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## »»» KfW Entrepreneurship Monitor 2022 Start-up activity returned to pre-crisis level in 2021: More female, young and opportunity business starters

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# Start-up activity returned to pre-crisis level in 2021: More female, young and opportunity business starters

## Number of start-up businesses increased

Start-up activity in Germany returned to pre-crisis levels in 2021 after the pandemic slump of 2020. Compared with 2020, 70,000 more newcomers (+13%) ventured into self-employment, launching 607,000 businesses. Entrepreneurship grew as both a full-time and a part-time activity. Starting from the low of 2020, the number of full-time business starters increased to 236,000 (+35,000  $\approx$  +18%) and the number of part-time start-ups rose to 371,000 (+35,000  $\approx$  10%).

## More business opportunities are being realised

As was already the case in the first year of the pandemic, the share of business starters launching a business opportunity also grew. Their proportion grew again slightly in 2021 to now 82%, with the number of opportunity start-ups rising to 498,000. Businesses founded for lack of better income alternatives remain in a trough, sitting at 91,000 (15%).

## Number of female business starters increased

After the number of female business starters remained virtually unchanged for three years, it grew disproportionately last year. Thus, 257,000 women started a business of their own in 2021 (+52,000  $\approx$  +25%). The number of male business starters grew to 350,000 (+18,000  $\approx$  +5%). Thus, the share of female entrepreneurs increased to 42 from 38% in 2020. Young women in particular contributed to this growth. The share of under 30-old women rose from 28 to 37% year on year.

## More digital and internet-based start-ups

The coronavirus pandemic has mercilessly exposed the weaknesses of traditional business models. Business starters have obviously responded to this. Significantly more start-ups are digital and Internet-based. With shares of 31% digital and 41% internet-based start-ups, the trends that have been positive for years peaked in 2021.

## Outlook for 2022

Despite a declining rate of nascent entrepreneurs, i.e. start-up planners, start-up activity is expected to continue on a similar level in 2022 as in 2021.

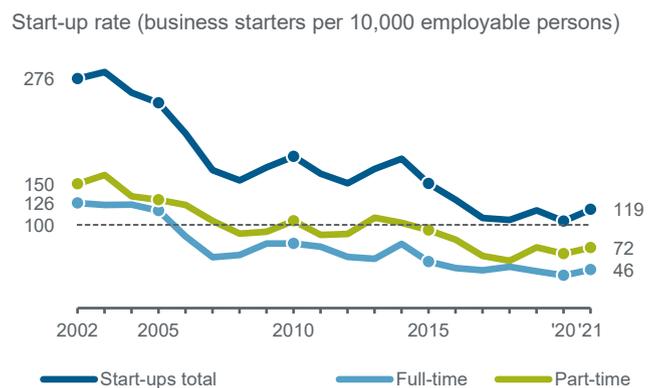
## Start-up activity in Germany increased both full-time and part-time

In 2021 start-up activity offset the decline recorded in the year 2020 and returned to the level prior to the outbreak of the coronavirus pandemic. The number of start-ups reached 607,000, which means 70,000 more people ventured into self-employment than in 2020 – a 13% increase. The start-up rate rose to 119 new businesses per 10,000 persons aged 18 to 64 years, up from 104 in 2020 (Figure 1).

Start-up activity grew as both a full-time and part-time business. Starting from the low of 2020, the number of full-time business start-ups increased to 236,000 (+35,000  $\approx$  +18%) and the number of part-time start-ups rose to 371,000 (+35,000  $\approx$  10%).

The outbreak of the coronavirus crisis in 2020 had a massive impact on start-up activity in Germany. Not only were much fewer businesses in planning but significantly fewer start-ups were actually launched. People often held on to start-up plans which they did not realise and merely deferred because of the crisis, so they were a good starting point. As a consequence, a rise in start-up activity could indeed be expected for 2021.

Figure 1: Start-up rate rose to 119



Employable persons: Population 18 to 64 years of age.

Source: KfW Entrepreneurship Monitor.

**Box 1: The KfW Entrepreneurship Monitor**

The KfW Entrepreneurship Monitor is based on the information provided by 50,000 randomly selected persons domiciled in Germany. They are interviewed by telephone on an annual basis as part of a representative survey of the population. The survey covers a broad range of start-ups: full-time and part-time entrepreneurs, self-employed professionals and business owners, new businesses and takeovers. The KfW Entrepreneurship Monitor thus provides a comprehensive picture of start-up activity in Germany.

**More opportunity start-ups again**

The pandemic-induced uncertainty prompted many prospective entrepreneurs to refrain very early from starting or planning a business. That means the share of business starters who were especially confident about their project is higher. Already in 2020, that was evident from the high share of businesses started to take advantage of a business opportunity (80%). That share grew further to 82% in 2021 (Figure 2), causing the number of these opportunity start-ups to increase to 498,000 (2020: 428,000). That is good news for the economy because opportunity start-ups on average have higher survival rates<sup>1</sup> and are more employment-intensive. Businesses started for lack of better income alternatives (necessity start-ups), in turn, remained in a trough in both relative (15%) and absolute terms (91,000). The widespread use of short-time work, which prevented a sharper increase in unemployment, is likely to have contributed to the fact that not more people moved into self-employment out of necessity.

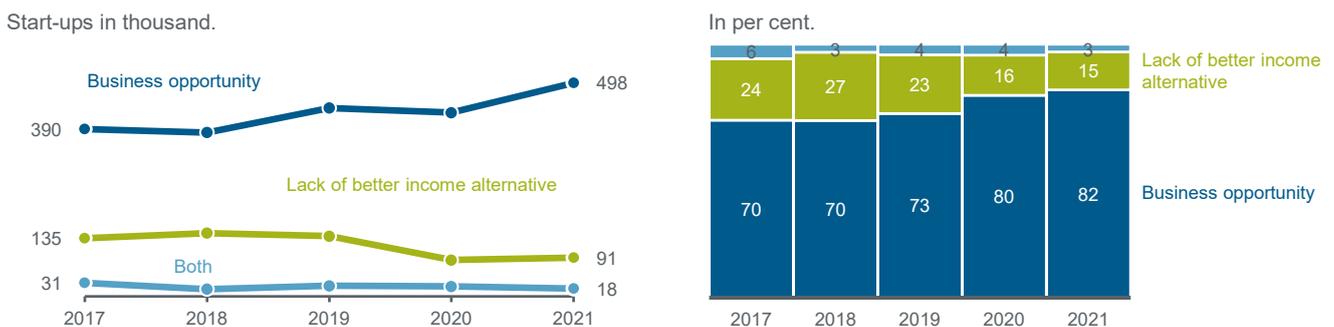
Start-ups launched for lack of better income alternatives are more heavily influenced by the labour

market than start-ups that aim to seize a business opportunity. Whether or not there is a better income alternative to self-employment crucially depends on the number and quality of job vacancies in the labour market that satisfy people’s income expectations, longing for independence or career aspirations. Such start-ups can therefore both be ‘forced’ upon an individual by an actual lack of alternatives and be their chosen pathway as well because, for example, their own occupational ambition generally makes self-employment appear to be the better choice for them. Self-employment is then likely to reflect the entrepreneur’s true preference. That is the case for just over half the necessity start-ups. It is determined by the question whether an entrepreneur would rather be in paid employment or self-employed regardless of their current personal situation. By contrast, roughly four in ten necessity entrepreneurs started their business even though they preferred salaried employment. They probably faced a genuine lack of income alternatives.

Conversely, one in five opportunity entrepreneurs actually prefer to be in salaried employment. This appears contradictory at first because ultimately they made a choice to take advantage of a business opportunity. But a look at the type of self-employment reveals that nine in ten of these start-ups are part-time businesses. In other words, they seize a business opportunity without having to neglect their true employment preference. The overall share of entrepreneurs that preferred to be self-employed remained steady at a good 70% in the past years. Only in 2020 did that share fall sharply below this level, dropping to 63%, when many business starters seized a business opportunity and started part-time businesses, for example from a short-time work situation, even though they preferred to be in paid employment.

**Figure 1: Coronavirus crisis focused start-up activity on the realisation of business opportunities – one quarter of business starters, however, prefer paid employment**

Which statement would you rather agree with: You started your own business to seize an opportunity, or you started your own business for lack of a better income alternative?



Source: KfW Entrepreneurship Monitor.

**Strong growth of young but fewer older business starters**

The average age of business starters is typically between 36 and 38 years (Figure 3). The only time it exceeded this range was 2009, when the average age was 39. In 2021 now saw a downside outlier of 35 years. The main reason for this is that the number of business starters below the age of 40 increased sharply while those aged 40 and older continued to decline. Thus, the share of under-30s reached an unprecedented 37%, with their number rising from 172,000 in 2020 to 224,000 in 2021. The rate was a similar 35% among 30 to 39-year-old business starters. Only in 2004/2005 was that rate slightly higher. Their number grew from 165,000 in 2020 to 214,000 in 2021. By contrast, the number of business starters in the medium age bracket of 40 to 49 dropped to 12%, the lowest level ever. Their number thus continued to decline from 93,000 in 2020 to 74,000 in 2021. Start-ups also decreased in the age bracket of 50 to 64 years, dropping from 107,000 in 2020 to 95,000 in 2021.

The trend illustrates that the declining entrepreneurial appetite of middle-aged people was the main cause of falling start-up activity over the past years (Figure 4). The start-up rate among 40 to 49-year-olds fell most sharply, very closely approaching the start-up rate of 50-64-year-olds, who typically record the lowest entrepreneurial appetite. A number of different effects play a role here. As people grow older, their financial

assets typically increase, they have a richer wealth of experience and can draw on a wider family support and friends network. At the same time, their personal network becomes less open, their own specialised knowledge increases, their financial dependence on an employer grows and they develop closer ties with their family. These latter aspects usually weigh more heavily, reducing their entrepreneurial appetite.<sup>2</sup> Even if the start-up rate in this group has dropped year over year, the long-term downward trend appears to have stopped already in 2016. The start-up rate has remained more or less on the same level since then.

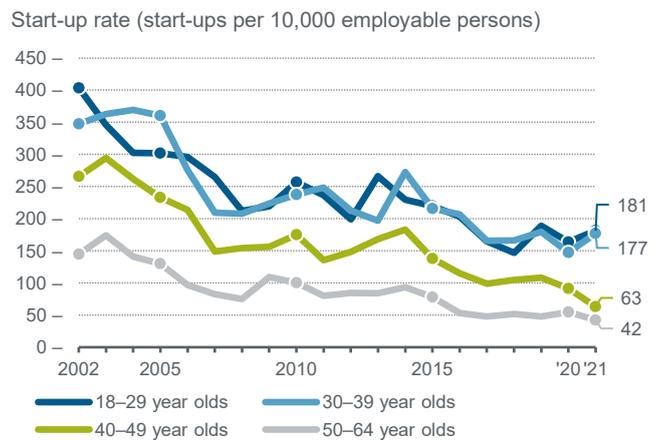
The motivations of business starters have also shifted significantly. The growth in the number of opportunity start-ups is attributable particularly to 30 to 39-year-old business starters, whose share increased from 30 to 36%. Entrepreneurs aged in their 30s are much less common among those who start a business for lack of income alternatives, however, and their share dropped from 32 to 27%. Among 40 to 49-year-olds the picture is inverted. Their share fell from 20 to 11% for opportunity start-ups while growing from 11 to 18% for start-ups undertaken for lack of better income alternatives. So what the comparison of start-up activity in 2021 with 2020 ultimately shows is, above all, that younger opportunity business starters replaced older ones. The lack of opportunity start-ups by potential entrepreneurs aged 40 to 49 years was more than offset by a strong increase in 30 to 39-year-old opportunity entrepreneurs.

**Figure 2: Age structure is shifting: business starters are younger than ever**



Source: KfW Entrepreneurship Monitor.

**Figure 3: Start-up rate among 40 to 49-year-olds has fallen sharply**



**Number of female business starters grew more strongly, so their share rises significantly**

After the number of female business starters remained virtually unchanged for three years, it grew disproportionately last year (Figure 5). Thus, 257,000 women started a business of their own in 2021 (+52,000 ≈ +25%). The number of male business starters grew to 350,000 (+18,000 ≈ +5%). The share of women in all business starters has thus risen to 42% (38% in 2020) and is now again just slightly above the long-term average of 39%. The development since 2002 shows that the share of female business starters fluctuates around its long-term average. The deviations are not more than 5 percentage points more or less.

**Share of young female business starters is growing**

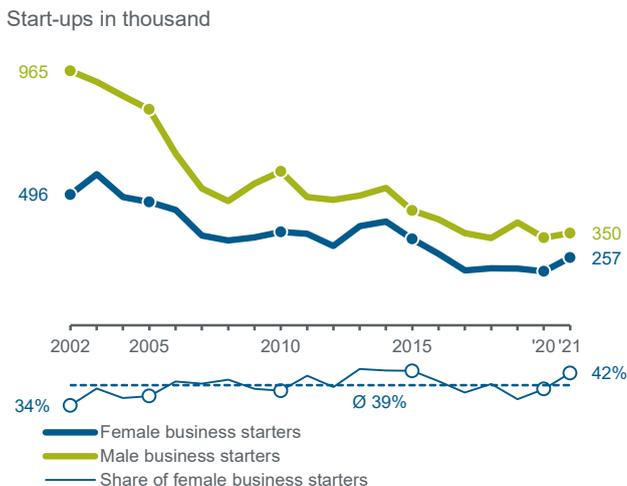
Women contributed significantly to the higher start-up activity of young individuals in 2021. Thus, the share of under 30-year-olds increased from 28 to 37% among female business starters (Figure 6) but only from 34 to 37% among their male counterparts. Overall, in 2021 significantly more people ventured into self-employment who also prefer working for themselves over being paid employees as a mode of gainful employment. Among female business starters the share increased very substantially from 50 to 62% and among males from 71 to 76%. Women typically have less of a desire to be self-employed than men – not just in Germany but in most industrialised countries.<sup>3</sup> This desire has become increasingly weaker across the overall working age population over the past two decades, mostly in small steps but, in some years, in

larger steps in response to drastic events such as the outbreak of the financial crisis or the coronavirus pandemic. From 2020 to 2021 this share has likely remained steady across the overall working age population. That also means that women who prefer to be self-employed have fulfilled this desire significantly more often. The greater use of digital technologies and the internet as a core element of the start-up project may have played an important role as these characteristics became much more common among female business starters.

**Structural increase in share of female business starters is a long-term challenge**

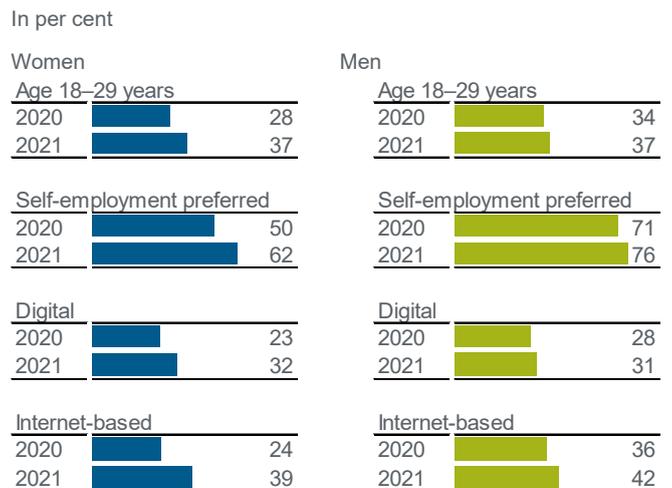
In a long-term comparison, the male to female start-up ratio is approx. 60:40. That ratio can already be found among entrepreneurially minded people (who prefer self-employment over paid employment) in the overall working-age population and among start-up planners. In other words, among those persons who wish to be self-employed, women plan a start-up and realise their start-up plan at the same rate as men. It is evident that there is a need to increase women’s entrepreneurial appetite in order to durably achieve a higher share of female business starters and, thus, a more balanced gender ratio.<sup>4</sup> The scientific literature shows that changing gender stereotypes (around raising children<sup>5</sup>, managing the household<sup>6</sup> and educational and career choices<sup>7</sup>) plays an important role in this. Such social change, however, requires a lot of patience, particularly in demographically older societies<sup>8</sup>.

**Figure 4: Number of female business starters grew disproportionately; number rose to 42%**



Source: KfW Entrepreneurship Monitor.

**Figure 5: Share of young women business starters and those with a desire for self-employment rose significantly**



**Start-ups discipline and modernise the economy**

Lively start-up activity is economically desirable because entrepreneurs keep competition alive. They force established enterprises to constantly put themselves to the test and bring out their best. That benefits consumers because pressure on prices makes goods and services more affordable or actually makes them accessible to them in the first place. New technologies help enable markets to be supplied even more efficiently or new markets and business models to be created from the ground up. In this way, innovative and digital start-ups drive the structural change that modernises the economy. They therefore have special importance for the future viability of the economy. This also applies to fast-growth start-ups whose ambition is to become ‘as large as possible’. After all, the hope is that as an employer they will make a lasting contribution to employment in the long term.

**More Germany-wide new-to-market innovations**

In a long-term average, each year around 16% of business starters report starting off with new-to-market innovations. In recent years, however, they tended to become less common, decreasing again to 15% in 2021 (Figure 7). Most new-to-market innovations are offerings that already exist somewhere and are brought to market in a different area – either from other regions

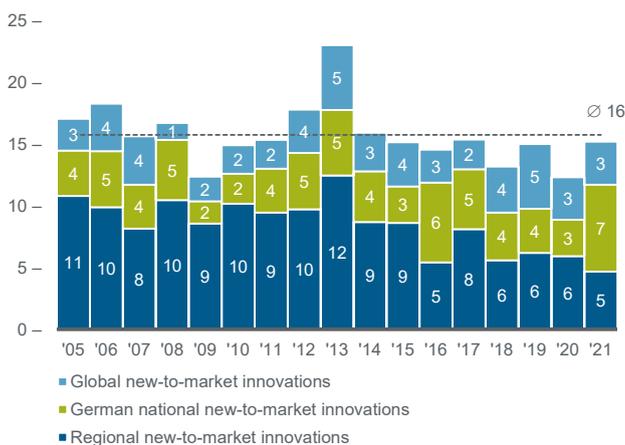
into their own, or from other countries into Germany. Worldwide new-to-market innovations, which are by definition indeed ‘unprecedented’, are less common. While the share of business starters who see their offering as a regional (5%) or worldwide new-to-market innovation (3%) remained virtually unchanged on the previous year, the share of Germany-wide new-to-market innovations surged from 3 to 7%.

**More digital and Internet-based start-ups**

The outbreak of the coronavirus pandemic threw many start-up plans into disarray in 2020. Many were delayed and could not be realised until after the business models were modified.<sup>9</sup> Pandemic response measures in the form of contact restrictions and mandated business closures revealed the weaknesses of many analogue business models. Many business starters addressed the problem in 2021. Start-ups became significantly more digital and Internet-based (Figure 8). Reaching shares of 31% digital and 41% Internet-based start-ups, both trends peaked after years of already rising shares. The shares of innovative and growth-oriented start-ups were also slightly higher than the previous year, reaching 15 and 25%. Thus, the year 2021 was a good basis for start-ups that were of special importance to the economy.

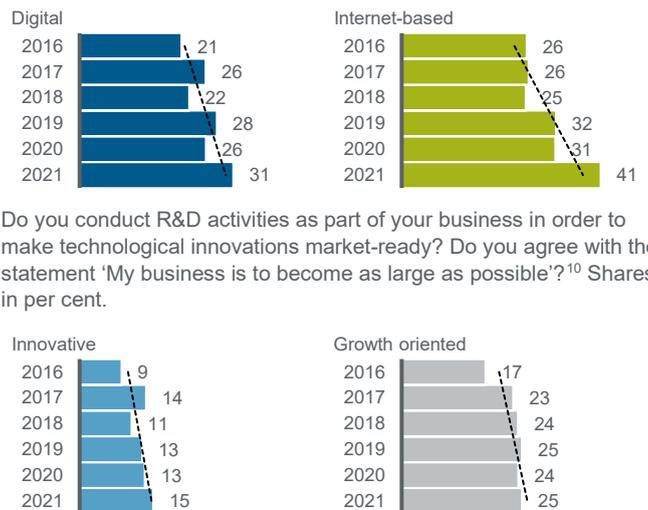
**Figure 6: More businesses launched with new Germany-wide offerings**

Are the products or services you offer a new-to-market innovation, that is, are there no other businesses or traders offering comparable products or services [in your region, in Germany or worldwide]? In per cent.



**Figure 7: Digitalisation and the internet are much more important in start-ups**

Is your product / your service a digital offering, that is, do your customers have to use digital technologies to be able to use your offering? Is the Internet a core element of your business? In per cent.



Source: KfW Entrepreneurship Monitor.

Do you conduct R&D activities as part of your business in order to make technological innovations market-ready? Do you agree with the statement ‘My business is to become as large as possible’?<sup>10</sup> Shares in per cent.

Innovative start-ups – businesses with technological research and development – accounted for 13% of start-up activity and 24% of them were fast-growth start-ups that intend to grow ‘as large as possible’. Internet-based start-ups in which the internet is a core element of the business made up 31% and digital start-ups whose offering can be used only through the use of digital technologies rose to 26%. Start-ups can belong to several of the segments described here, with digital and internet-based start-ups overlapping more than any other segments.

**Share of greenfield start-ups rose for the sixth consecutive year**

Most start-ups are greenfield start-ups. They are businesses that previously did not exist as a legal or organisational entity. The proportion of greenfield start-ups rose to 85% in 2021, an unprecedented proportion recorded by the KfW Entrepreneurship Monitor (Figure 9). The trend towards greenfield start-ups became established a good ten years ago. Their growth in importance then became increasingly consolidated. That is bad news for SMEs increasingly plagued by succession troubles. Succession plans are therefore likely to remain unfulfilled increasingly more often.<sup>11</sup> It is also a critical development for the whole economy. To be sure, business closures are part of the dynamics of a healthy economy because they are key to a structural change that modernises businesses. But this applies particularly to businesses that are unable to survive competition. However, it is economically inefficient when businesses are forced to close purely for lack of willing successors. It is therefore desirable that takeovers as a pathway to entrepreneurship be met with greater interest. In 2021, only 8% of business starters took this pathway. A further 7% founded a business by participating in existing companies.

**Figure 8: Founding ‘from the ground up’ remains the trend**

How did you start your business? Did you found a new business, take over an existing one or acquire an active participation in an existing business? In per cent.



Source: KfW Entrepreneurship Monitor.

**Number of start-ups with employees fell yet again**

The share of solo start-ups in 2021 was 81%, slightly above the long-term average, team start-ups were thus just slightly lower, at 19%. This structure has remained very steady over time. The share of start-ups that also have employees fluctuates much more. The share of employers among start-ups dropped to 21% in 2021. In team start-ups it dropped to an all-time low. Recruiting staff apparently became more difficult again for business starters than in 2020.

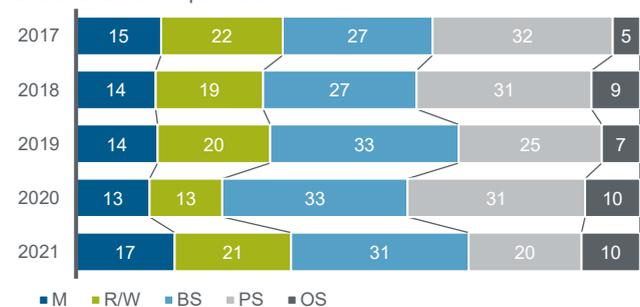
**Start-ups in commerce back to normal, personal services lower than ever**

What was striking in 2020 was that there were exceptionally few start-ups in wholesale and retail (13%, Figure 10). Coronavirus restrictions were the likely cause. The share normalised again in commerce in 2021 but in return the share of personal services fell to an unprecedented low of 20%. The lack of new adult education start-ups was particularly striking. Start-up activity in child daycare (child minders) and in arts and culture also remained below average.

The sectoral structure of start-up activity tends to be very stable over time. Most start-ups are founded in the services sector. Around two thirds of start-ups are usually service providers. Those with a focus on commercial customers (business services) are typically more common than service providers who focus on retail customers (personal services). Other services (financial services, transport and communications) accounted for only a relatively low share of services.

**Figure 9: Services predominate**

Sector shares<sup>12</sup> in per cent



M: Manufacturing (including construction); TR: Trade; CS: Commercial Services; PS: Personal Services; OS: Other Services.

### Importance of entrepreneurs' private equipment for start-up has grown

The resources needed to start a business depend on the entrepreneurs' motives and business models. They therefore differ in their resource requirements and, where applicable, funding mix. In the long-term average, 60-70% of business start-ups – the majority – required funding each year (Figure 11). In the years 2019 and 2020, more than half the start-ups exclusively used the founders' own internal funds – an extraordinarily high proportion. However, that share fell noticeably in 2021, when just 39% of business starters used only their own funds, a proportion seen for the last time in 2017. Overall, only half the start-ups used any funds at all – the lowest proportion ever. At the same time, the share of start-ups for which external funds were mobilised by third-party providers of capital remained on a very low level. The share of businesses using the entrepreneurs' private equipment only, on the other hand, rose to 37%, the highest ever recorded. Why do financial resources have such little importance?

### Type of start-up explains structure of resources used

How resources are used in start-up activity depends on the composition of the businesses. More start-ups with employees mean more businesses using external funds. Conversely, more solo start-ups mean more businesses not using any funds at all. The sharp rise in

solo start-ups, especially those without employees, thus explains part of the unusual structure of resources. The stronger activity of young as well as female business starters also contributes to this because they realise such start-up projects more often.

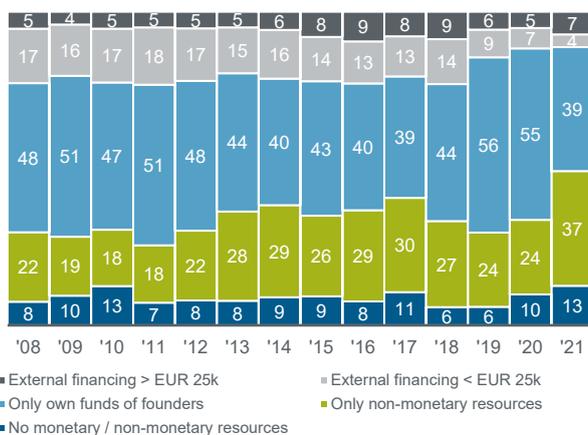
### Realised start-ups rarely have funding problems but that is just one side of the coin

More frequent funding difficulties would also explain why start-ups use financial resources less often. But apparently that is not the case. Only 12% of business starters reported having had funding difficulties (Figure 12). That rate has been steady over the past three years. Business starters who actually used external funds were most likely to run into financing problems, at 21%. That reflects how much effort they expended getting their start-up finance sorted.

Even if relatively few business starters had problems obtaining start-up finance, financing difficulties can generally be a major challenge to entrepreneurship. Actual entrepreneurs therefore represent only one side of the coin. After all, they have successfully launched their business and overcome any financing difficulties. So if financing problems are uncommon in realised start-up businesses, this could also be a sign that many fail to overcome the challenges of obtaining start-up finance and fail at this stage of their start-up planning. The other side of the coin – discontinued start-up plans – must also be taken into consideration.

Figure 10: Entrepreneurs' personal equipment have become much more important for start-ups

Use of resources, shares in per cent

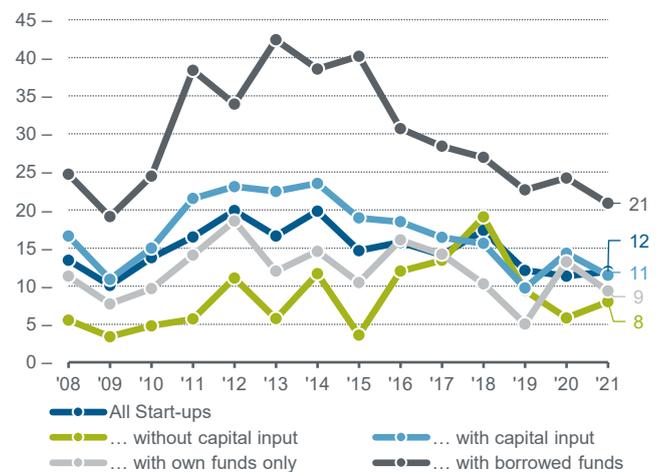


Note: Differences may be due to rounding.

Source: KfW Entrepreneurship Monitor.

Figure 11: Only a good one in ten start-ups have financing difficulties

Financing difficulties, shares in per cent



**Bureaucracy most common start-up barrier but financial risk highest start-up hurdle**

Surprisingly few entrepreneurs reported difficulties in 2020. That was due to the outbreak of the coronavirus crisis. It deterred many potential entrepreneurs even before they actually forged any start-up plans. The remaining start-up planners were therefore on average better prepared and, accordingly, less likely to perceive difficulties. That situation normalised again in 2021.

Bureaucracy has been among the most frequently mentioned start-up difficulties for years – among both start-up planners and those who actually founded a business. It is therefore a steady companion before, during and after a business is founded. The aim of removing or at least easing bureaucracy, for example through digitalisation, should therefore always be on the economic policy agenda. Bureaucratic requirements appear to be weighing on entrepreneurs, for example by slowing down the start-up process, but they deter few from realising their start-up plans.

The impact of difficulties that act as barriers to start-up activity can be estimated by comparing the occurrence of difficulties for realised and failed start-up plans. In general, the more often discontinuers encountered a particular problem compared with realisers (see balance in Figure 13), the more often this problem is likely to have posed a barrier and effectively prevented start-ups.

This shows that financial risk poses the greatest barrier to start-up activity. For years, this has presented the largest balance in the comparison between plan discontinuers and successful business starters. In 2021 the balance was 39 percentage points, where financial risk played a role at 61% of discontinuers and 22% of realised business start-ups. With a balance of 31 percentage points, financing difficulties were the second highest barrier to start-up activity, as it was in previous years. Compared to the 12% financing difficulties in realised start-ups, they were even more frequent in plan cancellations with 42%.

While financial risks and financing difficulties are consistently the two largest barriers to start-up activity each year, other lesser barriers alternate in their significance over time. In 2021, opportunity costs (balance 25 PP) replaced fear of social descent in case of failure (balance 21 PP) as the third highest barrier to entrepreneurship. Opportunity costs mean the benefits of paid employment which a person forgoes by becoming self-employed. They include, in particular, limited

working hours, protection from unfair dismissal, leave entitlement, reliable remuneration and integration into social protection systems. An undeveloped business idea (balance 25 PP), strain on the partner/family (for example because of greater income uncertainties or longer working hours, balance 24 PP) and a lack of co-founders (balance 24 PP) also come immediately before fear of social descent in case of failure (balance 21 PP).

**Figure 12: Realised start-ups have few financing difficulties but discontinuers face problems more often**

Entrepreneurial difficulties and barriers, shares in per cent

Barriers		Start-ups (%)	Abandoned plans (%)	Balance (% points)	Rating
Bureaucracy	2019	37	54	17	8
	2020	29	33	4	12
	2021	40	52	11	12
Commercial know ledge	2019	19	33	14	10
	2020	16	19	3	13
	2021	25	37	12	10
Strain on family	2019	25	49	24	6
	2020	23	31	8	9
	2021	24	48	24	5
Access to customers	2019	27	27	0	16
	2020	17	20	2	14
	2021	24	26	3	16
Financial risk	2019	19	63	45	1
	2020	11	43	32	1
	2021	22	61	39	1
Absent employees	2019	18	28	10	12
	2020	11	15	4	11
	2021	19	29	10	13
Opportunity costs	2019	20	44	24	5
	2020	12	26	14	4
	2021	18	43	25	3
Economy	2019	16	30	14	9
	2020	17	27	11	6
	2021	18	36	18	9
Fear of failure	2019	15	43	28	3
	2020	13	30	17	3
	2021	15	36	21	7
Undeveloped business idea	2019	14	41	27	4
	2020	11	24	13	5
	2021	14	39	25	4
Professional qualification	2019	19	29	10	11
	2020	11	17	6	10
	2021	12	32	19	8
Lack of finance	2019	12	54	42	2
	2020	11	31	20	2
	2021	12	42	31	2
Access to subsidies	2019	6	13	6	15
	2020	6	6	0	15
	2021	12	17	5	15
Lack of suppliers	2019	7	15	8	14
	2020	7	7	-1	16
	2021	9	16	7	14
Lack of co-founders	2019	11	30	18	7
	2020	5	16	11	7
	2021	5	29	24	6
Too old	2019	5	14	10	13
	2020	3	10	8	8
	2021	5	17	12	11

Note: Differences may be due to rounding. In descending order, by level of share in 2021 start-ups.

Source: KfW Entrepreneurship Monitor.

### Insolvency law reform largely unknown – better communication of relevant measures will be expedient

Self-employment is perceived as riskier than paid employment because of its specific characteristics.<sup>13</sup> It is therefore plausible that risk-related barriers to entrepreneurship such as financial risk or fear of social descent in case of failure regularly act as high barriers as well. Economic policymakers have repeatedly addressed this problem by shortening the period during which residual debt discharge proceedings can be implemented (for cancelling an insolvent debtor's residual debt) (table). Shortening the proceedings is a measure that generally reduces the financial risk of entrepreneurs as they can become debt-free faster should they become insolvent and thus get a chance at a new financial beginning. A new insolvency law reform that shortens the residual debt discharge proceedings recently entered into effect at the beginning of 2021.<sup>14</sup>

Studies that compared the insolvency legislation of different countries have found a positive correlation between 'more debtor-friendly' legislation and stronger start-up activity.<sup>15</sup> But the fact that the German field test so far has not led to such success may also have to do with the economic, demographic and geopolitical development of the past two decades. There was an extraordinary labour market upswing that 'absorbed' many potential entrepreneurs. Besides, the desire to be self-employed and, hence, entrepreneurial spirit wanes with the progressive ageing of the population.<sup>16</sup> Furthermore, economic uncertainty has increased around the world, negatively affecting entrepreneurial appetite.<sup>17</sup> The reform measures aimed at reducing financial risks could thus have been cancelled out by developments that have the opposite effect on start-up activity.

For economic policy measures to be effective it is often necessary that the relevant target groups are actually familiar with them. This is obviously only partly the case for the most recent insolvency law reform. Only 28% of the working-age population know of the shortening of the residual debt discharge period signed into law at the beginning of last year (Figure 9). Under 40-year-olds were particularly poorly informed. Only 20% of them were familiar with the reform. Twice as many of those who are or have once been self-employed – 40% – were familiar with the reform but that still means that most of them were unfamiliar with it.

**Table: Legal reforms relating to residual debt discharge**

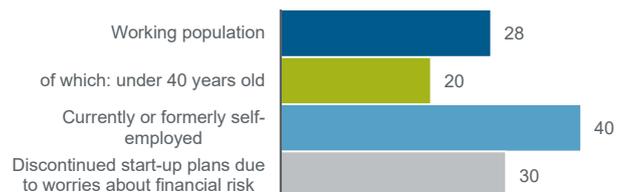
Year	Law	Debt discharge normally
1999	Insolvency Act	7 years <u>after conclusion</u> of an insolvency proceeding
2001	Law Amending the Insolvency Law	6 years <u>after initiation</u> of an insolvency proceeding
2014	Law on shortening the residual debt discharge procedure and strengthening creditor rights	5 years <u>after initiation</u> of an insolvency proceeding or 3 years if procedural costs are covered and at least 35% of creditors' claims are satisfied
2021	Law on the further shortening of the residual debt discharge procedure	3 years <u>after initiation</u> of an insolvency proceeding

Source: own research.

**Figure 13: Degree of awareness of the further shortening of the residual debt discharge procedure**

Insolvency legislation was amended: Since January 2021, residual debt in case of personal insolvency can be cancelled already after three years. Were you aware that debts can now be cancelled sooner?

Affirmative answers in per cent



Source: KfW Entrepreneurship Monitor.

Among persons who have abandoned start-up plans also because of financial risk, 30% are familiar with the reform, a share that roughly matches that of the overall working-age population. Fewer of them might have abandoned their plans if they had been more familiar with insolvency law reform. This conclusion is supported by the fact that financial risk acts much less as a barrier for individuals who are familiar with the reform than those who are not.<sup>18</sup> So in order to be more effective, economic policy measures such as removing bureaucratic hurdles or other relief should be accompanied by extensive public relations work.

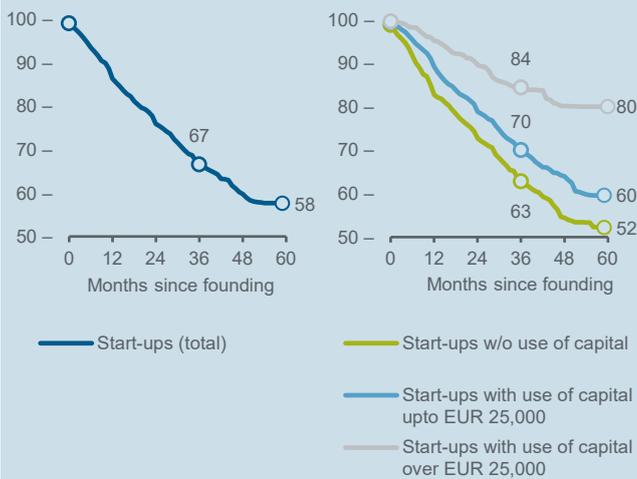
Concern about financial risk as a barrier to entrepreneurship, however, is associated not only with the existing rules governing possible insolvency but also with the (perceived and actual) financial illiteracy of business founders and potential founders. The lower the personal level of financial literacy, the more often financial risk is perceived as a problem.<sup>19</sup> Entrepreneurship education is a way of addressing both financial risk as a barrier to entrepreneurship and reducing fear of failure.<sup>20</sup>

### Start-up discontinuation rates

The survival rate of start-ups can be roughly determined with the KfW Entrepreneurship Monitor using the ‘3-30 rule of thumb’. It means that around 30% of new businesses close down again within the first three years. The survival rate is actually even lower. After the first 36 months, 67% of start-ups are still operating but after 60 months that figure is down to 58% (Figure 15, left). The reasons for aborting are diverse. By far the largest proportion of business founders discontinue their venture in the first five years for personal reasons, not because of immediate financial stress (Figure 16). Examples of personal reasons include family pressures, illness, dissatisfaction with income achieved, or the emergence of a more attractive job alternative.<sup>21</sup> Besides, many start-ups are planned only for the short term to begin with, particularly part-time businesses.

**Figure 14: The more capital a business has, the longer it survives**

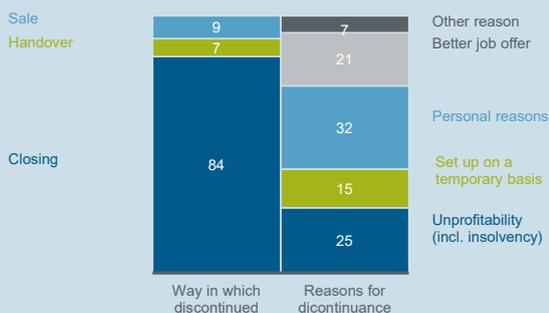
Survival rates of start-ups in per cent (Kaplan–Meier survival function)



Source: KfW Entrepreneurship Monitor.

**Figure 15: Start-ups are usually discontinued for personal reasons**

Shares in per cent of all closures in the first five years



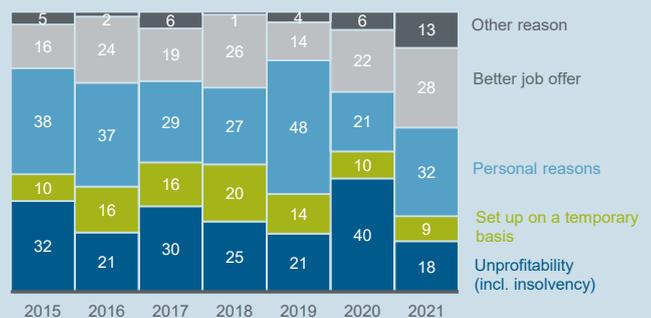
Source: KfW Entrepreneurship Monitor.

Only a small fraction of start-ups end because of insolvency. Discontinuation rates therefore cannot be equated to ‘default rates’. That would also be wrong because a large portion of businesses start without external capital input, so they would not be able to ‘default’ at all. By comparison, founders who employ larger sums in excess of EUR 25,000 (regardless of whether these are their own or borrowed funds) have significantly higher survival rates (Figure 15, right). Discontinuation rates are particularly high among business founders who start off without any financial capital at all. This has to do with the fact that such start-ups are more likely to be intended as a source of temporary income, whereas more highly capitalised businesses are designed for the longer term.<sup>1</sup>

The coronavirus crisis clearly affected the reasons for business closures in 2020. It was decisive in more than half (56%) of abandoned business ventures of young entrepreneurs.<sup>22</sup> In most of these cases (63%), lack of profitability played a role, which also became apparent in a disproportionately high share of discontinued businesses overall (40%, Figure 17). The pandemic affected business closures in 2021 as well, when 38% were pandemic-induced but on a different level. Closures due to unprofitability are back to pre-crisis levels, but young entrepreneurs abandoned their ventures at a disproportionately high rate to accept a better job offer. The crisis pressures have apparently led them to reconsider the benefits of paid employment (such as income security, if necessary in the form of short-term working allowance) and decide more often against self-employment. Personal reasons such as illness were also more common than average in pandemic-induced closures.

**Figure 16: Switch to paid employment was more important in business closures in 2021**

Shares in per cent of all closures of businesses not more than five years old in each year



Source: KfW Entrepreneurship Monitor.

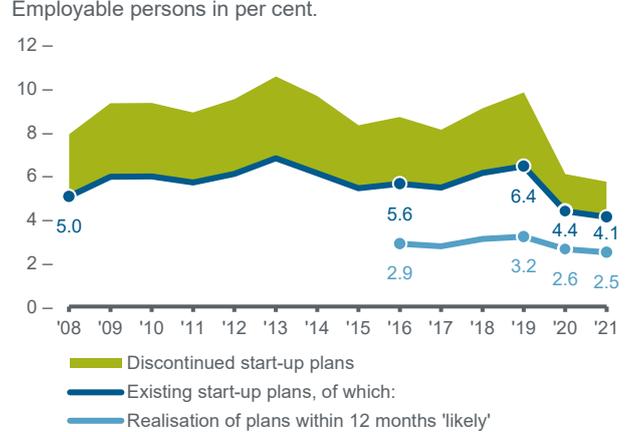
**Start-up activity forecast continues to be disturbed by pandemic-related postponements**

Planning activity in 2021 remained on a similarly low level as in 2020 (Figure 18). After 4.4% in the previous year, the rate of employable persons with start-up plans was 4.1%. The number of start-up planners (known as ‘nascent entrepreneurs’) thus fell marginally.<sup>23</sup> The rate of planners wanting to start their business operations within the next twelve months hardly changed, slipping from 2.6% in 2020 to 2.5%. On that basis, an increase in start-up activity in 2022 is not to be expected. This is because it usually takes several months for an idea to be put into practice. The development of the planning rate is therefore normally a good indicator of how expected start-up activity will develop, even if only a fraction of start-up plans are realised.<sup>24</sup>

Since many business start-up plans were deferred because of the coronavirus crisis, there is today a weaker correlation between the change in the rate of start-up planners and the rate of businesses expected to be established in the subsequent year. Many business plans are actually completed and ready for implementation (Figure 19) but their realisation has been deferred because of the pandemic. Thus they have a significantly higher probability of realisation, so that the start-up rate might even be better than would have been anticipated from the variation in the planning rate. On the other hand, the pandemic-induced disruptions to the international movement of goods have already created record-high economic uncertainty. This has now been exacerbated by the geopolitical uncertainty caused by the escalated war in Ukraine, which has further worsened the economic uncertainty.<sup>25</sup> The economic sanctions imposed against Russia in response will also impact negatively on Germany’s economy. As a result of the escalation, the business expectations of German enterprises plunged in March 2022 and then stabilised at a low level.<sup>26</sup> That has also affected the group of solo entrepreneurs and micro-businesses, which probably makes up the majority of start-ups, whose business expectations had just improved significantly at the start of the year.<sup>27</sup>

**Figure 17: Start-up plans remain on a low level**

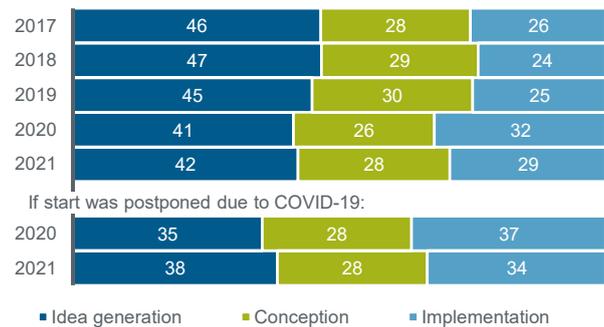
In the past 12 months, have you ever given serious thought to self-employment – whether full-time or part-time? Have you given up these plans in the meantime? 'Do you expect your planned business to begin operating within the next twelve months? Employable persons in per cent.



Source: KfW Entrepreneurship Monitor.

**Figure 18: Backlog of start-up plans, more plans have already entered later stage**

At what stage is your start-up project currently? Are you in the phase of brainstorming, conceptual review or implementation with initial organisational steps?



Source: KfW Entrepreneurship Monitor.

Further material shortages, higher energy prices and emerging spending restraint<sup>28</sup> may require adjustments and recalculations in planned business models and processes – possibly with the result that they are no longer viable. That would weigh on start-up activity. Currently, however, start-up activity is expected to continue on a similar level in 2022 as in 2021.

**Box 2: Further analyses of start-up activity and access to data of the KfW Entrepreneurship Monitor**

The Appendix of Tables and Methods to the KfW Entrepreneurship Monitor along with further information and publications from KfW Research on start-up activity in Germany can be found on our [Thematic page](#) 'Innovations and Start-ups'.

The KfW Entrepreneurship Monitor is a scientific data record compiled for the purpose of economic analysis of start-up activity in Germany. It is available to external researchers for empirical research work subject to certain access criteria ([more information](#)).

<sup>1</sup> For more on the influence of various business founder and project characteristics on the survival rates of start-ups see Metzger, G (2021), [KfW Entrepreneurship Monitor 2020, Appendix of Tables and Methods](#), KfW Research, page 22 (in German only).

<sup>2</sup> The literature also refers to this as 'career handcuffs', 'golden handcuffs' and 'family handcuffs'; see Wasserman (2012), [The founder's dilemmas: anticipating and avoiding the pitfalls that can sink a startup](#), Princeton University Press.

<sup>3</sup> Metzger, G. (2019), [Wunsch nach beruflicher Selbstständigkeit nimmt ab. Lichtblick durch Jüngere](#) (*The drive for self-employment is slowing, younger entrepreneurs are a silver lining* – in German only), Focus on Economics No. 261, KfW Research.

<sup>4</sup> Cf. Metzger, G. (2015), [Where there's a will, is there a way? Barriers to becoming self-employed](#), Focus on Economics No. 82, KfW Research, page 2: 'In 2013, the numbers of women and older people who were open to the idea of starting up their own business bore very close comparison to the numbers of people who actually went ahead and did so (women: 4 in 10; older people: 1 in 10). However, these numbers are lower than the actual percentage of women and older people in the population as a whole. If we are to breathe new life into business start-up activity, one of the key issues will be how to encourage these groups of the population to embark on such a step.'

<sup>5</sup> Booth, A. L. and Nolen, P. (2012), [Gender Differences in Risk Behaviour: Does Nurture Matter?](#), The Economic Journal, Volume 122, Issue 558, p. F56–F78; Dalborg, C., von Friedrichs, Y. and Wincent, J. (2015), [Risk perception matters: why women's passion may not lead to a business start-up](#), International Journal of Gender and Entrepreneurship, Vol. 7 No. 1, pages 87-104.

<sup>6</sup> Werner, A. and Kay, R. (2006), [Entrepreneurial Image, Gender, and the Formation of New Ventures](#), Die Betriebswirtschaft, year 66, Issue 5, p. 497–520.

<sup>7</sup> Bijedić, T., Brink, S., Ettl, K., Kriwoluzky, S. and Welter, F. (2016), [Innovation and women's entrepreneurship: \(why\) are women entrepreneurs less innovative?](#), Pages 63–80, in: Díaz-García, C., Brush, C. G., Gatewood, E. G. and Welter, F. (Hrsg.), [Women's Entrepreneurship in Global and Local Contexts](#), Edward Elgar Publishing.

Brink, S., Kriwoluzky, S., Bijedić, T., Ettl, K.; Welter, F. (2014): [Gender, Innovation und Unternehmensentwicklung](#) (*Gender, innovation and business development – our title translation*, in German only), IfM-Materialien No. 228, Institut für Mittelstandsforschung Bonn.

<sup>8</sup> Vishkin, A. (2022), [Queen's Gambit Decline: The Gender-Equality Paradox in Chess Participation Across 160 Countries](#), Psychological Science, Vol. 33 No. 2, p. 276–284.

<sup>9</sup> Metzger, G. (2022), [Junge Selbstständige haben sich von Corona-Krise noch nicht erholt, Engpässe verschärfen die Lage](#) (*Young entrepreneurs have not yet recovered from coronavirus crisis, bottlenecks exacerbate the situation* – in German only), Focus on Economics No. 378, KfW Research.

<sup>10</sup> Digital entrepreneurs are those whose product or service can be accessed only through digital technologies. The business models of digital start-ups are diverse: They can be purely digital, as in the case of app providers, operators of web portals or web hosting services; they can have a major digital component, as in the case of online traders or providers who sell products or services (they produce themselves) exclusively via online marketplaces ('gig economy'), or they comprise an activity that is essentially based on digital technology, such as that of software developers, web designers or IT consultants, or in online marketing or digital photography.

<sup>11</sup> Leifels, A. and Schwartz, M. (2022), [Nachfolge-Monitoring Mittelstand 2021: wieder mehr Planungen nach Corona-Knick – Familiennachfolge in der Krise beliebt](#) (*Monitoring SME succession in 2021: planning increases after coronavirus downturn – in the crisis, family succession is popular* – in German only), Focus on Economics No. 365, KfW Research.

<sup>12</sup> Start-ups were allocated to sectors on the basis of the descriptions of start-up projects in accordance with the 'Classification of Economic Activities', Edition 2008 of the German Federal Statistical Office.

<sup>13</sup> Metzger, G. (2021), [Enger Zusammenhang zwischen Risikobereitschaft und Selbstständigkeit](#) (*Close correlation between risk appetite and self-employment* – in German only), Focus on Economics No. 317, KfW Research.

<sup>14</sup> German Federal Ministry of Justice and Consumer Protection, [Reform des Insolvenzrechts tritt in Kraft: Verkürzte Restschuldbefreiung und Einführung neuer Sanierungsmöglichkeiten](#) (*Reform of insolvency law enters into effect: shortened residual debt discharge and introduction of new settlement options* – our title translation, in German), press release 30 December 2020.

<sup>15</sup> Lee S.-H. et al. (2007), [Bankruptcy law and entrepreneurship development: A real options perspective](#), Academy of Management Review 32 (1), 257–272; Fan W. and White, M. (2004), [Personal Bankruptcy and the Level of Entrepreneurial Activity](#), Journal of Law and Economics 46, 545–567.

<sup>16</sup> Metzger, G. (2019), [Wunsch nach beruflicher Selbstständigkeit nimmt ab. Lichtblick durch Jüngere](#) (*The drive for self-employment is slowing, younger entrepreneurs are a silver lining* – in German only), Focus on Economics No. 261, KfW Research. The desire for self-employment, however, decreases with age for various reasons. This likely has to do with the experience workers typically acquire during their working life. The longer a person works exclusively as a salaried employee, the more they are shaped by this form of work. They become so accustomed to it that they have no interest in entrepreneurship. Furthermore, as people grow older their personal network becomes less open, their own specialised knowledge grows, they become more financially dependent on a single employer, and they develop closer ties with their family. The literature also refers to this as 'career handcuffs', 'golden handcuffs' and 'family handcuffs' which deter older workers from entrepreneurship more effectively than younger ones; see Wasserman (2012), [The founder's dilemmas: anticipating and avoiding the pitfalls that can sink a startup](#), Princeton University Press.

<sup>17</sup> Metzger, G. (2021), Enger Zusammenhang zwischen Risikobereitschaft und Selbstständigkeit (Close correlation between risk appetite and self-employment – in German), Focus on Economics No. 317, KfW Research.

<sup>18</sup> The extent to which a barrier to entrepreneurship prevents start-up activity is expressed by the balance between the frequencies of a problem encountered by discontinuers and by successful entrepreneurs (see section 'Bureaucracy most common start-up barrier, but financial risk highest start-up hurdle'). For the financial risk faced by persons who are familiar with the insolvency law reform, that balance is 29 percentage points but 44 percentage points for people who are unfamiliar with it.

<sup>19</sup> Financial literacy was surveyed in the KfW Entrepreneurship Monitor in 2014. The correlation refers to the total group of entrepreneurs and plan discontinuers and is evident irrespective of whether a subjective or an objective measure of financial literacy is applied. For details on how the measures of financial literacy were constructed see Cf. Leifels, A. and Metzger, G. (2015), Financial literacy helps with business start-ups: easier, better funded, more competitive, Focus on Economics No. 107, KfW Research.

<sup>20</sup> Metzger, G. (2019), Start-up location Germany: fear of failure could be countered with better economic education, Focus on Economics No. 242, KfW Research.

<sup>21</sup> See also Egelin, Falk, Heger, Höwer and Metzger (2010), Ursachen für das Scheitern junger Unternehmen in den ersten fünf Jahren ihres Bestehens (*Causes for the failure of young enterprises during the first five years – in German only*), study commissioned by the Federal Ministry for Economics and Technology, Mannheim and Neuss, March 2010.

<sup>22</sup> The information is based on responses by formerly self-employed persons to the question: 'Did the coronavirus crisis ultimately cause you to end your self-employment?'

<sup>23</sup> 'Nascent entrepreneurs' are persons who are in the process of starting a business, meaning they have start-up plans. Information on start-up plans has been collected in the KfW Entrepreneurship Monitor since the year 2008. A very steady pattern has emerged since the year 2012: Around 45% of annual start-up plans are in the brainstorming phase, 30% in the phase of conceptual review or feasibility assessment, and 25% in the implementation phase with initial organisational stages.

<sup>24</sup> The planning rate is many times higher than the start-up rate. That means many start-up plans are never realised. Up to 2019, on average 46% of nascent entrepreneurs expected to start their business activity within 12 months. The more advanced the start-up planning, the higher its share: 26% in the brainstorming phase, 52% in the design phase and in 76% the implementation phase. Since many start-up ventures were put on hold when the coronavirus crisis broke out, the share of start-ups planned for implementation within a 12-month horizon rose to 56% in 2020 (33% in the brainstorming phase, 62% in the design phase and 81% in the implementation phase) and remained at a similar level of 57% in 2021 (34% in the brainstorming phase, 65% in the design phase and 83% in the implementation phase). The postponed start-ups also mean that there are a greater number of advanced start-up plans that are already in the implementation phase. The marginal decline in the planning rate in 2021 was offset by the renewed minor increase in the likelihood of implementation.

<sup>25</sup> This is illustrated by the Economic Policy Uncertainty Index for Germany, based on Baker, S. R., Bloom, N. and Davis, S. J. (2016), Measuring Economic Policy Uncertainty, retrieved on [www.PolicyUncertainty.com](http://www.PolicyUncertainty.com) on 19 May 2022.

<sup>26</sup> ifo Institut (2022), ifo Business Climate Index Stabilizes (April 2022), press release, Munich, 25 April 2022.

<sup>27</sup> ifo Institut (2022), Business Climate for Solo Self-Employed Persons and Microenterprises in Germany Recovers Somewhat, press release, Munich, 12 May 2022.

<sup>28</sup> GfK (2022), Konsumklima erreicht historisches Tief (*Consumer confidence drops to historic low – our title translation, in German only*), GfK-Konsumklimastudie für April 2022, press release, Nuremberg, 27 April 2022.