

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

**Renate Ortlieb and Silvana Weiss**

**University of Graz**

**STYLE-WP7:**

**Business Start-Ups & Youth Self-Employment**

National Report from Germany

**Contributing to D.7.1**

**Actual: 06/05/2015**



**STYLE Working Papers** are peer-reviewed outputs from the [www.style-research.eu](http://www.style-research.eu) project. The series is edited by the project coordinator Professor Jacqueline O'Reilly. These working papers are intended to meet the European Commission's expected impact from the project:

- i) to 'advance the knowledge base that underpins the formulation and implementation of relevant policies in Europe with the aim of enhancing the employment of young people and their transition to economic and social independence', and
- 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.

To cite this report:

Ortlieb, R. & Weiss, S. (2015) *Business Start-Ups and Youth Self-Employment in Germany: A Policy Literature Review*, STYLE Working Papers, WP7.1/DE. CROME, University of Brighton, Brighton.  
<http://www.style-research.eu/publications/working-papers>

© Copyright is held by the authors

## About the authors

**Renate Ortlieb** <http://www.style-research.eu/team/renate-ortlieb>

**Silvana Weiss** <http://www.style-research.eu/team/silvana-weiss>

## Acknowledgements

The research leading to these results has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no. 613256. The authors are grateful for detailed feedback on an earlier version of this report provided by Jackie O'Reilly and two anonymous peer reviewers.

## 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.

## Table of Contents

1. Introduction.....	9
1.1 Aims of this Paper.....	9
1.2 Organisation of the Paper .....	9
1.3 Definition of Self-Employment .....	9
2. Who Starts a Business and Who Does Not?.....	11
3. Policies to Encourage Self-Employment in General and for Youth in Particular .....	14
3.1 Financial Support.....	15
3.2 Coaching and Counselling .....	16
3.3 Programmes for Women: Creating Networks .....	16
3.4 Fostering Innovation .....	17
3.5 Programmes for Youth: Developing Entrepreneurial Mind-sets and Skills .....	18
3.6 Programmes for Migrants.....	19
3.7 Programmes for People with Disabilities .....	20
3.8 Policies for Unemployed Persons .....	20
3.9 Summary .....	21
4. The Quality of Work Associated with Self-Employment .....	23
4.1 Wage Levels .....	23
4.2 Working Hours .....	24
4.3 Summary .....	24
5. Sustainability and Job Creation of Start-Ups.....	26
6. Conclusion and Main Directions for Future Research .....	27
7. Bibliography.....	28
Recent Titles in this Series .....	34
Forthcoming.....	35
Research Partners .....	36
Advisory Groups.....	37

## Abbreviations

ALMP	Active Labour Market Policy/Policies
AT	Austria
BE	Belgium
BG	Bulgaria
CH	Switzerland
CY	Cyprus
CZ	Czech Republic
DE	Germany
DK	Denmark
EC	European Commission
EE	Estonia
EPL	Employment Protection Legislation
ES	Spain
ESF	European Social Fund
EU	European Union
EU-LFS	European Union- Labour Force Survey
EU-SILC	European Union Survey on Income and Living Conditions
EXIST	Existenzgründungen aus der Wissenschaft
FI	Finland
FR	France
GEM	Global Entrepreneurship Monitor
GDP	Gross Domestic Product
GR	Greece
HU	Hungary
ICT	Information and Communications Technology
IE	Ireland
IHK	Chambers of Commerce and Industry
ILO	International Labour Office
IS	Iceland
ISCED	International Standard Classification of Education
IT	Italy
HWK	Chamber of Craft Trades
LT	Lithuania
LU	Luxembourg
LV	Latvia
MT	Malta
NEET	Not in Employment, Education or Training
NL	Netherlands
NO	Norway
OECD	Organisation for Economic Cooperation and Development

OLS	Ordinary Least Squares
PIAAC	Programme for the International Assessment of Adult Competencies
PL	Poland
PT	Portugal
RO	Romania
SE	Sweden
SI	Slovenia
SK	Slovakia
SOC	Standard Occupational Classification
STW	School to Work
TEA	Total Early Stage Entrepreneurship Activity
UK	United Kingdom
VET	Vocational Education and Training
VoC	Varieties of Capitalism
YES	Youth Entrepreneurship Strategies
YTR	Youth Transition Regimes
ZIM	Zentrales Innovationsprogramm Mittelstand



# 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.<sup>1</sup>

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

---

<sup>1</sup> 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/woran\\_sie\\_echte\\_selbststaendigkeit\\_erkennen\\_node.html](http://www.deutsche-rentenversicherung.de/Allgemein/de/Navigation/1_Lebenslagen/02_Start_ins_Berufsleben/03_Existenzgruender/05_woran_sie_echte_selbststaendigkeit_erkennen/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.<sup>2</sup> Furthermore, company size (start alone or as a team) and expected sales determine the legal orders relating to self-employment.<sup>3</sup>

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.<sup>4</sup> 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 (*Scheinselbstständigkeit*) 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, & Zippran, 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.<sup>5</sup> 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).

<sup>2</sup> Start-up web portal *Für-Gründer.de*, information for freelancers: [www.fuer-gruender.de/wissen/existenzgruendung-planen/branchentipps/freiberufler](http://www.fuer-gruender.de/wissen/existenzgruendung-planen/branchentipps/freiberufler), checked on 30/01/15.

<sup>3</sup> 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 (BMW 2014a: 27; see also [www.fuer-gruender.de/wissen/existenzgruendung-planen/recht-und-steuern/rechtsform](http://www.fuer-gruender.de/wissen/existenzgruendung-planen/recht-und-steuern/rechtsform), checked on 30/01/15).

<sup>4</sup> Start-up web portal *Für-Gründer.de*, information on notification obligations for self-employed: [www.fuer-gruender.de/wissen/unternehmen-gruenden/unternehmen-anmelden](http://www.fuer-gruender.de/wissen/unternehmen-gruenden/unternehmen-anmelden), checked on 30/01/15.

<sup>5</sup> Eurofound: [www.eurofound.europa.eu/comparative/tn0801018s/de0801019q.htm](http://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*<sup>6</sup>, in 2014, 4.41 million people in Germany were self-employed – which is about 10 per cent of the working population.<sup>7</sup> 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.

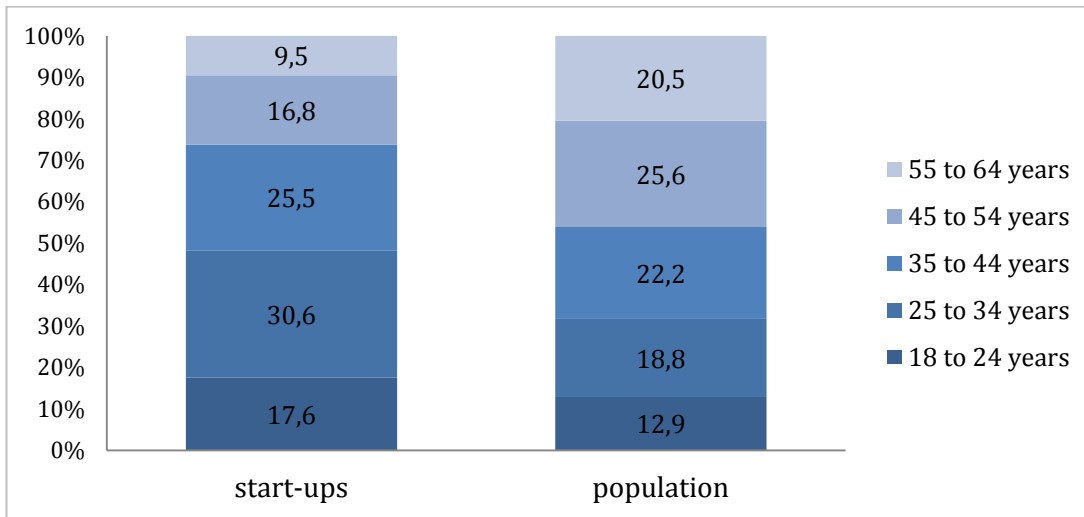
As in many other countries, there is a reversed U-shaped relation between the self-employment rate and age in Germany, with fewer self-employed in the lower and higher age groups and the highest self-employment rate within the age group from 45 to 54 years old (Mai & Marder-Puch, 2013, p. 492). In particular, 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).

---

<sup>6</sup> *Mikrozensus* – Persons in employment 2014: <https://www.destatis.de/DE/ZahlenFakten/Indikatoren/LangeReihen/Arbeitsmarkt/lrerw011.html>, checked on 30/01/15.

<sup>7</sup> 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).

Figure 1: Age distribution of start-up founders compared with the population



Source: KfW-Gründungsmonitor (Metzger, 2014b, p. 6)

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, & Schöttelndreier, 2007; Dautzenberg, Steinbrück, Brenning, & Zinke, 2013). However, Arndt 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 Egelin, 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.<sup>8</sup> 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.<sup>9</sup> 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”.<sup>10</sup> The *Existenzgründerportal* of the *BMWi* provides a magnitude of information regarding self-employment in Germany.<sup>11</sup>

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*<sup>12</sup> (e.g. see *BMAS*, 2010, 2013, 2014), the *ERDF*<sup>13</sup>, the *BMWi* and others are sponsored by private institutions<sup>14</sup>. An overview on different programmes is provided by the *Förderdatenbank*<sup>15</sup> 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*<sup>16</sup>, 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

<sup>8</sup> E.g. press releases of the Federal German Government of August 14<sup>th</sup>, 2014: [www.bundesregierung.de/Content/DE/Pressemitteilungen/BMFSFJ/2014/8/2014-08-13-schwesig-und-gabriel-werben-fuer-neue-gruenderzeit-bei-frauen.html](http://www.bundesregierung.de/Content/DE/Pressemitteilungen/BMFSFJ/2014/8/2014-08-13-schwesig-und-gabriel-werben-fuer-neue-gruenderzeit-bei-frauen.html), checked on 22/09/14; press release of March 3<sup>rd</sup>, 2013: [www.bundesregierung.de/Content/DE/Infodienst/2013/03/2013-03-08-start-ups/2013-03-08-start-ups.html](http://www.bundesregierung.de/Content/DE/Infodienst/2013/03/2013-03-08-start-ups/2013-03-08-start-ups.html), checked on 30/01/15.

<sup>9</sup> Press release of the *BMWi* of January 25<sup>th</sup>, 2010: [www.bmwi.de/DE/Presse/pressemitteilungen,did=327390.html](http://www.bmwi.de/DE/Presse/pressemitteilungen,did=327390.html), checked on 30/01/15.

<sup>10</sup> *Startup Week Germany*: [www.gruenderwoche.de/en/index.php](http://www.gruenderwoche.de/en/index.php), checked on 30/01/15.

<sup>11</sup> *Existenzgründerportal*: [www.existenzgruender.de](http://www.existenzgruender.de), checked on 30/01/15.

<sup>12</sup> 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.

<sup>13</sup> Programmes at different levels funded by the ARDF: [http://ec.europa.eu/regional\\_policy/archive/country/prdrn/search.cfm?gv\\_pay=DE&gv\\_reg=ALL&gv\\_obj=ALL&gv\\_the=ALL&LAN=EN&gv\\_per=2](http://ec.europa.eu/regional_policy/archive/country/prdrn/search.cfm?gv_pay=DE&gv_reg=ALL&gv_obj=ALL&gv_the=ALL&LAN=EN&gv_per=2), checked on 06/10/14.

<sup>14</sup> E.g. *Gründungsfinanzierung der L-Bank*: [www.l-bank.de/lbank/inhalt/nav/foerderungen-und-finanzierungen/alle-foerderangebote/wf-wirtschaftsfoerderung/gruendungsfinanzierung.xml?ceid=112943](http://www.l-bank.de/lbank/inhalt/nav/foerderungen-und-finanzierungen/alle-foerderangebote/wf-wirtschaftsfoerderung/gruendungsfinanzierung.xml?ceid=112943), checked on 31/01/15.

<sup>15</sup> *Förderdatenbank* – funding programmes at different levels (EU, country, regions): [www.foerderdatenbank.de](http://www.foerderdatenbank.de), checked on 31/01/15.

<sup>16</sup> *Start-App*: [www.existenzgruender.de/gruendungswerkstatt/start-app](http://www.existenzgruender.de/gruendungswerkstatt/start-app), checked on 31/01/15.



specific programmes. Usually, they provide information on the general effectivity 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*<sup>17</sup> 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.<sup>18</sup> 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*<sup>19</sup> 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.<sup>20</sup> A very similar programme is the *Mikrokreditfonds Deutschland*.<sup>21</sup> 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.<sup>22</sup> 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*<sup>23</sup> or *crowd-investment.de*<sup>24</sup>. An example is the equity-based crowdfunding platform *Seedmatch*<sup>25</sup> 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*<sup>26</sup>, since 2011, the amount of money invested through crowd-

<sup>17</sup> *INVEST – Zuschuss für Wagniskapital*: [www.bafa.de/bafa/de/wirtschaftsfoerderung/invest/index.html](http://www.bafa.de/bafa/de/wirtschaftsfoerderung/invest/index.html), checked on 31/01/15.

<sup>18</sup> Press release of the *BMWi* of September 24<sup>th</sup>, 2014: [www.bmwi.de/DE/Presse/pressemitteilungen,did=656092.html](http://www.bmwi.de/DE/Presse/pressemitteilungen,did=656092.html), checked on 06/10/14.

<sup>19</sup> *Mikromezzaninfonds-Deutschland*: [www.mikromezzaninfonds-deutschland.de](http://www.mikromezzaninfonds-deutschland.de), checked on 31/01/15.

<sup>20</sup> Press release of the *BMWi* of August 8<sup>th</sup>, 2014: [www.bmwi.de/DE/Presse/pressemitteilungen,did=649452.html](http://www.bmwi.de/DE/Presse/pressemitteilungen,did=649452.html), checked on 31/01/15.

<sup>21</sup> *Mikrokreditfonds Deutschland*: [www.mikrokreditfonds.de](http://www.mikrokreditfonds.de), checked on 31/01/15.

<sup>22</sup> E.g. ERP-startup loans: [www.kfw.de/inlandsfoerderung/Unternehmen/Gründen-Erweitern/index-2.html](http://www.kfw.de/inlandsfoerderung/Unternehmen/Gründen-Erweitern/index-2.html), checked on 31/01/15.

<sup>23</sup> *crowdfunding.de*: [www.crowdfunding.de](http://www.crowdfunding.de), checked on 31/01/15.

<sup>24</sup> *crowd-investment.de*: <http://crowd-investment.de/anbieter>, checked on 31/01/15.

<sup>25</sup> *Seedmatch*: <https://www.seedmatch.de>, checked on 31/01/15.

<sup>26</sup> *Crowdinvesting-Monitor von Für-Gründer.de*: [www.fuer-gruender.de/kapital/eigenkapital/crowd-investing/monitor](http://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*).<sup>27</sup> 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.<sup>28</sup> The programme *nexxt*<sup>29</sup> 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.<sup>30</sup> An example institution is the *WeiberWirtschaft*<sup>31</sup> 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.<sup>32</sup> To mobilise the entrepreneurial potential of women, the *National*

<sup>27</sup> *Gründercoaching*: [https://www.kfw.de/inlandsfoerderung/Unternehmen/Unternehmen-erweitern-festigen/Finanzierungsangebote/Gr%C3%BCndercoaching-Deutschland-\(GCD\)](https://www.kfw.de/inlandsfoerderung/Unternehmen/Unternehmen-erweitern-festigen/Finanzierungsangebote/Gr%C3%BCndercoaching-Deutschland-(GCD)), checked on 31/01/15.

<sup>28</sup> *Förderberatung*: [www.bmwi.de/DE/Themen/Mittelstand/Mittelstandsfinanzierung/foerderberatung.html](http://www.bmwi.de/DE/Themen/Mittelstand/Mittelstandsfinanzierung/foerderberatung.html), checked on 31/01/15.

<sup>29</sup> *nexxt*: [www.nexxt-change.org](http://www.nexxt-change.org), checked on 31/01/15.

<sup>30</sup> Organisations and programmes for women start-ups and entrepreneurs:

- *TWIN – TwoWomenWin*: [www.kaete-ahlmann-stiftung.de/twin.html](http://www.kaete-ahlmann-stiftung.de/twin.html);
- *FRAUEN unternehmen*: [www.bmwi-registrierung.de/frauenunternehmen/default.aspx](http://www.bmwi-registrierung.de/frauenunternehmen/default.aspx);
- *Verband Deutscher Unternehmerinnen*: [www.vdu.de](http://www.vdu.de);
- *Bundesverband der Frauen in Business und Management*: [www.bfbm.de/bfbm/bfbmweb2.nsf/index](http://www.bfbm.de/bfbm/bfbmweb2.nsf/index);
- *Verband Selbstständiger Frauen – Schöne Aussichten*: [www.schoene-aussichten.de](http://www.schoene-aussichten.de);
- *ELFI – E-Learning for Female Entrepreneurs*: [www.iwi.hs-karlsruhe.de/gruenderinnen](http://www.iwi.hs-karlsruhe.de/gruenderinnen);
- *Die Chefin online*: [www.chefin-online.de](http://www.chefin-online.de); e.g. *Unternehmerinnentag 2015*
- *Berufswege für Frauen*: [www.berufswege-fuer-frauen.de/die-schaetze/existenzgruendung.html](http://www.berufswege-fuer-frauen.de/die-schaetze/existenzgruendung.html);
- *Gründerinnenzentrale*: [www.gruenderinnenzentrale.de](http://www.gruenderinnenzentrale.de);
- *Nano4women*: [www.nano-4-women.de](http://www.nano-4-women.de)

all links checked on 31/01/15.

<sup>31</sup> *WeiberWirtschaft Berlin*: [www.weiberwirtschaft.de](http://www.weiberwirtschaft.de), checked on 31/01/15.

<sup>32</sup> 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.<sup>33</sup> 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*<sup>34</sup> – 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.<sup>35</sup> Further programmes that aim to foster innovativeness in the ICT industry include the *Gründerwettbewerb – IKT Innovativ*<sup>36</sup>, a contest for young start-ups in the ICT industry, and the *German Accelerator*<sup>37</sup> 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*<sup>38</sup>, as well as the *Initiative Kultur- und Kreativwirtschaft*<sup>39</sup> that aims to strengthen the chances of small business in the cultural sector. With the funding programme *ZIM*<sup>40</sup> (*Zentrales Innovationsprogramm Mittelstand*), the *BMW* 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.

<sup>33</sup> *Bundesweite Gründerinnenagentur (bga)*: [www.existenzgruenderinnen.de](http://www.existenzgruenderinnen.de), checked on 31/01/15.

<sup>34</sup> *WomenExist*: [www.womenexist.de](http://www.womenexist.de), checked on 31/01/15.

<sup>35</sup> *High-Tech-Gründerfonds*: [www.high-tech-gruenderfonds.de](http://www.high-tech-gruenderfonds.de), checked on 23.09.2014.

<sup>36</sup> *Gründerwettbewerb – IKT Innovativ*: [www.gruenderwettbewerb.de](http://www.gruenderwettbewerb.de), checked on 23.09.2014.

<sup>37</sup> *German Accelerator*: [www.germanaccelerator.com](http://www.germanaccelerator.com), checked on 23.09.2014.

<sup>38</sup> *Startupbootcamp*: [www.startupbootcamp.org](http://www.startupbootcamp.org), checked on 23.09.2014.

<sup>39</sup> *Initiative Kultur- und Kreativwirtschaft*: [www.kultur-kreativ-wirtschaft.de](http://www.kultur-kreativ-wirtschaft.de), checked on 23.09.2014.

<sup>40</sup> *ZIM*: [www.zim-bmwi.de](http://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*.<sup>41</sup> 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*<sup>42</sup>) 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*<sup>43</sup> 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*<sup>44</sup>) 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*<sup>45</sup>) 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

<sup>41</sup> *EXIST*: [www.exist.de](http://www.exist.de), checked on 23.09.2014.

<sup>42</sup> *Unternehmergeist in die Schulen*: [www.unternehmergeist-macht-schule.de](http://www.unternehmergeist-macht-schule.de), checked on 31/01/15.

<sup>43</sup> *JUNIOR*: [www.junior-programme.de](http://www.junior-programme.de), checked on 31/01/15.

<sup>44</sup> *Jugend gründet*: [www.jugend-gruendet.de](http://www.jugend-gruendet.de), checked on 31/01/15.

<sup>45</sup> *Deutscher Gründerpreis für Schüler*: [www.deutscher-gruenderpreis.de/derpreis/fuer-schueler](http://www.deutscher-gruenderpreis.de/derpreis/fuer-schueler), checked on 23/09/14.

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*<sup>46</sup> which is also available as an app. A programme on a more regional level (state of Rheinland-Pfalz) is *PUG – Perspektive Unternehmergeist*<sup>47</sup>: 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*<sup>48</sup> 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.*<sup>49</sup> 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 (Unternehmergeymnasium Bayern)*<sup>50</sup>. 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*<sup>51</sup> 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*<sup>52</sup>, 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 *BMW* offers a brochure with information for migrants on how to start a business in Germany by providing contact information of counselling offices<sup>53</sup> and giving basic information on certain legal

<sup>46</sup> *BeBoss*: <https://www.bmwi-beboss.de/home>, checked on 31/01/15.

<sup>47</sup> *PUG – Perspektive Unternehmergeist*: [www.perspektive-unternehmergeist.de](http://www.perspektive-unternehmergeist.de), checked on 31/01/15.

<sup>48</sup> *Gründerrepublik*: [www.gruenderrepublik.org](http://www.gruenderrepublik.org), checked on 31/01/15.

<sup>49</sup> *Jem e.V.*: [www.jem-online.de](http://www.jem-online.de), checked on 31/01/15.

<sup>50</sup> *Unternehmergeymnasium Bayern*: [www.unternehmergeymnasium.de/start.htm](http://www.unternehmergeymnasium.de/start.htm), checked on 31/01/15.

<sup>51</sup> *Jugendmigrationsdienste*: [www.jmd-portal.de](http://www.jmd-portal.de), checked on 31/01/15.

<sup>52</sup> *Jobstarter-KAUSA*: [www.jobstarter.de](http://www.jobstarter.de), checked on 31/01/15.

<sup>53</sup> Examples for counselling offices for migrants in different German states:

- *Deutsch-Türkisches Wirtschaftszentrum Mannheim (dtw; Baden-Württemberg)*: [www.dtw-mannheim.de](http://www.dtw-mannheim.de), checked on 31/01/15.
- *Unternehmer ohne Grenzen (Hamburg)*: [www.unternehmer-ohne-grenzen.de](http://www.unternehmer-ohne-grenzen.de), checked on 31/01/15.
- Verbundvorhaben „Migrantinnen und Migranten als Wirtschaftsakteure in Sachsen“: [www.migrasax.de](http://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*<sup>54</sup> 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*.<sup>55</sup>

### 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

<sup>54</sup> *enterability*: <http://enterability.de>, checked on 31/01/15.

<sup>55</sup> *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<sup>56</sup> 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*.<sup>57</sup> 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.

---

<sup>56</sup> *Zukunft Lausitz – die Gründerwerkstatt*: [www.zukunft-lausitz.de](http://www.zukunft-lausitz.de); *enterprise*: <http://iq-enterprise.de>; *young companies*: [www.young-companies.de](http://www.young-companies.de); both links checked on 31/01/15.

<sup>57</sup> *.garage*: [http://wasistgarage.de/hamburg\\_home](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<sup>58</sup> while only about 23 per cent 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).

---

<sup>58</sup> 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 & Wießner, 2012). However, according to a study by Ziegelmeier (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, & Wingerter, 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*<sup>59</sup> 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). Egelin *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.

---

<sup>59</sup> *KfW/ZEW Start-up Panel*: [www.kfw.de/KfW-Group/KfW-Research/Economic-Research/Publikationen/KfW-ZEW-Gr%C3%BCndungspanel](http://www.kfw.de/KfW-Group/KfW-Research/Economic-Research/Publikationen/KfW-ZEW-Gr%C3%BCndungspanel), 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

- Achtenhagen, L. (2014). Selbstständigkeit von Frauen In: Gather, C., Biermann, I., Schürmann, L., Ulbricht, S. & Zippryan, H. (Hrsg.). *Die Vielfalt der Selbstständigkeit – Sozialwissenschaftliche Beiträge zu einer Erwerbsform im Wandel*. Berlin: Hochschule für Wirtschaft und Recht Berlin: 49–59.
- Arndt, W. & Kay, R. (2006). Entrepreneurial image, gender, and the formation of new ventures. *Die Betriebswirtschaft*, 66(5): 497–520.
- Amorós, J.E. & Bosma, N. (2014). *Global Entrepreneurship Monitor 2013 Global Report: Fifteen years of assessing entrepreneurship across the globe*. Available from: <http://www.gemconsortium.org/docs/download/3106> [Accessed 18/03/15].
- Apitzsch, U. (2003). Gaining autonomy in self-employment processes. The biographical embeddedness of women's and migrants' business. *International Review of Sociology*, 13(1): 163–182.
- Bernhard, S. & Wolff, J. (2011). Die Praxis des Gründungszuschusses – Eine qualitative Implementationsstudie zur Gründungsförderung im SGB III. *IAB Forschungsbericht*, 3/2011.
- Bga (2013a). Gründerinnen und Unternehmerinnen in Deutschland I – Quantitative Daten und Fakten. *Bga*, Nr. 33.
- Bga (2013b). Gründerinnen und Unternehmerinnen in Deutschland III – Personenbezogene Daten und Fakten. *Bga*, Nr. 35.
- Bliemeister, P. (2014). Einkommensrisiko Mutterschaft? Selbstständige und abhängig beschäftigte Frauen im Vergleich. In: Gather, C., Biermann, I., Schürmann, L., Ulbricht, S. & Zippryan, H. (Hrsg.). *Die Vielfalt der Selbstständigkeit – Sozialwissenschaftliche Beiträge zu einer Erwerbsform im Wandel*. Berlin: Hochschule für Wirtschaft und Recht Berlin: 94–109.
- Block, J. & Kohn, K. (2011). Social policy as a motivation for start-up subsidies: Supporting start-ups out of unemployment. *MPRA Paper*, No. 30775.
- BMAS (2010). *ESF-Programme im Bereich Existenzgründung*. Bonn.
- BMAS (2013). *Der ESF informiert: Programme zur Förderung der Eingliederung Jugendlicher in Ausbildung und Beruf*. Bonn.
- BMAS (2014). *Der Europäische Sozialfonds – Chancengeber für Europa*. Bonn.
- BMWi (2013a). *Gründerland Deutschland 2013: Zahlen und Fakten. Unternehmensgründungen und Gründergeist in Deutschland*. Berlin.
- BMWi (2013b). *GründerZeiten 10 – Existenzgründungen durch Migrantinnen und Migranten*. Berlin.
- BMWi (2014a). *Starthilfe. Der erfolgreiche Weg in die Selbstständigkeit*. Berlin.
- BMWi (2014b). *Die Förderdatenbank des Bundes im Internet – Schnell und einfach zum richtigen Förderprogramm*. Berlin.

- Bögenhold, D. & Fachinger, U. (2012). *Neue Selbstständigkeit. Wandel und Differenzierung der Erwerbstätigkeit*. Bonn: Friedrich-Ebert-Stiftung.
- Bøggild, N., Heyn, L., Käser-Erdtracht, J., Richter, T.J., Wallau, F., Werner, A. & Zinke, G. (2011). *Evaluierung der ERP-Programme – Endbericht*. Hamburg: Rambøll Management Consulting.
- Brehm, T., Eggert, K. & Oberlander, W. (2012). *Die Lage der Freien Berufe*. Nürnberg: Institut für Freie Berufe.
- Brenke, K. (2013). Allein tätige Selbständige: Starkes Beschäftigungswachstum, oft nur geringe Einkommen. *DIW Wochenbericht*, Nr. 7.
- Bruton, G., Khavul, S., Siegel, D. & Wright, M. (2015). New financial alternatives in seeding entrepreneurship: Microfinance, crowdfunding, and peer-to-peer innovations. *Entrepreneurship Theory and Practice*, 39(1): 9–26.
- Bührmann, A.D., Hansen, K., Schmeink, M. & Schöttelndreier A. (Eds) (2007). *Entrepreneurial Diversity. UnternehmerInnen zwischen Businessplan und Bricolage*. Hamburg: LIT.
- Caliendo, M. & Kritikos, A.S. (2009a). Die reformierte Gründungsförderung für Arbeitslose – Chancen und Risiken. *Perspektiven der Wirtschaftspolitik*, 10(2): 189–213.
- Caliendo, M. & Kritikos, A.S. (2009b). I want to, but I also need to – start-ups resulting from opportunity and necessity. *IZA Discussion Papers*, No. 4661.
- Caliendo, M. & Kritikos, A.S. (2010). Start-ups by the unemployed: Characteristics, survival and direct employment effects. *Small Business Economics*, 35(1): 71–92.
- Caliendo, M., Künn, S. & Wießner, F. (2010). Die Nachhaltigkeit von geförderten Existenzgründungen aus Arbeitslosigkeit: Eine Bilanz nach fünf Jahren. *Zeitschrift für Arbeitsmarktforschung*, 42: 269–291.
- Caliendo, M. & Künn, S. (2012). Getting back into the labor market: The effects of start-up subsidies for unemployed females. *IZA Discussion Papers*, No. 6830.
- Caliendo, M. & Künn, S. (2013). Regional effect heterogeneity of start-up subsidies for the unemployed. *IZA Discussion Papers*, No. 7460.
- Caliendo, M., Hogenacker, J., Künn, S. & Wießner, F. (2012). Alte Idee, neues Programm: Der Gründungszuschuss als Nachfolger von Überbrückungsgeld und Ich-AG. *Journal of Labour Market Research*, 45(2): 99–123.
- Cantner, U. & Kösters, S. (2009). R&D subsidies to start-ups: Effective drivers of patent activity and employment growth? *Jena Economic Research Papers*, No. 2009, 027.
- Constant, A.F., Shachmurove, Y. & Zimmermann, K.F. (2007). *What makes an entrepreneur and does it pay? Native men, Turks, and other migrants in Germany*. Oxford, UK: Blackwell.
- Constant, A.F. (2008). Businesswomen in Germany and their performance by ethnicity: It pays to be self-employed. *IZA Discussion Papers*, No. 3644.

- Dautzenberg, K., Ehrlenspiel, M., Gude, H., Käser-Erdtracht, J., Schultz, P.T., Tenorth, J., Tscherncke, M. & Wallau, F. (2012). *Studie über schnell wachsende Jungunternehmen (Gazellen) – Endbericht*. Berlin: BMWi.
- Dautzenberg, K., Steinbrück, A., Brenning, L. & Zinke, G. (2013). *Wachstumspotentiale inhaberinnengeführter Unternehmen – Wo steht Deutschland im EU-Vergleich – Endbericht*. Berlin: BMWi.
- Depner, H., Gorynia-Pfeffer, N., Vollborth, T. & Wallisch, M. (2014). *Wirksamkeit der geförderten FuE-Projekte des Zentralen Innovationsprogramms Mittelstand (ZIM)*. Eschborn: RKW.
- DIHK (2014). *Pioniergründer bringen frische Brise. Zahlen und Einschätzungen der IHK-Organisation zum Gründungsgeschehen in Deutschland*. Berlin.
- Dorfleitner, G., Kapitz, J. & Wimmer, M. (2014). Crowdfunding als Finanzierungsalternative für kleine und mittlere Unternehmen. *Die Betriebswirtschaft*, 74(5): 271–291.
- DSM (2014). *Deutscher Start-up Monitor*. Berlin: BVDS.
- Egeln, J., Gottschalk, S., Rammer, C. & Spielkamp, A. (2002). Spinoff-Gründungen aus der öffentlichen Forschung in Deutschland: Kurzfassung; Gutachten für das Bundesministerium für Bildung und Forschung. *ZEW-Dokumentation* Nr. 03-02.
- European Commission (2012a). *Entrepreneurship. Country report Germany. Flash Eurobarometer, 354*. Available from: [http://ec.europa.eu/public\\_opinion/flash/fl\\_354\\_en.pdf](http://ec.europa.eu/public_opinion/flash/fl_354_en.pdf) [Accessed 18/03/15].
- European Commission (2012b). *Building Entrepreneurial Mindsets and skills in the EU – Guidebook Series: How to support SME Policy from Structural Funds*. Available from: [http://ec.europa.eu/enterprise/policies/sme/regional-sme-policies/documents/no.1\\_entrepreneurial\\_mindsets\\_en.pdf](http://ec.europa.eu/enterprise/policies/sme/regional-sme-policies/documents/no.1_entrepreneurial_mindsets_en.pdf) [Accessed 18/03/15].
- Fritsch, M. & Noseleit, F. (2009). Start-ups, long- and short-term survivors and their effect on regional employment growth. *Jena Economic Research Papers*, No. 2009, 081.
- Fritsch, M., Noseleit, F. & Schindele, Y. (2010). *Success or failure? Business-, industry- and region-specific determinants of survival – A multidimensional analysis for German manufacturing*. Jena: Friedrich Schiller University.
- Fritsch, M. (2011). Start-ups in innovative industries: Causes and effects. In: Audretsch, D.B., Falck, O., Heblich, S. & Lederer A. (Eds). *Handbook of research on innovation and entrepreneurship*. Berlin: DIW: 365–381.
- Fritsch, M. & Schroeter, A. (2011). Does quality make a difference? Employment effects of high- and low-quality start-ups. *Jena Economic Research Papers*, No. 2011, 001.
- Fritsch, M., Kritikos, A. & Rusakova, A. (2012). Who starts a business and who is self-employed in Germany. *Jena Economic Research Papers*, No. 2012, 001.
- Fryges, H., Gottschalk, S. & Kohn, K. (2009). The KfW/ZEW start-up panel: Design and research potential. *ZEW Discussion Papers*, No. 09-053.



- Gather, C., Biermann, I., Schürmann, L., Ulbricht, S. & Zipprian, H. (Hrsg.) (2014). *Die Vielfalt der Selbstständigkeit – Sozialwissenschaftliche Beiträge zu einer Erwerbsform im Wandel*. Berlin: Hochschule für Wirtschaft und Recht Berlin.
- Gerner, H.D. & Wießner, F. (2012). Solo-Selbstständige – Die Förderung bewährt sich, der soziale Schutz nicht immer. *IAB Kurzbericht*, Nr. 23.
- Gurgul, H., Zaja, P., Matschke, X. & Matschke, M.J. (2014). A dynamic model of birth and death of enterprises in Germany. *Betriebswirtschaftliche Forschung und Praxis*, 66(1): 86–103.
- Halabisky, D. (2014). *Policy brief on entrepreneurship for people with disabilities*. Luxembourg: Publications Office of the European Union.
- Kay, R. & Schneck, S. (2012). *Hemmnisse und Probleme bei Gründungen durch Migranten*. IfM-Materialien Nr. 214.
- Kohn, K. & Ullrich, K. (2010). Starten Frauen tatsächlich kleinere Unternehmen? Dimensionen der Gründungsgröße näher betrachtet. *Betriebswirtschaftliche Forschung und Praxis*, 62(6): 654–681.
- Koller, L., Neder, N., Rudolph, H. & Trappmann, M. (2012). Selbstständige in der Grundsicherung. Viel Arbeit für wenig Geld. *IAB-Kurzbericht*, Nr. 22.
- Körner, T., Puch, K. & Wingerter, C. (2012). *Qualität der Arbeit – Geld verdienen und was sonst noch zählt*. Wiesbaden: Statistisches Bundesamt.
- Kulicke, M. (2013). *Ergebnisse und Wirkungen der Förderprogramme EXIST-Gründerstipendium und EXIST SEED*. Karlsruhe: Fraunhofer ISI.
- Lechmann, D.S. (2014). Die geschlechtsspezifische Verdienstlücke in selbstständiger Erwerbsarbeit. In: Gather, C., Biermann, I., Schürmann, L., Ulbricht, S. & Zipprian, H. (Hrsg.). *Die Vielfalt der Selbstständigkeit – Sozialwissenschaftliche Beiträge zu einer Erwerbsform im Wandel*. Berlin: Hochschule für Wirtschaft und Recht Berlin: 85–92.
- Mai, C.-M. & Marder-Puch, K. (2013). *Selbstständigkeit in Deutschland*. Wiesbaden: Statistisches Bundesamt.
- Marchese, M. (2014). *Policy brief on access to business start-up finance for inclusive entrepreneurship*. *Entrepreneurial activities in Europe*. Luxembourg: OECD/European Commission.
- May-Strobl, E., Pahnke, A. & Schneck, S. (2011). Selbstständige in der Grundsicherung. *IfM Working Paper* Nr. 2.
- Metzger, G. (2014a). *KfW-Gründungsmonitor 2014: Gründungstätigkeit wiederbelebt – Impuls aus dem Nebenerwerb*. Frankfurt am Main: KfW.
- Metzger, G. (2014b). *KfW-Gründungsmonitor 2014: Tabellen- und Methodenband*. Frankfurt am Main: KfW.
- Metzger, G. & Rammer, C. (2009). *Unternehmensdynamik in forschungs- und wissensintensiven Wirtschaftszweigen in Deutschland*. Mannheim: ZEW (Studien zum deutschen Innovationssystem Nr. 05).

- Mollick, E. (2014). The dynamics of crowdfunding: An exploratory study. *Journal of Business Venturing*, 29(1): 1–16.
- Mueller, P. (2007). Exploiting entrepreneurial opportunities: The impact of entrepreneurship on growth. *Small Business Economics*, 28(4): 355–362.
- Mueller, E. (2014). Entrepreneurs from low-skilled immigrant groups in knowledge-intensive industries: Company characteristics, survival and innovative performance. *Small Business Economics*, 42(4): 871–889.
- Müller, K. (2008). University spin-off's transfer speed: Analyzing the time from leaving university to venture. *ZEW Discussion Papers*, No. 08-034.
- Münstermann, L. (2013). Zur Altersvorsorgepflicht für Selbstständige. *Otto-Wolff-Discussion Paper*, No. 06.
- Niefert, M. (2010). Characteristics and determinants of start-ups from unemployment: Evidence from German micro data. *Journal of Small Business & Entrepreneurship*, 23(3): 409–429.
- Niehues, J. & Pimpertz J. (2012). Alterssicherung der Selbstständigen in Deutschland. IW-Trends. *Vierteljahresschrift zur empirischen Wirtschaftsforschung*, 39(3): 1–18.
- Pahnke, A., May-Strobl, E. & Schneck, S. (2014). Die Einkommenssituation von Selbstständigen und die Inanspruchnahme staatlicher Leistungen auf Basis des SGB II. *IfM-Materialien* Nr. 226.
- Pechtl, H. & Gloszat, E. (2010). Motive und Entscheidungskriterien von Business Angel. *Betriebswirtschaftliche Forschung und Praxis*, 62(6): 581–602.
- Protsch, P. (2006). Lebens- und Arbeitsqualität von Selbstständigen: Objektive Lebens- und Arbeitsbedingungen und subjektives Wohlbefinden einer heterogenen Erwerbsgruppe. *WZB Discussion Paper*, No. SP I 2006-106.
- Reimer, M., Momsen, B. & Quauke, A. (2011). Was Gründer wollen – Deskriptive Ergebnisse einer empirischen Untersuchung zu den Entscheidungskriterien bei der Auswahl von Venture Capital-Gesellschaften. *Betriebswirtschaftliche Forschung und Praxis*, 63(6): 673–693.
- Schreiber, K., Lohr, B., Zwick, M. & Bartel, T. (2009). *Evaluation des Förderprogramms „Junge Leute machen sich selbständig“*. Saarbrücken: isoplan-Marktforschung.
- Schulze Buschoff, K. (2004). Neue Selbstständigkeit und wachsender Grenzbereich zwischen selbstständiger und abhängiger Erwerbsarbeit – Europäische Trends vor dem Hintergrund sozialpolitischer und arbeitsrechtlicher Entwicklungen. *WZB Discussion Paper*, No. SP I 2004-108.
- Sternberg, R., Vorderwülbecke, A. & Brixy, U. (2014). *Global entrepreneurship monitor (GEM). Länderbericht Deutschland 2013*. Hannover: IAB.
- Stubner, S., Wulf, T. & Hungenberg, H. (2007). Management support and the performance of entrepreneurial start-ups – An empirical analysis of newly founded companies in Germany. *Schmalenbach Business Review*, 59(2): 138–159.



- Volkman, C.K. & Tokarski, K.O. (2010). Unternehmerbild und Einstellungen zum Entrepreneurship: Eine explorative Befragung von Studierenden in fünf europäischen Ländern. *Betriebswirtschaftliche Forschung und Praxis*, 62(6): 638–653.
- Walter, S.G. & Walter, A. (2008). Deutsche Universitäten als Gründungsinkubatoren: Der Beitrag der Gründungsausbildung zur Gründungsintention von Studierenden. *Schmalenbachs Zeitschrift für betriebswirtschaftliche Forschung*, 60: 542–569.
- Walter, S.G. & Walter, A. (2009). Personenbezogene Determinanten von Unternehmensgründungen: Stand der Forschung und Perspektiven des Fortschritts. *Schmalenbachs Zeitschrift für betriebswirtschaftliche Forschung*, 61: 57–89.
- Wolff, J. & Nivorozhkin, A. (2012). Start me up: The effectiveness of a self-employment programme for needy unemployed people in Germany. *Journal of Small Business and Entrepreneurship*, 25(4): 499–518.
- Zieglmeyer, M. (2013). Sind Selbstständige von Altersarmut bedroht? Eine Analyse des Altersvorsorge-Verhalten von Selbstständigen. *Schmollers Jahrbuch*, 130(2): 195–239.

Information concerning the procedure deployed for the literature search

To identify studies related to the topic “youth in self-employment in Germany” we searched for papers in the following German scientific journals:

Die Betriebswirtschaft (DBW)

Zfbf (Schmalenbachs Zeitschrift für betriebswirtschaftliche Forschung)

BuR (Business Research)

SBR (Schmalenbach Business Review)

BFuP (Betriebswirtschaftliche Forschung und Praxis)

Zeitschrift für Personalforschung (ZfP)

ZfB (Zeitschrift für Betriebswirtschaft)

If a journal did not provide a key word search option we screened titles and abstracts manually. If a tool for keyword search was available we used the following keywords in German (and for Journals with Issues in English language also in English): “Start,” “Startup,” “Start-up,” “jung,” “selbstständig,” “selbständig,” “Selbstständigkeit,” “Selbständigkeit,” “innovativ,” “Innovation,” “Unternehmen,” “Entrepreneur,” “Gründer,” “Gründerin,” “Gründung,” “Frauen,” “Exist,” (“start,” “startup,” “start-up,” “young,” “self-employed,” “self-employment,” “innovative,” “innovation,” “enterprises,” “entrepreneur,” “founder,” “foundation,” “women,” “Exist”).

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.

## Recent Titles in this Series

### **STYLE Working Papers, WP3.1**

Hadjivassiliou, K., L. Kirchner Sala, S. Speckesser (2015) *Key Indicators and Drivers of Youth Unemployment*, STYLE Working Papers, WP3.1. CROME, University of Brighton, Brighton.

### **STYLE Working Papers, WP3.2**

Gonzalez Carreras, F., L. Kirchner Sala, S. Speckesser (2015) *The Effectiveness of Policies to Combat Youth Unemployment*, STYLE Working Papers, WP3.2. CROME, University of Brighton, Brighton

### **STYLE Working Papers, WP5.1**

McGuinness, S., A. Bergin & A. Whelan (2015) *A Comparative Time Series Analysis of Overeducation in Europe: Is there a common policy approach?* STYLE Working Papers, WP5.1. CROME, University of Brighton, Brighton

### **STYLE Working Papers, WP7.1**

Sheehan, M. & McNamara, A. (2015) *Business Start-Ups and Youth Self-Employment: A Policy Literature Overview*, STYLE Working Papers, WP7.1. CROME, University of Brighton, Brighton.

### **STYLE Working Papers, WP7.1/UK**

Hinks, R., Fohrbeck, A. & Meager, N. (2015) *Business Start-Ups and Youth Self-Employment in the UK: A Policy Literature Review*, STYLE Working Papers, WP7.1/UK. CROME, University of Brighton, Brighton.

### **STYLE Working Papers, WP7.1/DE**

Ortlieb, R. & Weiss, S. (2015) *Business Start-Ups and Youth Self-Employment in Germany: A Policy Literature Review*, STYLE Working Papers, WP7.1/DE. CROME, University of Brighton, Brighton.

### **STYLE Working Papers, WP7.1/IRL**

Sheehan, M. & Mc Namara, A. (2015) *Business Start-Ups and Youth Self-Employment in Ireland: A Policy Literature Review* STYLE Working Papers, WP7.1/IRL. CROME, University of Brighton, Brighton.

### **STYLE Working Papers, WP7.1/ES**

González Menéndez, M.C. & Cueto, B. (2015) *Business Start-Ups and Youth Self-Employment in Spain: A Policy Literature Review*, STYLE Working Papers, WP7.1/ES. CROME, University of Brighton, Brighton

### **STYLE Working Papers, WP7.1/PL**

Pocztowski, A., Buchelt, B. & Pauli, U. (2015) *Business Start-Ups and Youth Self-Employment in Poland: a Policy Literature Review Start-ups in Poland*, STYLE Working Papers, WP7.1/PL. CROME, University of Brighton, Brighton.

### **STYLE Working Papers, WP7.1/EE**

Masso, J. & Paes, K. (2015) *Business Start-Ups and Youth Self-Employment in Estonia: A Policy Literature Review*, STYLE Working Papers, WP7.1/EE. CROME, University of Brighton, Brighton.

**STYLE Working Papers, WP8.1**

Berloffo, G., M. Filandri, E. Matteazzi, T. Nazio, J. O'Reilly, P. Villa and C. Zuccotti, (2015) *Work-poor and work-rich families: Influence on youth labour market outcomes*, STYLE Working Papers, STYLE-WP8.1. CROME, University of Brighton, Brighton.

**Forthcoming**

Available at: <http://www.style-research.eu/publications>

06/15	WP10	Mapping flexicurity performance in the face of the crisis
08/15	WP5	Are student workers crowding out low-skilled youth?
09/15	WP5	Recruitment Methods and educational provision effects on graduate over-education and over-skilling
10/15	WP9	Aspirations of vulnerable youth in foster care
11/15	WP4	Barriers to and triggers of innovation and knowledge transfer
12/15	WP9	Value system shared by young generations towards work and family
13/15	WP3	Policy Performance and Evaluation: Qualitative Country Case Study Fiches
14/15	WP10	From entry jobs to career employment
15/15	WP6	Re-emerging migration patterns: structures and policy lessons
16/15	WP10	Flexicurity and Subjective Insecurity
17/15	WP9	The impact of youth unemployment on social capital
18/15	WP7	Mapping patterns of self-employment
19/15	WP8	Leaving and returning to the parental home during the economic crisis

# Research Partners

- |   |                       |
|---|-----------------------|
| 1. University of Brighton – BBS CROME     | – United Kingdom      |
| 2. Institute for Employment Studies       | – United Kingdom      |
| 3. Institute for the Study of Labor       | – Germany             |
| 4. Centre for European Policy Studies     | – Belgium             |
| 5. TARKI Social Research Institute        | – Hungary             |
| 6. University of Trento                   | – Italy               |
| 7. National University of Ireland Galway  | – Republic of Ireland |
| 8. Democritus University of Thrace        | – Greece              |
| 9. University of Oxford                   | – United Kingdom      |
| 10. Economic & Social Research Institute  | – Republic of Ireland |
| 11. University of Salerno                 | – Italy               |
| 12. University of Oviedo                  | – Spain               |
| 13. University of Tartu                   | – Estonia             |
| 14. Cracow University of Economics        | – Poland              |
| 15. Slovak Governance Institute           | – Slovakia            |
| 16. Metropolitan University Prague        | – Czech Republic      |
| 17. Grenoble School of Management         | – France              |
| 18. University of Tilburg                 | – Netherlands         |
| 19. University of Graz                    | – Austria             |
| 20. Copenhagen Business School            | – Denmark             |
| 21. Norwegian Social Research             | – Norway              |
| 22. Swedish Institute for Social Research | – Sweden              |
| 23. Koç University Social Policy Centre   | – Turkey              |
| 24. University of Turin                   | – Italy               |
| 25. EurActiv                              | – Belgium             |

<http://www.style-research.eu/research-organisations>

# Advisory Groups

## Consortium Advisory Network

Business Europe

[www.buinessseurope.eu](http://www.buinessseurope.eu)

ETUI: European Trade Union Institute

[www.etui.org](http://www.etui.org)

European Youth Forum

[www.youthforum.org](http://www.youthforum.org)

European Foundation for the Improvement of Living and Working Conditions

[www.eurofound.europa.eu](http://www.eurofound.europa.eu)

ILO: International Labour Office

[www.ilo.org](http://www.ilo.org)

OECD: Organisation for Economic Cooperation and Development

[www.oecd.org](http://www.oecd.org)

OSE: Observatoire Sociale Européen

[www.ose.be](http://www.ose.be)

SOLIDAR: European network of NGOs working to advance social justice in Europe

[www.solidar.org](http://www.solidar.org)

EurActiv

[www.euractiv.com](http://www.euractiv.com)

European Commission, DG Employment, Social Affairs & Inclusion

<http://ec.europa.eu/social/main.jsp?langId=en&catId=1036>

## Local Advisory Boards

including employers, unions, policy makers and non-government organisations

[www.style-research.eu/project-advisors/local-advisory-boards/](http://www.style-research.eu/project-advisors/local-advisory-boards/)