Business Start-ups & Youth Self-Employment in Germany: A Policy Literature Review

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ii) to engage with ‘relevant communities, stakeholders and practitioners in the research with a view to supporting employment policies in Europe.’ Contributions to a dialogue about these results can be made through the project website [www.style-research.eu](http://www.style-research.eu), or by following us on twitter @STYLEEU.

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Executive Summary

In Germany, about 10 per cent of the working population are self-employed. Compared to other European countries, the self-employment rate is rather low. Reasons might include the lack 1) of an entrepreneurial culture, 2) of physical infrastructure and 3) of financial equity required for start-ups.

In particular, young people demonstrate little interest in self-employment. As in many other countries, there is a reversed U-shaped relation between the self-employment rate and age with fewer self-employed in the lower and higher age groups and the highest self-employment rate in the middle aged group. Men between 25 and 34 years represent the dominant group of self-employed, whilst women are still under-represented. Moreover, youth and women hold more often precarious positions and start their businesses in industries where less financial capital is required.

Migrants in Germany have a higher self-employment rate than non-migrants. There are some explanations for this effect. Migrating into another country might indicate a higher willingness to undertake risks which is an important factor in starting a business. Moreover, because of barriers on the dependent labour market, self-employment might sometimes be the better option for migrants.

In order to encourage self-employment in Germany various programmes and policies have been initiated within the last decade. The programmes provide many services that may be divided into different categories according to 1) the kind of support (financial support, counselling or coaching, create networks, enhance the entrepreneurial culture), 2) the target group (unemployed, women, migrants, disabled, elderly or youth) or 3) the industry focus (e.g. creative and ICT industries).

Most of the general programmes that foster entrepreneurship in Germany emphasise the financial support of self-employment. Some programmes include a subsidy for venture capital which aims to encourage private investors to finance young innovative start-ups (e.g. “business angels”). Other funds aim to support youth and are therefore more easily accessible. Recently, alternative forms of financing, such as crowdfunding, are becoming increasingly important. Furthermore, many programmes provide financially subsidised coaching or counselling for self-employed.

Since an increase of innovative start-ups is highly relevant for economic growth, in Germany some programmes aim to encourage innovative start-ups in creative industries in particular. One strategy in this vein is to use universities as an incubator for innovative start-ups.
Various programmes and associations aim to encourage women into self-employment. Thereby, most of these initiatives endeavour to provide professional networks and counselling.

In order to boost the entrepreneurial spirit of young people, different initiatives have been set up within the educational system. According to a “learning by doing” approach, pupils play online business games, or they start-up a real business at school. Furthermore, some programmes bring youth together with established self-employed to provide role models.

Programmes for migrants are usually not tailored for self-employment, but are part of general support services. In all German regions there are centres for young migrants that provide a wide range of services to better integrate migrants into the German education system or labour market.

A large governmental programme aims to support the unemployed to become self-employed. A start-up subsidy supports the unemployed with a monthly grant for a certain period of time to secure subsistence during the initial phase of a start-up. Furthermore, counselling is provided. In a number of evaluation studies, the effectiveness of the programmes provided by the German federal employment agency was perceived as positive. However, earlier programmes encouraged more women and young people than the recently implemented measure Gründungszuschuss. In particular, young unemployed individuals used the start-up subsidy only seldom. Since entitlement to subsidy depends on a previous time period of dependent employment, many young people cannot fulfil the requirements. This is also true for migrants who have a lower probability of having been dependently employed in Germany before.

Only few programmes support disabled persons to start a business in Germany. One programme provides individual counselling, seminars on entrepreneurial topics, networks and financial support for starting a business.

Compared to dependent employment, self-employment is characterised by a higher degree of heterogeneity. It includes freelancers without employees as well as entrepreneurs with a large number of employees. Over the last decade, the number of self-employed has increased, with a growth in the share of women, solo founders, part-time workers and people who work in service industries. Furthermore, the share of founders who started a business in order to bring an innovative idea in practice reached a peak in 2013, illustrating the increased innovativeness of start-ups in Germany.

Reflecting this heterogeneity, working conditions differ considerably between various groups of self-employed. On the one hand, self-employed persons obtain higher average earnings than dependent
employees. On the other hand, solo self-employed have a high risk to be working poor, whereby in particular youth, women, part-time workers, single parents and self-employed with health problems obtain low wages. However, the decision to start a business usually pays off. A large share of self-employed improves their income after having started a business. In particular, self-employed with employees earn the highest wages.

Data on poverty rates amongst elderly self-employed are also mixed. Since many self-employed are not entitled to a pension insurance, it is feared that there is a higher risk of poverty among the elderly, especially for self-employed with low incomes. However, many self-employed are financially well secured and have a good economic background for retirement.

On average, self-employed persons work more hours than dependent employees. In addition, they work more often in the evening hours or at weekends. Again, there are differences between various groups of self-employed. Self-employed who employ other persons work longer hours, whereas solo self-employed are more likely to work part-time than other groups. In particular, younger start-up founders are more likely to work part-time.

Innovative start-ups in high-tech and knowledge-intensive industries have a larger employment growth effect and a better survival rate than those in other sectors. Moreover, the older a start-up is, the higher is its survival rate. The survival rate of solo self-employed after 5 years is above 50 per cent. In general, the probability of changes in labour market status is higher for self-employed as compared to the general working population.

**Key words:**
Self-employment; unemployment; young people; women; migrants; quality of self-employment; policies targeted to promote self-employment in Germany.
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<td>EU-SILC</td>
<td>European Union Survey on Income and Living Conditions</td>
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<td>EXIST</td>
<td>Existenzgründungen aus der Wissenschaft</td>
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<td>GEM</td>
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<td>GDP</td>
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<td>NEET</td>
<td>Not in Employment, Education or Training</td>
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<td>OECD</td>
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<td>OLS</td>
<td>Ordinary Least Squares</td>
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<td>PIAAC</td>
<td>Programme for the International Assessment of Adult Competencies</td>
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<td>SOC</td>
<td>Standard Occupational Classification</td>
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<td>STW</td>
<td>School to Work</td>
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<td>TEA</td>
<td>Total Early Stage Entrepreneurship Activity</td>
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<td>VET</td>
<td>Vocational Education and Training</td>
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<td>YTR</td>
<td>Youth Transition Regimes</td>
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<td>ZIM</td>
<td>Zentrales Innovationsprogramm Mittelstand</td>
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1. Introduction

1.1 Aims of this Paper

The aims of this paper are fourfold. The first aim is to examine how self-employment is defined and the characteristics of those most likely to go into self-employment. The second aim is to provide an overview of national policies to encourage self-employment and entrepreneurship in Germany. The third aim is to critically examine concerns associated with the quality of self-employed work. Based on the above, the final aim is to suggest key research questions that should be considered in Tasks 2 and 3 of the STYLE Work Package 7 (Self-employment).

1.2 Organisation of the Paper

The organisation of the paper is as follows: we begin with defining self-employment in Germany and identifying the characteristics of those most likely to go into self-employment. Following this, the national policies of Germany which aim to encourage self-employment in general and for youth in particular are presented. Furthermore, an insight into the quality of work associated with self-employment is provided. The paper also outlines sustainability and job creation of start-ups. Finally, the paper concludes with directions for future research.

1.3 Definition of Self-Employment

In Germany, self-employment is defined mainly indirectly in opposition to dependent employment. According to the Social Security Act, as well as labour law and tax law regulations, self-employment is an economic activity that is characterised by independence in choosing content, time and place of work. More essentially, self-employed are not bound by instructions and have to take responsibility for business risks on their own.

The Federal Ministry of Economic Affairs and Energy (BMWi) describes three ways of pursuing self-employment: 1) start a new business, 2) set up a franchise or 3) take over a company as a successor (BMWi 2014a, pp. 24–29). The steps that are necessary to start a business depend on many factors. Several industries have specific statutory provisions for some professions, e.g. in the craft trade sector, craftsmen need a Master Craftsman’s Certificate to start up a business. To become a freelancer, a person also has to fulfil certain criteria: specific rules of law regulate the access to many

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1 Summary provided by the German Pension Fund (Deutsche Rentenversicherung): www.deutsche-rentenversicherung.de/Allgemein/de/Navigation/1 Lebenslagen/02_Start_ins_Berufsleben/03_Existenzgruender/05_woran_sie_echte_selbststaendigkeit_erkennen_node.html, checked on 30/01/15. Cases of doubt can be brought to the German Pension Fund which acts as clearing institution. Thereby, the overall working context of an individual is to be considered, with decisive criteria being 1) not to have full obligation to follow a client’s instructions, 2) not to have the duty to adhere to certain working hours, 3) not to have an obligation to report to the client regularly at short time intervals, 3) not to work on the premises of the client or at locations specified by the client, 4) not to use particular hard- or software, provided that such usage enables monitoring by the client.
freelance professions such as doctors, lawyers, architects, etc. Furthermore, company size (start alone or as a team) and expected sales determine the legal orders relating to self-employment. The most important authorities for the self-employed in Germany are the tax office (Finanzamt), the trade office (Gewerbeamt), the chambers of commerce and industry (IHK) and the chamber of craft trades (HWK). Again, notification obligations of self-employed towards these authorities depend on the type of professional activity and the form and size of the start-up. Because of the high heterogeneity underpinning the legal restrictions of self-employment in Germany, a number of organizations aim to support people in starting up a business by providing information and counselling (see the following section).

The boundaries between self-employment and employment have become blurred given the growth in new employment forms which can be difficult to classify because of outsourcing activities and/or franchise-systems. Presumably, the number of people in “bogus” forms of self-employment (Schein Selbstständigkeit) has increased within the last years, i.e. workers who formally deliver their services as an independent firm, but factually do not fulfil the criteria of self-employment as mentioned above. This kind of self-employment is related to circumventing obligations such as social and tax contributions, access restrictions to the labour market (especially for migrants from EU accession countries) and other rules of labour law. Currently there is no information available on the exact number of people working in this employment form in Germany.

The definition of self-employment includes freelancers without employees as well as entrepreneurs with a large number of employees. Approximately 57 per cent of the self-employed in Germany are freelancers or single-person businesses without employees (Solo-Selbstständige; Brenke, 2013, p. 4). The increased heterogeneity of self-employment results in new requirements where additional needs of this group must be addressed (Gather, Biermann, Schürmann, Ulbricht, & Zipprian, 2014; Schulze Buschoff, 2004). Within the last years, the traditionally conservative German welfare state changed some laws to better integrate self-employed in the national security system. In January 2009, a compulsory scheme of health insurance was introduced for self-employed workers. Self-employed have to sign a contract with a public or private health insurance within three months. Furthermore, since 2006 under certain conditions, self-employed individuals have been eligible to the public unemployment insurance scheme. Finally, there is no compulsory pension scheme for self-employed in Germany with the exception of some industries/professions such as publicists or architects. The number of self-employed persons without pension insurance is estimated to be rather high. Whilst the exact number remains unclear, estimations reach from about 60 to 80 per cent (Münstermann, 2013, p. 2).

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2 Start-up web portal Für-Gründer.de, information for freelancers: www.fuer-gruender.de/wissen/existenzgruendung-planen/branche-tipps/freiberufler, checked on 30/01/15.
3 For example, freelancers and small companies who are not registered in the commercial register, and who have an annual turnover of less than 500,000 Euro and an annual profit of less than 50,000 Euro, only have to keep account on a single-entry basis (einfache Buchführung). Teams have the possibility of creating a partnership under the Civil Code (GbR/BGB-Gesellschaft). Furthermore, there is the option to start a company with limited liability (GmbH) with specific legal orders (BMWi 2014a: 27; see also www.fuer-gruender.de/wissen/existenzgruendung-planen/recht-und-steuern/rechtsform, checked on 30/01/15).
4 Start-up web portal Für-Gründer.de, information on notification obligations for self-employed: www.fuer-gruender.de/wissen/unternehmen-gruenden/unternehmen-anmelden, checked on 30/01/15.
5 Eurofound: www.eurofound.europa.eu/comparative/Tn0801018s/de0801019q.htm, checked on 30/01/15.
2. Who Starts a Business and Who Does Not?

According to the Mikrozensus\(^6\), in 2014, 4.41 million people in Germany were self-employed – which is about 10 per cent of the working population.\(^7\) This number is considerably lower than the EU average of about 17 per cent (Brenke, 2013). Moreover, the GEM-report of 2013 shows a very low TEA (Total-early-stage-entrepreneurship-activity) rate of 5.0 for Germany, reaching only place 22 out of 26 countries (Sternberg, Vorderwülbecke, & Brixy, 2014, p. 9; Amorós & Bosma, 2014, p. 32).

Over the last decade, the number of self-employed has increased, yet, since 2005, this trend has diminished (Mai & Marder-Puch, 2013, p. 484). Contributing to this increase has been the growth in the share of women (bga, 2013a, p. 3), solo founders (Brenke, 2013, p. 4), especially freelancers (Brehm, Eggert, & Oberlander, 2012), and people who work in service industries (Fritsch, Kritikos, & Rusakova, 2012, pp. 14–15). Furthermore, the increase has been caused by a rise in the number of self-employed who work part-time. In particular, the number of people that started a business in full-time mode reached a low point in 2013. While only 0.59 per cent of the working population started a business in full-time mode, around 1.09 per cent started a business in part-time mode (Metzger, 2014a, p. 2).

Although the total number of self-employed has increased, there has been a strong decline in the enterprise birth rate (bga, 2013a, p. 6). According to the Eurobarometer data (European Commission, 2012a, p. 6), it is expected that this trend will continue in Germany. Only 17 per cent regard self-employment as desirable compared to 34 per cent in the EU as a whole. Even if the number of start-ups has declined, the share of opportunity-driven entrepreneurs has increased while fewer self-employed start a business borne out of necessity-driven reasons (Amorós & Bosma, 2014; BMWi, 2013a, p. 14). According to a Chambers of Commerce and Industry study, the share of self-employed that start a business so as to bring an innovative idea into practice reached a peak in 2013 (DIHK, 2014) illustrating the increased innovativeness of start-ups in Germany.

As in many other countries, there is a reversed U-shaped relation between the self-employment rate and age in Germany, with fewer self-employed in the lower and higher age groups and the highest self-employment rate within the age group from 45 to 54 years old (Mai & Marder-Puch, 2013, p. 492). In particular, the self-employment rate of people under 25 years has been consistently very low in Germany (Fritsch et al., 2012, p. 16). Comparing the age distribution of the entire population, young people have a higher start up rate than older people (see Figure 1). Most start a business when they are 25 to 34 years of age (Metzger, 2014b, p. 6).

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\(^7\) The number of self-employed persons in Germany is not captured by register data but is considered by data sets such as the Mikrozensus or the Socio-Economic Panel (SOEP; see Münstermann, 2013, p. 3).
In Germany, men between 25 and 34 years old represent the dominant group of self-employed (Sternberg et al., 2014, p. 6). Although the TEA rate of women has increased within the last decade they are still under-represented. Since the perception of entrepreneurship can be more masculine, women might be less attracted to this sector (Achtenhagen, 2014; Bührmann, Hansen, Schmeink, & Schötteldreier, 2007; Dautzenberg, Steinbrück, Brenning, & Zinke, 2013). However, Amdt and Kay (2006) claim that the entrepreneurial self-perceptions of men and women do not differ in a sample of people that visit fairs for start-ups.

It has been shown that women are more likely to start a business in part-time mode without partners or employees (Kohn & Ullrich, 2010). As a consequence, few women own companies with employees while the representation of women in more precarious positions, such as freelancers, is larger, especially in the service industry (bga, 2013a). Women start their businesses more often in industries where less financial capital is required (Kohn & Ullrich, 2010). The Agency for Women Start-ups Activities and Services claims that the entrepreneurial potential of women still has scarcely been put into effect (bga, 2013b). The age distribution of women start-up founders is similar to that of the whole group of start-ups. Few women under 25 years start a business with most women pursuing self-employment when they are between 25 and 34 years old (ibid., p. 4).

Migrants have a higher start-up rate in Germany than non-migrants. The start-up rate of migrants has grown within the last few years whilst the start-up rate of non-migrants has declined continuously (Fritsch et al., 2012). Between 1998 and 2008, the number of self-employed in the group of migrants increased by about 56 per cent while in the group of non-migrants, it only grew by 12 per cent. Interestingly, women migrants show the strongest growth in the self-employment rate. Constant, Shachmurove and Zimmermann (2007) provide different explanations for the higher start-up rate of migrants. On the one hand, migrating into another country might indicate that migrants are more willing to undertake risks, which is an important factor in starting a business. On the other hand however, because of impediments on the dependent labour market such as discrimination, self-employment might sometimes be the better option for migrants. Furthermore, ethnicity seems to be related to the entrepreneurial spirit e.g. Turks have a 70 per cent higher likelihood of starting a business than natives or other migrants in Germany (ibid., p. 71). Moreover, Kay and Schneck (2012)
posit that even if migrants have a higher start-up rate, they have to overcome more barriers in pursuing self-employment. Issues relating to the recognition of their qualifications and obtaining financial support are the main obstacles for self-employed migrants in Germany. In order to support migrants Di Bella and Leicht (2011) recommend offering specific programmes for different ethnic groups.

In Germany, the educational level has a positive effect on the probability to start a business (Fritsch et al., 2012). This is also true for solo self-employed. In this group, the share of academics is very high in Germany compared to other countries (Brenke, 2013).

Immediately following the fall of the Iron Curtain, East Germany experienced a very low number of self-employed. Since then the start-up rate has been consistently higher in East than in West Germany. Since 2004, the self-employment rate in East Germany has been exceeding the West German level (Fritsch et al., 2012).

The GEM-report 2013 compares “entrepreneurial framework conditions” in Germany with the situation in other countries. Experts assume that the lack of entrepreneurial education in both primary and secondary school, as well as in the higher education system, is a major reason for the low entrepreneurial spirit in Germany (Sternberg et al., 2014, p. 6). Other conditions such as physical infrastructure are also perceived worse in Germany than in most other countries. Furthermore, a study for the German Chambers of Commerce and Industry claims that the main barrier impeding the start-up of a business is the lack of financial equity (DIHK, 2014, p. 22; see also Egeln, Gottschalk, Rammer & Spielkamp, 2002, p. 46).

To sum up, the self-employment rate in Germany is rather low, as compared to other European countries. In particular, young people show little interest in self-employment. As in many other countries, there is a reversed U-shaped relation between the self-employment rate and age with fewer self-employed in the lower and higher age groups and the highest self-employment rate in the middle aged group. Men between 25 and 34 years old represent the dominant group of self-employed, whilst women are still under-represented. Moreover, youth and women more often hold precarious positions as solo self-employed and start their businesses in industries where less financial capital is required. People with a higher education level have a higher probability of being self-employed than persons with a lower education level. Furthermore, migrants have a higher start-up rate than non-migrants. This might be due to their higher willingness to undertake risks or because of barriers on the dependent labour market that present self-employment sometimes as the better option.

In general, reasons for the rather low start-up rate in Germany might be the lack 1) of an entrepreneurial culture, 2) of physical infrastructure and 3) of financial equity required for start-ups.
3. Policies to Encourage Self-Employment in General and for Youth in Particular

In order to boost the entrepreneurial spirit in Germany the Federal Government emphasises the need to encourage the number of start-ups as indicated by the number of press releases issued over the last few years. In 2010, the BMWi started the Initiative Gründerland Deutschland in order to strengthen and develop a culture of entrepreneurship and improve the situation for start-ups in Germany. The initiative emphasises different aspects. It provides information on self-employment, e.g. by participating in the action Global Entrepreneurship Week with the Startup Week Germany (Gründerwoche Deutschland). Furthermore, it offers special measures to strengthen interest in entrepreneurship in the education system. In addition, it aims to improve financing options especially for innovative start-ups, and to start information campaigns concerning company succession (BMWi, 2013a). These activities should “inspire, encourage and support the next generation of entrepreneurs in Germany”. The Existenzgründerportal of the BMWi provides a magnitude of information regarding self-employment in Germany.

Compared to other European countries, the German government system is highly devolved with different authorities at regional levels. Accordingly, there is a plethora of initiatives that support start-ups with diverse international, national, regional or local programmes. Some of them are funded by public authorities, such as the ESF (e.g. see BMAS, 2010, 2013, 2014), the ERDF, the BMWi and others are sponsored by private institutions. An overview on different programmes is provided by the Förderdatenbank of the BMWi – an online database which focuses on funding, measures and programmes relating to entrepreneurship in Germany (BMWi, 2014b). Furthermore, it offers Start-App, a mobile tool that gives an overview on different services for start-ups.

The programmes offer many services that may be divided into different categories according to 1) the kind of support they provide (financial support, counselling or coaching, creating networks, enhancing the entrepreneurial culture), 2) the group they refer to (unemployed, women, migrants, disabled, elderly or youth; see also Di Bella & Leicht, 2010, p. 227) or 3) the industry they focus on (e.g. creative and ICT industries). The evaluation studies we found do not cover all measures but focus on

9 Press release of the BMWi of January 25th, 2010: www.bmw.de/DE/Presse/pressemitteilungen,did=327390.html, checked on 30/01/15.
11 Existenzgründerportal: www.existenzgruender.de, checked on 30/01/15.
12 ESF funded programmes that boost businesses: http://ec.europa.eu/esf/main.jsp?catId=46&langId=en&keywords=&country=375&theme=457&list=1, checked on 06/10/14.
13 Programmes at different levels funded by the ARDF: http://ec.europa.eu/regional_policy/archive/country/prordn/search.cfm?gv_pay=DE&gv_reg=ALL&gv_obj=ALL&gv_the=ALL&LAN=EN&gv_per=2, checked on 06/10/14.
15 Förderdatenbank – funding programmes at different levels (EU, country, regions): www.foerderdatenbank.de, checked on 31/01/15.
16 Start-App: www.existenzgruender.de/gruendungswerkstatt/start-app, checked on 31/01/15.
specific programmes. Usually, they provide information on the general effectiveness of a programme or initiative. However, evaluation reports that focus on youth are relatively rare.

3.1 Financial Support

Most of the general programmes that foster entrepreneurship in Germany emphasise the funding of self-employment. For example, INVEST – Zuschuss für Wagniskapital\(^{17}\) supports innovative start-ups to find a provider of capital. The programme offers a subsidy of 20 per cent for venture capital which should encourage private investors, like business angels to finance young innovative start-ups. In order to boost this initiative, in September 2014, a law for tax exemption for the INVEST subsidy was adopted.\(^{18}\) Currently, business angels prefer to invest in firms with high experience in this field and with technical knowledge (Pechtl & Gloszat, 2010).

Another fund that offers financial support is the Mikromezzaninfonds-Deutschland\(^{19}\) which is financed by the ESF and supports small and young companies experiencing difficulties in finding a capital provider. In particular, the programme aims to support unemployed persons, women or migrants. In the near future, the amount of money in the fund will be doubled.\(^{20}\) A very similar programme is the Mikrokreditfonds Deutschland\(^{21}\). This fund has again a focus on small and young start-ups, whereby it has a special interest to invest in cultural and creative industries and to support women and migrants. Furthermore, the German government-owned development bank KfW offers different fund programmes to support self-employment.\(^{22}\) In an evaluation study by Bøggild et al. (2011), the effectiveness of different programmes funded by the KfW was examined. The authors show that the programmes yielded an increase in competitiveness and innovativeness for subsidised start-ups as well as positive employment effects.

Alternative forms of financing which are becoming increasingly important are crowdfunding or crowd-investing. According to Mollick (2014, p. 1), “crowdfunding allows founders of for-profit, artistic, and cultural ventures to fund their efforts by drawing on relatively small contributions from a relatively large number of individuals using the internet, without standard financial intermediaries”. After the economic crisis in 2008, crowdfunding emerged in several developed countries and has spread rapidly, especially in young creative industries (Bruton, Khavul, Siegel, & Wright, 2015). An overview of platforms in Germany is provided for example by crowdfunding.de\(^{23}\) or crowd-investment.de\(^{24}\). An example is the equity-based crowdfunding platform Seedmatch\(^{25}\) that enables a large number of funders to invest in new start-ups and receive shares in return (see also Marchese, 2014, p. 18). According to the Crowdinvesting-Monitor\(^{26}\), since 2011, the amount of money invested through crowdfunding.

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\(^{17}\) INVEST – Zuschuss für Wagniskapital: www.bafa.de/bafa/de/wirtschaftsfoerderung/invest/index.html, checked on 31/01/15.

\(^{18}\) Press release of the BMWi of September 24\(^{th}\), 2014: www.bmwi.de/DE/Presse/pressemitteilungen,did=656092.html, checked on 06/10/14.

\(^{19}\) Mikromezzaninfonds-Deutschland: www.mikromezzaninfonds-deutschland.de, checked on 31/01/15.

\(^{20}\) Press release of the BMWi of August 8\(^{th}\), 2014: www.bmwi.de/DE/Presse/pressemitteilungen,did=649452.html, checked on 31/01/15.

\(^{21}\) Mikrokreditfonds Deutschland: www.mikrokreditfonds.de, checked on 31/01/15.

\(^{22}\) E.g. ERP-startup loans: www.kfw.de/inlandsfoerderung/Unternehmen/Gruenden-Erweitern/index-2.html, checked on 31/01/15.

\(^{23}\) crowdfunding.de: www.crowdfunding.de, checked on 31/01/15.

\(^{24}\) crowd-investment.de: http://crowd-investment.de/anbieter, checked on 31/01/15.

\(^{25}\) Seedmatch: https://www.seedmatch.de, checked on 31/01/15.

\(^{26}\) Crowdinvesting-Monitor von Für-Gründer.de: www.fuer-gruender.de/kapital/eigenkapital/crowd-investing/monitor, checked on 31/01/15.
investing has been increasing considerably in Germany. A study by Dorfleitner, Kapitz and Wimmer (2014) show that at present, predominantly small start-ups use crowd-investing to increase their financial resources.

### 3.2 Coaching and Counselling

For investors, it is advisable to provide counselling in addition to financial support (Reimer, Momsen, & Quauke, 2011). Accordingly, Stubner, Wulf and Hungenberg (2007) show that high quality management support provided by venture capital firms has a positive effect on the performance of German start-ups. In line with this, many programmes provide additional services like coaching or counselling. With the support of the ESF, the Federal Office of Economics and Export Control offers grants for entrepreneurial counselling (Beratungsförderung). The above mentioned KfW provides funding for start-up coaching, making a list of coaches available on the internet (Gründercoaching).27 The Chambers of Commerce and Industry offer free counselling for people who are interested in starting a business. Since there is a large number of funding options and programmes available, the BMWi offers counselling services surrounding the finance of start-ups via phone or email.28 The programme nexxt29 gives information and support around company succession.

### 3.3 Programmes for Women: Creating Networks

Policy measures that provide networks mostly focus on women. Since women in Germany are still highly underrepresented in self-employment and have a lower aspiration to start a business than men (Walter & Walter, 2009), there is a wide range of programmes tailored for women start-ups and entrepreneurs.30 An example institution is the WeiberWirtschaft31 in Berlin. Founded in 1989, Europe’s largest start-up centre for women offers infrastructure to women entrepreneurs, such as offices, meeting sectors and day-care facilities for children. The centre is connected with various women start-up centres in Germany.32 To mobilise the entrepreneurial potential of women, the National

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27 Gründercoaching: https://www.kfw.de/inlandsfoerderung/Unternehmen/Unternehmen-erweitern-festigen/Finanzierungsangebote/Gr%C3%BCndercoaching-Deutschland-(GCD), checked on 31/01/15.
28 Förderberatung: www.bmwii.de/DE/Themen/Mittelstand/Mittelstandsfinanzierung/foerderberatung.html, checked on 31/01/15.
29 nexxt: www.nexxt-change.org, checked on 31/01/15.
30 Organisations and programmes for women start-ups and entrepreneurs:
   - TWIN – TwoWomenWin: www.kaete-ahlmann-stiftung.de/twin.html;
   - FRAUEN unternehmen: www.bmwi-registrierung.de/frauenunternehmen/default.aspx;
   - Verband Deutscher Unternehmerinnen: www.vdu.de;
   - Bundesverband der Frauen in Business und Management: www.bfmb.de/bfmb/bfmbweb2.nsf/index;
   - Verband Selbstständiger Frauen – Schöne Aussichten: www.schoene-aussichten.de;
   - ELFI – E-Learning for Female Entrepreneurs: www.iwi.hs-karlsruhe.de/gruenderinnen;
   - Die Chefin online: www.chefin-online.de; e.g. Unternehmerinnentag 2015
   - Berufswege für Frauen: www.berufswege-fuer-frauen.de/die-schaeftze/existenzgruendung.html;
   - Gründerinnenzentrale: www.gruenderinnenzentrale.de;
   - Nano4women: www.nano-4-women.de
   all links checked on 31/01/15.
31 WeiberWirtschaft Berlin: www.weiberwirtschaft.de, checked on 31/01/15.
32 Women start-up centres in Germany: http://www.weiberwirtschaft.de/informieren/gruenderinnen-und-unternehmerinnenzentrum/gruenderinnenzentren-bundesweit/adressverzeichnis, checked on 31/01/15.
Agency for Women Start-ups Activities and Services (bga) was set up. The online portal offers an overview of programmes that support women networks of entrepreneurs through mentoring or other measures. An example programme that is supported inter alia by the bga as well as the ESF is WomenExist—an online learning tool that aims to strengthen young women’s entrepreneurial competences. The bga publishes reports that evaluate self-employed women. Although the share of women has increased within the last decade, they are still underrepresented. In 2012, only about 32 per cent of self-employed were women (bga 2013a, 2013b).

### 3.4 Fostering Innovation

There are no common criteria that characterise innovative start-ups. Fritsch (2011) defines start-ups as innovative when they supply novelty in their products, processes or the markets they refer to. The Association of German Start-ups (Bundesverband Deutsche Startups e.V., BVDS) only considers innovative entities by the term “start-up”. More precisely, they define start-ups as young companies (<10 years) that are characterised by innovation in products or business models and that have the ambition to increase turnover and number of employees (DSM, 2014, p. 11). The Association of German Start-ups evaluated German state support for young innovative start-ups and found the “ecosystem” for these companies to be rather poor (ibid., p. 51).

According to Mueller (2007), an increase of innovative start-ups is highly relevant for economic growth in Germany. Similar to other highly developed countries the percentage of innovative companies is rather small in Germany (Fritsch, 2011). In order to raise the number of innovative start-ups different measures were set up. The High-Tech-Gründerfonds supports technology start-ups by offering favourable financing terms and providing coaching and access to important entrepreneurial networks. Further programmes that aim to foster innovativeness in the ICT industry include the Gründerwettbewerb – IKT Innovativ, a contest for young start-ups in the ICT industry, and the German Accelerator which supports young start-ups in the ICT sector by providing a stay in Silicon Valley or New York.

Other programmes that support innovative start-ups include the Startupbootcamp, as well as the Initiative Kultur- und Kreativwirtschaft that aims to strengthen the chances of small business in the cultural sector. With the funding programme ZIM (Zentrales Innovationsprogramm Mittelstand), the BMWi aims to foster innovativeness in small and medium-sized companies by funding R&D projects. An evaluation report highlighted that small companies, particularly manufacturing systems engineering, information technology, or metal industry, participated in the programme (Depner, Gorynia-Pfeffer, Vollborth, & Wallisch, 2014). Cantner and Kösters (2009) found that start-ups with R&D subsidies in comparison to non-subsidised start-ups, experienced an increase in employment growth of about 66 per cent, coupled with a higher patent output rate.

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33 Bundesweite Gründerinnenagentur (bga): www.existenzgruenderinnen.de, checked on 31/01/15.
34 WomenExist: www.womenexist.de, checked on 31/01/15.
37 German Accelerator: www.germanaccelerator.com, checked on 23.09.2014.
38 Startupbootcamp: www.startupbootcamp.org, checked on 23.09.2014.
40 ZIM: www.zim-bmwi.de, checked on 07.10.2014.
Fritsch (2011) concludes that universities play a major role as an incubator for innovative start-ups, whereby it is important for employment growth that the business starts soon after leaving academia (Müller, 2008). An extensive programme that aims to facilitate the transfer of innovation from academia into businesses presents EXIST – Existenzgründungen aus der Wissenschaft.41 It has the following objectives (see also BMWi, 2013a, p. 33):

- **EXIST Start-Up Culture** aims to implement an entrepreneurial culture at higher education institutions through holistic and long-term strategies.
- **EXIST Start-Up Grant** offers financial support to students, graduates and researchers to help them start-up a technology and science-based business.
- **EXIST Research Transfer** supports the realisation of innovative research-based ideas with high start-up costs.

In general, EXIST is able to strengthen the spin-off activities out of academia (Egeln et al., 2002). Kulicke (2013) found that most of the start-ups supported by EXIST were more likely to be realised and to remain in operation for a long time. Unfortunately, the age of the supported people was not reported in her evaluation, therefore it remains unclear how well the programme supports young people in starting an innovative business out of academia. The share of women supported by the programme was very low: only 14 per cent of the promoted persons were women. A general evaluation of the effect that entrepreneurial education at universities had on the probability to start a business draws a similar conclusion: female students benefited less than male students from entrepreneurial education at universities (Walter & Walter, 2008). Therefore, programmes in science should emphasise the promotion of women in the future.

### 3.5 Programmes for Youth: Developing Entrepreneurial Mind-sets and Skills

In order to boost the entrepreneurial spirit of young people, different programmes were set up. Most of them aim to encourage entrepreneurial mind-sets and skills in primary or secondary school. The internet portal *Entrepreneurial Mindsets in Schools (Unternehmergeist in die Schulen*)42 provides teaching and learning materials on economic education for teachers and pupils, e.g. it offers an eTraining (*eTraining Unternehmergeist*) that aims to enhance entrepreneurial knowledge and spirit. The programme *JUNIOR*43 has the focus on “learning by doing” and provides teaching materials, workshops and support for pupils from different class levels to start up and establish a business. The programme *Youth Start-Up (Jugend gründet)*44 is an online-contest for pupils and apprentices with two stages. In the first phase, scholars have to develop a business idea and plan. In the second stage, they participate in a business game that models ups and downs of a business life. Similarly, the *German Business Founder Award for Pupils (Deutscher Gründerpreis für Schüler)*45 offers a start-up business game for youth that simulates a “real” business life with different problems to solve. In an evaluation study, Josten and van Elkan (2010) show that the above mentioned programmes are effective in enhancing the willingness of pupils to start a business, whereby the effect is somewhat

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41 EXIST: www.exist.de, checked on 23.09.2014.
42 *Unternehmergeist in die Schulen*: www.unternehmergeist-macht-schule.de, checked on 31/01/15.
43 *JUNIOR*: www.junior-programme.de, checked on 31/01/15.
44 *Jugend gründet*: www.jugend-gruendet.de, checked on 31/01/15.
stronger for boys than for girls. The reasons behind that gender difference are unclear. Teachers and pupils prefer school-companies and business games as instruments to acquire entrepreneurial skills.

Another programme that gives pupils and teachers the possibility of encouraging entrepreneurship is the online game BeBoss\(^{46}\) which is also available as an app. A programme on a more regional level (state of Rheinland-Pfalz) is PUG – Perspektive Unternehmergeist\(^{47}\): again, this ESF initiative aims to enhance entrepreneurial culture of youth by different training programmes and contests. Similarly, the state Baden-Württemberg aims to foster the entrepreneurial spirit through diverse measures such as school-firms and mini-enterprises (European Commission, 2012b).

The initiative Gründerrepublik\(^{48}\) aims to foster entrepreneurial mind-sets and skills of youth aged between 17 and 25 years. In a training course of 3 months, participants should acquire entrepreneurial competences. Inter alia, they are trained by role models from the economy who share their knowledge and skills. In a similar way, the association Jem e.V.\(^{49}\) annually offers a business-oriented summer camp where young people have the possibility to meet and talk with business experts.

A programme that is presented as a German example of good practice by the European Commission (2012b) is the Entrepreneurial Grammar School Bavaria (Unternehmergymnasium Bayern)\(^{50}\). The school has a focus on entrepreneurial education and supports students in starting a business by offering workshops with entrepreneurs whilst providing a network.

In an international study, Volkmann and Tokarski (2010) showed that in Germany, as in other countries too, personal contact with entrepreneurs positively affects the perception that students have about entrepreneurship.

### 3.6 Programmes for Migrants

The Jugendmigrationsdienste\(^{51}\) are service centres in all German regions that offer a wide range of services for young migrants in order to better integrate them into the German education system or into the labour market. However, the service has no focus on start-ups but emphasises integration into dependent employment. Another programme, named Jobstarter-KAUSA\(^{52}\), counsels migrant entrepreneurs who are interested in offering an apprenticeship place in their company. Again, the major goal of this initiative is to include youth in the German “dual” system of training.

The BMWi offers a brochure with information for migrants on how to start a business in Germany by providing contact information of counselling offices\(^{53}\) and giving basic information on certain legal

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\(^{46}\) BeBoss: https://www.bmwi-beboss.de/home, checked on 31/01/15.

\(^{47}\) PUG – Perspektive Unternehmergeist: www.perspektive-unternehmergeist.de, checked on 31/01/15.

\(^{48}\) Gründerrepublik: www.gruenderrepublik.org, checked on 31/01/15.

\(^{49}\) Jem e.V.: www.jem-online.de, checked on 31/01/15.

\(^{50}\) Unternehmergymnasium Bayern: www.unternehmergymnasium.de/start.htm, checked on 31/01/15.

\(^{51}\) Jugendmigrationsdienste: www.jmd-portal.de, checked on 31/01/15.

\(^{52}\) Jobstarter-KAUSA: www.jobstarter.de, checked on 31/01/15.

\(^{53}\) Examples for counselling offices for migrants in different German states:

- Deutsch-Türkisches Wirtschaftszentrum Mannheim (dtw; Baden-Württemberg): www.dtw-mannheim.de, checked on 31/01/15.


- Verbundvorhaben „Migrantinnen und Migranten als Wirtschaftsakteure in Sachsen“: www.migrasax.de, checked on 31/01/15.
aspects, coupled with information on the formal procedures concerning the recognition of qualifications (BMWi, 2013b).

### 3.7 Programmes for People with Disabilities

According to a policy brief of the European Commission and the OECD (Halabisky, 2014, p. 3), around 16 per cent of the EU working population are affected by a form of disability. In Germany, around 3.3 million people with disabilities are at the age between 16 and 65 years, about 400,000 of them being younger than 36 years. Few programmes support disabled persons starting a business in Germany. An example programme is enterability\(^{54}\) that supports people with severe disabilities to enter into self-employment. It provides individual counselling, seminars on entrepreneurial topics, networks and financial support for starting a business. Furthermore, disabled people can apply for financial support at the Integration Office.\(^{55}\)

### 3.8 Policies for Unemployed Persons

Fostering self-employment has become an important policy tool to bring unemployed persons into the labour market. The German federal employment agency offers financial assistance for founders of new businesses. In August 2006 two programmes, the bridging allowance (Überbrückungsgeld) and the start-up subsidy (Existenzgründungszuschuss, "Ich-AG"), were replaced by one single scheme: the new start-up subsidy (Gründungszuschuss, GZ). This programme supports the unemployed with a monthly grant for nine months (plus conditional 6 months) to secure subsistence during the initial phase of a start-up. Subsidy is provided for an additional 6 months if the founder can prove intensive business activities and the soundness of the business plan.

In a number of evaluation studies, the (long-term) effectiveness of the programmes provided by the German federal employment agency were perceived positive (Caliendo & Kritikos, 2009a, 2009b, 2010; Caliendo, Hogenacker, Künn, & Wießner, 2012; Wolff & Nivorozhkin, 2012). The programmes were also efficient in integrating women into the labour market (Caliendo & Künn, 2012). However, there was no particular focus on the youth. On the contrary, data showed that unemployed persons between 18 and 24 years old used the start-up subsidy very rarely. In particular, the claim for subsidy is related to a former phase of dependent employment and thus many young people cannot fulfil these requirements (Block & Kohn, 2011, p. 78). This is also true for migrants who have a lower probability of having previous experience in the German dependent employment market (Apitzsch, 2003). The former programme Existenzgründungszuschuss ("Ich-AG") encouraged more women and young people than the recently introduced programme Gründungszuschuss (Caliendo et al., 2012; Bernhard & Wolff, 2011). However, in light of this, the effect of the programmes has generally been evaluated positively. Caliendo and Künn (2013) showed that the wage level of supported unemployed was higher than the income of unemployed people who did not participate in the programme. A study by Caliendo, Künn and Wießner (2010) suggests that this effect is sustainable even five years after the programme. Furthermore, the programmes have an influence on the number of self-employed. In particular, the Existenzgründungszuschuss which has resulted in a strong gain in solo self-employed

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\(^{54}\) enterability: http://enterability.de, checked on 31/01/15.

\(^{55}\) Integrationsämter (Integration Offices): https://www.integrationsaemter.de/Finanzielle-Leistungen/499c216/index.html, checked on 31/01/15.
between 2003 and 2005 (Brenke, 2013). According to Niefert (2010), previously unemployed business founders hired employees less often because of their restricted access to financial resources. Therefore the author recommends supporting unemployed people who want to start a business through loans instead of grants.

The initiative Young People Go into Self-Employment (Junge Menschen machen sich selbstständig) comprises three programmes that are co-founded by the ESF and which aim to support young unemployed people in different regions in the state of Brandenburg. The initiative operates as a business incubator by providing counselling, training and support on how to start a business. Furthermore, it offers access to microfinance options. From 2005 to 2007, about 700 people under 28 years of age participated in the programme. An evaluation study by Schreiber, Lohr, Zwick and Bartel (2009) found that 58 per cent of the supported youth were able to establish a business. A total of 38 per cent of the participants were women. Indeed, women had a higher success rate. In sum, the programme was evaluated as effective in reducing the number of unemployed and it had a further positive employment effect by creating additional jobs. However, the authors found no differences in employment effects between supported people and a control group. On the contrary, supported youth have lower incomes than the control group. Nevertheless, the authors evaluated the initiative as effective because participants of the initiative belonged to a challenging group with low qualification levels.

Another programme that supports unemployed youth is .garage. Similar to the Berlin WeiberWirtschaft for women, this start-up development centre provides workplaces, counselling and micro-financing to start-ups in four German cities: Berlin, Hamburg, Essen and Dortmund. The business incubator has a focus on young previously unemployed entrepreneurs that work in creative industries, such as music, arts, software or architecture.

3.9 Summary

Various programmes and policies have been initiated in order to encourage self-employment in Germany. The programmes provide many services that may be divided into different categories according to 1) the kind of support (financial support, counselling or coaching, create networks, enhance the entrepreneurial culture), 2) the target group (unemployed, women, migrants, disabled, elderly or youth) or 3) the industry focus (e.g. creative and ICT industries).

Most of the general programmes that foster entrepreneurship in Germany emphasise the financial support of self-employment. Recently, alternative forms of financing are becoming increasingly important, such as crowdfunding. Furthermore, many programmes provide financially subsidised coaching or counselling for self-employed.

Since an increase of innovative start-ups is highly relevant for economic growth in Germany some programmes aim to encourage innovative start-ups in creative industries in particular. One successful strategy in this vein is to use universities as an incubator for innovative start-ups.

Various programmes and associations aim to encourage women into self-employment. To achieve this aim most of these initiatives provide professional networks and counselling.

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56 Zukunft Lausitz – die Gründerwerkstatt: www.zukunft-lausitz.de; enterprise: http://iq-enterprise.de; young companies: www.young-companies.de; both links checked on 31/01/15.
57 .garage: http://wasistgarage.de/hamburg_home, checked on 31/01/15.
In order to boost the entrepreneurial spirit of young people, different initiatives were set up within the educational system. According to a “learning by doing” approach, pupils play online business games, or they start-up a real business at school. Furthermore, some programmes bring youth together with established self-employed to provide role models.

Programmes for migrants usually are not tailored to self-employment, but are part of general support services. In all German regions there are service centres for young migrants that provide a wide range of services to better integrate migrants into the German education system or labour market.

Only a few programmes support disabled persons who wish to start a business in Germany.

A large national measure aims to support the unemployed in becoming self-employed by providing a monthly grant for a certain period of time to secure subsistence during the initial phase of a start-up. Furthermore, counselling is provided. In a number of evaluation studies, the effectiveness of the programmes was perceived positive. However, earlier programmes encouraged more women and young people than the recently implemented programme *Gründungszuschuss*. In particular, young unemployed persons used the start-up subsidy only seldom. Since entitlement to subsidy depends on a previous time period of dependent employment, many young people cannot fulfil the requirements. This is also true for migrants who have a lower probability of having been dependently employed in Germany before.
4. The Quality of Work Associated with Self-Employment

The heterogeneity in the population of self-employed is much higher than in the general working population. The group includes self-employed and freelancers without employees as well as owners of large companies. Accordingly, working conditions differ considerably within the group of self-employed.

4.1 Wage Levels

On average, self-employed persons earn higher wages than dependent employees. However, the median wages are considerably under the average, because there is a large number of self-employed with very low incomes (Pahnke, May-Strobl, & Schneck, 2014). In particular, solo self-employed (Solo-Selbstständige) are affected by low wages: more than 30 per cent of solo self-employed have an income that lies below the German low-income threshold 58 while only about 23 percent of employees fall below it. Furthermore, in the group of solo self-employed under the low-income threshold, there are more women (37 %) than men (26 %), more persons work in part-time (39 %) than in full-time (27 %), more live in East Germany (49 %) than in West Germany (24 %), and many do not have any professional educational degree (51 %; Brenke 2013, p. 13). About 3 per cent of self-employed individuals in Germany are “working poor”, their income fails to cover basic costs of living. Low earners often work in industries with saturated markets, like trade, tourism or transport and communications, sometimes with hourly earnings of only 3 Euros. Furthermore, self-employed single parents and persons with health problems have high risks of becoming working poor (Pahnke et al., 2014). May-Strobl, Pahnke and Schneck (2011) showed that youth and women self-employed in particular have a fairly high risk of being poor. Hence, the gender pay gap between men and women is higher in self-employment than in dependent employment (Lechmann, 2014).

Because of the high degree of heterogeneity of self-employment, research results differ significantly, depending on the group under consideration (Brehm et al., 2012; Niehues & Pimpertz, 2012). Hence, the study by Fritsch et al. (2012) provides a different conclusion. They compared incomes of the dependently employed with self-employed persons and found that the share of people with a monthly income of less than 1,100 Euros was lower for the self-employed than for the group of dependent employees. Furthermore, self-employed persons were more likely to earn the highest wage levels. In addition, the authors showed that the decision to start a business usually pays off: about 38 per cent of self-employed improved their income three years after they started a business. Constant (2008) compared business women in self-employment with women in dependent employment and found that higher skilled women in self-employment earned more, without any effect of ethnicity on their wage level. Furthermore, the motherhood income gap between mothers and women without children closes after two years for self-employed women while for dependent employees at this time there is still a motherhood income gap of 49 per cent (Bliemeister, 2014, p. 103).

58 According to this definition low-incomes are hourly gross earnings that are below two thirds of the median earnings.
Research results on poverty rates amongst elderly self-employed are also ambivalent. Münstermann (2013, p. 6) claims that there is a higher risk of poverty among the elderly especially for self-employed with low incomes, as well as solo self-employed (Gerner & Weißner, 2012). However, according to a study by Ziegelmeyer (2013, p. 247), most self-employed are financially well secured and have a good economic background for retirement.

It is unclear how the situation will develop within the coming years. On the one hand, the numbers of solo self-employed and part-time self-employed have increased. This implies that precarious positions in self-employment might arise (Bögenhold & Fachinger, 2012). In line with this, the number of self-employed with very low incomes has risen significantly within the last few years (Koller, Neder, Rudolph, & Trappmann, 2012). The number of self-employed who applied for State aid because their incomes were not enough to live on (so called “Aufstocker”) doubled from 54,925 persons in 2007 to 126,546 persons in 2013 (Pahnke et al., 2014, p. 1). On the other hand, the number of opportunity driven and innovative start-ups has risen, too. These start-ups usually have more promising prospects concerning working conditions.

4.2 Working Hours

According to the Labour Force Survey, on average those in self-employment work more hours than dependent employees. A total of 57 per cent of all self-employed in Germany work more than 48 hours per week whereas only 7.5 per cent of dependent employees work such long hours. In addition, self-employed work more often in the evening or at weekends (Körner, Puch, & Wingertkr, 2012, pp. 27–29).

Again, there are differences between various groups of self-employed. More specifically, the self-employed with employees have long working hours. The evidence shows that 67 per cent of them work more than 48 hours per week (ibid). In contrast, solo self-employed are more likely to work part-time than other groups (Brenke, 2013, p. 13). In comparison to older start-ups, younger start-ups are more likely to work part-time (Metzger, 2014b, p. 8).

Although self-employed report more working hours and a higher level of work pressure they have a higher job satisfaction and evaluate the quality of their work better than employees do (Protsch, 2006).

4.3 Summary

Self-employment is characterised by a high degree of heterogeneity. Over the last decade, the number of self-employed has increased, with a growth in the share of women, solo founders, part-time workers, and people who work in the service industries. Furthermore, the share of self-employed that start a business so as to bring an innovative idea into practice reached a peak in 2013, illustrating the increased innovativeness of start-ups in Germany.

In line with this heterogeneity, working conditions differ considerably between various groups of self-employed. On the one hand, self-employed persons earn higher average wages than dependent employees. On the other hand, solo self-employed have a high risk of becoming working poor, hence youth, women, part-time workers, single parents, and self-employed with health problems in particular have a fairly high risk of being poor. Nevertheless, the decision to start a business usually pays off: a
large share of self-employed improved their income after they started a business. In particular, self-employed with employees earn the highest wages.

Data on poverty rates amongst elderly self-employed are also ambivalent. Since many self-employed have not purchased a pension insurance, it is feared that there is a higher risk of poverty among the elderly especially for self-employed with low incomes. However, most self-employed are financially well secured and have a good economic background for retirement.

On average, self-employed work more hours than dependent employees. In addition, self-employed work more often in the evening or at weekends. Again, there are differences between various groups of self-employed. The self-employed with employees have long working hours while solo self-employed are more likely to work part-time than other groups. In particular, younger start-ups are more likely to work part-time.

We did not find any studies that consider the participation of the self-employed in targeted training policies.
5. Sustainability and Job Creation of Start-Ups

In 2008, the Centre for European Economic Research (ZEW), the KfW Bankengruppe and the Creditreform set up the KfW/ZEW Start-up Panel which investigates the survival rate of newly founded firms in Germany in a longitudinal design (Fryges, Gottschalk, & Kohn, 2009). Based on this data, Metzger and Rammer (2009) found slightly better survival prospects for start-ups in innovative industries. On the data basis of the German Social Insurance Statistics, Fritsch, Noseleit and Schindele (2010) revealed a lower survival rate for small and young businesses. Moreover, start-ups with more employees and, in particular, a substantial share of highly skilled employees had a greater probability of survival. Both German studies showed that innovative start-ups in high-tech and knowledge-intensive industries have a larger employment growth effect than those in other sectors (Fritsch, 2011, p. 373). Egeln et al. (2002) came to a similar result: they showed that businesses started by academics have a higher probability to grow than the start-ups of non-academics. Mohnen and Nasev (2008) show that employees’ competences are conducive to the growth of a company and that public subsidies have a positive employment effect on small and medium-sized companies. Furthermore, start-ups in manufacturing industries seem to create more jobs than those in services (Fritsch & Schroeter, 2011). In particular, start-ups that run for at least four years have a considerable positive direct employment effect, such as generated jobs, as well as an indirect employment effect, such as the enhancement of the supply-side of the economy due to the additional competition exerted by the new start-up (Fritsch & Noseleit, 2009). Usually, only a small fraction of companies provided a considerable number of jobs (Fritsch & Weyh, 2006). In Germany, the number of high-growth companies – so called “gazelles” – declined between 1995 and 2006 in all industries. German gazelles are more innovative than other companies and create a number of new jobs (Dautzenberg et al., 2012).

Gurgul, Zaja, Matschke and Matschke (2014) concluded that the probability of insolvency for German start-ups is the highest within the first few months. The older a start-up is, the higher its survival rate is. The sustainability of German start-ups depends on other issues too, e.g. low skilled migrants in knowledge-intensive industries have a lower probability of survival and have fewer employees (Mueller, 2014). Brenke (2013, pp. 10–12) investigated the status mobility of solo self-employed. He found that about 80 per cent of people who became self-employed in 2009/2010 were still self-employed in 2011. Nevertheless, the probability of changing labour status was higher in the group of self-employed than in other groups. However, only a few self-employed changed labour status into unemployment in 2011. Most started some form of a training programme or became a dependent employee. Within the last years, the survival rate of solo self-employed after 5 years stayed at above 50 per cent.

To sum up, the probability of a change in the labour market status is higher for self-employed as compared to the general working population. However, innovative start-ups in high-tech and knowledge-intensive industries have a larger employment growth effect and a better survival rate than those in other sectors. Moreover, the older a start-up is, the higher its survival rate is.

59 KfW/ZEW Start-up Panel: www.kfw.de/KfW-Group/KfW-Research/Economic-Research/Publikationen/KfW-ZEW-Gr%C3%BCnungspanel, checked on 29/09/14. This panel does not include self-employed who work part-time or other solo self-employed without registered business activities, such as hiring employees, taking out a loan or renting an office.
6. Conclusion and Main Directions for Future Research

Flanked by comparatively good economic developments and low unemployment rates, in Germany the self-employment rate is rather low, as compared to other European countries. Within the last decade, various programmes aimed at encouraging self-employment have been introduced.

The literature review revealed that starting a business usually pays off, in particular if self-employment is not driven by pure economic necessity but in order to put an innovative idea into practice. In the latter case, self-employment enables higher earnings, accompanied by greater job satisfaction and higher quality of work. Furthermore, self-employment provides opportunities for groups that are disadvantaged at the labour market, such as youth, migrants, women or disabled persons. Accordingly, measures that encourage self-employment are to be recommended.

A good starting point for boosting the entrepreneurial spirit are strategies that target schools or universities in order to encourage young people to run their own business. However, neither an entrepreneurial spirit nor networking or mentoring programmes alone will help, as long as young people face opaque bureaucratic processes or a lack of financial support. Thus, future policies should also consider reducing the bureaucracy and complexities attached to legal obligations. In addition, lending financial support should be facilitated. According to previous research, not only are direct subsidies by the state effective in this regard, but policies should also focus on ways of facilitating through acting as a business angel or promoting crowdfunding.

Recent statistics indicate an increase in the number of self-employed persons in Germany over the past decade. However, a considerable share of this growth is caused by an increase in precarious jobs characterised by high job insecurity/insolvency risk, low wages and limited individual developmental potential. At the same time, the number of innovative start-ups has increased, too, in particular in the creative industries. These developments are not only triggered by policy measures and funding programmes, but they also are affected by other business activities, such as firms that outsource tasks to subcontractors or freelancers, respectively. Since evaluation studies combining policy measures in Germany with numerical trends in self-employment and the quality of working conditions are lacking, we suggest that future research may take all of these three issues into account. In addition, specific effects for different socio-demographic groups should be considered. Since previous literature stresses the under-representation of women in self-employment and relating subsidies, both policy measures, as well as future research, should focus on gender issues in order to combat inequalities along gender lines.

As to methodology, middle-scale quantitative analyses present the majority of current evaluation studies, supplemented by a set of studies deploying standardised surveys to identify the motives of persons wishing to start a business. Evaluating policy measures and programmes covered by this literature review remains methodologically challenging. Whilst previous quantitative statistical analyses highlighted important trends, often interpretation of the results proved to be difficult – especially in the case of conflicting findings. Thus, we recommend complementing quantitative analyses by qualitative approaches such as case studies. Qualitative approaches might enable deeper insights into the effects of policy measures.
7. Bibliography


Information concerning the procedure deployed for the literature search

To identify initiatives, programmes, press releases and “grey literature” we did non-systematic research in the internet using manifold keywords. We screened internet sites and applied the “snowball” principle to obtain further information.
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