this quote, the term 'firm' has been changed to 'organisation' in order to better suit the focus of this report.

4. How employees can become more entrepreneurial

Turning now to the ‘how’ question around the entrepreneurial employee, this chapter contains research-informed recommendations on how any employee can get started. Being entrepreneurial is not so much a linear process, but rather an everyday behaviour, habit, and identity anyone can acquire. Therefore, recommendations on how to get started also apply for how to continue to be entrepreneurial.

The chapter is organised in line with the four dimensions in the diamond model in [Figure 2](#). An entrepreneurial journey can start with any one of them, or as a combination. The first dimension treated is *agency*. Suggestions are provided regarding how employees can find and expand their dedication and courage, and how they can take entrepreneurial action. For the second dimension, *novelty*, suggestions are provided regarding how employees can work with envisioning, claiming and organising something new. Suggestions regarding the third dimension, *value for others*, centre on how to discuss *with* and create value *for* others, and how to feel empathy with them. Finally, some suggestions are provided in regard to *learning*. These suggestions address three main learning modes; analysing before, experimenting with and revising after attempts to create new kinds of value for others.

4.1 How to raise one’s agency: dedication, courage and action

This section will briefly describe how employees can get started with their dedication, courage and action-taking. A summary is shown in [Table 5](#). Being entrepreneurial often starts with a strong underlying belief in something, often exemplified through actions associated directly or indirectly to that belief. Dedication is important over the longer term in order to persevere through an often demanding entrepreneurial process. Courage is often needed when entrepreneurial employees challenge themselves by stepping out of their formal professional role, and sometimes also their own comfort zone, to take on a more personal and potentially exposed role within the organisation. A first step can be when the employee starts to present and legitimise a more or less new and untested idea to colleagues internally and partners or clients externally. Such presentations and legitimising events occur throughout all stages of an entrepreneurial process. Legitimacy of the idea is seldom immediate, but rather developed over time, through iterations with many different individuals.

Table 5. How to raise one’s agency: dedication, courage and action-taking

Main questions	Sub-questions	Examples of actions and outcomes
How do I care deeply about something?	How might I assume a new more personal role?	Think about a new more personal and role to assume, in addition to your assigned role, building upon what motivates you.
	What are my applicable passions and strengths?	Connect the initiative emotionally to yourself by asking yourself ‘why’ it is important to you. If you don’t care, why should others?
	How does the new assumed role align with my value base?	Explore deeply your own values, aspirations and perceptions of yourself, i.e. your identity. Connect these to the new role.
How do I dare despite uncertainty and risk?	How can I expand my comfort zone with what is do-able now?	Face your fears in small steps by starting with the achievable. Trust that people will be friendly and that you will manage.
	How can I see hierarchies as consisting of ordinary people?	Ask for advice across functions. Most people have good intentions, are curious, enjoy engagement, and know structures kill new ideas.
	How will I get used to, or even thrive in uncertainty?	Try out strategies that help you stop worrying. Get used to uncertainty by facing it. See it as a condition for learning.
How can I repeatedly take emotionally charged actions?	How can I write down and visualize ideas?	Make ideas concrete and graspable for and together with others. Use whiteboards, napkins, etc.
	Who has opinions and can give me feedback on my ideas?	Discuss informally with internal and external people. Do things that generate feedback such as asking for opinions or advice.
	Who share my perspective(s) and can be my closest allies?	Mobilize others you can trust who care about similar issues. Negotiate space for your work.

Employees who make repeated attempts to increase their entrepreneurial agency will likely develop entrepreneurial competences. Competences developed include taking initiative, coping with uncertainty, mobilising others, learning through experience and building self-efficacy, motivation and perseverance (see [Table 1](#)).

4.1.1 How to care more deeply and personally about something new

With increasing focus on efficiency in established organisations, the formal space to engage in activities which are not directly related to one’s daily routine tasks is shrinking. Routine tasks often take more than 100 % of one’s available time. Many feel that the room to work with new ideas or adjacent topics is more or less non-existent. At the same time, there is increasing talk of change, innovation,

the need to invest for the future, build new capabilities and future-proof not only organisations but also individuals⁽⁸⁹⁾. How should an employee tackle this paradox? Studies of new initiatives that gain momentum across an entire organisation show that time is not always lacking for people engaging in them⁽⁹⁰⁾. People seem to find the time necessary, at least initially, if they care enough about something, and if they believe they have a chance of succeeding in their endeavour.

An employee aspiring to be entrepreneurial may therefore want to start by searching for a new and informal role to assume⁽⁹¹⁾ which serves a purpose and feels important enough on a personal level to dedicate one's scarce extra time. This new role has to be personally championed alongside the formally assigned role. Championing the new personal role often includes linking to one's own sense of self on a deeply personal level, i.e. in relation to one's own values, desires, aspirations and identity. Aligning the new role to one's passions and strengths is equally important. If an employee can identify an issue, an idea or an opportunity that leans on these steps, it constitutes a personally authentic ground for being entrepreneurial. It allows for deeply knowing why one engages entrepreneurially⁽⁹²⁾, which in turn is key to convincing and engaging others, and in persevering when resistance mounts.

4.1.2 How to dare despite uncertainty and risk

Many people find it intimidating to talk about new and vague ideas with other people at work, especially people they do not know so well. The more uncertain the outcome is in terms of expected value or feedback, the more uncomfortable it can be to communicate or champion new ideas. Losing control is another aspect many find challenging in early-stage development processes. Different kinds and degrees of fears (realistic or not) stop many people from trying out an entrepreneurial journey. Fortunately, courage is an ability that can be developed extensively over time⁽⁹³⁾. Tolerance and even aptitude for uncertainty can also be significantly developed⁽⁹⁴⁾. A common experience for many who try to interact with other people is that they find others to be much more helpful and encouraging than initially expected⁽⁹⁵⁾. Over time, such experiences build one's willingness to dare. Mindfulness literature also contains useful strategies for how to stop worrying about uncertainties one cannot control. Examples of unproductive issues to worry about are unanswerable questions, chain reactions of future events, lack of perfection, own feelings of anxiety and lack of control⁽⁹⁶⁾.

For the employee aspiring to be entrepreneurial, a recommendation can be to start trying in small steps, and to team up with trusted people⁽⁹⁷⁾. This allows for experiencing just how inspiring it can be to step out of one's professional role, and into a more personal one, and to test one's new, vague and perhaps even a 'bit crazy' ideas on others, especially when an underlying passion for improving a pressing issue is present. Initiating creative discussion across functions and hierarchies may also be easier than one might expect. At an individual level, people generally have good intentions, are curious and enjoy engagement. As employees, most also know that established structures can hinder or even kill new ideas, and given this, may be more understanding and empathetic than one might expect. Other departments' coffee machines are good spots for striking up creative discussions across functional borders⁽⁹⁸⁾. Over time, tolerating and even liking uncertainty can become a habit, or even a part of one's work identity.

4.1.3 How to repeatedly take emotionally charged action

A key part of being entrepreneurial is to be action oriented, to get things done. But in the early stages it can be difficult to know where to start and what to do. Contrary to the lone hero myth of entrepreneurs, working with others is one of the most important activities in entrepreneurial processes, from the first day and onwards. A key starting point is to network, i.e. to strike up dialogues with people around various early-stage ideas for new value creation, both internally and externally⁽⁹⁹⁾. Such dialogues often lead to new ideas about what is doable in trying to reach some progress.

Another recommendation to employees aspiring to be entrepreneurial is to start sketching new ideas around issues you care deeply about. Do it repeatedly, both alone and together with others. On whiteboards, napkins, in Powerpoint, or in any other way. Show your ideas to people you trust, see what ideas it in turn triggers in them. In the early stages, it is mainly about soliciting feedback. But quite early on it also becomes about soliciting support. It can be about asking for resources, mandate or allowance, for example time to spend on your idea. Soliciting support needs to be done on terms that fit the organisation's culture and strategic goals. Soliciting can also be about asking for other people's own entrepreneurial agency in the form of teamwork. Try to search for people who want to contribute, change and improve your entrepreneurial idea together with you, people who are sympathetic and complementary to your purpose. Try to offer them co-creation opportunities. In many cases, those who join an endeavour ultimately determine where to go with it⁽¹⁰⁰⁾. There needs to be open and trustful discussions and negotiations around potential trade-offs, balancing individual interests with team and organisational interests. Being an entrepreneurial employee is fundamentally about gaining the trust and support from people and the resources they control.

4.2 How to work with novelty: envisioning, claiming and organising the new

This section will briefly describe how employees can get started with envisioning, claiming and organising something new. A summary is shown in Table 6. Developing novel ideas and concepts is a common way for any employee to start being entrepreneurial. However, many people misunderstand the process of creating something genuinely new. While inspirational breakthrough ideas certainly can come to people in the most unexpected situations, creativity professionals know that novelty work can be done systematically, and that it takes time⁽¹⁰¹⁾. The process can be new ideas-centric or unmet needs-centric, or both⁽¹⁰²⁾. There are many well-documented techniques and methods that can be used to get started, such as storytelling, journey mapping, brainstorming, mind mapping, jobs-to-be-done analysis and storyboarding⁽¹⁰³⁾. An idea development journey often starts small, with meticulous and time-consuming activities seldomly acknowledged once a great idea or concept finally is presented publicly. Questions and questioning play a crucial role⁽¹⁰⁴⁾, and when surprising epiphany moments suddenly come, people need to be prepared to harvest them⁽¹⁰⁵⁾.

Novelty work is also much more than coming up with or developing new ideas around unmet needs. Significant time needs to be allocated to claiming and defending the new. This requires searching globally for similar ideas and concepts, carefully comparing and learning from what others have come up with, and also framing the new idea or concept in a way that others can understand and

appreciate. Other key activities in novelty work include protecting the new idea or concept through legal methods, naming it and legitimising it when challenged. Finally, novelty work is seldom an individual endeavour, but in most cases includes many people working together. Teamwork and co-creation is a very important approach when creativity professionals systematize novelty work. Being part of coming up with new ideas or concepts also makes people connect emotionally to the journey. Entrepreneurial employees therefore need to always search for opportunities to co-invent, co-create and co-develop new ideas and concepts with others.

Table 6. How to work with novelty; envision, claim and organise the new

Main questions	Sub-questions	Examples of actions and outcomes
How do I envision and explore something new or different?	What can I question and what questions can I ask?	Use the power of questions on yourself and on others. Leave no stones unturned.
	How can I start small instead of waiting for a 'big idea'?	Start with a small and vague idea, improve it over time through failure-prone experiments.
	How can I take advantage of surprises and circumstances?	Be open to surprises and discoveries. See unexpected results as a source of new ideas.
How do I claim and protect the new?	What already exists and where?	Ask people. Search online and in databases. Compare. Learn from similarities and differences.
	How can I frame and claim what is unique here?	Articulate and label what is unique. Consider branding, trademarking, licensing and patenting.
	How can we protect our ideas in external discussions?	Consider what can be revealed or not. Consider legal tools - secrecy agreements etc.
How do I organize and champion the new to be created?	What do I name the new, and how can I position it?	Create an appealing first appearance. Call it something. Negotiate a virtual and/or physical place.
	How do I stand up for and defend the newness?	Defend and legitimize the new initiative when challenged. See resistance as a way to learn.
	Who can co-create with me and how can I engage them?	Build emotional ownership in others. The more parents an initiative gets, the stronger it stands.

Employees who work systematically with novelty together with others will over time build up their entrepreneurial competences. Competences developed include spotting opportunities, creativity, vision, valuing ideas, perseverance and learning through experience (see Table 1).

4.2.1 How to envision and explore something new or different

An important trigger to new ideas is the disharmonies we experience in our everyday practice ⁽¹⁰⁶⁾. An entrepreneurial way to deal with problems and disturbances is to reframe a situation from what is problematic right now to what could be better in the future. A way to do this is to ask curious questions such as 'What if ...?' ⁽¹⁰⁷⁾, 'What is possible here?', 'How can we do differently?', 'What has worked in the past?' ⁽¹⁰⁸⁾, 'What job is the customer trying to get done?' ⁽¹⁰⁹⁾ and 'What would it take?' ⁽¹¹⁰⁾. Entrepreneurial employees spend significant time and effort to develop their ability to reframe problems into opportunities ⁽¹¹¹⁾. A more radical question to ask could also be 'If we started this organisation all over again, how would we do it?'. This question helps to mindfully deviate from ingrained habits, limiting technological and organisational choices from the past and other kinds of path-dependent thinking ⁽¹¹²⁾.

Another important novelty technique is to systematically search for new combinations within and across disciplines. This often generates creative friction, dissonance and tension that can spur learning and new insights ⁽¹¹³⁾. The legendary economist Joseph Schumpeter (1934) even defined entrepreneurial acts as fundamentally being about the carrying out of new combinations. Many highly useful innovations are the result of unexpected application of established features in novel settings. Some breakthrough innovations even start out as a solution looking for a problem to solve. A famous example is the post-it note, built on the discovery of a seemingly useless 'glue that did not glue' ⁽¹¹⁴⁾.

A special type of novelty is market disruptions, i.e. when innovations emerge that give 5-10 times improvement in performance, a 30-50 % reduction in cost or new-to-the-world performance features ⁽¹¹⁵⁾. Such situations are particularly difficult to manage for established organisations who often rely on processes, habits and offerings developed and fine-tuned over decades, tailored to existing customers and markets. Entrepreneurial employees who want to pursue ideas with potential to disrupt entire markets need to be prepared for a particularly challenging journey. Organisational barriers to disruptive innovation include inability to unlearn, being prisoners of one's historical success, lack of realistic profit margin expectations and a risk-averse climate ⁽¹¹⁶⁾. Such barriers call for employees who are willing to look beyond currently articulated or emerging customer needs ⁽¹¹⁷⁾, who dare to be a bit unreasonable ⁽¹¹⁸⁾, who at times break internal organisational rules and who pursue relentless variation in markets, channels, processes, outputs

and technologies ⁽¹¹⁹⁾. For truly novel solutions, asking customers what they want is not enough. They cannot tell you what they don't know that they will need in the future. What is needed then is vision, imagination, prediction, sensitivity to trends and courage to make the formerly impossible possible ⁽¹²⁰⁾.

The diamond model in [Figure 2](#) might give the impression that novelty work is an isolated activity. It is therefore important here to emphasise how interconnected the four dimensions in [Figure 2](#) are. Once an idea has been envisioned for the first time, it must be exposed to others in order for it to grow and develop. This requires agency from the entrepreneurial employee who has to solicit countless instances of feedback and help from others, as explained above. It also requires creating value for others, as explained below, so that crucial learning can be generated, often from surprising or failed outcomes. This all then feeds back to the novelty work again and again. Throughout each cyclical journey, the entrepreneurial employee has to keep asking critical as well as appreciative questions to oneself and others, which then in turn slowly helps develop the idea or concept. A breakthrough opportunity can take years to mature and go through hundreds of development cycles, involving thousands of people. An illustrative quote here is: 'An overnight success takes a decade in the making'. This is evident for example in the music industry, where newborn overnight stars often have spent many years trying to break into the spotlight ⁽¹²¹⁾.

4.2.2 How to claim and defend newness

Once something novel has been defined clearly enough, the entrepreneurial employee needs to be familiar with and also apply a comprehensive legal toolbox that helps claiming the novel. Claiming is here primarily about managing different kinds of intellectual property issues such as patenting, licensing, trademarking, branding, copyrights and trade secrets. The main purpose of intellectual property laws in society is to allow for individuals and organisations to protect their intellectual creative outputs from unethical exploitation by others. Such laws also provide economic incentives that stimulate innovation. Since entrepreneurial employees, at least in the private sector, are expected to convincingly show how a new idea or concept will benefit the organisation financially, claiming newness is a crucial activity. In the public sector, the entrepreneurial employee may want to claim novelty in order to establish an intellectual control position which can then allow open and equal accessibility.

Many employees in large organisations have limited awareness around intellectual property issues. Still, the entrepreneurial employee needs to take these aspects seriously. If policies exist, they are often rigid, potentially preventing the entrepreneurial employee from discussing novel ideas with external people for secrecy reasons. The value of receiving insightful feedback from outsiders often needs to be balanced against the risk for idea theft. And since it is common for people to overvalue ideas and neglect the importance of acting upon ideas ⁽¹²²⁾, such balances are often done in ways that limit freedom to operate. Arguing for the importance of soliciting external feedback and support, despite difficulties in claiming the new, is therefore a key task for the entrepreneurial employee.

Claiming newness often starts with searching for similar concepts and learning from both similarities and differences. Databases are key tools here, such as patent databases, trademark databases, research article databases and the internet in general. If a formal claim is to be made, the uniqueness needs to be articulated in relation to existing concepts. Expertise needs to be consulted in many of these processes, such as patent writing experts, trademark application experts and legal advisors. Another important part of claiming newness is to craft legal agreements. Common legal documents that entrepreneurial employees often need to champion are confidentiality and collaboration agreements.

4.2.3 How to organise and pioneer for the new to be created

The traditional organisational way of getting support is through a line organisation, assigning tasks to different departments and functions. That is how mandate and authority is created and how decisions are made. But the entrepreneurial employee often cannot rely on these structures only, since they are typically not designed to handle novelty. A common organisational approach is instead to work with cross-functional teams ⁽¹²³⁾ operating within the established organisation but outside the usual hierarchy. For such interdisciplinary teams to work well, managing organisational power struggles and anchoring with senior management is crucial ⁽¹²⁴⁾.

Many novel ideas get stuck in an early phase because they do not fit the business case template, do not have a natural owner in the organisation, do not align with the current strategy or do not fit the decision processes in place. New ideas are instead often killed before they are even explored. Prematurely killing others' ideas is easy and all too common. Entrepreneurial employees need to be emotionally resilient and politically savvy to survive and recover from attempts to kill their novel ideas.

People often tend to allow novel ideas more space if they look more mature than they are. A project having an agreed upon name, a physical place or a dedicated website assigned can often create a sense of maturity in the eyes of others, and also signals legitimacy. Inviting others to contribute in the organising and naming of a new initiative can be a useful technique. Just like letting others help out in idea development builds their emotional ownership, so does letting others help organise and label a new initiative.

4.3 How to create new value for others: discussing, creating and feeling empathy

This section will briefly describe how employees can get started with discussing value, creating value for others, and empathising with others. A summary is shown in [Table 7](#). An entrepreneurial process often starts in value for others, for example, when a new idea or unmet need emerges from an ongoing process of routine value creation for existing clients. People working with sales, support and client care often see opportunities for new ways to create value for clients, since they spend a lot of time discussing with them.

Creating new kinds of value for others entails at least three key activities. Discussions where some envisioned value is presented and discussed with others forms the foundation for other dimensions in the diamond model in [Figure 2](#). Such discussions are triggered by people's agency, and they in turn trigger new ideas and learning, as well as continued agency. Discussions often lead up to an actual value creation attempt, often a staged experiment of some kind involving many people. Throughout the process, empathy plays a crucial role, since at the core of being, an entrepreneurial employee is caring deeply about others, about the challenges they face, the needs and wants they have and how to help them in new ways. The others can be colleagues or managers within one's own organisation, or they can be clients or partners externally.

Table 7. How to create new value for others

Main questions	Sub-questions	Examples of actions and outcomes
How do I discuss and communicate value with others?	How can I start creating and testing a compelling story?	People love a great story. Try out various versions. Passion and context-based value-add is key.
	How can I engage people to discuss, help and join me?	Find internal and external people willing to discuss, help, co-create and join the journey. Ask questions.
	Where should I be prepared to pitch the initiative?	Always be prepared to “pitch”, especially when asking for resources (time, money, equipment, etc.)
How do I create the value for and with others?	What resources do I need and how can people contribute?	Creating new value requires resources and commitment. Anchor constantly, especially upwards.
	How can I create some tangible value for others here and now?	Use scarce resources to create a first prototype that creates some real value. Learn from it.
	How can I analyze what value was created for others?	Whenever something has been delivered or launched, it is crucial to analyze how it turned out.
How do I feel empathy with others?	Whom can I discuss and empathize with?	Empathize with the value others see through small-scale, time-consuming and close interactions.
	How can I observe and collect data about others?	Attentiveness to observed details helps empathy. Digital methods makes data collection easier.
	How do I fulfil people’s agendas, needs and motives?	Pay attention to other people internally and externally, cater to their agendas, needs and motives.

Employees who work systematically with creating new kinds of value for others will over time build up their entrepreneurial competences. Competences developed include mobilising and working with others, learning through experience, creativity, spotting opportunities, taking initiative, financial and economic literacy, and ethical and sustainable thinking (see Table 1).

4.3.1 How to discuss and communicate value with others

Entrepreneurial employees who want to engage in discussions with people about how they might benefit from a new idea can often build upon knowledge and insight from sales literature. Discussing value with others is then not only about selling one’s idea in the early stages. It is also about asking questions and trying to uncover problems that can be solved and needs that can be met. Being entrepreneurial includes being aware of people’s tendency to say what they think you want to hear and through this, give false information, or at least information inconsistent with how they actually might feel or act (125). A useful perspective is to see it from the eyes of a client, i.e. to see it as a buying process rather than a sales process. A typical buying process consists of four distinct phases: awareness of needs (‘Do we have a problem?’), assessment of alternatives (‘How should we do something about it?’), resolution of final concerns (‘What are the risks going forward?’), and finally, implementation of a solution (‘Are we getting value from this decision?’) (126). Most entrepreneurial initiatives will spend the first couple of months, or even years, in the first stage of understanding what problem they are trying to solve. A common mistake in this phase is therefore to make formal presentations too early. It can trigger false responses and disengage people who want to be a part of creating the solution rather than being served a ready-made answer that they might not even believe in. A better alternative in the early stages can instead often be to tell a compelling story about the passion that triggered one’s choice to do something novel, since it is more open-ended and inviting. At some point, pitching a solution will nevertheless be necessary, especially when it is time to ask for a more substantial amount of resources.

There is much advice available on how, in more detail, to ask questions. Sales literature presents a useful framework of four different types of questions: situation questions (basic facts); problem questions (uncover dissatisfaction); implication questions (develop dissatisfaction); and need-payoff questions (let people explain the benefits) (127). Implication and need-payoff questions have more selling power than situation and problem questions. Entrepreneurship literature provides frameworks for asking open-ended questions (128), such as ‘What would you think of ...?’, ‘What would it take for you to ...?’ and ‘How could we work together to ...?’. Instead of asking for something specific towards a particular goal, entrepreneurial approaches suggest asking with what the person is able or willing to contribute. Discussing with people who see some potential value in a novel idea is one of the most motivating activities an entrepreneurial employee can engage in. It can trigger strong feelings of progress, meaningfulness and psychological ownership.

Such discussions also serve a key purpose of finding others who want to self-select into the entrepreneurial process. Over time, collectives of people who share similar beliefs, interests and visions are often established (129). But finding such like-minded peers can be frustrating work. Each long-term successful discussion often requires initiating conversation with 10-30 different people. In total, it is therefore often necessary to have conversations with hundreds of people over the course of a few years. This will then result in

getting to know those few but crucially key individuals, internally and externally, who share one's vision for the future and who contribute with their agency and resources to make it happen. A 'failure' ratio of 80-90 % in stakeholder discussions should thus not be misinterpreted. It is a fully normal ratio for entrepreneurial endeavours, and is one reason why resilience is crucial for entrepreneurial employees. Unsuccessful discussions also provide ample opportunities for learning, and can turn successful at a later stage when important revisions have been identified and acted upon.

4.3.2 How to create new value for others

The concrete value creation attempt is the moment of truth in entrepreneurial endeavours. It often starts with creating a prototype or staging an experiment of some kind, where value is created small-scale and non-scaleable (130). Since resources are always in short supply in the early stages, a key challenge is to secure the resources needed to create a prototype or conduct an experiment. A key recommendation here is to try to avoid becoming paralysed in frustration over all the resources one is lacking, but instead to creatively see what can be done with the resources one already has access to (131). Once the necessary resources have been identified, secured and put to use, which can take anything from minutes to years, the next step is to create some tangible value for someone with the crafted prototype or through the staged experiment. Here, creating the value is a means towards the main end – seeing if and how it worked and what to learn from it.

The faster and leaner experiments can be conducted, the quicker those entrepreneurially engaged can progress towards creating something new that really works, which can then hopefully be scaled (132). But premature scaling can be a very expensive mistake (133). There are many different entrepreneurial methods prescribing how people can create prototypes and conduct experiments to learn from before scaling. Some common methods are effectuation, lean startup, bricolage and design thinking (134).

Analysing what value was created is where the value creation process links the most to learning. The ability of an entrepreneurial employee to learn constantly could be one of the most important factors for success in novel endeavours. Recommendations for how to address this can be taken from the field of research methodology. How is the experiment staged? What data is collected about how it worked? How is data collected? How trustworthy is the data? How can the data be analysed? What conclusions can be inferred? In many cases, conducting and analysing interviews with those who have a problem or issue is a crucial activity, especially when prototypes or experiments have been tested on them. A general benefit of digital solutions is that data is often generated through the solution itself. Still, it is often a cumbersome and time-consuming but crucial job to collect and analyse data about how and why something has worked. Unsuccessful attempts to create value also benefit from being analysed in depth, as these can provide insight into why something did not work, and what to try to do differently. Unsuccessful attempts may even highlight new needs and alternatives that force new cycles of exploration.

4.3.3 How to feel empathy with others

Empathy is defined as the ability to understand and share the feelings of others (135). It is a key aspect of emotional intelligence and social competence. Empathy helps people establish and maintain good interpersonal relations. Since creating new kinds of value is an inherently collective, relational and social undertaking (136), entrepreneurial employees are constantly developing their ability to empathise with other people, both internally in the organisation and externally.

There is another important reason for empathy being a crucial skill for entrepreneurial employees. A strong ability to feel deeply and genuinely with people who have needs and problems helps in the laborious creative search for new ways to solve problems and fulfil needs. An entrepreneurial employee needs to have a strong customer/client/citizen orientation, be it internal or external stakeholders, also on a deeply personal and emotional level. When others feel pain, the entrepreneurial employee needs to feel the pain too. Negative feelings such as anxiety, fear and worry can in fact be a strong asset in entrepreneurial endeavours, since they help focus one's attention on details that can be important in the search for viable solutions (137).

A key difference between various entrepreneurial methods is how in practice one empathises with the people one creates value for. Some methods, such as effectuation, regard all who are involved as equal stakeholders doing entrepreneurial activities together. Other methods, such as lean startup and design thinking, differentiate between the creators of a solution and the prospective users or clients who merely react to a prototype or an experiment. This results in very different approaches to empathy in practice, spanning from co-creating the future together to merely discovering facts about what already is (138).

Entrepreneurial methods contain many useful techniques for how to empathise better with people. Design thinking recommends people to study behaviour in everyday contexts, to collect data through observation, to conduct interviews, to be flexible in how to collect data, to work small-scale in one single setting at a time, and to analyse the meanings people ascribe to their actions (139). Lean startup methodology recommends a wide variety of techniques for empathising with users, such as using explainer videos, delivering 'concierge services' (i.e. delivering the value manually), setting up fake landing pages and crafting mockups (paper-based prototypes of software) (140).

A technique to better empathise with people inside organisational hierarchies is to conduct an internal stakeholder analysis (141). Different internal stakeholders have different needs, agendas, motives and responsibilities depending on their position and function in the hierarchy. People's agendas also tend to be heavily influenced by any key performance indicators (KPIs) upon which they are being assessed. Having a clearer picture of these various interests and indicators makes it easier to anchor, communicate, navigate and empathise accordingly.

When it comes to empathising with citizens and the intended beneficiaries of a public policy, citizen engagement is rising on the agenda of policymakers. Participating in citizens' assemblies, crowdsourcing solutions to complicated policy problems, using online platforms to leverage collective intelligence and involving citizens in shaping the decisions that will affect them are among the emerging strategies that entrepreneurial public administrators can deploy to ensure they stay connected with those they want to create value for.

4.4 How to learn continuously: analysing, experimenting and revising

This section will briefly describe how employees can learn from analysing, experimenting with and revising value creation attempts. A summary is shown in Table 8. An entrepreneurial journey often starts with learning, for example when someone learns about something new, which triggers a new insight or discovery. It is important for entrepreneurial employees to consider human learning as a whole-person experience, implying that it is the whole person who learns, not only the brain or the hands or the heart. It is equally important to learn from one's thoughts (cognitive learning), from one's actions (learning-by-doing) and from one's emotions (affective learning) (142). Learning is also social as individuals learn while embedded in a context (such as their organisation) and in interaction with others (143). One can learn extensively through being open to and participating in others' thoughts, actions and emotions (144).

Table 8. How to learn from value creation attempts

Main questions	Sub-questions	Examples of actions and outcomes
How do I learn from analysis and inquiry?	What desk research can I engage in?	Collect information online and from databases, libraries and books. Conduct phone interviews.
	How can I distill information and compile relevant plans?	Organize and analyze all information related to your initiative. Write plans to send to key people.
	How can I present and discuss my findings with others?	Sense-make all collected and analyzed information in creative meetings with the core team.
How do I learn more or less emotionally from experience?	When do I leave my own building for field trips?	The most powerful learning happens out there, so spend time cross-functionally and externally.
	What gets me out of my comfort zone?	Powerful learning is often a disorienting experience, so stretch and expose yourself, it pays off.
	How can I get personal and show more skin-in-the game?	It is a personal journey, for good and for bad. Live your experiments to learn the most from them.
How do I reflect, critique and sometimes revise?	How can I reflect orally with others, and in own writing?	Constantly discuss outcomes with your co-creators. Write down insights, share internally. Ask others to improve images, prototypes.
	How do I become a true feedback addict?	Solicit feedback constantly from everyone, about everything. Listen, but persist in your vision.
	When do I really need to change direction (i.e. pivot)?	See change in direction as progress, not as failure. Redirect as a team to preserve engagement.

While thoughts, actions and emotions are always seamlessly intertwined, they represent one starting point each for three different perspectives on learning. Thought-centric learning is mainly about what happens in the office. It can be searching for and reading new information online or offline, analysing existing knowledge and data, producing written materials such as plans and presentations, or meeting close colleagues to discuss and make sense of the situation at hand. Behaviour-centric learning mostly happens outside one's own office. It can be meeting more remote colleagues, partners or clients, participating in conferences and fairs, building and testing prototypes, staging experiments with potential clients, or general networking with people internally or externally. Emotion-centric learning is the most personal kind of learning and is particularly important for being entrepreneurial. It can be about learning from highly emotional events such as moments of success or failure, presenting in front of many people, receiving feedback in front of other people, venturing into unknown territory, learning from critique or resistance at times delivered in emotional ways, and learning from questioning established norms and values (i.e. unlearning). Entrepreneurial employees should aim to constantly balance these three different perspectives on learning by not getting stuck in the office and by daring to expose themselves to deeply emotional situations such as failures and audiences.

Outcomes from learning are mainly related to valuable insights around the initiative one is championing, informing further actions going forward. But a lot of learning for entrepreneurial employees is also about oneself, especially since entrepreneurial processes are deeply personal, see further in sections on agency. Finally, one also learns more about being entrepreneurial, i.e. gaining entrepreneurial competences. Even if only one of the competences shown in Table 1 is explicitly about learning, all competences in Table 1 are related to learning, since it is through taking entrepreneurial action that one learns to become entrepreneurial. It is a positive, self-reinforcing cycle that over time changes one's habits and ultimately develops one's identity.

4.4.1 How to learn through analysis and planning

Even if entrepreneurial learning is often claimed to be action-oriented, one should not neglect the importance of cognition-oriented analysis and theorising (145). A systematic, preferably even scientific (146), search for information, knowledge and insights is also a crucial entrepreneurial activity (147). Some key sources of potentially new and relevant information and knowledge are the internet, industry press, trade shows, conferences, patent databases and other kinds of databases, libraries, research articles, books, videos and reports. Talking to people, often over the phone, is another main method for collecting new information and insight. It can be colleagues, industry experts, scholars, industry association representatives and even competitors. Information search and analysis is a

continuous work for the entrepreneurial employee. The phone is a crucial tool, since oral communication is one of the most powerful ways to interact with others. As an entrepreneurial initiative progresses, new ideas about what to search for emerge and necessitate new waves of thought-centric search, analysis and theorising.

Planning has become less and less emphasised in entrepreneurship in the last decade ⁽¹⁴⁸⁾. However, one should not neglect planning in corporate or public entrepreneurship. Writing down one's intentions into a plan forces one to think through assumptions, synthesise knowledge, theorise and reflect deeply upon key issues. It can be a traditional 'business plan', a project plan, a go-to-market or roll-out plan, a financial plan or a plan for necessary experiments and prototypes. Planning becomes particularly important in later stages when the stakes are higher and the cost of an initiative increases ⁽¹⁴⁹⁾. Plans can also be a time-efficient way to solicit feedback from managers and senior executives who are often too busy to attend longer and more creative internal meetings. But, one should neither overemphasise planning at the expense of execution, since it can lead to 'analysis paralysis' ⁽¹⁵⁰⁾.

4.4.2 How to learn emotionally from experiments

Entrepreneurial methods contain a lot of advice on how to stage experiments one can learn from. Some of this advice was summarised in the previous section on value for others. But learning is a complex phenomenon. There are countless theories on how people learn experientially ⁽¹⁵¹⁾, and how to best go about maximising the learning potential. A common theme is the importance of strong emotions for such learning. But highly emotional learning events are challenging for many people.

In a stressful work environment, it is tempting to opt out of the most emotional experiences and end up avoiding being entrepreneurial. To mitigate such risks, one can approach emotional learning in a more systematic way. One way is to work more systematically with oral and written reflection, see next section. Another way is to apply mindfulness and cognitive therapy, two related fields that help people cope with strong emotions in their life. People are, for example, advised to sort their emotional thoughts into two categories – productive and unproductive worry ⁽¹⁵²⁾. Productive worry is about issues with possible answers, a single event that one can work with and issues that one can control to some extent. It is less productive to worry about issues one cannot control, questions to which there are currently no answers and situations where perfect solutions are impossible.

Mindfulness can be used by entrepreneurial employees to remain calm in the midst of a perfect storm full of uncertainty and ambiguity ⁽¹⁵³⁾. Often in entrepreneurial initiatives, only time will tell what works, so waiting for and making sure that key developmental events unfold is usually the only way to generate answers to questions and issues that generate stress and worry.

4.4.3 How to revise, reflect and persist

Coping with failure and unpleasant surprise is a key topic in entrepreneurial methods and processes. A common strategy is to relabel or reframe it into something more positive and natural. In lean startup methodology, changing direction after something that did not work out is termed a 'pivot'. In effectuation, surprises are seen as a natural part of an 'iteration' and an opportunity to 'leverage contingencies'. In appreciative inquiry, failures are avoided altogether by refocusing attention towards what has previously worked.

Reflecting upon emotional experiences can be very rewarding for entrepreneurial employees. Written and oral reflection that is shared with others can reduce emotional pressure for entrepreneurial employees ⁽¹⁵⁴⁾, and can also crystallise crucial insights around the initiative. While conscious and facilitated reflection is a much neglected area in working life, it has significant untapped and promising potential for entrepreneurial employees and organisations. An increasing array of digital reflective tools has emerged recently that can support systematic employee reflection ⁽¹⁵⁵⁾.

Learning in entrepreneurial processes is explorative and frustrating by nature ⁽¹⁵⁶⁾. This calls for 'exploratory perseverance', defined as a tolerance for negative outcomes, a habit of trying out a broad number of different alternatives, and a willingness to keep going back to already tested options despite previous setbacks ⁽¹⁵⁷⁾. Experienced entrepreneurs are more inclined to try out solutions that have failed previously, and to try paths that are quite distant from the main path one is exploring. They know from previous experiences that through trial and error, exploring many alternatives, while also tweaking and adjusting alternatives that previously have failed, one might in fact eventually succeed. They also value feedback highly, without fully trusting the signals they get. Instead, they keep trying to see if there might still be a way to overcome an impasse.

4.5 The 'being entrepreneurial canvas'

To summarise this section, a canvas is provided in [Figure 5](#) that can be used by employees to sketch up their ideas to be entrepreneurial around. However, this canvas is a simplification, and does not capture the iterative and complex nature of an entrepreneurial process. It is never enough to do just one prototype or have just one idea about something that might be novel and useful for others. The process can also start with learning or agency. Still, a canvas can get employees started, so that they then move from idea to practice. When they start practicing being entrepreneurial, they will understand more deeply what it means to be entrepreneurial, since learning-by-doing is necessary to develop entrepreneurial competences. The canvas can also be used multiple times to summarise the situation in a specific moment in time. To complement the canvas, a video illustration of the diamond figure gives a more dynamic perspective to what it means to be entrepreneurial, and how employees constantly need to balance between the four perspectives. This video can be found online ⁽¹⁵⁸⁾.

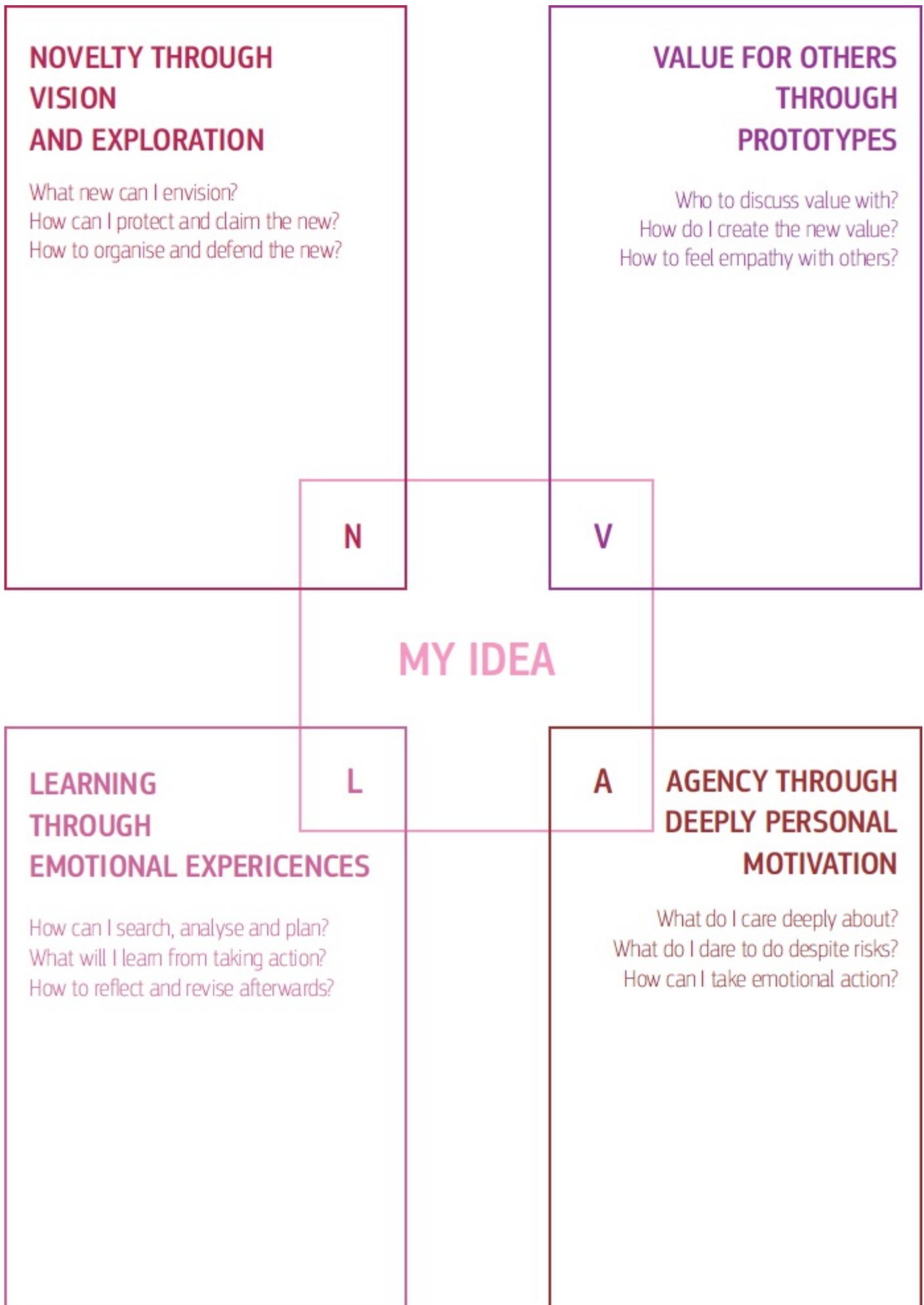


Figure 5. The "being entrepreneurial canvas". How can I act upon my idea to create new value for others, and learn through the process?

Notes for section 4

- 89 See Pregmark (2019).
- 90 For private sector see Mustafa et al. (2018) and Hornsby et al. (2009), and for public sector see Kearney & Meynhardt (2016).
- 91 See Birkinshaw (2000), pp. 19-20.
- 92 See Williams Middleton and Donnellon (2014; 2017).
- 93 See Gruber (2011).
- 94 See for example Lackéus and Sävetun (2019).
- 95 See for example Lackéus (2014), p. 389.
- 96 See Leahy (2006).
- 97 For an empirical account of how team trust can reduce perceived uncertainty, see Williams Middleton and Nowell (2018).
- 98 For some deeply empirical examples of these recommendations, see Crona et al. (2018), and Afanasjeva et al. (2019).
- 99 For a review of literature on networking entrepreneurial employees, see Neessen et al. (2019).
- 100 This is explored by Sarasvathy and colleagues in their theory on 'Effectuation' (see e.g. Read et al. 2016).
- 101 See Johansson-Sköldberg, Woodilla and Çetinkaya (2013).
- 102 See Ulwick (2016).
- 103 For some techniques used in Design Thinking, see Liedtka (2011, 2015). A valuable resource is also the Development Impact & You online tool developed by Nesta (see <https://diytoolkit.org/>)
- 104 See further in literature on appreciative inquiry, for example Adams et al. (2004).
- 105 Read more about how to manage serendipity in Garud et al. (2018).
- 106 See Blenker et al. (2011).
- 107 See Morris et al. (2012), p. 115 and p. 145.
- 108 See Cooperrider et al. (2008).
- 109 See Ulwick (2005) and Christensen et al. (2016).
- 110 See Read et al. (2016).
- 111 See Rae (2014).
- 112 See Agogue et al. (2015).
- 113 See Stark (2011).
- 114 See Garud et al. (2018).
- 115 See Christensen (1997) and Garcia and Cantalone (2002).
- 116 See Assink (2006).
- 117 See Ulwick (2002, 2016).
- 118 Playwright George Bernard Shaw once famously wrote: 'The reasonable man adapts himself to the world', whereas 'the unreasonable one persists in trying to adapt the world to himself. Therefore all progress depends on the unreasonable man'. See Elkington and Hartigan (2008), p. xi.
- 119 See Benner and Tushman (2003).
- 120 See Marzano (1998), pp. 21-27.
- 121 See Shah (2010).
- 122 See Kuratko et al. (2011).
- 123 See O'Reilly and Tushman (2004).
- 124 See Hitt et al. (1999).
- 125 See advice in Fitzpatrick (2019).
- 126 See Rackham (1989).
- 127 See Rackham (1988).
- 128 See Read et al. (2016), p. 178.
- 129 See Felin and Zenger (2009).
- 130 For an insightful text by entrepreneur Paul Graham about 'doing things that don't scale', see <http://paulgraham.com/ds.htm>
- 131 See An et al. (2018), as well as Sonenshein (2014).
- 132 See Furr and Ahlstrom (2011).

- 133 See Blank (2005).
- 134 Space here is much too limited to go through all the methods available. There are however ample resources available online. For an overview and comparison of the logic behind six entrepreneurial methods, see Mansoori and Lackéus(2019). See also the following key publications for each individual method: Read et al. (2016) for effectuation, Ries (2011) for lean startup, Baker and Nelson (2005) for bricolage and Brown (2008) for design thinking.
- 135 See Salovey and Mayer (1990).
- 136 See Schoonhoven and Romanelli (2009).
- 137 See Derryberry and Tucker (1994).
- 138 A too static view on reality can be limiting for entrepreneurial employees. If it is merely about discovering what already is, this excludes more radical innovations where reality is completely redefined. See section 4.1 in Mansoori and Lackéus (2019).
- 139 See Neck et al. (2014), p. 48.
- 140 See Duc and Abrahamsson (2016).
- 141 See Freeman et al. (2010).
- 142 See Jarvis (2006).
- 143 See Bandura (1977).
- 144 For a recent overview of entrepreneurial learning, see Wang and Chugh (2014).
- 145 See, for example, Felin and Zenger (2009).
- 146 See Camuffo et al. (2019).
- 147 See Fiet et al. (2013).
- 148 See Brinckmann et al. (2010).
- 149 See Mansoori and Lackéus (2019).
- 150 See Thornberry (2003).
- 151 For a comprehensive overview, see Roberts (2012).
- 152 See Leahy (2006).
- 153 See Levinthal and Rerup (2006).
- 154 See Moon (2004).
- 155 See, for example, Kirk and Pitches (2013) and Lackéus (2020)
- 156 See Wang and Chugh (2014).
- 157 See Muehlfeld et al. (2017).
- 158 The video illustrating the diamond can be found at <https://youtu.be/Nf7vi7259z0>

5. Implications

If being entrepreneurial is about caring and daring to take action to experiment with new kinds of value creation for others, it comes with numerous implications on all levels in an organisation. An attempt to summarize some of them will now follow.

5.1 Implications for the employees

An entrepreneurial culture can be elevated, or inhibited, by the organisation's employees. Cultures are made up of established norms around individual thought and action in an organisation (¹⁵⁹). Therefore, implications for the individual employee are manifold. Being entrepreneurial is at the same time an individual and collective imperative, both in terms of acting and in helping others to act. It requires employees who allow both themselves and others to be a bit emotional, unknowing (¹⁶⁰) and stubborn. It also requires a strong emphasis on learning, both at the individual and collective level.

5.1.1 Take action and support others' doing

Being entrepreneurial is at the same time a collective and individual responsibility. All employees can and should try to be entrepreneurial to some extent in their everyday practice, in ways described above. Employees also need to contribute by helping those colleagues who are trying particularly hard to be entrepreneurial. Further, assuming a dual role is something that every employee needs to consider and occasionally try out in practice. Appreciating and helping colleagues who assume a dual role also becomes crucially important, since it contributes to building and strengthening an entrepreneurial culture. The more acceptable and appreciated it is among colleagues to be entrepreneurial, the more often employees will try to be entrepreneurial. Therefore, employees in general need to know, also on a quite detailed level, what it means to be entrepreneurial as an employee, and why it benefits the organisation. Such knowledge and awareness help them to not only undertake own initiatives, but also to recognise, appreciate and support others' entrepreneurial endeavours. The contents of this report are therefore important not only for those employees considering to become more entrepreneurial, but for all employees in an organisation. Being entrepreneurial is a social and collective endeavour.

5.1.2 Be a bit emotional, unknowing and stubborn

The personal and emotional dimension of being entrepreneurial also has key implications for employees. Stepping out of one's professional role to be a bit emotional, unknowing and stubborn needs to be viewed positively if entrepreneurial employees are to dare and succeed in their endeavours. Being rational, competent and professional is not the only viable way to be a valued employee. People who are perhaps sometimes irritatingly resilient and biased towards their own pet projects and ideas, despite all that they do not yet know, who are repeatedly questioning established practices grounded in valued traditions, and who solicit support and resources in ways that are at odds with hierarchical norms and 'rules', need a certain amount of respect under the umbrella of the entrepreneurial employee.

5.1.3 Be a learner and appreciate own and others' learning

The learning dimension also comes with key implications for the individual employee. For most people, learning and personal development do not come easily. It requires constant investment of scarce resources, such as one's own time and energy. Spending spare time on developing one's personal and passionate projects, as well as persistently developing one's entrepreneurial competences, requires determination and commitment towards long-term goals. Digesting harsh feedback and reflecting upon hard-earned insights, also in writing, requires employees who are committed not only to short-term rewards and recognition, but also to long-term explorative value creation.

Learning also has implications for employees at a collective level. If new insights and hard-earned learning is not appreciated by colleagues, it will stifle the organisation's entrepreneurial culture. Even if learning cannot be billed to a paying customer, client or citizen, it can still have tremendous value for an organisation. But it requires employees to be long-term oriented, appreciating that today's learning can spur tomorrow's game-changing products, services, processes and solutions.

5.2 Implications for the managers

Managers are also employees, but they often have a key role in establishing and maintaining an entrepreneurial culture. Managerial implications of the entrepreneurial employee are therefore numerous. Three key steps that managers can take are raising awareness, supporting employees who are entrepreneurial and asking all employees to be more entrepreneurial.

5.2.1 Raise awareness: debunk, clarify and provide training

The image of the entrepreneurial employee given in this report deviates significantly from many of the established views in society. This implies a key responsibility upon managers. Unless managers try hard to debunk myths and demystify for their colleagues what it means to be entrepreneurial, misconceptions will remain. Clarification can come in many forms. Training can be provided, organisational culture can be worked upon in different ways, and everyday management can be adjusted to cater better to facilitating entrepreneurial action and engagement. Many of these activities are within the reach and influence of managers. In fact, one of the main reasons this report was written was to give managers concrete help in exposing the flawed myth of the heroic entrepreneur. If being entrepreneurial is not something mysterious that some people are born with, what is it then and why should we all care? This question can now be brought up by managers and answered together in more productive and clear ways than has been possible before.

5.2.2 Offer support: appreciate and empower employees to be entrepreneurial

Leadership is not only about task distribution in line with organisational strategy (the organisation). It is also about maintaining a cohesive social unity (the team) and meeting the needs of each employee (the individual) ⁽¹⁶¹⁾. If the individual employee is to succeed in the challenging task of becoming more entrepreneurial, it often requires appreciation and support from managers. If routine value creation is all that matters for managers, their subordinates will be forced to hide and protect their entrepreneurial initiatives even from their closest manager. It will inevitably stifle the entrepreneurial culture.

Managers who want to go further than offering appreciation can start encouraging employees to become more entrepreneurial. A manager can use this report to trigger new ideas in people, and to clarify what is meant more explicitly in practice. Encouragement can also be about promoting employees to emotionally engage in something they care about, to assume a more personal role in the group, and to be a bit stubborn about an early-stage idea they want to champion. Being learning-oriented as a manager is about appreciating not only the hard figures in terms of financial measurements and KPIs, but also appreciating and valuing new learning and insights generated and put forward by entrepreneurial employees.

There are also important implications for managers to draw from the fact that entrepreneurial competences can be developed significantly through learning-by-doing. Entrepreneurial competences are difficult to measure ⁽¹⁶²⁾, and can therefore be somewhat challenging to appreciate from a manager's perspective. Still, there are ways to measure and appreciate employees' entrepreneurial competences also for managers. The framework for entrepreneurial competences outlined in [section 2.5](#) can support managers in this important task. There is also an increasing array of tools that measure entrepreneurial competences ⁽¹⁶³⁾.

5.2.3 Ask explicitly for it: Responsibilise, organise, measure and reward your employees

A third step for management can be to raise expectations on all employees in regard to being entrepreneurial. With increasing clarity around what it means to be entrepreneurial comes also the possibility to hold employees accountable for entrepreneurial activities and to expect them to develop their entrepreneurial competences. Managers can for example ask every single employee to undertake at least one or a few entrepreneurial activities each year, aimed at producing new value for the organisation and also developing the employees' entrepreneurial competences. Employees can then act upon such an imperative either as lead intrapreneurs, as supporters or as active participants in others' initiatives.

In order to build long-term entrepreneurial capability, senior managers will at some point need to organise for it to happen. But in most organisational charts, there is no dedicated function for being entrepreneurial. It has even been labeled 'the missing function' in most established organisations ⁽¹⁶⁴⁾. But having a separate entity would not be a good solution, as discussed earlier, since being entrepreneurial is an organisation-wide need and responsibility. Still, when something is dubbed everyone's responsibility, the risk is that it ends up being acted upon by very few. One way or another, senior management will have to address key organisational issues such as how to create space for experiments, how to fund early-stage projects with no measurable return on investment (ROI), how to set up and provide milestones for entrepreneurial teams, how to provide professional development for entrepreneurial employees and how to make employees assume a more entrepreneurial identity ⁽¹⁶⁵⁾.

Since what gets measured often gets done, managers should also try to measure progress. Entrepreneurship and innovation are notoriously difficult to measure, which partly can explain why it so often is deprioritised in established organisations. But new techniques are emerging. One way is to give employees micro-level action-oriented assignments based on the recommendations outlined in [section 4](#), that are then followed up through mandatory written reflection ⁽¹⁶⁶⁾. This can help push more employees into doing developmental things that otherwise would be skipped due to low priority or because it can be scary to be entrepreneurial. Another approach is to apply 'innovation accounting', where measures are being applied that are more meaningful in early stages of entrepreneurial projects. Example measures include conversion rates from trial to paying customer, revenue per customer and referral rates ⁽¹⁶⁷⁾. If being entrepreneurial is a collective responsibility and imperative, it then hinges upon the managers in an organisation to make it happen and to follow up with people. Such follow-up practices should also be aligned with the organisation's incentive structures. If an organisation wants employees to be entrepreneurial, and starts to follow up on this, they also need to offer different kinds of rewards for those who take action.

6. Conclusions

This science-for-policy report has aimed to clarify what it means for employees to be entrepreneurial. The employee perspective is rare in corporate and public entrepreneurship literature. This is both unexpected and unfortunate, since entrepreneurial processes are championed by small teams of highly devoted individuals, who in turn solicit support and participation from a large number of people internally and externally. Reasons for the current bias towards structures, managers and processes include a number of flawed myths and a static view of the entrepreneurial individual. Breaking away from these prevailing views, we have here been able to outline detailed and actionable recommendations for employees who want (or need) to become more entrepreneurial. It is our hope that this report can help both employees and managers in private and public sectors in their pursuit towards a more prosperous and successful future for their organisations, colleagues, customers, clients, for citizens or other stakeholders in general, and for themselves.

Notes for section 5

¹⁵⁹ See Bouchard and Fayolle (2018), p. 140.

¹⁶⁰ Unknowing can be a positive word – entrepreneurial people often act despite not having complete or even scarce information.

¹⁶¹ See Adair (1973).

- 162 See for example Lackéus and Williams Middleton (2018).
- 163 See Ruskovaara and Pihkala (2016).
- 164 See Ries (2017), Chapter 2.
- 165 See Ries (2017), pp. 57-62.
- 166 See Lackéus (2020) and Lackéus and Williams Middleton (2018).
- 167 See Ries (2017), pp. 264-299.

References

Adair, J. E. (1973), *Action-centred leadership*: McGraw-Hill New York, NY.

Adams, M. G., Schiller, M., & Cooperrider, D. L. (2004), 'With our questions we make the world', *Advances in Appreciative Inquiry*, 1, pp. 105-124.

Afanasjeva, A., Andersson, M., Antti, N., Bojovic, S., Doran, C., Erhardsson, K., Jaleby, J., Malcolm, J., Malmén, N., Ottosson, E., Ustunyagiz, D., & Ågren, C. (2019), *Researching Corporate Entrepreneurship: Findings of the Corporate Entrepreneurship track at Chalmers School of Entrepreneurship 2019*, Gothenburg, Sweden: Institute for Management of Innovation and Technology (IMIT).

Agogue, M., Lundqvist, M., & Williams Middleton, K. (2015), 'Mindful deviation through combining causation and effectuation: a design theor-based study of technology entrepreneurship', *Creativity and Innovation Management*, 24(4), pp. 629-644.

Amabile, T., & Kramer, S. (2011), *The progress principle: using small wins to ignite joy, engagement, and creativity at work*, Boston, MA: Harvard Business Press.

An, W., Zhao, X., Cao, Z., Zhang, J., & Liu, H. (2018), 'How bricolage drives corporate entrepreneurship: the roles of opportunity identification and learning orientation', *Journal of Product Innovation Management*, 35(1), pp. 49-65.

Arz, C. (2017), 'Mechanisms of organisational culture for fostering corporate entrepreneurship: A systematic review and research agenda', *Journal of enterprising culture*, 25(04), pp. 361-409.

Assink, M. (2006), 'Inhibitors of disruptive innovation capability: a conceptual model', *European Journal of Innovation Management*, 9(2), pp. 215-233.

Bacigalupo, M., Kampylis, P., Punie, Y., & Van den Brande, G. (2016), *EntreComp: the Entrepreneurship Competence Framework*, Luxembourg: Publication Office of the European Union.

Baker, T., & Nelson, R. E. (2005), 'Creating something from nothing: resource construction through entrepreneurial bricolage', *Administrative Science Quarterly*, 50(3), pp. 329-366.

Bandura, A. (1977), *Social learning theory*, New York, NY: General Learning Press.

Bandura, A. (1989), Human agency in social cognitive theory, *American Psychologist*, 44(9), pp. 1175-1184.

Barrett, W. (1979), *The illusion of technique: a search for meaning in a technological civilization*. In. New York: Anchor Press/Doubleday.

Bason, C., Hollanders, H., Hidalgo Gomez, C., Kattel, R., Korella, G., Leitner, C., le Masson, B., Mazzucato, M., Mungiu-Pippidi, A., Pröhl, M., & Oravec, J. (2013), *Powering European public sector innovation: towards a new architecture: report of the expert group on public sector innovation*, Luxembourg: Publications Office of the European Union.

Batson, C. D., Ahmad, N., Powell, A. A., & Stocks, E. (2008), 'Prosocial motivation', in J. Shah & W. Gardner (Eds.), *Handbook of motivation science*, New York City: Guilford Publications. pp. 135-149.

Beer, M., Eisenstat, R. A., Norrgren, F., Foote, N., & Fredberg, T. (2011), *Higher ambition: how great leaders create economic and social value*: Harvard Business Press.

Belousova, O., & Gailly, B. (2013), 'Corporate entrepreneurship in a dispersed setting: actors, behaviors, and process' *International Entrepreneurship and Management Journal*, 9(3), pp. 361-377.

Benner, M. J., & Tushman, M. L. (2003), 'Exploitation, exploration, and process management: the productivity dilemma revisited', *Academy of Management Review*, 28(2), pp. 238-256.

Birkinshaw, J. (2000), *Entrepreneurship in the global firm*, London: Sage Publications.

Blank, S. (2005), *The four steps to the epiphany*, Louisville, Kentucky, USA: Cafepress.com.

Blenker, P., Korsgaard, S., Neergaard, H., & Thrane, C. (2011), 'The questions we care about: paradigms and progression in entrepreneurship education', *Industry and Higher Education*, 25(6), pp. 417-427.

Boltanski, L., & Thévenot, L. (2006), *On justification: economies of worth*, Princeton, NJ: Princeton University Press.

Bouchard, V., & Fayolle, A. (2018), *Corporate Entrepreneurship*, London: Routledge.

Brettel, M., & Rottenberger, J. D. (2013), 'Examining the link between entrepreneurial orientation and learning processes in small and medium-sized enterprises' *Journal of Small Business Management*, 51(4), pp. 471-490.

Brinckmann, J., Grichnik, D., & Kapsa, D. (2010), 'Should entrepreneurs plan or just storm the castle? A meta-analysis on contextual factors impacting the business planning-performance relationship in small firms', *Journal of Business Venturing*, 25(1), pp. 24-40.

Brown, T. (2008), Design thinking. *Harvard business review*, 86(6), p. 84.

Cady, S. H., Jacobs, R., Koller, R., & Spalding, J. (2014), 'The change formula: Myth, legend, or lore', *OD Practitioner*, 46(3), pp. 32-39.

Camuffo, A., Cordova, A., Gambardella, A., & Spina, C. (2019), 'A scientific approach to entrepreneurial decision-making: Evidence from a randomized control trial', *Management Science*.

Cardon, M. S., Wincent, J., Singh, J., & Drnovsek, M. (2009), 'The nature and experience of entrepreneurial passion', *Academy of Management Review*, 34(3), pp. 511-532.

Chesbrough, H. (2012), 'Open innovation: where we've been and where we're going', *Research-Technology Management*, 55(4), pp. 20-27.

Chesbrough, H., Vanhaverbeke, W., & West, J. (2006), *Open innovation: researching a new paradigm*: Oxford University Press on Demand.

Chesbrough, H. W. (2003), *Open innovation: the new imperative for creating and profiting from technology*: Harvard Business Press.

Christensen, C. M. (1997). *The innovator's dilemma: when new technologies cause great firms to fail*: Harvard Business Review Press.

Christensen, C. M., Hall, T., Dillon, K., & Duncan, D. S. (2016), 'Know your customers' jobs to be done', *Harvard Business Review*, 94(9), pp. 54-62.

- Conway, R., Burbidge, I., Timmons, L., & Maani, S. (2018), *Move fast and fix things*.
- Cooperrider, D. L., Whitney, D., & Stavros, J. M. (2008), *Appreciative inquiry handbook: for leaders of change*, San Francisco, CA: Crown Custom Publishing Inc.
- Cope, J., & Watts, G. (2000), 'Learning by doing – an exploration of experience, critical incidents and reflection in entrepreneurial learning', *International Journal of Entrepreneurial Behaviour & Research*, 6(3), pp. 104-124.
- Costanza, R., Fisher, B., Ali, S., Beer, C., Bond, L., Boumans, R., Danigelis, N. L., Dickinson, J., Elliott, C., & Farley, J. (2007), 'Quality of life: An approach integrating opportunities, human needs, and subjective well-being', *Ecological economics*, 61(2), pp. 267-276.
- Crona, A., Faraj, A., Ferizi, B., Gidebring, A., Mercado Ortega, A., Pohjanen, J., Sanchez, C., & Åhman, E. (2018), *Researching Corporate Entrepreneurship: Findings of the Corporate Entrepreneurship track at Chalmers School of Entrepreneurship 2018*, Gothenburg, Sweden: Institute for Management of Innovation and Technology (IMIT).
- DeMarco, M. (2011), *The Millionaire fastlane: crack the code to wealth and live rich for a lifetime*: Viperion Publishing Corp.
- Denison, D. R., Hooijberg, R., & Quinn, R. E. (1995), 'Paradox and performance: toward a theory of behavioral complexity in managerial leadership', *Organisation science*, 6(5), pp. 524-540.
- Derryberry, D., & Tucker, D. M. (1994), 'Motivating the focus of attention', in P. M. Niedenthal (Ed.), *The heart's eye: emotional influences in perception and attention*, Waltham, MA: Academic Press.
- Diefenbach, F. E. (2011), 'Entrepreneurship in the public sector', in *Entrepreneurship in the Public Sector*: Springer. pp. 31-64.
- Drakopoulou Dodd, S., & Anderson, A. R. (2007), 'Mumpsimus and the mything of the individualistic entrepreneur', *International Small Business Journal*, 25(4), pp. 341-360.
- Drucker, P. F. (1985), *Innovation and entrepreneurship*, New York: Harper & Row.
- Duc, A. N., & Abrahamsson, P. (2016) Minimum viable product or multiple facet product? The role of MVP in software startups, Paper presented at the International Conference on Agile Software Development.
- Elkington, J., & Hartigan, P. (2008), *The power of unreasonable people: how social entrepreneurs create markets that change the world*: Harvard Business Press.
- Emirbayer, M., & Mische, A. (1998), What is agency? *American Journal of Sociology*, 103(4), pp. 962-1023.
- European Commission (2007), *Key Competences for Lifelong Learning-European Reference Framework*. Brussels: DG Education and Culture http://ec.europa.eu/dgs/education_culture/publ/pdf/ll-learning/keycomp_en.pdf
- Felin, T., & Zenger, T. R. (2009), Entrepreneurs as theorists: on the origins of collective beliefs and novel strategies, *Strategic Entrepreneurship Journal*, 3(2), pp. 127-146.
- Fiet, J. O., Norton, W. I., & Clouse, V. G. (2013), 'Search and discovery by repeatedly successful entrepreneurs', *International Small Business Journal*, 31(8), pp. 890-913.
- Fiske, S. T. (2008), 'Core social motivations – views from the couch, consciousness, classroom, computers, and collectives', in J. Shah & W. Gardner (Eds.), *Handbook of motivation science* New York, NY: Guilford Press. pp. 3-22.
- Fitzpatrick, R. (2019), *The Mom Test: how to talk to customers and learn if your business is a good idea when everyone is lying to you*: Rob Fitzpatrick.
- Fredberg, T., & Pregmark, J. (2018), 'Organisation renewal through entrepreneurial initiatives: when the seed changes the soil', *Research in Organisational Change and Development*, 26, pp. 99-126.
- Freeman, R. E., Harrison, J. S., Wicks, A. C., Parmar, B. L., & De Colle, S. (2010), *Stakeholder theory*: Cambridge University Press Cambridge.
- Furr, N., & Ahlstrom, P. (2011), *Nail it then scale it: the entrepreneur's guide to creating and managing breakthrough innovation*, Lexington, KY: NISI Institute.
- Garcia, R., & Calantone, R. (2002), 'A critical look at technological innovation typology and innovativeness terminology: a literature review', *Journal of Product Innovation Management*, 19(2), pp. 110-132.
- Gartner, W. B. (1989), 'Who is an entrepreneur? Is the wrong question', *Entrepreneurship Theory and Practice*, 13(4), pp. 47-68.
- Gartner, W. B., & Carter, N. M. (2005), 'Entrepreneurial behavior and firm organizing processes', in *Handbook of entrepreneurship research*: Springer. pp. 195-221.
- Garud, R., Gehman, J., & Giuliani, A. P. (2018), 'Serendipity arrangements for exapting science-based innovations', *Academy of Management Perspectives*, 32(1), pp. 125-140.
- Gibson, C. B., & Birkinshaw, J. (2004), 'The antecedents, consequences, and mediating role of organisational ambidexterity', *Academy of Management Journal*, 47(2), 209-226.
- Gruber, C. (2011), 'The psychology of courage: Modern research on an ancient virtue', *Integrative Psychological and Behavioral Science*, 45(2), pp. 272-279.
- Gupta, V. K., Dutta, D. K., & Chen, X. (2014), 'Entrepreneurial orientation capability and firm performance under conditions of organisational learning', *Journal of Managerial Issues*, pp. 157-173.
- Hektner, J. M., Schmidt, J. A., & Csikszentmihalyi, M. (2007), *Experience sampling method – Measuring the Quality of Everyday Life*, London: Sage Publications.
- Hitt, M. A., Nixon, R. D., Hoskisson, R. E., & Kochhar, R. (1999), 'Corporate entrepreneurship and cross-functional fertilization: activation, process and disintegration of a new product design team', *Entrepreneurship Theory and Practice*, 23(3), pp. 145-168.
- Hjorth, D. (2013), 'Public entrepreneurship: desiring social change, creating sociality', *Entrepreneurship & Regional Development*, 25(1-2), pp. 34-51.
- Hornsby, J. S., Kuratko, D. F., Shepherd, D. A., & Bott, J. P. (2009), 'Managers' corporate entrepreneurial actions: examining perception and position', *Journal of Business Venturing*, 24(3), pp. 236-247.
- Jarvis, P. (2006), *Towards a comprehensive theory of human learning*, New York, NY: Routledge.
- Johansson-Sköldberg, U., Woodilla, J., & Çetinkaya, M. (2013), 'Design thinking: past, present and possible futures', *Creativity and Innovation Management*, 22(2), pp. 121-146.
- Kearney, C., & Meynhardt, T. (2016), 'Directing corporate entrepreneurship strategy in the public sector to public value: Antecedents, components, and outcomes', *International Public Management Journal*, 19(4), pp. 543-572.
- Kirk, C., & Pitches, J. (2013), 'Digital reflection: using digital technologies to enhance and embed creative processes', *Technology, Pedagogy and Education*, 22(2), pp. 213-230.

- Klein, P. G., Mahoney, J. T., McGahan, A. M., & Pitelis, C. N. (2010), 'Toward a theory of public entrepreneurship', *European Management Review*, 7(1), pp. 1-15.
- Komarkova, I., Gagliardi, D., Conrads, J., Collado, A., Bacigalupo, M., Kampylis, P., & Punie, Y. (2015), *Entrepreneurship Competence: an overview of existing concepts, policies and initiatives – Final report*, Luxembourg: Publications Office of the European Union.
- Korsgaard, S., & Anderson, A. R. (2011), 'Enacting entrepreneurship as social value creation', *International Small Business Journal*, 29(2), pp. 135-151.
- Kuratko, D. F., Morris, M. H., & Covin, J. G. (2011). *Corporate Innovation & Entrepreneurship: Entrepreneurial development within organisations*, 3rd international edition, Boston, MA: Cengage Learning.
- Lackéus, M. (2014), 'An emotion based approach to assessing entrepreneurial education', *International Journal of Management Education*, 12(3), pp. 374-396.
- Lackéus, M. (2015), *Entrepreneurship in Education – What, Why, When, How*, OECD Publishing: Paris: Background paper for OECD-LEED http://www.oecd.org/cfe/leed/BGP_Entrepreneurship-in-Education.pdf
- Lackéus, M. (2018), "'What is value?'" – A framework for analyzing and facilitating entrepreneurial value creation', *Uniped*, 41(1), pp. 10-28.
- Lackéus, M. (2020), 'Collecting digital research data through social media platforms: can 'scientific social media' disrupt entrepreneurship research methods?', in W. B. Gartner & B. Teague (Eds.), *Research Handbook of Entrepreneurial Behavior, Practice, and Process* Cheltenham, UK: Edward Elgar Publishing.
- Lackéus, M., Lundqvist, M., & Williams Middleton, K. (2019), Emancipating the 'Who am I?' Question in Entrepreneurship Paper presented at the 3E ECSB, Gothenburg, Sweden.
- Lackéus, M., & Sävetun, C. (2019), 'Assessing the impact of enterprise education in three leading Swedish compulsory schools', *Journal of Small Business Management*, 57(S1), pp. 33-59.
- Lackéus, M., & Williams Middleton, K. (2018), 'Assessing experiential entrepreneurship education: Key insights from five methods in use at a venture creation program', in D. Hyams-Ssekasi & E. Caldwell (Eds.), *Experiential Learning for Entrepreneurship – Theoretical and Practical Perspectives on Enterprise Education*.
- Landström, H., Harirchi, G., & Åström, F. (2012), 'Entrepreneurship: exploring the knowledge base', *Research Policy*, 41(7), pp. 1154-1181.
- Lang, C., & Baltes, G. H. (2019), *Entrepreneurial Employees: a review and future research agenda*, Paper presented at the 2019 IEEE International Conference on Engineering, Technology and Innovation (ICE/ITMC).
- Leahy, R. (2006), *The worry cure: stop worrying and start living*, London: Piatkus Books.
- Lemke, T. (2001), 'The birth of bio-politics': Michel Foucault's lecture at the Collège de France on neo-liberal governmentality, *Economy and society*, 30(2), pp. 190-207.
- Levie, J., & Lichtenstein, B. B. (2010), 'A terminal assessment of stages theory: introducing a dynamic states approach to entrepreneurship', *Entrepreneurship Theory and Practice*, 34(2), pp. 317-350.
- Levinthal, D., & Rerup, C. (2006), Crossing an apparent chasm: Bridging mindful and less-mindful perspectives on organisational learning, *Organisation Science*, 17(4), pp. 502-513.
- Lewis, E. (1988), 'Public entrepreneurship and the teleology of technology', *Administration & Society*, 20(1), pp. 109-126.
- Liedtka, J. (2011), 'Learning to use design thinking tools for successful innovation', *Strategy & Leadership*, 39(5), pp. 13-19.
- Liedtka, J. (2015), 'Perspective: linking design thinking with innovation outcomes through cognitive bias reduction', *Journal of Product Innovation Management*, 32(6), pp. 925-938.
- Lumpkin, G. T., & Dess, G. G. (1996), 'Clarifying the entrepreneurial orientation construct and linking it to performance', *Academy of Management Review*, 21(1), pp. 135-172.
- Lundqvist, M. (2014), 'The importance of surrogate entrepreneurship for incubated Swedish technology ventures', *Technovation*, 34(2), pp. 93-100.
- Mansoori, Y., & Lackéus, M. (2019), 'Comparing effectuation to discovery-driven planning, prescriptive entrepreneurship, business planning, lean startup, and design thinking', *Small Business Economics*, in press.
- Marzano, S. (1998), *Creating value by design (Vol. 1): V & K Publishing*.
- Mazzucato, M. (2011), *The entrepreneurial state*, London: Demos.
- Mazzucato, M. (2018), *The value of everything: making and taking in the global economy*: Hachette UK.
- McCallum, E., Weicht, R., McMullan, L., & Price, A. (2018), *EntreComp into action: get inspired, make it happen*, Luxembourg: Publications Office of the European Union.
- McClelland, D. C. (1967), *The achieving society (Vol. 92051)*: Simon and Schuster.
- Moon, J. A. (2004), *A handbook of reflective and experiential learning: theory and practice*, New York, NY: RoutledgeFalmer.
- Morris, M. H. (1998), *Entrepreneurial intensity: sustainable advantages for individuals, organisations, and societies*, Westport, CT: Quorum Books.
- Muehlfeld, K., Urbig, D., & Weitzel, U. (2017), 'Entrepreneurs' exploratory perseverance in learning settings', *Entrepreneurship Theory and Practice*, 41(4), pp. 533-565.
- Mustafa, M., Gavin, F., & Hughes, M. (2018), 'Contextual determinants of employee entrepreneurial behavior in support of corporate entrepreneurship: a systematic review and research agenda', *Journal of Enterprising Culture*, 26(03), pp. 285-326.
- Neck, H. M., Greene, P. G., & Brush, C. G. (2014), *Teaching entrepreneurship: A practice-based approach*, Cheltenham, UK: Edward Elgar Publishing.
- Neessen, P. C., Caniëls, M. C., Vos, B., & De Jong, J. P. (2019), 'The intrapreneurial employee: toward an integrated model of intrapreneurship and research agenda', *International Entrepreneurship and Management Journal*, 15(2), pp. 545-571.
- Nicolaou, N., & Shane, S. (2009), 'Can genetic factors influence the likelihood of engaging in entrepreneurial activity?', *Journal of Business Venturing*, 24(1), pp. 1-22.
- O'Connor, G. C. (2008), 'Major innovation as a dynamic capability: a systems approach', *Journal of Product Innovation Management*, 25(4), pp. 313-330.
- O'Reilly, C. A., & Tushman, M. L. (2004), 'The ambidextrous organisation', *Harvard Business Review*, 82(4), pp. 74-83.
- O'Reilly, C. A., & Tushman, M. L. (2013), 'Organisational ambidexterity: past, present, and future', *The Academy of Management Perspectives*, 27(4), pp. 324-338.

- OECD. (2017), *Fostering Innovation in the Public Sector*, Paris: OECD Publishing.
- Ogbor, J. O. (2000), 'Mythicizing and reification in entrepreneurial discourse: ideology-critique of entrepreneurial studies', *Journal of Management Studies*, 37(5), pp. 605-635.
- Porter, T. M. (1996), *Trust in numbers: the pursuit of objectivity in science and public life*: Princeton University Press.
- Pregmark, J. (2019), *Mastering Change Through Innovative Initiatives*, thesis for doctoral degree, Chalmers University of Technology, Gothenburg, Sweden.
- Priestley, M., Biesta, G., & Robinson, S. (2013), 'Teachers as agents of change: teacher agency and emerging models of curriculum', *Reinventing the curriculum. New trends in curriculum policy and practice*, pp. 186-206.
- Rackham, N. (1988), *Spin Selling Situation-Problem-implication-Need-payoff*: New York: McGraw-Hill.
- Rackham, N. (1989), *Major account sales strategy*: McGraw-Hill.
- Rae, D. (2013), 'The contribution of momentary perspectives to entrepreneurial learning and creativity', *Industry and Higher Education*, 27(6), pp. 407-420.
- Rae, D. (2014), *Opportunity-centred entrepreneurship*: Palgrave Macmillan.
- Read, S., Sarasvathy, S., Dew, N., Wiltbank, R., & Ohlsson, A.-V. (2016), *Effectual entrepreneurship*, second edition, Abingdon: Taylor & Francis.
- Ries, E. (2011), *Lean Startup*, New York: Random House Digital.
- Ries, E. (2017), *The startup way: how modern companies use entrepreneurial management to transform culture and drive long-term growth*, UK: Penguin Random House.
- Roberts, J. W. (2012), *Beyond learning by doing: theoretical currents in experiential education*, New York, NY: Routledge.
- Ruskovaara, E., & Pihkala, T. (2016), Review, comparison and evaluation of seven assessment tools, *European Entrepreneurship Education NETWORK*
- Salovey, P., & Mayer, J. (1990), 'Emotional intelligence', *Imagination, Cognition and Personality*, 9(3).
- Schoonhoven, C. B., Romanelli, E., Lumpkin, G., & Katz, J. (2009), 'The next wave in entrepreneurship research', *Entrepreneurial Strategic Content (Advances in Entrepreneurship, Firm Emergence and Growth)*, 11, pp. 225-259.
- Schumpeter, J. A. (1934), *The Theory of Economic Development*, Cambridge, MA: Harvard University Press.
- Seligman, M. E. (2012), *Flourish: A visionary new understanding of happiness and well-being*, New York City: Simon and Schuster.
- Shah, A. (2010), 'An overnight success in only twenty short years: A commentary from the green room', in G. D. Beckman (Ed.), *Disciplining the arts: teaching entrepreneurship in context*, Lanham, Maryland: Rowman & Littlefield Publishing.
- Smilor, R. W. (1997), 'Entrepreneurship: reflections on a subversive activity', *Journal of Business Venturing*, 12(5), pp. 341-346.
- Smith, D. K., & Alexander, R. C. (1999), *Fumbling the future: how Xerox invented, then ignored, the first personal computer*: iUniverse.
- Sonenshein, S. (2014), 'How organisations foster the creative use of resources', *Academy of Management Journal*, 57(3), pp. 814-848.
- Spinosa, C., Flores, F., & Dreyfus, H. L. (1999), *Disclosing new worlds: entrepreneurship, democratic action, and the cultivation of solidarity*, Cambridge, MA: MIT Press.
- Stark, D. (2011), *The sense of dissonance: accounts of worth in economic life*, Princeton, NJ: Princeton University Press.
- Taplin, J. (2017), *Move fast and break things: How Facebook, Google, and Amazon have cornered culture and what it means for all of us*: Pan Macmillan.
- Thornberry, N. E. (2003), 'Corporate entrepreneurship: teaching managers to be entrepreneurs', *Journal of Management Development*, 22(4), pp. 329-344.
- Ulwick, A. W. (2002), 'Turn customer input into innovation', *Harvard business review*, 80(1), pp. 91-97, 126.
- Ulwick, A. W. (2005), *What customers want: using outcome-driven innovation to create breakthrough products and services*: McGraw-Hill Companies.
- Ulwick, A. W. (2016), *Jobs to be done: theory to practice*: Idea Bite Press.
- United Nations. (2015), *Transforming our world: the 2030 agenda for sustainable development*, New York: United Nations.
- Wang, C. L. (2008), 'Entrepreneurial orientation, learning orientation, and firm performance', *Entrepreneurship theory and practice*, 32(4), pp. 635-657.
- Wang, C. L., & Chugh, H. (2014), 'Entrepreneurial learning: past research and future challenges', *International Journal of Management Reviews*, 16(1), pp. 24-61.
- Vestergaard, L., Moberg, K., & Jørgensen, C. (2012), *Impact of entrepreneurship education in Denmark – 2011*, Odense, Denmark: The Danish Foundation for Entrepreneurship – Young Enterprise.
- Williams Middleton, K., & Donnellon, A. (2014), 'Personalizing entrepreneurial learning: a pedagogy for facilitating the know why', *Entrepreneurship Research Journal*, 4(2), pp. 167-204.
- Williams Middleton, K., & Donnellon, A. (2017), 'Learning to become entrepreneurial/fostering entrepreneurial identity and habits', in *Entrepreneurial Identity*: Edward Elgar Publishing.
- Williams Middleton, K., & Nowell, P. (2018), 'Team trust and control in new venture emergence', *International Journal of Entrepreneurial Behavior & Research*.
- Volery, T., Mueller, S., & von Siemens, B. (2015), 'Entrepreneur ambidexterity: a study of entrepreneur behaviours and competences in growth-oriented small and medium-sized enterprises', *International Small Business Journal*, 33(2), pp. 109-129.