European Centre for
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Making employee ownership work in startups and SMEs

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1 | Executive Summary

The adoption of employee ownership can lead to individual, company and economy wide benefits. It also provides opportunities for a more equal wealth distribution, higher levels of investments and more growth-oriented entrepreneurship. While employee ownership is growing and is promoted in many countries, The Netherlands is currently falling behind. We propose several options to increase the use of employee ownership in the Netherlands, including a change in the moment of taxation, a change in taxation levels and standardization of share valuation.

Based on a review of scientific literature and an international comparison of employee ownership and employee stock options, this report provides an overview of international best-practices and benefits of employee ownership for employees, companies and society.

Individual employees will benefit from employee ownership by generating additional wealth when the company is performing well, creating a more inclusive society because also less wealthy employees can benefit from it. Increasing employee ownership is also a broad-based stimulus for SMEs to attract and retain talent and increase employee commitment. International research shows it also increases innovativeness and firm performance.

Wide-spread employee ownership of SMEs, startups and scale-ups can also improve the quality of entrepreneurial ecosystems and increase the prevalence of productive entrepreneurship. It is more likely that a widely distributed ownership of 100 employee shareholders (each gaining 200 000 euros) will improve the entrepreneurial ecosystem by starting and investing in other companies via "entrepreneurial recycling", than concentrated ownership, with two founders who each gain 10 million euros (the same total capital gains).

The benefits of employee ownership are currently insufficiently reaped in the Netherlands, due to institutional impediments. The Netherlands could learn from countries such as the United States, Canada and Israel, but also from European countries including the United Kingdom, Sweden and Estonia how this can be implemented.

Currently, owners of employee stock options have to pay taxes when the option is exercised. This means that they have to pay taxes on wealth that is not yet in hand, as wealth will only be acquired once the stock is being sold. This discriminates against employees that have low levels of wealth over employees that have high levels of wealth who can more easily afford to exercise options and pay taxes, before they are able to sell the stock and acquire new financial means. Therefore a change in the moment of taxation is one of our suggestions.

The analyses in this report open the discussion regarding the scope of the changes made in taxation rate, time, and valuation method, but also the scope of the companies that are able to use these employee ownership plans. Countries implementing these changes only for a small group of specific startups show less effect than wider schemes. This suggests that changes should be made available for a large group of companies.

2

Management samenvatting

Medewerkersparticipatie kan leiden tot individuele, bedrijfs- en economische voordelen. Het biedt ook kansen voor een meer gelijkwaardige vermogensverdeling, hogere investeringen en meer op groei gericht ondernemerschap. Terwijl medewerkers-participatie in veel landen vaker wordt gebruikt en wordt gestimuleerd, loopt Nederland momenteel achter bij deze ontwikkeling. We beschrijven in dit rapport verschillende opties om het gebruik van medewerkersparticipatie in Nederland te vergroten, waaronder een verandering in het moment van belastingheffing, een verandering in hoogte van de belastingen en standaardisatie van de waardering van aandelen.

Dit rapport is gebaseerd op een analyse van wetenschappelijke literatuur en een internationale vergelijking van medewerkers-participatie en aandelenopties voor medewerkers. Dit rapport geeft een overzicht van internationale best-practices en voordelen van medewerkersparticipatie voor medewerkers, bedrijven en de samenleving.

Individuele medewerkers zullen profiteren van medewerkersparticipatie door extra vermogen op te bouwen wanneer het bedrijf goed presteert, waardoor een meer inclusieve samenleving wordt gecreëerd omdat ook minder vermogende medewerkers hiervan kunnen profiteren. Het vergroten van het eigenaarschap van medewerkers is ook een goede manier voor startups, scale-ups en traditionele MKB bedrijven om talent aan te trekken en te behouden en de betrokkenheid van medewerkers te vergroten. Internationaal onderzoek toont ook aan dat het de innovatie binnen bedrijven en bedrijfsprestaties verhoogt.

Een bredere verdeling van aandelen onder medewerkers binnen MKB bedrijven, startups en scale-ups kan ook de kwaliteit van ecosystemen voor ondernemerschap verbeteren en hiermee ook de hoeveelheid productief ondernemerschap vergroten. Door eigenaarschap van het bedrijf te verdelen over meer medewerkers groeit de grootte van de taart en het wordt de taart onder meer mensen verdeeld. Hierdoor zijn meer mensen in staat om een bedrijf te starten of weer te investeren in andere bedrijven (‘entrepreneurial recycling’). Dit zien we gebeuren in landen als de VS, Israël, Estland en Schotland. Het is namelijk waarschijnlijker dat 100 medewerkers met aandelen (die elk 200.000 euro verdienen indien het bedrijf succesvol wordt) het ecosysteem verbeteren door een nieuw bedrijf te starten en te investeren in andere bedrijven, dan geconcentreerd eigendom, met twee oprichters die elk 10 miljoen euro ontvangen.

De voordelen van medewerkersparticipatie worden in Nederland momenteel onvoldoende benut. Nederland zou kunnen leren van landen als de Verenigde Staten, Canada en Israël, maar ook van Europese landen als het Verenigd Koninkrijk, Zweden en Estland hoe dit geïmplementeerd kan worden.

Momenteel moeten medewerkers die aandelenopties hebben bijvoorbeeld belasting betalen wanneer de optie wordt uitgeoefend. Dit betekent dat ze belasting moeten betalen over vermogen dat nog niet zeker is, aangezien vermogen pas verworven wordt als het aandeel verkocht wordt. Hierdoor worden werknemers met een lager vermogen die geen liquide middelen beschikbaar hebben achtergesteld ten opzichte van werknemers met een hoger vermogen, die gemakkelijker opties kunnen uitoefenen en belasting vooraf kunnen betalen. Het verschuiven van het moment van belastingheffing is dan ook een van de belangrijke adviezen die we geven.

Dit rapport dient als bijdrage aan de discussie over mogelijke wijzigingen ten aanzien van het belasten van medewerkersparticipatie, maar ook over de vraag welke bedrijven gebruik moeten kunnen maken van deze regelingen. Landen die deze veranderingen alleen voor een kleine groep specifieke startups implementeerden, laten bijvoorbeeld beperkt effect zien. Een bredere aanpak is dus gewenst.

3 | Introduction

Employee ownership has gained prominence in public and scientific debates on the organization of firms and society, in particular for realizing a more connected and inclusive dynamic capitalism[1] and an entrepreneurial economy[2]. Employee ownership is increasingly seen as a means to connect employees and employers more strongly, to enable innovation and entrepreneurship. Employee ownership is not a new phenomenon, and it is not homogenous.

In the United States employee ownership has been common practice for quite a long time: taking off already in the 1920s with employee stock purchasing plans (as a capital source for companies) and it has become common practice within the private sector since the 1980s[3]. Employee ownership has become very prevalent at the end of the 20th century due to the 'bull market' (an extended period of rising stock prices) that ended in March 2000 and the 1974 Employee Retirement and Security Act (ERISA) that accommodated tax-deductible grants of company stock to the employees' portfolios. The latter especially promoted Employee Stock Ownership Plans (ESOPs).

In Europe employee ownership emerged on a large scale in the 1990s[4]. Interestingly, while in the EU the biggest adopters of employee ownership are large firms, in the US, small or medium privately owned firms also make up a dominant group[5]. This can be explained by the addition of Section 1024 to the US Internal Revenue Code in 1984, which excused family and small business owners from paying capital gains tax if they sold more than 30 percent of company stock to their employees while investing the revenue of the sale in another US firm[6].

Employee ownership can take many different forms and shapes, including employee stock ownership plans (ESOPs), employee stock purchasing plans (ESPPs), stock options, stock certificates (depository receipt plans), direct stock, and cooperatives[7]. Stock options and stock certificates are potential forms of employee ownership, only to be realized at the moment of grant or exercise. Stock appreciation rights (SARs) are a type of employee compensation linked to the company's stock price during a predetermined period, and are not a form of employee ownership.

In this report on employee ownership, we analyze employee ownership in general, with a focus on the recent phenomenon of employee stock options (especially in young and small firms). We define employee ownership (EO) as "any arrangement in which a company's employees own shares of the company's stock",[8] and employee stock options (ESO) as "a company grant that consists of employee options to buy a stated number of shares at a defined grant price. The options vest over a period of time or once certain individual, group, or corporate goals are met".[9] Ownership is not without risks. Both employee ownership and employee stock options can be considered as taking a risk: buying stock

1. Brown et al., 2019; Spicer, 2020
2. Thurik et al., 2013
3. Blasi & Kruse, 1999; Blasi et al., 2003; Buchele et al., 2009
4. Kruse & Blasi, 1995; Duffhues et al., 1999
5. Blasi et al., 2003
6. Blasi et al., 2003
7. Mol et al., 1997
8. NCEO, 2020
9. NCEO, 2012

without knowing what its returns will be and buying (not being granted) stock options without knowing whether the employees will be in or out of the money when the options vest.

Next to a source of equity, employee ownership and employee stock options are also a means to attract and retain employees, to increase the commitment of employees, resulting in higher levels of innovation and productivity, and thus firm performance. This has gained importance in knowledge-based economies, in which human capital is the key asset of firms. This is important when considering that many economies still have labor regulations that were a good fit for the 20st century industrial and managerial economy, but need to be redesigned for the 21st century knowledge based and entrepreneurial economy.[10]

Employee ownership will have broad-based advantages for young, small, old and large firms.

Employee ownership can also be a means to improve entrepreneurial ecosystems, providing alternative sources of entrepreneurial finance, improving access to and commitment of talent, and ultimately stimulating a culture of innovation.

In this report we will provide a summary of the scientific literature on (different types of) employee ownership, and provide in-depth insights into the role of the (institutional) context in enabling or constraining the prevalence of employee ownership (and employee stock options) and the implications for public policy in the Netherlands.

10. Commissie Regulering van Werk, 20202. Thurik et al., 2013

4 Academic evidence

We performed a systematic review of the scientific literature on employee ownership, to establish an scientific evidence base on the antecedents and consequences of employee ownership, zooming in on employee stock options.[11] The majority of the studies focuses on the firm level consequences of employee ownership and shows positive effects on employee commitment (attracting and binding employees), corporate innovation, and firm performance (measured with productivity, profitability, return on assets, and firm survival), through greater work effort of employees and a more cooperative and entrepreneurial corporate culture (see Table 1).

For employee stock options, the effects on corporate innovation and performance are mixed. Employee stock options are a less committed form of potential ownership, and thus do not yet produce all the positive effects of full-fledged employee ownership. The positive effects of employee ownership and employee stock options are generally stronger for smaller firms than for large firms. This is likely to be caused by stronger employee co-monitoring and a stronger corporate culture effect. [12] Furthermore, employees that participate in an employee ownership scheme might feel a sense of psychological ownership which in turn has a positive effect on jobsatisfaction and employee commitment.[13]

We also reviewed studies on the antecedents of employee ownership and employee stock options. Employee stock options are relatively often used in technology intensive, and venture capital-backed start-ups that need to attract and retain employees with technical skills, and in particular in less hierarchical firms.[14]

Macro level research shows that employee stock options are relatively prevalent in countries with a low effective tax rate on employee stock options. Low effective tax rates on employee stock options also stimulate venture capital activity, and growth-oriented entrepreneurship at the macro level.[15]

TABLE 1.
MICROECONOMIC CONSEQUENCES OF EMPLOYEE OWNERSHIP: ACADEMIC EVIDENCE BASE

	Employee commitment	Corporate innovation	Firm performance
Employee Ownership	+	+	+ / 0
Employees Stock Options	+	0 / +	0 / + / -

source: Spaans et al. 2021

11. See O'Boyle et al., 2016; Spaans et al., 2021
12. Hochberg & Lindsey, 2010; Kim & Ouimet, 2014
13. Pierce et al., 1991; Chiu et al., 2007
14. Hand, 2008
15. Henrekson & Sanandaji 2018a; 2018b

Wide-spread ownership of startups and scale-ups can improve the quality of entrepreneurial ecosystems [16] in several ways (see Figure 1). First, wide-spread ownership means that a large group of employees may see their wealth increase after a sale or IPO of the firm, and with this wealth they can become investors in other startups. Second, the returns from employee stock options can be used to invest in their own startups, removing so-called liquidity constraints for entrepreneurship.[17] Employee ownership may enhance "entrepreneurial recycling": the recycling of the wealth created by successful entrepreneurs along with their associated learning.[18] Evidence of this "entrepreneurial recycling" can be found in US[19], and Israel[20], Estonia[21], and Scotland[22]. A key improvement of this mechanism lays in the wider spread of the returns amongst employees of successful startup exit: it is more likely that a widely distributed ownership of 100 employee shareholders (each gaining 200 000 euros for example) will improve the entrepreneurial ecosystem, than concentrated ownership, with for example two founders who each gain 10 million euros (the same total capital gains). This will lower the liquidity constraints to entrepreneurship for a larger group and can stimulate alternative sources of finance in a broader way.

Enhancing employee ownership and employee stock options can improve entrepreneurial ecosystems by increasing the amount of committed talent, a culture of innovation, and with successful exits of startups it can trigger a process of "entrepreneurial recycling" that improves the quality of entrepreneurial ecosystems, which subsequently increases the prevalence of productive entrepreneurship in an economy (see Figure 1).

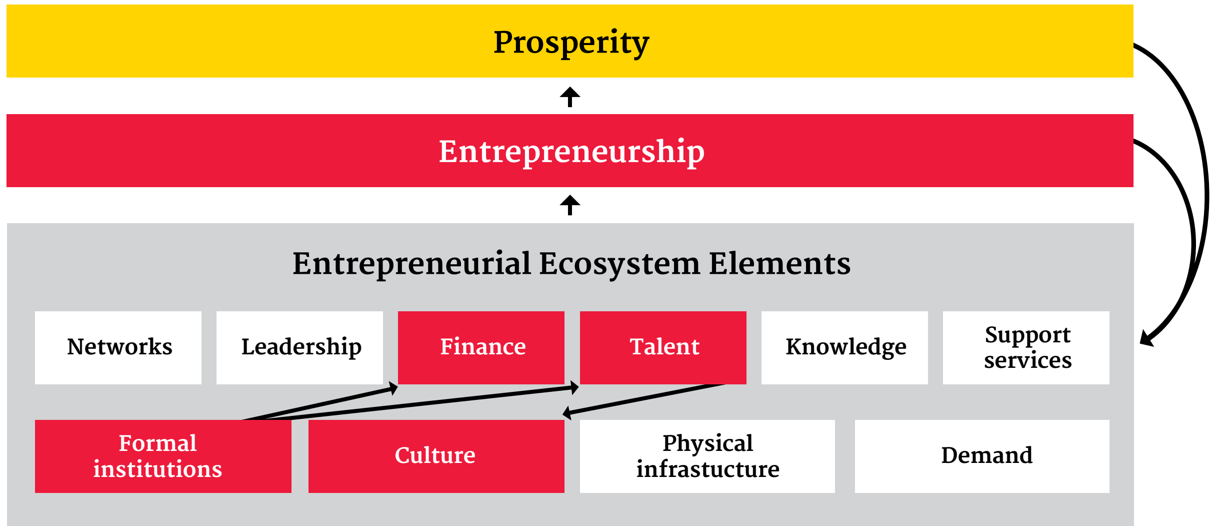


FIGURE 1. ENTREPRENEURIAL ECOSYSTEM EFFECTS OF CHANGING INSTITUTIONS TO ENHANCE EMPLOYEE OWNERSHIP

16. An entrepreneurial ecosystem comprises a set of interdependent actors and factors that are governed in such a way that they enable productive entrepreneurship (Stam, 2015).
17. Evans & Jovanovic 1989
18. Bahrami & Evans, 1995; Mason & Harrison, 2006
19. Bahrami & Evans, 1995
20. Engel & Del-Palacio, 2011
21. Dumas, 2014; Prohorov, 2020
22. Mason & Harrison, 2006

5 | Employee ownership and employee stock options in the Netherlands

The prevalence of employee ownership and employee stock options is relatively low in the Netherlands. The fifth European Working Conditions Survey conducted by Eurofound in 2012, finds that approximately 3 percent of employees participate in employee ownership. Kaarsemaker and Poutsma (2016) find that in the Netherlands, in 2009 3.6 percent of companies with ten or more employees have implemented a broad-based employee ownership scheme. Another 1 percent had a stock option scheme in place.

Using more recent data, the European Company Survey[23] shows that 6.7% of private companies participate in employee share ownership schemes. The prevalence of employee ownership in the Netherlands is relatively low in comparison to other European countries and even lower in comparison to the US. In Europe 4 to 20 percent of the total workforce is involved in employee ownership via stocks or stock options.[24] The prevalence of employee ownership in Europe and especially the Netherlands is very low compared to the 23 percent of the total US workforce.[25] In the US, 36 percent of the employees working at firms with stock, own shares or stock options in their companies.

Employees in the Netherlands can either receive stock or options as part of a grant or be allowed to buy them. Stock options are taxed as regular income from employment at the moment the stock option is exercised. In addition, progressive income tax of 49.5 percent has to be paid over the difference between the value of the stocks and the exercise price. Although employees at public firms can simultaneously exercise their options and sell their stocks at the stock market in order to receive the liquidity to pay the income tax, for private firms (most startups, scale-ups and SMEs) this is not possible. For employees at private firms, it makes most sense to buy stocks or exercise their stock options when the firm they work at is planning for an 'exit' strategy with an IPO or by selling (a part of) the company. Those who leave privately-owned firms before this 'exit' or before a buyback takes place will generally not benefit from their stock options as exercising them without the possibility of selling the shares will result in having to pay income taxes before realizing any proceeds from the shares. This might discourage employees from taking part in stock options plans again, and thus refrain companies from successfully implementing stock option schemes in the future. Another caveat with Dutch stock option regulation is that private firms do not have a standardized way to value their shares and stock options. This could thus mean that the Dutch tax authorities adjust the set value later on, which results in uncertainty about the level of taxation.

The current institutional conditions in the Netherlands do not seem to stimulate employee ownership and thus limits the ensuing benefits for employees, firms and society.

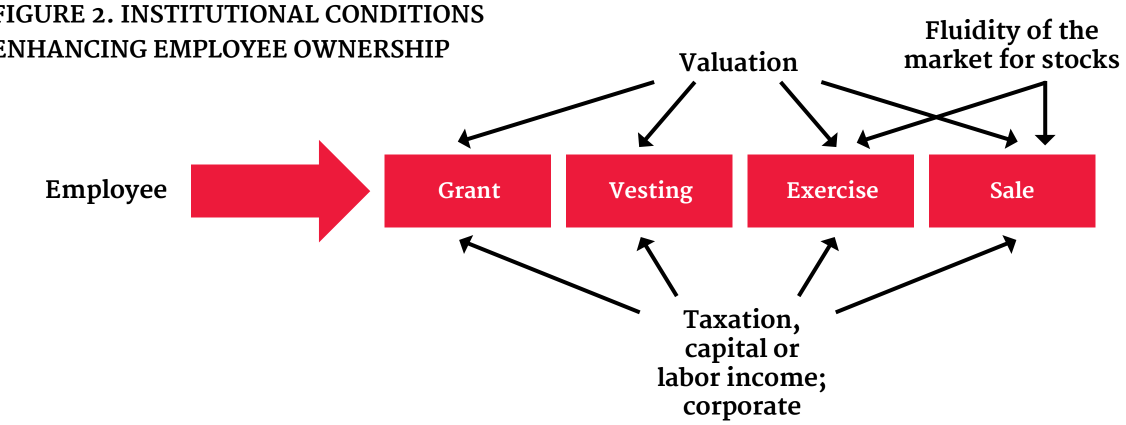
23. Lowitzsch & Hashi, 2014
24. Index Ventures, 2020; NCEO, 2020
25. Blasi et al., 2003

6 | The Dutch institutional context for employee ownership

How can employee ownership be enhanced? What are the bottlenecks to increasing the prevalence of employee ownership and its positive effects in the Netherlands? We present a comparative institutional study of employee ownership, with a focus on employee stock options. This includes (see Figure 2)·

- **the fluidity of the market for stocks**
- **the timing of taxation (at the moment of grant, vesting, exercise, or sale)**
- **the level of taxation**
- **the way employee stock options and stocks are valued**
- **the type of taxation (capital tax, labour income tax, or corporate tax)**

FIGURE 2. INSTITUTIONAL CONDITIONS ENHANCING EMPLOYEE OWNERSHIP



In the Netherlands, employee stock options are taxed at the moment the options are exercised or the options are sold. The option benefit is taxed as regular employment income (Box 1 at progressive rates up until 49.5%) After the employee options are exercised, the shares are either taxed according to Box 3 (taxable income on savings and investments) of which an amount of €50,000 of total capital is non-taxable or in case the employee owns 5% or more of the shares or a class of shares in the company are taxed according to Box 2 (substantial interest taxation 29.6%).[26]

The low prevalence of employee ownership in the Netherland seems to be caused by several factors[27]: (1) employees have to pay taxes at the moment of exercise, without being able to simultaneously sell the stocks; (2) there is a relatively high tax rate on employee stock options; (3) there is uncertainty about the value of employee stock options in regard to tax filings. In addition, these factors add to the low awareness of the possibility of introducing and adopting employee ownership in the Netherlands. The level of taxation and the fluidity of the stock market for private companies is not yet seen as a primary problem in the Netherlands, but this could change once other bottlenecks have been solved and employee ownership and stock option plans become more prevalent.

26. Belastingdienst, 2021

27. This observation is based on discussions with experts and the international comparison of the Dutch institutional context for employee ownership and employee stock options.

TIMING OF TAXATION

Currently, owners of employee stock options have to pay taxes when the option is exercised. This means that they have to pay taxes on wealth that is not yet in hand, as wealth will only be acquired once the stock is being sold. This is an unfair and a socially unwanted characteristic of the Dutch institutional context. It is unfair, because it discriminates against employees that have low levels of wealth over employees that have high levels of wealth who can more easily afford to exercise options and pay taxes, before they are able to sell the stock and acquire new financial means. It is socially unwanted, because it is likely to lower the prevalence of employee stock options and employee ownership, thus withholding the positive effects on the performance of firms and the quality of the entrepreneurial ecosystem. Countries such as the US, UK, and Estonia, that are known for their favorable stock option regulations, all allow for taxation at the point of sale (see Table 2).

LEVEL OF TAXATION

Having to pay relatively high taxes on stocks is not necessarily unfair. The degree to which it is socially unwanted depends on the trade-off between the amount of taxes being collected and the deferred extra positive effects of employee ownership (including stock options). The taxation of option value gain is currently relatively high in the Netherlands: income tax up to 49.5 percent.[28] This might partly explain the low prevalence of employee stock options, and low levels of venture capital and growth-oriented entrepreneurship in the Netherlands.[29] Since 2018, for startup employees, 25 percent of their gain from the stock option exercising is considered non-taxable (up to €50 000). However, the employer must be granted a R&D declaration.[30] This lifts some of the burden for employees working at startups, but the regulation does not take away the problems regarding stock option valuation and taxation timing. Looking at some international best practices (see Table 2), the US imposes capital gains tax on Incentive Stock Options and the UK enables employees of firms that utilize the Enterprise Management Incentive (EMI) scheme to pay low capital gains taxes. In France, a lower taxation rate needs to be paid if the employee worked at its company for at least three years. In the Netherlands capital gains tax is 26.25 percent. This is lower than the income tax rate Belastingdienst, 2021.

VALUATION OF EMPLOYEE STOCK OPTIONS AND SHARES

Unlike public firms listed on the stock exchange, private firms do not have a standardized way to value their stock options and shares. This could thus mean that the Dutch tax authorities adjust the set value later on, which results in uncertainty about the value of stock (options) and resulting amount of taxation. This uncertainty is likely to lower the use of employee stock options. The United States IRS' section 409A states that private firms need to obtain a 'Safe Harbor' valuation in which the IRS has to accept the valuation unless it can prove it to be unreasonable. Safe Harbor methods include: valuation by an accredited third-party accountant, reasonably good faith written valuation of a startup (with a Backsolve or Cost-to-create method), and a formula-based valuation.[31]

The three factors described above are likely to withhold employees and employers to make use of employee stock option schemes and constrain the positive effects of employee ownership (including employee stock options) on employee commitment (attracting and binding employees), corporate innovation, and firm performance (productivity, profitability, return on assets, and firm survival). In addition, such a low participation in employee ownership can also keep the quality of the entrepreneurial ecosystem at socially suboptimal levels. How can these factors be tackled in order to lower the constraints for employee ownership? We analyze the institutional contexts of a set of relevant benchmark countries in the next section.

28. Belastingdienst, 2021
29. Henrekson & Sanandaji 2018a; 2018b
30. Deloitte, 2017; StartupDelta, 2017
31. Barnes-Brown, 2014; Redwood valuation, 2016; Lemke, 2020

7 International institutional benchmarks

We analyze the institutional contexts of a set of relevant benchmark countries to tackle the bottlenecks for employee ownership in the Netherlands. The international comparison of institutional contexts for employee stock options is summarized in Table 2. Table 2 provides a per country summary of the employee stock option program, the tax rate, the tax timing, the assured stock valuation, and the restrictions regarding the employee stock option programs. We have also added the country ranking of Index Ventures, which qualifies the employee ownership climate (see Appendix A1 for the Index Ventures Country review).

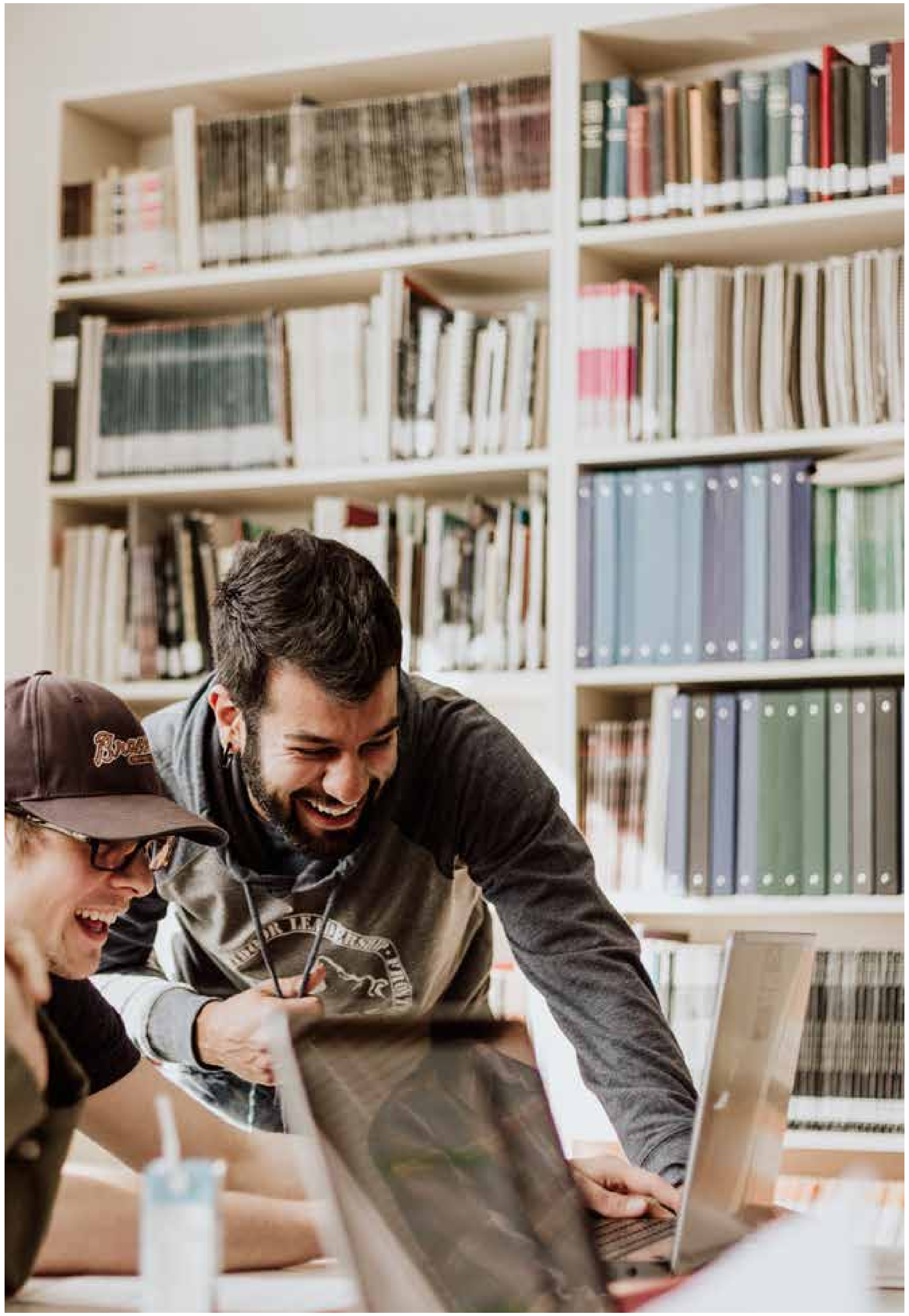
COUNTRY REVIEW

Estonia has been hailed as the most favorable context for employee stock options. In 2011 Estonian legislation towards involvement of employees as owners was changed, such that employers became exempt from fringe benefit tax that had to be paid over employee stock options at the moment of exercise. Fringe tax normally had to be paid by the stock option granting employer over the spread of the market value and the exercise price.[33] The only condition being that the option is not realized earlier than three years since the issue.[32] Furthermore, for employees, Estonia imposes a flat income tax rate of 20 percent on the spread of the sale price and the exercise price at the point of sale.[34]
In case the employer pays fringe benefit tax, the employee pays tax on the spread of the sale price and the acquisition price which includes the value of shares taxed as a fringe benefit. However, employers can set a heavily discounted strike price, allowing employees to pay small amounts of tax.

Israel initially had a similar tax system as the Netherlands. In order to stimulate entrepreneurship, Israel allows employees to get taxed when they sell their stocks. There are, however, no size or stage requirements to employee stock option plans. If employees take part in a government trustee agreement, income tax will be imposed on the difference between the market value when receiving the stock and the exercise price. This amount is zero for stock options. Other profits (spread of the selling and strike price) will be taxed with a 25 percent capital gains tax. Valuation wise, companies that have US presence are allowed to use US 409A valuations.[35]

The United States is often seen as the prime example of a context favorable to employee ownership and employee stock options. The most popular employee ownership plan in the US is the Employee Stock Ownership Plan (ESOP). These plans are part of a firm's pension plan in which the stocks of employees are bought back after the employee leaves the company. The recipients of stocks via ESOPs pay federal capital gain taxes of 10 percent.[36] With traditional ESOPs, employees receive stock on top of their wages, while with a 401k plan, employees need to invest their own savings in their company's stock.[37] In addition, the US has two types of stock options: non-qualified stock options and incentive stock options. Tax-wise, incentive

32. Cobalt, 2018
33. Jaakson & Kallaste, 2016
34. Index Ventures, 2020; Cobalt, 2018
35. Klementz, 2018; Index Ventures, 2020
36. NCEO, 2020
37. Blasi & Kruse, 2006



International institutional benchmarks

stock options are the most attractive. Regarding incentive stock options (ISO), the US lets employees pay federal capital gain taxes (0 to 20 percent if outside of the ESOPs and depending on total income) and state capital gains tax (0 to 13.3 percent depending on state) at the moment the stocks are sold at least 1 year after exercise and 2 years after grant.[38] There is an exception to the rule according to Section 83(i) which allows non-senior employees to exercise and defer tax up to 5 years, or until the shares become tradeable.[39] Furthermore, Alternative Minimum Tax needs to be paid at the moment of exercise if the value of stock options exceeds $73 600 and the shares are not sold in the same year the options are exercised.[40] Qualified Small Business Stocks (QSBS) provide the most tax-friendly form of employee ownership (the shares can also be issued via options): employees do not have to pay any federal capital gains tax or need an Alternative Minimum Tax adjustment on their company stock. To utilize this scheme, companies cannot have more than $50 million of active assets, and employees need to hold on to the stock for 5 years. [41] Regarding valuation, the United States IRS' section 409A states that private firms may either use the General Rule or one of the three Safe Harbor methods. Using an accredited third-party accountant to perform the valuation lowers the probability that the Treasury performs a revaluation later on.

The UK has an Enterprise Management Incentive Scheme (EMI) for all startups with less than 250 employees and £30m assets. The stocks are taxed at the moment of sale against a reduced rate of 10 percent after 2 years (entrepreneurs' relief). European countries that are considered to have a favorable institutional context for employee stock options (including Estonia, France, UK, Sweden and Portugal) all impose their taxes similar to the US at the sale of the stock. In France, Bons de Souscription de Parts de Createur d'Entreprise (BSPCE) are not a pure stock option but are instead similar to a Restricted Stock Unit (RSU) which are vested automatically in a later stage of the firm. RSUs do not have an exercise price and employees have no say when they are vested (and also less say when they need to pay taxes).[42] In 2020, the French budget law announced that employees can purchase shares under the BSPCE program for a lower price than the valuation per share determined at the last funding round.[43]

Countries such as Germany and Austria that currently have a similar stock option tax system as the Netherlands are regarded to be more inefficient. However, in 2020 Germany has announced to realize a bill that changes this: for startups the moment of stock option taxation will be moved to the moment of selling the stock, with the ability to postpone it up to 10 years. If the employee changes employer prematurely, the employee needs to pay taxes immediately. The main aim of this bill is to sort and retain employees to the company, to facilitate employees with wealth growth, and let positive firm performance benefit employees. With their new stock option regulation, Germany's employee ownership environment will improve over that of the Netherlands. Additionally, regarding employee share ownership, Germany is planning to raise its yearly tax-free stock amount from €360 to €720.[44]

38. Index Ventures, 2020
39. Index Ventures, 2020
40. Index Ventures, 2020
41. Bardwell & Huish, 2020
42. Index Ventures, 2020
43. Fouquet, 2020
44. Bundesministerium der Finanzen, 2020

International institutional benchmarks

TABLE 2

Country	Employee stock option program	Tax rate	Tax timing	Assured stock valuation	Restrictions	Ranking Index Ventures
Estonia	Stock options	Flat income tax rate of 20% on the spread between the strike price and the sale price.	Point of sale	No, but companies can choose a strike price that is heavily discounted without creating a tax liability upon grant	None	2
Israel	Stock options	Capital gains tax of 25% on the spread between strike price and sale price	Point of sale	No, but valuations based on the US 409A are accepted (often 60% below last round valuation)	* Limited to 10% of issued shares. * Options are to be held in an approved trust scheme for 2 years after grant.	4
Canada	Stock options	Income tax at 50% of employee's marginal income tax rate. Tax is calculated over fair value at exercise moment. First C$850k is tax free if sale is more than 2 years after exercise	Point of sale	No, but valuations based on the US 409A are accepted (often 60% below last round valuation)	None	5
France	BSPCE scheme: restricted stock units	Gains are subjected to 19% tax if the employee's tenure has been more than 3 years at the date of sale, else 30%. Social tax is 15%.	Point of sale	No, but they are moving to changing the policy. Strike price is now set up based on the last round valuation: 20-30% discounts are justified later-stage	* Less than 15 years after company formation * Privately held * 25% of shares held by individuals instead of institutions * Pays corporate income tax in France	6
United Kingdom	EMI (enterprise management incentive scheme)	Capital gains tax of 20% on gains in excess of an employee's annual capital gains allowance (£11,700). Entrepreneurs relief of reduced tax of 10% when there is at least 2 years between grant and sale.	Point of sale	Yes, these valuations often have a 70% discount with regard to the last round valuations. For pre-profit startups valuation can be equal to the nominal value.	* Less than 250 employees globally * The firm is independent (i.e. it does not have a parent company) * Gross assets under £30m * Employees work 25+ hours a week or 75% of their working time. * Maximum strike price value of £250k of unexercised options * Aggregate limit of £3m strike price value of EMI options can be granted	7

Country	Employee stock option program	Tax rate	Tax timing	Assured stock valuation	Restrictions	Ranking Index Ventures
United States	Incentive stock options (ISO)	Capital gain tax of 0-20% when holding the options for at least 2 years after the grant.	Point of sale, if sold 1 year after exercise and 2 years after grant. But non-senior employees are allowed by Section 83(i) to exercise and defer tax up to 5 years or until shares become tradable. Also, at point of exercise when needing to pay alternative minimum tax.	Yes, 409A valuations every 12 months provide assurance. Valuations are determined by a third party and based on multiple valuation mechanisms: e.g. Black Scholes, Multiples, and DCF	* Maximum of $100,000 combined fair market value of stock that become exercisable in a year. * Maximum of 10 years to exercise after issue * Maximum of 3 months to exercise after employment termination.	9
Sweden	Tax favored scheme: Qualified Employee Stock Options	Gains on sale are subject to capital gains tax between 25-30%	Point of sale	No, the strike price is set to the nominal value of the shares or at an 80% discount.	* The QESO scheme is only allowed for smaller startups (up to 50 employees, less than 10 years old, and a balance sheet <$8.5m). * Employees must remain with the company for 3 years after the grant.	12
Netherlands	Stock options	Income tax at progressive rates until 49.5%. For startups, 25% of gains is non-taxed, up to €50,000 if certain conditions are met.	Point of exercise. Capital gains tax may be due afterwards if ownership > 5%	No, often valuation from last funding round used or alternative valuation method.	None	16
Germany	Stock options	Point of exercise: income tax, social security contributions, solidarity surcharge and church tax. Point of sale: 28% tax rate	Point of exercise and sale	No, valuation from last funding round used.	None, but minority shareholders have extensive rights to be consulted on corporate decisions, which makes use of stock options challenging	23

8 | Conclusions and implications

There is abundant scientific evidence on the microeconomic advantages of employee ownership and employee stock options, ranging from positive effects on employee commitment (attracting and binding employees), corporate innovation, and firm performance (productivity, profitability, return on assets, and firm survival), through greater work effort of employees and a more cooperative and entrepreneurial corporate culture. There is some scientific evidence on the macroeconomic advantages of employee ownership and employee stock options, including higher levels of venture capital investments and rates of growth-oriented entrepreneurship. The benefits seem to be strongest for (potential) scale-ups and SMEs in general.

The low level of employee ownership and in particular employee stock options in The Netherlands can partly be explained by (1) the early taxation moment, during exercise, not sale, (2) the high tax rate on employee stock options, and (3) uncertainty about the value of employee stock options. Currently, owners of employee stock options have to pay taxes when the option is exercised. This means that they have to pay taxes on wealth that is not yet in hand, as wealth will only be acquired once the stock is being sold. This discriminates against employees that have lower levels of wealth over employees that have higher levels of wealth who can more easily afford to exercise options and pay taxes, before they are able to sell the stock and acquire new financial means. The current situation constrains the prevalence of employee stock options and also (potential) employee ownership, thus withholding the positive effects on the performance of firms and the quality of the entrepreneurial ecosystem. The macro effect of high taxes depends on the trade-off between the amount of taxes being collected and the deferred extra positive macroeconomic effects of employee ownership (including stock options). A policy change (lower taxation, at moment of sale) increases the individual benefits, and has probably positive microeconomic effects. It might lower national tax benefits initially, but this might catch up once employee ownership becomes more widely diffused. The widespread diffusion of employee ownership is likely to improve the quality of the Dutch entrepreneurial ecosystem, especially talent and finance, via "entrepreneurial recycling". This will subsequently lead to higher levels of productive entrepreneurship.

The analyses in this report open the discussion regarding the scope of the changes made in taxation rate, time, and valuation method. Countries that permit tax regulation exceptions for startups or scaleups satisfying certain size or stage requirements, might work negatively if such companies grow out of these requirements. Tax advantages in Sweden are reserved for startups under 50 employees and are limiting the further participation of employees. Broad-based measures, therefore, might work best. The UK's EMI scheme has proven to be effective, even though it imposes size and stage limitations, although more generous than in Sweden. This suggests that changes regarding effective tax rate, tax timing and assured valuation should be made for a large enough group, including at least startups and scaleups and other SMEs (up to 250 employees, or larger).

There is a lack of data and evidence-based insights on employee ownership within the Dutch SME and startup context. Better data and monitoring of employee ownership and the use of employee stock option plans is needed, to compare how the Netherlands performs in comparison to other (benchmark) countries, and how it evolves over time. This would be beneficial to public policy and the economy at large.

9 | References

Bahrami, H. & Evans, S. (1995). Flexible Re-Cycling and High-Technology Entrepreneurship. ***California Management Review 37***, 62–89.

Bardwell, E., & Huish, J. (2020). ***INSIGHT: Stock Ownership Plans Can Minimize Tax on Liquidity Event***. Retrieved 10-02-2021 from https://news.bloombergtax.com/daily-tax-report/insight-stock-ownership-plans-can-minimize-tax-on-liquidity-event

Barnes-Brown, P. N. (2014). ***Common Stock Valuation and Option Pricing by Private Companies.*** 10 Years of Valuations Under 409A. Retrieved 10-02-2021 from https://www.morse.law/uploads/1437/doc/common-stock-valuation.pdf

Belastingdienst (2020). ***Heffingsvrij vermogen***. Retrieved 16-12-2020 from https://www.belastingdienst.nl/wps/wcm/connect/bldcontentnl/belastingdienst/prive/vermogen_en_aanmerkelijk_belang/vermogen/belasting_betalen_over_uw_vermogen/heffingsvrij_vermogen/heffingsvrij_vermogen

Belastingdienst (2021). ***Overzicht tarieven en belastingschijven.*** Retrieved 10-02-2021 from https://www.belastingdienst.nl/wps/wcm/connect/bldcontentnl/belastingdienst/prive/inkomstenbelasting/heffingskortingen_boxen_tarieven/boxen_en_tarieven/overzicht_tarieven_en_schijven/overzicht_tarieven_en_schijven

Blasi, J. R., Freeman, R. B., Mackin, C., & Kruse, D. L. (2008). ***Creating a bigger pie? The effects of employee ownership, profit sharing, and stock options on workplace performance*** (No. w14230). National Bureau of Economic Research.

Blasi, J., Kruse, D., Sesil, J., & Kroumova, M. (2003). An assessment of employee ownership in the United States with implications for the EU. ***The International Journal of Human Resource Management***, 14(6), 893-919.

Buchele, R., Kruse, D. L., Rodgers, L., & Scharf, A. (2010). Show me the money: Does shared capitalism share the wealth?. In ***Shared capitalism at work: Employee ownership, profit and gain sharing, and broad-based stock options*** (pp. 351-375). University of Chicago Press.

Bundesministerium der Finanzen (2020). ***Entwurf eines Gesetzes zur Stärkung des Fondsstandorts Deutschland und zur Umsetzung der Richtlinie (EU) 2019/1160 zur Änderung der Richtlinien 2009/65/EG und 2011/61/EU im Hinblick auf den grenzüberschreitenden Vertrieb von Organismen für gemeinsame Anlagen (Fondsstandortgesetz – FoG) - Bundesfinanzministerium - Service***. Retrieved 03-12-2020 from https://www.bundesfinanzministerium.de/Content/DE/Gesetzestexte/Gesetze_Gesetzesvorhaben/Abteilungen/Abteilung_VII/19_Legislaturperiode/2020-12-03-fondsstandortgesetz/0-Gesetz.html

Chiu, W. C., Harry Hui, C., & Lai, G. W. (2007). Psychological ownership and organizational optimism amid China’s corporate transformation: effects of an employee ownership scheme and a management-dominated board. ***The International Journal of Human Resource Management***, 18(2), 303-320.

Commissie Regulering van Werk (2020). I***n wat voor land willen wij werken? Naar een nieuw ontwerp voor de regulering van werk.***

References

Deloitte (2017). ***Netherlands - Favorable tax treatment of stock options for employees of innovative start-ups.*** Retrieved 10-02-2021 from https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Tax/dttl-tax-global-rewards-update-netherlands-6-february-2017.pdf.

Duffhues, P. J. W., Kabir, M. R., & Mertens, G. M. H. (2003). ***Personeelsopties***. Ontwikkelingen, Economische Prestaties, Winstvertekening en Externe Verslaggeving van Nederlandse Beursondernemingen.

Dumas, M. (2014). The Rise of the Estonian Start-up sphere. ***IT Professional***, 16(4), 8-11.

Engel, J. S., & Del-Palacio, I. (2011). Global clusters of innovation: the case of Israel and Silicon Valley. ***California Management Review***, 53(2), 27-49.

Evans, D. S., & Jovanovic, B. (1989). An estimated model of entrepreneurial choice under liquidity constraints. ***Journal of Political Economy, 97*** (4), 808-827.

Fouquet, H. (2020). ***Macron Has a Plan to Lure Tech Talent to France.*** Retrieved January 11, 2021, https://www.bloomberg.com/news/articles/2020-01-18/macron-improves-stock-options-to-lure-tech-talent-to-france
Henrekson, M., & Sanandaji, T. (2018a). Stock option taxation and venture capital activity: A cross-country study. Venture Capital, 20(1), 51-71.

Hand, J. R. (2008). Give everyone a prize? Employee stock options in private venture-backed firms. ***Journal of Business Venturing,*** 23(4), 385-404.

Henrekson, M., & Sanandaji, T. (2018a). Stock option taxation and venture capital activity: A cross-country study. ***Venture Capital***, 20(1), 51-71.

Henrekson, M., & Sanandaji, T. (2018b). Stock option taxation: a missing piece in European innovation policy?. ***Small Business Economics***, 51(2), 411-424.

Hochberg, Y. V., & Lindsey, L. (2010). Incentives, targeting, and firm performance: An analysis of non-executive stock options. ***The Review of Financial Studies,*** 23(11), 4148-4186.

HR-Kiosk (2018) ***Aandelenoptieregeling***. Retrieved 10-02-2021 from https://www.hr-kiosk.nl/hoofdstuk/bedrijfssparen/aandelenoptieregeling

Index Venture (2020). ***Rewarding Talent***. A guide to stock options for European entrepreneurs. Retrieved 24-11-2020 https://www.indexventures.com/rewardingtalent/

Index Venture (2021). ***Rewarding Talent***. A guide to stock options for European entrepreneurs. Retrieved 10-02-2021 from https://www.indexventures.com/rewardingtalent/handbook.

Jaakson, K., & Kallaste, E. (2016). Who uses employee financial participation in an adverse environment? The case of Estonia. ***Economic and Industrial Democracy***, 37(3), 449-467.

Kaarsemaker, E., & Poutsma, E. (2016). Employee share ownership in the Netherlands. In ***Dimensions and Perspectives on Financial Participation in Europe*** (pp. 285-300). Nomos Verlagsgesellschaft mbH & Co. KG.

Kim, E. H., & Ouimet, P. (2014). Broad-based employee stock ownership: Motives and outcomes. ***The Journal of Finance***, 69(3), 1273-1319.

Lemke, T. (2020). ***What Is a 409a Valuation?*** Retrieved 06-01-2021 from https://www.thebalance.com/what-is-a-409a-valuation-and-should-your-company-have-one-4171744

Lowitzsch, J., & Hashi, I. (2014). ***The promotion of employee ownership and participation.***

Mason, C. M., & Harrison, R. T. (2006). After the exit: Acquisitions, entrepreneurial recycling and regional economic development. ***Regional Studies, 40***(1), 55-73.

Mol, R., Meihuizen, H., & Poutsma, E. (1997). Winstdeling, aandelen en opties voor werknemers. ***Economisch Statistische Berichten***, 13, 613-615.

Mol, S. (2017). ***Capital Waters launches two Employee Incentive Plans***. Retrieved 10-02-2021 from https://www.capitalwaters.nl/blog/capital-waters-employee-incentive-plans-are-live/
NCEO. (2020). Employee ownership by the numbers. Retrieved 10-02-2021 from https://www.nceo.org/articles/employee-ownership-by-the-numbers

O'Boyle, E. H., Patel, P. C., & Gonzalez-Mulé, E. (2016). Employee ownership and firm performance: a meta-analysis. ***Human Resource Management Journal***, 26(4), 425-448.

Pierce, J. L., Rubenfeld, S. A., & Morgan, S. (1991). Employee ownership: A conceptual model of process and effects. ***Academy of Management review***, 16(1), 121-144.

Prohorov, A. (2020) ***Unicorn exits as a trigger for the development of small countries' startup ecosystem***s. Forbes.

Spicer, J. S. (2020). Worker and Community Ownership as an Economic Development Strategy: Innovative Rebirth or Tired Retread of a Failed Idea?. ***Economic Development Quarterly***, 34(4), 325-342.

Stam, E. (2015). Entrepreneurial ecosystems and regional policy: a sympathetic critique. ***European Planning Studies***, 23(9), 1759-1769.

Realized Technologies, LLC. (2020). ***Capital Gain Tax Rates by State - 2019 & 2020***. Retrieved 10-02-2021 from https://www.realized1031.com/capital-gains-tax-rate

Redwood Valuation (2016). ***409A Valuation Guide: Importance of 409A Valuations***. Retrieved April 8, 2016, from https://www.redwoodvaluation.com/409a-valuation/#Definition_What_is_a_Key_Employee

Spaans, L., Stam, E. & Kleverlaan, R. (2021). ***Employee ownership and employee stock options: A review.***

StartupDelta (2017) Fiscale behandeling werknemersparticipatie (aandelenopties als loon) bij startups en scale-ups: ***Nederland loopt uit de pas!***

Willemse, Q. (2020). ***Stock Appreciation Rights: 3 Redenen Waarom WEL En Waarom NIET.*** Retrieved 10-02-2021 from https://www.thesharecouncil.com/blog/stock-appreciation-rights-3-redenen-waarom-wel-en-waarom-niet

10 Appendix A1 Index Ventures Country review

TABLE A1. INSTITUTIONAL CONTEXTS FAVORING EMPLOYEE STOCK OPTIONS

	Total score	Plan scope	Strike price	Minority s'holders, bureaucracy	Employee tax (timing)	Employee tax (rate)	Employer taxation	Ranking
Latvia	30	5	5	5	5	5	5	WINNERS
Estonia	30	5	5	5	5	5	5	
Lithuania	30	5	5	5	5	5	5	
Israel	27	5	4	5	5	4	4	
Canada	27	5	4	5	5	4	4	
France	26	5	4	5	5	3	4	HIGH RANKING
UK	25	3	5	3	4	5	5	
Portugal	24	3	3	5	5	4	4	
US	24	4	4	5	4	3	4	
Poland	23	4	3	3	5	4	4	RUNNERS-UP
Italy	22	3	3	3	5	4	4	
Sweden	21	2	3	3	5	4	4	
Ireland	20	2	3	4	4	3	4	
Australia	16	1	4	1	4	3	3	RIPE FOR CHANGE
Denmark	15	1	2	3	3	2	4	
Netherlands	15	1	3	3	3	2	3	
Switzerland	14	1	3	3	3	1	3	
Norway	14	2	3	3	3	2	1	
Czech Republic	14	1	4	2	5	1	1	
Finland	13	1	2	3	3	2	2	
Austria	13	1	2	3	4	2	1	
Spain	11	1	2	2	4	1	1	
Germany	10	1	1	2	3	1	2	
Belgium	10	1	2	1	1	1	4	

source: Index Ventures 2021

Scores were given according to the seven ranking factors named in the table (plan scope, strike price, bureaucracy, tax timing, tax rate and employer taxation). The scores go from 1 to 5, with 1 being the worst score and 5 being the best. Based on the total scores, four groups were established, dividing the countries over 'winners', 'high ranking', 'runners-up', or 'ripe for change'.

Appendix A2 List of consulted experts

Sander Agterhof – *EY*
Marcel ten Brinke – *The Share Council*
Dominic Jacquesson – *Index Ventures*
Gijs Dalen Meurs – *Eyevestor*
Alfred Griffioen – *De Coöperatie expert*
Fons Huijgens – *Stichting MKB financiering*
Frederik Mijnhardt – *SecFi*
Pascale Nieuwland-Jansen – *SNPI*
Marc Oostenbroek - *Van Loman*
Joost Roosen – *Captin*
Wibe Wagemans – *serial entrepreneur Silicon Valley*
Quintus Willemse – *The Share Council*

Utrecht University