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Policy Brief on Home-Based Businesses

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Policy Brief on Home-Based Businesses

By Darja Reuschke and Markieta Domecka

Abstract

This policy brief examines the phenomenon of home-based entrepreneurship. It provides information on the types of businesses that entrepreneurs are most likely to operate out of the home, their reasons for this choice, and barriers to the development of home-based businesses. It examines how public policy approaches can better support home-based businesses, including removing hindrances in regulations and improving access to business development services. Key policy lessons are highlighted, including on how policy makers can increase social and labour market inclusion through taking better account of home-based businesses. This policy brief is part of a series of reports produced by the OECD on inclusive entrepreneurship. The series includes policy briefs on women's entrepreneurship, youth entrepreneurship, senior entrepreneurship, access to business start-up finance for inclusive entrepreneurship and entrepreneurship by the disabled, as well as reports on 'The Missing Entrepreneurs'.

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2. KEY MESSAGES

- Home-based businesses are enterprises that are based in homes rather than commercial premises. These businesses account for slightly more than half of private enterprises. While most home-based businesses are one-person enterprises, up to 40% have additional employees.
- Many businesses are located in the home due to the lower operating costs. Other reasons for people to run their business from home are to better manage their professional and family responsibilities. Operating from home does not mean that these businesses are insignificant. Many are important actors in local economies and some trade nationally and internationally. While some home-based businesses display growth potential, many home-based entrepreneurs seek to remain small in order to maintain the home location.
- Working from home appears to be more common amongst self-employed women than self-employed men. The low start-up costs can create opportunities for people from groups that are under-represented or disadvantaged in entrepreneurship to be economically active.
- The home-based business sector is diverse and the challenges faced during business creation and development vary according to sector, geographic location, and business owner characteristics. One of the main challenges that home-based entrepreneurs face is difficulty accessing the business support infrastructure (e.g. business networks) due to physical and social separation from co-workers and (potential) business partners. Home-based businesses may also be hampered by a lack of high-speed internet, and restrictive zoning and housing regulations.
- Public policy can support the creation and development of home-based businesses through the provision of business advice and mentoring, and ensuring access to existing business support services. Policy makers should also remove hindrances to home-based business in regulations, policies and urban design approaches. This includes adjusting mono-functional building classification systems, regulations for tenancy agreements, and property taxation. Improving digital connectivity in residential areas and rural regions is vital for ensuring that home-based businesses can participate in the global economy. It is also important to offer access to affordable co-working spaces and meeting spaces that can be used flexibly for a range of (potential) home-based entrepreneurs with specific needs (e.g. childcare, skills development, disability and immobility).
- Finally, policy makers should try to improve the evidence base on home-based business activities. While business registers and labour force survey data can provide some insights into this sector, most evidence comes from surveys. Strengthening this evidence base would help make home-based entrepreneurship more visible.

3. HOW MANY HOME-BASED BUSINESSES ARE THERE?

Home-based businesses are businesses that are registered or based at the residential address of the owner (Mason et al., 2011). Accordingly, this includes both businesses where most of the activity is based in the residential home and businesses where large proportions of the activity take place at outdoor sites (e.g. agricultural sector), or at client's and customer's premises (e.g. financial services, IT).

Table 1 shows that home-based businesses account for the majority of private business enterprises where evidence is available. Most estimates are derived from survey data, which measure whether the business address is the same as the residential address of the owner. In the USA the source is administrative from Internal Revenue Service tax forms.

Table 1. Home-based businesses in the business population by countries

Country	Evidence
Australia	58% of businesses are home-based (Australian Bureau of Statistics, 2002).
Austria	Over 60% of all enterprises in Austria are one-person enterprises and it is estimated that over half of them are based at home (Austrian Federal Chamber of Commerce, 2017).
New Zealand	Two-thirds of entrepreneurs were estimated to be home-based (Frederick, 2004).
United Kingdom	59% of businesses with no employees are home-based, 24% of small- and medium-sized enterprises with employees are home-based (UK Department for Business, Innovation and Skills, 2016, 14).
USA	52.2% of all non-farm businesses that returned tax forms in 2012 were home-based (United States Census Bureau, 2012).

Source: own compilation, Domecka and Reuschke, 2017.

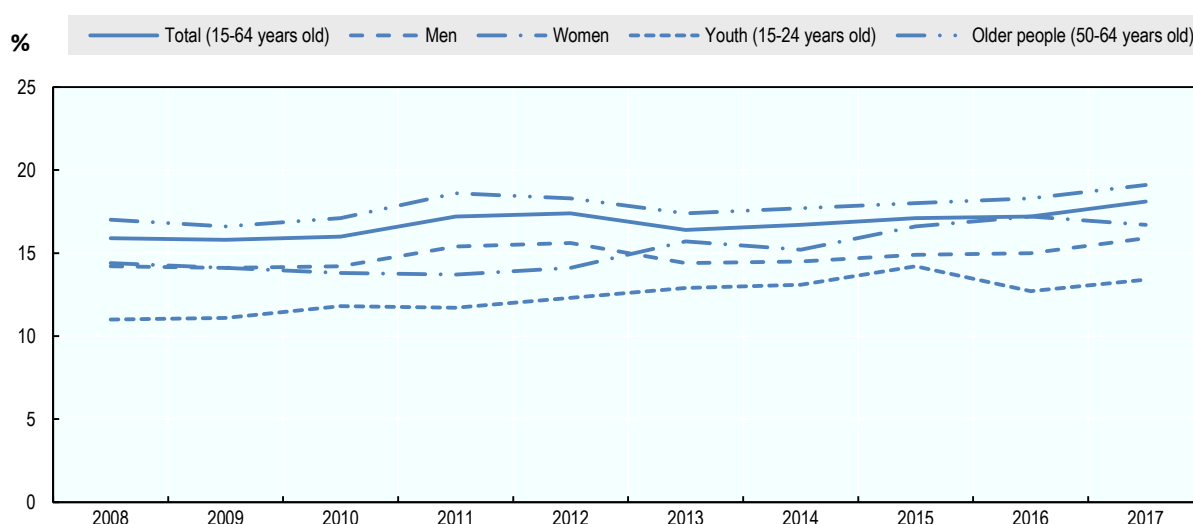
Additional insights into home-based business activity can be derived from the Eurostat Labour Force Survey (LFS), which asks whether self-employed people “usually”, “sometimes” or “never” work from home. This measure, however, does not necessarily identify those home-based businesses where the owner works partly outside their home (e.g. farmers or consultants) or those who use space adjacent to their home with a separate entrance for their business, e.g. a doctor's surgery or tax consultant's practice (European Commission/Eurostat, 2017). These data thus capture the working practices of the self-employed rather than the business location and therefore the data are different to measures of home-based businesses based on where the business is registered.

The numbers of home-based businesses has also been increasing, reflecting a number of technological, industrial transition and demographic trends. Particularly noteworthy is a growing female workforce and an ageing population. Running a home-based business can facilitate proximity to care relations and other social relations, which is becoming

increasingly important in countries with rising demand for social care provision given constraints on public spending. Increased digitalisation and “servicisation” of the economy are also promoting home-based businesses.

Overall, in the European Union (EU), there has been a gradual increase in the proportion of the self-employed who usually work from home over the years 2007 to 2016 (Figure 1), with the exception of the young self-employed (15-24 years old) where the proportions have dropped between 2015-16. The incidence of home-based self-employment increased during the period 2009-11, most likely as a response to the economic crisis (with 15-24 year old young males being the exception).

Figure 1. Proportion of the self-employed who usually work from home in EU by age and gender, 2008-17

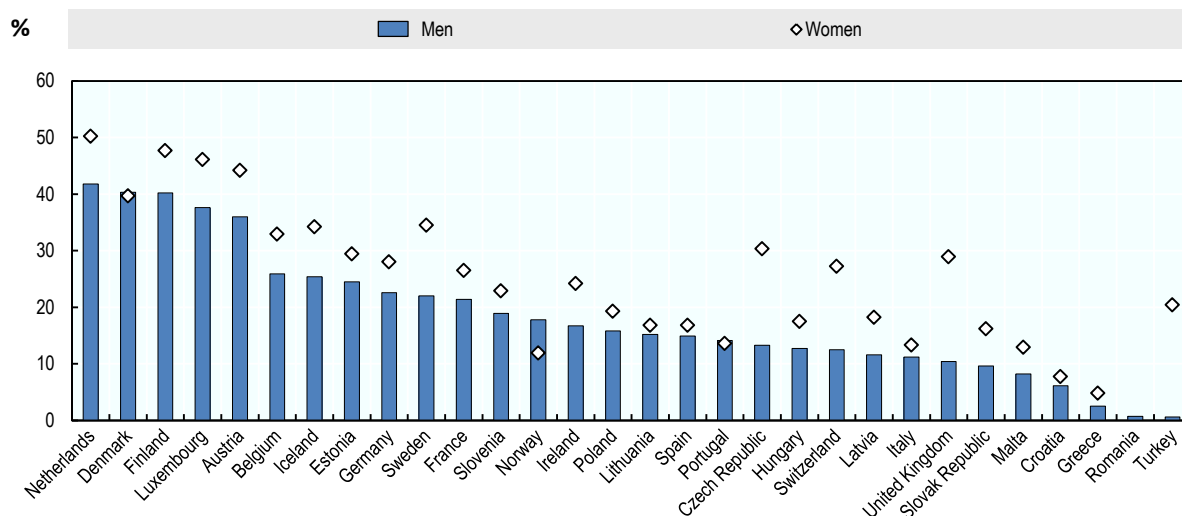


Note: “Usually” is defined as working at home half of the days. Home-based businesses where the owner works partly outside of their home (e.g. farmers or consultants) or who use space adjacent to their home with a separate entrance for their business (e.g. a doctor’s surgery or tax consultant’s practice) are excluded (European Commission/Eurostat, 2017).

Source: Eurostat (2018), Labour Force Survey, [lfsa_chomp].

Figure 2 displays the proportion of the self-employed (15-64 years old) who usually work from home by country and gender. Country differences are striking. The proportions of the self-employed who usually work from home are highest in the Netherlands, Finland, Austria and Denmark and lowest in Greece and Croatia. Sweden also has a relatively high proportion of the self-employed who usually work from home and, equally significant, the lowest proportion of the self-employed who never work from home in Europe (27%, not shown in Figure 2). Hence, there appears to be a greater tendency of home working amongst the self-employed in the Nordic countries where flexible working arrangements are generally well-established. Proportions of the self-employed who usually work from home are generally low in Southern Europe (i.e. Greece, Spain, Italy) and in some Eastern European countries (i.e. Bulgaria, Romania, Latvia, Croatia, Lithuania). Industry structure (agricultural sector) and path dependence in firm structure (dominance of large firms pre-1990 in Eastern European countries) might be relevant explanatory factors.

Figure 2. Proportion of the self-employed 15-64 who usually work from home, 2017



Note: “Usually” is defined as working at home half of the days. Home-based businesses where the owner works partly outside of their home (e.g. farmers or consultants) or who use space adjacent to their home with a separate entrance for their business (e.g. a doctor's surgery or tax consultant's practice) are excluded (European Commission/Eurostat, 2017).

Source: Eurostat (2018), Labour Force Survey, [lfsa_chomp].

The proportion of the self-employed who usually work from home across Europe is consistently higher for women, with the exception of Norway. Particularly striking is the gender imbalance amongst those who usually work from home in Turkey, United Kingdom (UK) and Czech Republic with proportions of the self-employed who work from home being more than double amongst women than men.

4. WHY RUN A BUSINESS FROM HOME?

The home location appears to be a deliberate choice for the majority of home-based business owners. Motivations primarily include cost-minimisation, convenience, or the nature of the business not requiring commercial premises. Childcare and family needs, and avoiding the need for commuting are cited less frequently. Some home-based entrepreneurs are reported to be motivated by the flexibility offered by home-based work, which can lead to an improved work-life balance and quality of life (Loscocco and Bird, 2012).

The costs of establishing and operating a business from a home location are lower than in case of enterprises in commercial premises. This can facilitate experimentation with entrepreneurship particularly in the case of online businesses (Anwar and Daniel, 2014). The decision to start a home-based business may also be related to a risk-avoidance strategy. Because of the low overheads, home-based entrepreneurs can pursue their venture without the pressure of needing to generate an immediate financial return. The home as a business incubator means that the business can be moved to commercial premises when the business concept is proven (van Gelderen et al., 2008).

Women and men appear to have different motivations for operating their business out of their home (Mason et al., 2011; Walker, 2003). For women, childcare is an often-reported reason for running a business from home (Mason and Reuschke, 2015; Wynarczyk and Graham, 2013). In particular, women with young children were found to choose a home-based business as a way to balance work with family responsibilities (Loscocco and Smith-Hunter, 2004; Hundley, 2000; Jurik, 1998).

The lower costs during the start-up phase also creates opportunities for disadvantaged and marginalised groups to develop entrepreneurial activities. The activation of unemployed and inactive people through home-based entrepreneurship can help strengthen local communities and neighbourhood economies (Reuschke et al., 2015; Holliss, 2015; Ekinsmyth, 2014; Steenbeek and Schutjens, 2014; Huggins and Thompson 2012).

However, running a business from home can also be related to challenges faced by the owner in the labour market. These include lack of suitable employment in the local labour market, personal circumstances and disadvantage, and lack of suitable and affordable commercial premises. An unsatisfying or insecure job and unemployment were the third most important motive for starting a home-based business identified in a UK survey by Enterprise Nation (2014). Running a business at home can therefore be a way to stay economically active (Pratt, 2006).

5. WHAT TYPES OF BUSINESSES ARE BASED IN HOMES?

Home-based businesses are found throughout the economy, but are not distributed evenly either by sector or geography. Evidence for the UK shows that home-based businesses (including those where much of the activity does not take place in the owner's home) cluster in farming; information and communication; construction, business-related services and creative industries. Home-based businesses are under-represented in retail and wholesale and manufacturing (Mason and Reuschke, 2015; Mason et al., 2011). In rural areas, a higher proportion of home-based businesses in the tourism sector is prevalent (Reuschke and Mason, 2015).

Home-based businesses in Scotland were found to be more likely than other small businesses to have international sales. This wider geographical reach is related to their greater reliance on Internet sales (Mason and Reuschke, 2015). Similar results were found in New Zealand (Clark and Douglas, 2014).

The home-based status does not exclude employment creation for others, even though they tend to be smaller in terms of both employment and turnover than businesses that operate from a dedicated business location. In the UK, in the 2005-06 Federation of Small Businesses survey conducted by Mason et al. (2011) (where 36% of the surveyed 18 939 businesses were home-based), 50% of the home-based firms employed 2-4 people, while 14.6% employed 5-9 and 8.6% employed 10 and more staff.

The majority of home-based businesses in the UK and Australia are full-time businesses (Enterprise Nation, 2014; Mason et al., 2011; Walker, 2003), but home-based businesses are more likely to operate on a part-time basis than other businesses. Women that operate their business out of their home do so more often on a part-time basis than men (Mason and Reuschke, 2015; Thompson et al., 2009).

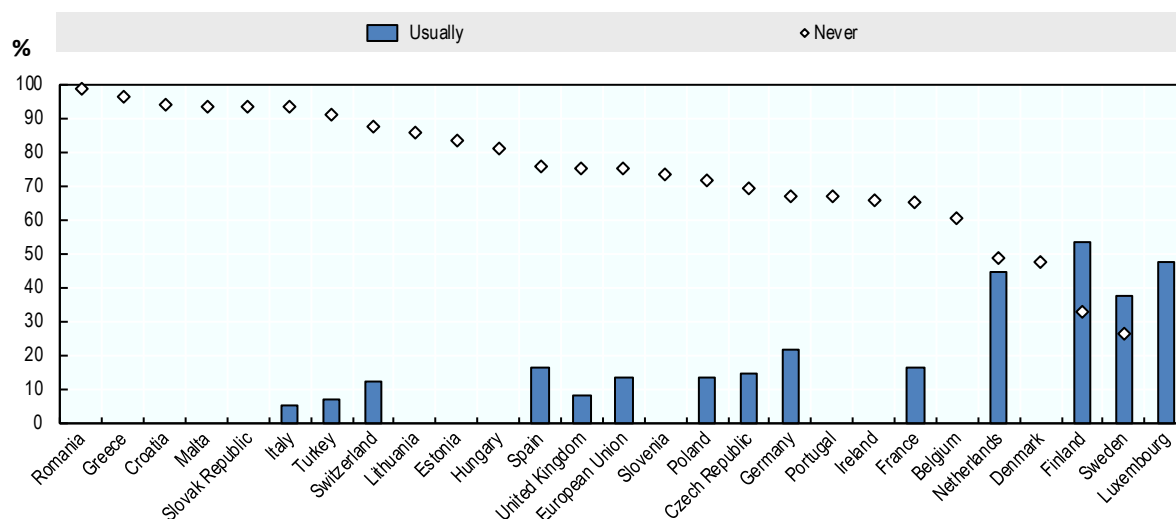
6. WHO ARE HOME-BASED ENTREPRENEURS?

Surveys paint a mixed picture of the age profile of home-based entrepreneurs. Some find that most home-based business owners are, like other small business owners, middle-aged (Mason et al., 2011). The UK survey of the Enterprise Nation (2014) found that a significant proportion of home-based business owners were young people aged 18-34 years old (21%). Some studies highlight home-based entrepreneurship for older people (Wainwright and Kibler, 2014) but others do not find an over-representation of older people amongst home-based business entrepreneurs (Mason and Reuschke, 2015).

Labour Force survey data show that self-employed youth (15-24 years old) do not usually work from home in many countries in Europe (Figure 3). However, more than one-third of self-employed youth usually work from home in Sweden (37.3%), the Netherlands (44.5%), Luxembourg (47.8%), and Finland (53.3%).

Home-based self-employment is generally more common amongst the older self-employed (50-64 years old) than for youth (Figure 4), notably in Austria, Belgium, Hungary, Ireland, the Netherlands, Slovenia, Slovak Republic, and the UK. Exceptions are Luxembourg and Sweden where the proportions of the self-employed who usually work from home is higher amongst youth relative to older people. Countries with the highest proportions of the self-employed usually working from home also display the highest proportions of older people (50-64 year olds) who usually work from home: the Netherlands, Finland, Austria and Denmark. Moreover, proportions of older self-employed women working usually from home are well-above the European average in Luxembourg, Sweden, Belgium and the UK.

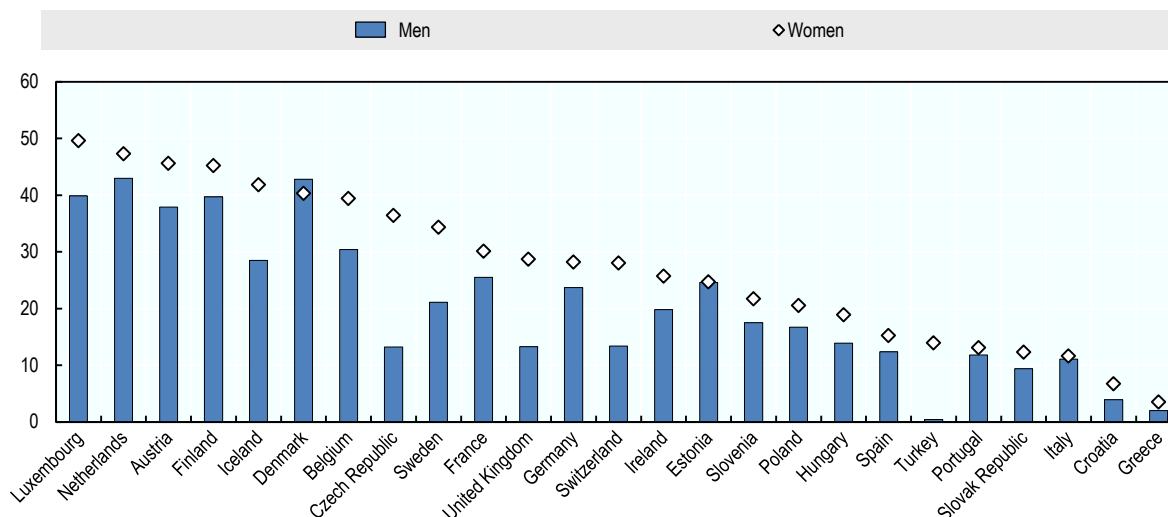
Figure 3. Proportion of the self-employed 15-24-year old who usually and never work from home, 2017



Note: “Usually” is defined as working at home half of the days. Home-based businesses where the owner works partly outside of their home (e.g. farmers or consultants) or who use space adjacent to their home with a separate entrance for their business (e.g. a doctor's surgery or tax consultant's practice) are excluded (European Commission/Eurostat, 2017).

Source: Eurostat (2018), Labour Force Survey, [lfsa_ehomp].

Figure 4. Proportion of the self-employed 50-64-year old who usually work from home, 2017



Note: “Usually” is defined as working at home half of the days. Home-based businesses where the owner works partly outside of their home (e.g. farmers or consultants) or who use space adjacent to their home with a separate entrance for their business (e.g. a doctor's surgery or tax consultant's practice) are excluded (European Commission/Eurostat, 2017).

Source: Eurostat (2018), Labour Force Survey, [lfsa_ehomp].

Compared to other small business owners, home-based business owners in the UK were more likely to have been economically inactive immediately before starting their business (e.g. the unemployed, women returning to work after a maternity break, the retired or the long-term sick and disabled) (Mason et al., 2011). This suggests that starting a home-based business might be a way in which certain groups of disadvantaged people in the local labour market can become economically active, and to a lesser extent, extending their working life due to the low costs of operating a business from the home.

However, home-based business owners tend to have higher qualifications on average than the owners of other small businesses (Mason et al., 2011). This is consistent with the high proportion of home-based businesses in knowledge-based sectors (Reuschke and Houston, 2016; Sayers, 2010).

The representation of women-owned businesses was found to be higher amongst home-based businesses than for other types of small businesses in a number of studies (Mason et al., 2011 for the UK and Clark and Douglas, 2014 for New Zealand). This notwithstanding, the majority of home-based businesses in the UK, are reported to be either male-owned or an equal male-female ownership (Mason et al., 2011).

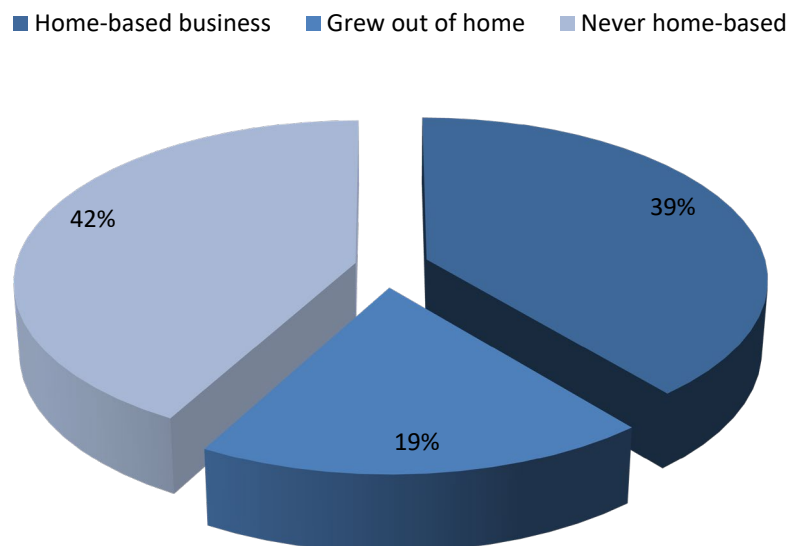
The proportion of home-business owners declaring themselves to be disabled or having a long-term health condition was essentially the same as for other business owners in a small business survey in Scotland (14% vs. 13%) (Mason and Reuschke, 2015). However, the proportion of home-based business owners with a disability or long-term health condition was found by the same study to be higher in urban areas (18% compared with 12% amongst other business owners).

7. DO HOME-BASED BUSINESS GROW OUT OF THE HOME?

Home-based businesses are typically small operators. They employ fewer staff than businesses in commercial premises (Mason and Reuschke, 2015; Mason et al., 2011 for the UK) and many are one-person enterprises (see Table 1).

However, a snapshot perspective on the home-based business sector masks the role of the home for the business population as a whole. Connections between being home-based and business growth are dynamic as owners move their businesses into separate business premises when the business grows and needs to take on employees. Businesses may also move (back) into the home of the owner later in the business cycle for a variety of reasons. The majority of small businesses will have been home-based at some point (Reuschke and Houston, 2016) (Figure 5).

Figure 5. The location of small businesses at one point in time, Scotland, UK



Source: Survey of members of the Federation of Small Businesses Scotland, from Mason and Reuschke, 2015, 13.

The home as the location of the business is particularly – but not only – relevant at the business start-up phase (Reuschke and Houston, 2016; Mason and Reuschke, 2015). Some well-known high-tech firms such as Apple were set up in residential homes and garages.

Nearly 60% of home-based businesses surveyed in the UK indicated that they want to grow their business in the study by Mason et al. (2011) that covered members of the Federation of Small Businesses. The growth potential of home-based businesses was also found to be evident in a longitudinal business study in the UK, particularly amongst those based in urban areas (Houston and Reuschke, 2017). Using a sample of businesses that had 0-9 employees in 2004 and that were re-interviewed in 2008, the study found that half of those micro-businesses that were based in the owner's home in 2004 had grown into small businesses with ten or more staff in 2008. Moreover, a sizeable proportion (11%) employed

more than 50 employees four years later. Home-based businesses (in 2004) were also as likely as businesses located in commercial premises to make the transition from being a non-employer to an employer between 2004 and 2008.

Home-based entrepreneurs based in urban areas are more likely than those in rural areas to grow or have a growth orientation. Key factors that influence this greater growth motivation in cities include the greater chance of face-to-face contact and density of networks in cities – which are particularly relevant at the business start-up phase and early stages of business development (Greve and Salaff, 2003). Home-based business owners may benefit from networks of former city-based employers (Delmar and Davidsson, 2000). Cities also provide a greater diversity and availability of business premises.

Many home-based businesses are located in detached and semi-detached houses. This gives them a rural and within metropolitan areas a suburban location (Reuschke, 2016). By contrast, home-based businesses were found to be less likely to be located in tower blocks, flats, and terraced houses in inner cities (Green et al., 2000), where there is less potential for extension.

Because many home-based businesses grow at one point out of the owner's home, the search for suitable commercial premises close-by becomes an issue for home-based businesses. If no suitable premises in the local area are available, home-based businesses may either be forced to stay in the home (Mason and Reuschke, 2015) or use temporary solutions and locations such as self-storage facilities (Daniel and Ellis-Chadwick, 2016) both of which may hinder business growth.

The home-based business sector has also shown a strong resilience over the past decade. Evidence from Scotland suggests that more than 40% of surveyed home-based businesses have been trading for more than five years (Mason and Reuschke, 2015).

8. CHALLENGES FOR HOME-BASED BUSINESSES AND POLICY SOLUTIONS

8.1. ACCESS TO SUPPORTING INFRASTRUCTURE AND NETWORKS

Because of their location (mostly in residential areas) and the nature of the business (e.g. online trading) home-based businesses tend to be less likely than businesses in commercial premises to have access to the local business support infrastructure and networks that can support businesses and have a positive influence on their success. A lack of access to technical business and IT support has been identified as a significant challenge for the home-based business sector (Wynarczyk and Graham, 2013).

8.1.1. *Business networks*

A challenge for home-based entrepreneurs is to develop their business networks. In general, micro-businesses often use sub-contracting to other micro-businesses and self-employed workers to reduce risk and administration involved in employing staff (Federation of Small Businesses Scotland, 2012). This provides flexibility to the business in managing changes in demand and workload. Hence one way for micro-businesses to overcome their “smallness” disadvantage is in developing networks of businesses that sub-contract to each other.

Home-based businesses more specifically frequently use sub-contracting for more difficult or time-consuming IT tasks (Anwar and Daniel, 2017). Sub-contracting seems also to be preferred over hiring employees as a way to maintain a home location and flexibility (Ekinsmyth, 2014; van Gelderen et al., 2008).

8.1.2. *Social networks*

It is not only business networks that are relevant for home-based business development but also wider social contacts. Business networks and social networks often mix, and local contacts to acquaintances and friends can be exploited for business advice or recruiting people (Ekinsmyth, 2014).

Social isolation has been identified as a major disadvantage of home-based businesses (Spinuzzi, 2012; Walker, 2003; Baines, 2002). This is related to working largely alone without co-worker relations, in buildings and neighbourhoods that are designed around domestic uses (Holliss, 2017). Many activities of online home-based businesses in particular often do not require face-to-face interactions.

In the absence of social contacts and advice and feedback from colleagues and supervisors, some home-based workers work in co-working spaces, in order to overcome social isolation as much as to seek collaborators and networking (Spinuzzi, 2012).

8.1.3. *Formal and informal meeting spaces*

Home-based businesses clearly differ from other businesses in that they do not have formal meeting spaces in their premises. Fitzgerald and Winter (2001) investigated in the USA how often home-based businesses see clients in their home. Strikingly, in their sample, 280 out of 899 interviewed home-based businesses see clients in their home more than once a week. This can cause tensions in these families/households, suggesting that there is a

demand for formal meeting spaces outside of homes or the design and production of "workhomes" where work and home can be combined (Holliss, 2015).

Nearly half of home-based business owners in Scotland reported that they make use of informal workspace outside their home for business purposes (including coffee shops and hotel lobbies) (Mason and Reuschke, 2015). For those who use external meeting and working spaces, the main reasons were to meet customers or clients (42%), collaboration (21%) and networking (21%). The study noted that there is a latent demand for work hubs and similar types of temporary space amongst some home-based businesses in urban areas.

The need for networking locally was highlighted by a UK survey of freelancers and home-based business owners who are members of Enterprise Nation (2009). Asked about "what is the one thing you would like to see in your area that would help your business", 43% of the surveyed home-based business owners responded with "events and networks for home business owners" (Enterprise Nation, 2009).

8.1.4. Policies to support access to infrastructure and networks

The creation of working and meeting spaces for home-based businesses such as work hubs and co-working spaces that combine affordable desk space and social spaces for networking and meetings is a promising means to create a supportive business environment.

Co-working spaces are shared workspaces in which people work alongside one another (Capdevila, 2017; Merkel, 2015). They offer entrepreneurs a great deal of flexibility in that they can be rented on an hourly, daily, weekly or monthly basis, and entrepreneurs can usually select from a menu of services. Co-working spaces are also important social spaces offering entrepreneurs the opportunity to interact with others. In addition, they are used to expand customer networks, to improve current products and services and to gain new business skills (Stam and van de Vrande, 2017). Therefore, co-working spaces can address needs for both business-related networking and for creation of a social environment for combatting the social isolation of working alone in the home.

There are various ways for local governments and other local stakeholders such as chambers of commerce and housing associations to support the development of affordable collaborative working spaces. These include:

- Identifying unused or under-used spaces in residential areas where there is a need for collaborative workspaces.
- Converting existing buildings/spaces into co-working and meeting spaces, e.g. inside community centres or housing estates owned by local authorities or other local stakeholders.
- Collaborating with local stakeholders to provide workspaces and bespoke mentoring and business advice in these workspaces.

The cost of business premises has been identified as a problem for home-based businesses in a number of countries (e.g. Italy, the UK). Low costs are therefore important, allowing people in different financial situations to make use of the opportunities. This can be achieved, for example, by keeping fees charged low, creating informal co-working groups (Box 1), or paying vouchers directly to co-workers, as implemented by the City of Milan (Scopelliti, 2017).

Further, keeping the working spaces local, in residential areas, is important to people who cannot or do not want to travel longer distances from home to the central business district due to, for example, family responsibilities or transport costs.

It is also important to offer advice to home-based entrepreneurs, and this can be successfully combined with access to business infrastructure and networking. For example, the Chambers of Commerce in Vienna, Austria combine bespoke face-to-face support for the self-employed without employees with the provision of space for meetings, with no additional fee (Box 2). Similarly, the City of Barcelona funds the *Almogavers Business Factory* as a means to provide individual and group training and business advice. Courses include strategy and business management, business finance, support for internationalization, and cooperation in particular of women business owners. Face-to-face training and advice is aligned with online IT training for individuals and businesses operating in different sectors in this co-working space (<https://cibernarium.barcelonactiva.cat>). These types of initiatives can be particularly important for home-based entrepreneurs.

The Entrepreneurship Facilitators programme in Australia (<https://www.employment.gov.au/entrepreneurship-facilitators>) is another type of approach, whereby the government brings mentoring and business advice directly into people's homes. In three Australian locations: Cairns (Queensland), the Hunter including Newcastle, and Launceston and North-East Tasmania, local stakeholders provide mentoring assistance on how to start and run a business, including how to register a business. Social isolation and lack of confidence have been identified as problems specific to home-based businesses in this programme. The programme targets young people in the areas where youth unemployment is especially high (O'Regan, 2017).

Policies and programmes supporting work-life balance are also relevant for many (would-be) home-based entrepreneurs. The European Commission announced the "Work-Life Balance Initiative for Working Parents and Carers" in April 2017. It seeks to encourage, amongst others, a better use of European Union funds to improve childcare and long-term care services in order to increase labour market participation, including through self-employment (<http://ec.europa.eu/social/main.jsp?catId=1311&langId=en>). This can be particularly important for home-based entrepreneurs. One model that could inspire initiatives is the Caboodle collaborative workspace project in Bristol, UK. This project responded to the needs of home-based entrepreneurs for flexible childcare facilities. Launched in 2017, Caboodle offers "pop-up" co-working sessions with an on-site crèche at Windmill Hill City Farm in Bristol, providing the opportunity for parents and carers to work alongside one another while their children are cared for nearby (Wilkins, 2017).

Box 1. “Jelly” co-working groups, Somerford, United Kingdom

An alternative concept to fee-based co-working spaces run as for-profit businesses emerged in New York in 2006. “Jelly” co-working groups were first established by freelancers who felt isolated working from home. They had a simple idea of meeting informally at someone’s home, in coffee shops or any other space to work on their projects but at the same time having interactions and exchanging ideas with others.

In the UK, Christchurch and East Dorset Council picked up this idea to stimulate economic growth in its area (Payne, 2017). The local authority set up three Jelly co-working groups in 2016 with only GBP 1 000 (approximately EUR 1 100), mainly to cover costs of advertising the co-working groups (e.g. in local newspapers) and promoting the training and business advice linked with them. The biggest challenge for the Council in establishing co-working groups was finding local partners that could provide space for free.

One of the co-working groups is the Somerford Jelly, which meets in the Alliance Resource Community (ARC) Centre. The ARC is a registered charity set up by the residents of Somerford housing estate in which the community centre is located. The community centre is fully funded by the local housing association. The charity provides the co-working space, including Wi-Fi and parking, all free of charge. Residents are asked to become members of the co-working group (there is no fee) to be able to use the space without booking in advance.

The Somerford ARC Jelly is particularly well-attended by women entrepreneurs who live very close to the community centre. Some have well-established enterprises and some have newly started a business. Their businesses range from accountancy and wedding planning to selling pet food.

Co-working groups are hosted by facilitators who conduct outreach to encourage more entrepreneurs to use the centre’s facilities. They work in co-operation with the Council to identify expert speakers for business events, who are also expected to offer business advice to members. Local business mentors who work as volunteers for the Council are also invited to meet the Jelly co-working members. These networking and training activities are designed around the childcare responsibilities of the group members and are scheduled to finish before school closing time. Members are encouraged to take part in the events as well as to work on their own projects and discuss business ideas. They are informed about grants and other potential funding opportunities through the co-working facilitator.

In the longer term, the co-working group intends to become self-sustaining as the members are expected to take responsibility for the event organisation and promotion. The community centre operates a café, which provides some income to the charity. The income is used for all the charity activities, including the co-working users.

For more information, please refer to:

<http://www.uk-jelly.org.uk/jelly/somerford-arc-jelly>

Box 2. Facilities and support for one-person enterprises, Austria

Solo entrepreneurs (one-person enterprises) account for the majority (60.4%) of the members of the Austrian Federal Chambers of Commerce. Two-thirds of one-person enterprise members are home-based and many are located in rural areas (Riedl, 2017). The Austrian Federal Chamber of Commerce created a network of contact points for solo entrepreneurs, which are located in each of the nine provinces and offer a wide range of services. One of the most significant services offered to home-based entrepreneurs is the provision of meeting rooms. The *Wko[forum]wien* offers 20 meeting rooms that are fully technically equipped, including laptop, flipchart, and internet access to members. The service also includes a babysitter service which is free of charge. Use of these meeting rooms has increased continuously.

Webinars were introduced in 2014 to make training more accessible to members based in rural and outlying areas. Their content covers marketing, sales, social media and other relevant business issues. More than 8 000 entrepreneurs across the country have taken advantage of the webinars so far, helping them to learn while saving time and travel costs.

For more information, please refer to:

<http://epu.wko.at>

<https://www.wko.at/service/netzwerke/Publikationen-und-Online-Service.html>

8.2. BUSINESS FINANCE

Micro businesses typically face a number of problems in accessing external finance (see for example OECD/European Union, 2014) and these problems also tend to be issues for home-based businesses. However, home-based businesses often face additional challenges related to being located in the owner's home, particularly related to scepticism from lenders and investors about the strength or legitimacy of their business.

8.2.1. *Personal resources*

Similar to other small businesses, home-based businesses rely on personal sources of finance more heavily than on external sources (Clark and Douglas, 2014). Personal resources used for business purposes are usually a mix of different income streams including personal savings, credit cards, and pensions of partners (Mason and Reuschke, 2015). A survey by Clark and Douglas (2014) in New Zealand found that the most relevant sources of finance of home-based businesses included salary payments from employers (for those that also maintain paid employment) and bank overdrafts. This reliance on internal sources of finance may reflect a number of factors, including a reluctance to apply for bank loans, lack of a coherent business plan and credibility issues. At the same time, the lack of external finance may constrain the development of the business.

8.2.2. *Mortgage market finance*

In the UK, housing assets are widely used by small businesses and sole traders to secure a commercial loan or overdraft (Reuschke and Maclellan, 2014). There is also some evidence to suggest that in countries with a flexible mortgage market system, like in the UK, housing equity of the owner is used to fund the relocation of home-based businesses

into outside premises. For example, businesses that grew out of the home had a slightly higher percentage share of housing equity use (32%) in the study by Mason and Reuschke (2015) suggesting that housing finance may have helped them to finance the move into premises. This corresponds with evidence from the City of Edinburgh where micro-businesses that moved out of the home – but also into the owner’s home – had a greater likelihood of having used residential mortgage finance for business purposes (Reuschke and Houston, 2016).

8.2.3. Access to loans and public-sector finance programmes

There is some limited evidence that home-based businesses face greater barriers to accessing bank finance and public-sector business funding schemes as a consequence of having a domestic address for the business. In a comparative study of home-based businesses and small businesses in commercial premises in Scotland, no home-based business had accessed public sector grants and loans (Mason and Reuschke, 2015). Moreover, difficulties with securing bank loans due to the home-based nature of the business were mentioned by ethnic home-based entrepreneurs in the UK that operate online businesses (Anwar and Daniel, 2017).

8.2.4. Policies to improve access to finance

Microloan schemes that are administered through local and community-based organisations can be particularly relevant for home-based businesses by supplying small loans and making efforts to encourage applications from businesses that are “under the radar” through local promotion of the scheme. The Microloan programme offered by the U.S. Small Business Administration is an example (Box 3).

Box 3. Local business finance – the Microloan programme by the U.S. Small Business Administration

The Microloan programme of the U.S. Small Business Administration (SBA) provides loans up to USD 50 000 (approximately EUR 48 825) to help small businesses start up and expand. In practice, the average loan amount is USD 13 000 (approximately EUR 11 135) but loans are often as small as USD 500 (approximately EUR 490). Whether the businesses that receive funding are home-based, is not captured in the funding monitoring. However, based on close contact with the intermediary lenders, the SBA reports that virtually every business that receives a loan of less than USD 20 000 (approximately EUR 17 100) is home-based.

The lending infrastructure is decentralised. The SBA provides funds to specially designated intermediary lenders, which are non-profit community-based organisations with experience in lending as well as management and technical assistance, including organisations supporting certain ethnic groups. These intermediaries administer the Microloan programme for eligible borrowers locally. The type of loan and requirements vary by state. Loan repayment terms vary according to loan amount, planned use of funds, requirements determined by the intermediary lender and the needs of the small business borrower. Annual interest rates are between 8 and 13 per cent and the maximum repayment term allowed is six years.

Microloans can be used for working capital, inventory and supplies, furniture and fixtures, and machinery and equipment. They cannot be used to pay existing debts or to purchase real estate. In some cases, in order to apply for SBA microloan financing, entrepreneurs are required to fulfil training or business planning requirements. This is designed to help them launch or expand their businesses.

For more information please refer to:

<https://www.sba.gov/loans-grants/see-what-sba-offers/sba-loan-programs/microloan-program>

Access to finance for home-based businesses could also be improved through peer-to-peer funding and crowdfunding (Reuschke and MacLennan, 2014b). Crowdfunding is typically raised through advance sales or donations in exchange for certain rewards, however there are also examples of equity crowdfunding platforms. The role of public policy is largely to educate entrepreneurs and investors about the potential, and risks, of crowdfunding. However, there are also examples where government has had a role in setting up the infrastructure and matching funds raised. For example, the Municipality of Milan has launched a programme for social innovation start-ups, where the funds collected through crowdfunding campaigns are topped up by funds from the City of Milan. So far, 16 start-ups have been fully financed in this way, one-third of which were home-based businesses (Scopelliti, 2017).

In the European Union, the EU Programme for Employment and Social Innovation (EaSI) can be used to improve access to finance for home-based business. Launched in 2014, it aims to increase the availability and accessibility of microfinance for vulnerable groups and micro-enterprises as well as to facilitate access to finance for social enterprises (<http://ec.europa.eu/social/main.jsp?catId=1081>).

8.3. REGULATION AND PLANNING

The scale of home-based entrepreneurship and business activities has major consequences for the spatial organisation of the dwelling, neighbourhood, city and region. Planning and design at both urban and building scales needs to respond to the structural change in the economy. Regulatory reform may be required to achieve this because many regulatory frameworks prohibit home-based work, which contributes to the general invisibility of the sector and makes it difficult to enact policies that facilitate and strengthen entrepreneurship (Holliss, 2017).

8.3.1. Planning regulations

Under current town planning and building regulations in many cities, the distinction between dwelling and workplace elements of property is rigid. Functional zoning and mono-functional building classification systems create difficulty in planning cities and designing neighbourhoods and buildings to accommodate mixed-use spaces that combine living and work spaces to accommodate home-based business (Holliss, 2015; Davis, 2012; Dolan, 2012).

Uncertainty about whether permission is needed to use parts of the home for business purposes has been identified as a problem when running a business from home (Mason and Reuschke, 2015). In many cases, planning regulations are written to limit the impact of the work activity, in terms of traffic and noise, on surrounding properties rather than enabling dual use of buildings or mixed-use neighbourhoods.

Some cities have successfully used “live-work” as a planning category (Box 4). Policies that lessen the impact of functional zoning, either by inserting “live-work” type planning categories or by permitting mixed-use more generally, are more supportive of homeworking activities.

Box 4. Successful Live-Work urban zoning in Maastricht and Enschede, The Netherlands

Piazza Ceramique (Jo Janssen Architects, 2007) is a good practice design for home-based business on a site zoned for live-work (woon-werk woningen) in Maastricht. In addition to standard apartments, the development includes 20 living-working apartments, each having an additional multifunctional space and a second entrance, seven living-working houses also with two entrances, and nine separate working units. Current businesses operating in Piazza Ceramique include architecture, photography, graphic design, dentistry and debt collection.

Policies that unequivocally permit the partial use of residential property as workplace also encourage home-based business. In the Netherlands, workspace in dwellings is permitted as a subordinate function, in practice up to 49%, albeit with restrictions on the type of work and the expected nuisance to the neighbouring area. There is evidence that increasing this percentage acts as an incentive to home-based entrepreneurship.

In Roombeek, a restructured former working-class district of the Dutch city Enschede, an experiment setting the permitted percentage of workspace in a dwelling at 49% has resulted in exceptionally high levels of home-based entrepreneurship across all categories of home-based business (bureau Nieuwe Gracht et al., 2016).

In Maastricht, a vision is being developed to maintain and grow the dynamics and job opportunities in residential areas, by facilitating both work in the home and also – crucially for many creative and blue-collar home-based workers such as furniture-makers – living functions in vacant commercial and social property.

In Maastricht, for example, there is a deliberate policy of creating meeting places by clustering services and amenities, not only in central but also in more suburban neighbourhoods. This provision is needed for home-based workers to meet each other, and their customers, in the neighbourhood. Many home-based businesses engage with members of the public, who are either employees, or customers with appointments or as passing trade.

Social isolation is recognised as an important disadvantage of home-based working that can be addressed by design at building and neighbourhood scales (Holliss, 2015). Image is important in the design of “workhomes” (Holliss, 2015) and neighbourhoods to reinforce occupational identity amongst home-based workers; preferences differ according to occupation, e.g. from artist to dentist (bureau Nieuwe Gracht et al., 2016; Holliss, 2015).

Widely used mono-functional building classification systems hinder dual-use buildings and therefore home-based business (Holliss, 2015). Japan offers an example of an alternative approach, in which the residential category of their Control of Building Use by Land Use Zones includes “Houses with small-scale other function (e.g. store, office)”. Japanese land use is organised by impact. Houses and houses with small scale other function are permitted in 12 of the 13 overall zones, only prohibited in exclusively industrial zones (Ministry of Land, Infrastructure and Transport, Japan, 2003). This supports the development of small-scale home-based business by facilitating appropriate, and widespread, spatial provision.

An ingrained separation between home and work, dwelling and workplace, can be inherent to regulatory frameworks other than planning. In the UK, for example, property taxation is organised as a binary system with distinct taxes for residential and non-residential property.

The applicability of tax regimes to home-based businesses is often unclear. This “creates uncertainty and encourages the owners of home-based businesses to stay under the radar of state agencies for fear of regulation, being subject to tax or higher charges, being restricted in their activities or even being forbidden” (Dwelly and Lake, 2008: 26).

8.3.2. Housing regulations

Housing regulations limit home-based business activity in some countries (Holliss, 2015). Restrictions can be found in both public and private rental sectors where landlords/landlord associations do not allow activities other than domestic use of the home. Even where not prohibited, tenants often have to seek permission from their landlord before running a business from home (Mason and Reuschke, 2015). In Scotland, as well as in other countries such as Germany, housing allocation policies can hinder tenants’ ability to have a spare room for use as a workspace.

8.3.3. Design

Different groups of home-based businesses, and categories of home-based occupations, have distinct spatial and environmental requirements (bureau Nieuwe Gracht et al., 2016; Holliss, 2015). Primary consideration should be given to providing an appropriate degree of spatial separation between work and home aspects of the home (see Box 5). Some design guidance has been developed for dual-use spaces (www.theworkhome.com; Holliss, 2015).

Box 5. Designing for home-based businesses in social housing, The Netherlands

Veld van Klanken (Field of Sounds) Musicians’ Co-housing in Hoogvliet, Rotterdam (24H Architects, 2012) is a good practice example of social housing built to meet the spatial and environmental needs of a specific field of home-based business. Thirty-eight terraced houses in five blocks surround a grassy hill under which are buried thirty music studios. The “live-nearby” (Holliss, 2015) format provides the spatial separation many home-based businesses prefer between dwelling and workplace, while the earth covering the studios provides the necessary level of sound insulation as well as, on top, a collective social space. The musicians that inhabit the development include ten drummers.

There are a number of characteristics that make residences more conducive for home-based business activities. Edge conditions, ribbons, backlands, courtyards, factory buildings and districts with a fine urban grain offer opportunities for the low cost flexible accommodation preferred by some home-based businesses (bureau Nieuwe Gracht et al., 2016). Older housing with garage, out-building or space for a garden workspace is also popular (Holliss, 2015). Successful experiments in urban planning that result in integrated living and working can be found in many countries (Box 6). The size and dimensions of houses are important conditions. A width of at least six metres allows for a working space oriented towards the street, with an independent entrance from the residential area.

Box 6. Designing for home-based businesses in self-built housing, The Netherlands

Nieuw Leyden (Leiden, 2014) is an example of self-built housing designed, bottom-up, around the requirements of home-based business. Seven-hundred homes, master-planned by MVRDV (a Netherlands-based architecture and urban design practice), were built in blocks of eighteen back-to-back homes over a collective garage, on a brown-field site close to the centre of Leiden. User-control over the internal spatial design of the houses led to 80% of the homes including a small office or workshop, and a high proportion of the inhabitants working from home at least part-time.

For more information please refer to:

<http://righttobuildtoolkit.org.uk/case-studies/nieuw-leyden/#>

8.3.4. Policies to improve the regulatory environment

A shift in housing and planning culture towards supporting and encouraging home-based working would be likely to stimulate home-based entrepreneurship amongst tenants and owners. The focus should be here on existing homes and vacant buildings, as well as new developments.

Replacing existing, often negative “not unless” approaches with the more positive and supportive “yes if” approaches, would facilitate planning, regulation and design for home-based business (bureau Nieuwe Gracht et al., 2016; Holliss, 2017). In particular, dual building planning has been successfully implemented in The Netherlands.

A good place to start is to review standard tenancy agreements for both private and social housing, limiting or removing restrictions on home entrepreneurship.

Housing associations can be an active partner in facilitating home-based businesses, particularly in disadvantaged areas and amongst disadvantaged populations. They can encourage home-based businesses with limited funding. For example, Cube Housing provided 15 start-up grants of GBP 1 000 (approximately EUR 1 110) to their tenants in 2013 (Reuschke and MacLennan, 2014b).

There is also a need to improve access to, and the presentation of, information on local and national regulations that apply to businesses run from residential homes. Some countries and cities have produced home-based business guides (Box 7). However, it is important not to discourage (potential) home-based business entrepreneurs with information on too many regulations and instead select the most relevant information in a supportive manner. In particular, the guides should clarify whether permission is needed to run a business from home, what types of home alterations can be made and what types of signs may be displayed on the premises. This is important for reducing uncertainty about whether running a business from home is allowed or not.

Box 7. Country and city home-based business guides

Australia:

<https://www.business.gov.au/Info/Plan-and-Start/Start-your-business/Home-based-business>

United Kingdom:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/39255/12-829-home-business-guide.pdf

Scotland:

<https://www.mygov.scot/home-based-business/before-starting-a-home-based-business/>

Alberta, Canada:

http://www.omni-rand.ca/dloads/starting_a_home_based_biz.pdf

Ottawa, Canada:

<http://ottawa.ca/cs/groups/content/@webottawa/documents/pdf/mdaw/mti1/~edisp/cap124601.pdf>

Victoria, Australia:

<http://www.business.vic.gov.au/setting-up-a-business/location-and-set-up-premises/start-a-home-based-business>

9. DIGITAL CONNECTIVITY

9.1. Accessibility and speed

The growing importance of digital technologies is transforming existing industries and could have an important impact on home-based businesses. Digitalisation facilitates home-based entrepreneurship through various channels including developing professional networks, reducing the costs of acquiring skills and gaining access to financial markets.

There is a prevalent notion that home-based businesses can operate from any location. However, in reality, most home-based businesses (as with other businesses) are highly dependent on digital connectivity that is “fit for purpose”. This restricts locational decisions of home-based businesses.

Digital connectivity is one of the main concerns for entrepreneurs running their businesses from home. For example, a survey in New Zealand found that 97% of responding home-based business owners indicated that the Internet was very important for a variety of their activities including keeping in contact with customers, finding information on products and services, keeping up to date with industry trends and getting ideas for new products and services (Clark and Douglas, 2010). Connectivity was also perceived as crucial for growing the business, as a source to access ideas and information from the Internet.

Home-based businesses use the Internet and Information and Communication Technologies (ICTs) for several reasons: selling and buying online including overseas trade, marketing and promotion, day-to-day communication, business administration and management, and enhancing flexibility in work schedules, or they are essential for the business model (Wynarczyk and Graham, 2013). Increasingly for many of these activities, (super-) fast broadband access is required. The pace of technological change exacerbates the situation of the home-based business, with slow broadband connections incapable of supporting many now routine online applications (Philip et al., 2017). Further, in households where household members use multiple devices simultaneously, additional demands are placed on the home-business broadband service (Dutton and Blank, 2011). High-resolution video conferencing requires broadband speeds of at least 15 Mbps (Mack, 2014). Therefore, if there are more users (e.g. family members) and there is the need for video-conferencing, cloud computing software, and other essential digital business applications, the European Commission’s recommendation of a download rate of 30 Mbps (European Commission, 2017), would help home-based business owners manage their business and personal use requirements.

Home-based businesses are disadvantaged because superfast broadband connections are concentrated in commercial districts and industrial estates (Philip et al., 2017; Williams et al., 2016) and because they are offered more expensive residential contracts than business contracts (Ofcom, 2015).

9.2. Rural connectivity disadvantage

Home-based businesses located in remote rural areas are more likely to have no (unserved) or poor (underserved) broadband connectivity. The market dependency of the landscape of connection has prioritised effort and spend on networks capable of providing superfast broadband download speeds (Next Generation Access) in densely populated areas, with the

more technically challenging and costly remote rural upgrades being given lower priority (Williams et al., 2016). In other words, in the context of digital infrastructure improvements – the already “faster” areas are getting faster, leaving those in peripheral “hard-to-reach” areas behind. Running a business from home becomes particularly challenging in sparsely populated areas where poor fixed-broadband services are compounded by no or poor mobile broadband coverage (Philip et al., 2017).

For example, in the European Union, rural broadband coverage continues to lag behind national coverage. By mid-2015, 98.4% of rural households were covered by at least one broadband technology, but only 27.8% of them had access to next generation services capable of achieving download speeds of 30 Mbps (European Commission, 2016).

9.3. Policies to improve digital connectivity

Policy has an important role in supporting home-based entrepreneurship by facilitating access to broadband connectivity. Recognition of the importance of digital engagement to support economic development is evident in the numerous programmes, strategies, plans and investments of national governments across the globe. For example, the UK Government’s investment programme, Broadband Delivery UK (BDUK) is tasked with achieving transformation in broadband access, through provision of basic broadband for all and superfast broadband to 95% of the UK population by the end of 2017. The BDUK programme recognises the challenges of connecting those living and working in the least commercially viable, sparsely populated areas and efforts are being made to try and find alternative solutions to deliver superfast broadband services to this sizeable minority. Box 7 gives the example of the efforts made in the rural county of Shropshire, United Kingdom. Policy can also have a role in helping to develop IT skills among home-based entrepreneurs.

Box 7. “Connecting Shropshire”, United Kingdom

The Broadband Delivery UK Programme affords particular attention to rural areas through the Rural Broadband Programme, which in England is delivered through local government authorities that are responsible for taking forward projects to improve broadband in their areas. “Connecting Shropshire” is one such programme, tasked with bringing faster broadband to the parts of the Shropshire Council area where it is not economically viable for commercial companies to provide it. The remote rural parts of the county have long been problematic in terms of adequate broadband provision. There are, however, examples of independent projects that have gone some way to addressing some of the problems associated with this digital exclusion.

A parish in the south west of the county provided participants for a study “Rural Public Access Wi-Fi Services” (Rural PAWS) (Williams et al., 2016) that sought to develop and test deployment of new access methods and services (satellite broadband technologies) in households and home-based businesses in commercially hard-to-reach areas. The basic hypothesis was that once participants were provided with an Internet service (albeit basic) this would stimulate demand for improved connectivity in a Broadband Delivery UK intervention area. This proved to be the case.

At the same time, the Technical Director of the local, Shropshire-based, company Secure Web Services (SWS), was in consultation with local businesses and residents to develop a “collaborative solution” to provide high-speed wireless broadband to the community. Due to the long reach connections to telephone exchanges in Shropshire, SWS constructed and licensed its own wireless broadband network spanning over 30km. The network provides high-speed broadband availability at a competitive market price to businesses and communities that have to date been overlooked by British Telecom and regional development schemes.

At the conclusion of the Rural PAWS project, participants had experienced considerable benefits from improved digital connectivity. This coincided with the extension of SWS coverage which study participants operating a home-based business took advantage of, ultimately subscribing to an SWS broadband package.

10. CONCLUSIONS

Home-based businesses are economically important because large proportions (typically more than half) of private-sector businesses are registered at their owner's home rather than at commercial premises and significant proportions of business activities take place in business owners' homes. Home-based businesses also have social significance, including by providing employment opportunities to groups that are disadvantaged in the labour market, and helping people better combine care responsibilities with work.

The home-based business sector requires special attention from economic development policy and city planning because the home location and working alone create special challenges with implications across a number of policy areas.

Key policy issues identified in this report and ways to tackle them include:

1. *Data capture* – Better reporting and monitoring is needed to make the home-based business sector more visible and to improve knowledge about the needs, specific circumstances and economic contributions of home-based businesses. Home-based businesses are generally not captured in administrative data, or in most business surveys, which makes them invisible to economic development and planning. Their location, however, requires policy makers to look beyond central business districts and designated business areas to detect and promote entrepreneurship, start-ups and business growth.
2. *Boosting confidence* – Increasing the confidence of home-based entrepreneurs is highly relevant in order to encourage them to overcome the often-prevalent view that they should keep the business activity “under the radar”, hidden from neighbours and the local authority. This can be achieved through local face-to-face mentoring and informal meeting spaces.
3. *Business infrastructure and networks* – These are often not readily available for home-based entrepreneurs who work in residential environments. Existing commercial premises are often too expensive to be used for the business activity and it can be difficult for home-based entrepreneurs to find space for meeting clients or customers close-by. Business support services may not reach out to home-based entrepreneurs, for example with information and advice on regulations or how to grow the business. These issues can be addressed through the creation of meeting and networking spaces (e.g. work hubs and co-working spaces) that provide contacts to other workers and entrepreneurs and through linking (potential) entrepreneurs with mentors and business support services.
4. *Business finance* – Home-based businesses may be discouraged from applying for external funding more so than other businesses as they might fear being not regarded as “serious” businesses. Locally administered small loan schemes by community enterprises or other local financial stakeholders are particularly well-placed in helping to overcome access to finance problems.
5. *Regulation and planning* – The conceptual separation of dwelling and workplace underlies most urban planning and property-related regulation. This hinders the development of supporting infrastructure for home-based business in terms of appropriately designed buildings and neighbourhoods. Dual-use buildings and mixed-use neighbourhoods could be encouraged and enabled by i) urban planning

at regional, city and neighbourhood scales taking account of the extent of home-based business; ii) unequivocal planning permission to use 30-49% of any dwelling as workplace, subject to impact-limiting regulation; iii) encouragement of unequivocal tenancy agreements that permit tenants in the public and private rental sectors to run home-based businesses, subject to impact-limiting regulation; iv) housing policies (e.g. space standards) that take account of the spatial requirements of home-based businesses; v) property taxation policies that are not financially punitive to home-based businesses; and vi) policies that facilitate living functions in vacant commercial and social property for creative sector and blue-collar home-based businesses e.g. furniture designer-makers.

6. *Digital connectivity* – The “electronic cottage” or the “digital village” are visions for rural economic development that remain futuristic in many regions due to the lack of superfast broadband. For running a home-based business, Internet speeds of at least 15 Mbps are currently recommended. The provision of affordable fast broadband for residential areas and rural/remote areas is especially crucial if the businesses located there are to thrive. In order to achieve fast broadband access opportunities for all, a mix of technological solutions, partnerships and commercial models may be applied, supported through collective schemes to local businesses including community enterprises. Mixed or flexible technology including satellites offers affordable solutions to increased Internet speed.

11. SUGGESTED FURTHER READING

OECD/EU (2017), The Missing Entrepreneurs 2017: Policies for Inclusive Entrepreneurship, OECD Publishing, Paris. <http://dx.doi.org/10.1787/9789264283602-en>.

OECD/European Union (2016), Inclusive Business Creation: Good Practice Compendium, OECD Publishing, Paris. <http://dx.doi.org/10.1787/9789264251496-en>.

OECD/European Union (2015), The Missing Entrepreneurs 2015: Policies for Self-Employment and Entrepreneurship, OECD Publishing, Paris. <http://dx.doi.org/10.1787/9789264226418-en>.

OECD/European Union (2014), The Missing Entrepreneurs 2014: Policies for Inclusive Entrepreneurship in Europe, OECD Publishing, Paris. <http://dx.doi.org/10.1787/9789264213593-en>.

OECD/European Union (2013), The Missing Entrepreneurs: Policies for Inclusive Entrepreneurship in Europe, OECD Publishing, Paris. <http://dx.doi.org/10.1787/9789264188167-en>.

12. BIBLIOGRAPHY

- Anwar, M. N. and Daniel, E. M. (2014), "Online home based businesses: systematic literature review and future research agenda", In: UKAIS International Conference on Information Systems (UKAIS 2014), 7 - 9 April 2014, Oxford University.
- Anwar, M. N. and Daniel, E. M. (2017), "Ethnic entrepreneurs and online home-based businesses: An exploratory study", *Journal of Global Entrepreneurship Research*, Vol. 7, No. 1, pp. 1-21.
- Austrian Chamber of Commerce (2017), "Publikationen und Online-Services für Ein-Personen-Unternehmen", available at: https://www.wko.at/service/netzwerke/epu_fact_sheet_2017.pdf.
- Bureau Nieuwe Gracht, BuroCerutti, Universiteit Utrecht (ESD 2) (2016), *MicRO: een bottom up verkenning van regionale dynamiek*.
- Capdevila, I. (2017), "A typology of localized spaces of collaborative innovation", In: Van Ham et al., eds., *Entrepreneurial Neighbourhoods: Towards an understanding of the economies of neighbourhoods and communities*, Cheltenham, UK: Edward Elgar Publishing, pp. 80-97.
- Clark, D. N. and Douglas, H. (2010), "Micro business: Characteristics of home-based business in New Zealand", *Small Enterprise Research*, Vol. 17, No. 2, pp. 112-123.
- Clark, D. N. and Douglas, H. (2014), "Micro-enterprise growth: Lessons from home-based business in New Zealand", *Small Enterprise Research*, Vol. 21, No. 1, pp. 82-98.
- Daniel, E. M. and Ellis-Chadwick, F. (2016), "Entrepreneurship and liminality: the case of self-storage based businesses", *International Journal of Entrepreneurial Behavior & Research*, Vol. 22, No. 3, pp. 436-457.
- Davis, H. (2012), *Living Over the Store*, Routledge.
- Delmar, F. and Davidsson, P. (2000), "Where do they come from? Prevalence and characteristics of nascent entrepreneurs", *Entrepreneurship & Regional Development*, Vol. 12, No. 1, pp. 1-23.
- Dolan, T. (2012), *Live-Work Planning and Design: Zero-commute housing*, Chichester: Wiley.
- Dutton, W. H. and Blank, G. (2011), Next generation users: The Internet in Britain. Oxford Internet Survey 2011 Report, available at: www.oii.ox.ac.uk/publications/oxis2011_report.pdf.
- Dwelly, T. and Lake, A., eds. (2008), *Can Homeworking Save the Planet? How homes can become workspace in a low carbon economy*, London: The Smith Institute.
- Ekinsmyth, C. (2014), "Mothers' business, work/life and the politics of "mumpreneurship"", *Gender, Place and Culture*, Vol. 21, pp. 1230-1248.
- Enterprise Nation (2009), "Home Business Report 2014", available at: <https://www.btpic.com/Thegroup/BTUKandWorldwide/BTRegions/England/Factsandfigures/EnterpriseNationHomeBusinessReport2009-Nov09.pdf>.
- Enterprise Nation (2014), "Home Business Report 2014", available at: [https://static.guim.co.uk/ni/1414079504761/Home-Business-Survey-\(1\).pdf](https://static.guim.co.uk/ni/1414079504761/Home-Business-Survey-(1).pdf).
- European Commission (2016), "Broadband Coverage in Europe 2015: Mapping progress towards the coverage objectives of the Digital Agenda", available at: <https://ec.europa.eu/digital-single-market/en/news/broadband-coverage-europe-2015>.

- Fitzgerald, M. and Winter, M. (2001), "The intrusiveness of home-based work on family life", *Journal of Family and Economic Issues*, Vol. 22, No. 1, pp. 75-92.
- Frederick, H. H. (2004), "The Unitec Global Entrepreneurship Monitor 2003/2004: Toward High Growth Enterprise in New Zealand", Unitec New Zealand's Centre for Innovation & Entrepreneurship Research Report Series, Auckland: Unitec New Zealand.
- Gandini, A. (2015), "The rise of co-working spaces: A literature review", *Ephemera: Theory & Politics in Organization*, Vol. 15, No. 1, pp. 193-205.
- Green, H., Strange, A. and Trache, H. (2000), "The homeworking revolution: considering the property dimension", *Regional Studies*, Vol. 34, pp. 303-307.
- Greve, A. and Salaff, J. W. (2003), "Social networks and entrepreneurship", *Entrepreneurship Theory and Practice*, Vol. 28, No. 1, pp. 1-22.
- Holliss, F. (2017), "Designing for home-based work: Lessons from two English villages", *Architecture and Culture*, Vol. 5, No. 1, pp. 21-39.
- Holliss, F. (2015), *Beyond Live/Work: The architecture of home-based work*, Abingdon, Oxford: Routledge.
- Houston, D. and Reuschke, D. (2017), "City economies and microbusiness growth", *Urban Studies*, pp. 1-19.
- Huggins, R. and Thompson, P. (2012), "Entrepreneurship and community culture: A place-based study of their interdependency", *Entrepreneurship Research Journal*, Vol. 2, No. 1, 1-34.
- Hundley, G. (2000), "Male/female earnings differences in self-employment: The effects of marriage, children, and the household division of labor", *Industrial and Labor Relations Review*, Vol. 54, pp. 95-114.
- Jurik, N. C. (1998), "Getting away and getting by: The experiences of self-employed homeworkers", *Work and Occupations*, Vol. 25, pp. 7-29.
- Loscocco, K. and Smith-Hunter, A. (2004), "Women home-based business owners: insights from comparative analyses", *Women in Management Review*, Vol. 19, No. 3, pp. 164-173.
- Loscocco, K. and Bird, S. R. (2012), "Gendered Paths: Why Women Lag Behind Men in Small Business Success", *Work and Occupations*, Vol. 39, No. 2, pp. 183-219.
- Mason, C., Carter, S. and Tagg, S. (2011), "Invisible Businesses: The Characteristics of Home-based Businesses in the United Kingdom", *Regional Studies*, Vol. 45, No. 5, pp. 625-639.
- Mason, C. and Reuschke, D. (2015), "Home Truths: The true value of home-based businesses", Federation of Small Businesses in Scotland, available at: <http://www.fsb.org.uk/LegacySitePath/policy/rpu/scotland/assets/home%20truths%20-%20final.pdf> (accessed on 22/09/2017).
- Merkel, J. (2015), "Co-working in the city", *Ephemera: Theory & Politics in Organization*, Vol. 15, No. 1, pp. 121-139.
- Ministry of Land, Infrastructure and Transport, Japan (2003), "Urban Land Use Planning System in Japan", <https://www.mlit.go.jp/common/000234477.pdf> (accessed on 22/09/2017).
- OECD/European Union (2014), "Policy Brief on Access to Business Start-up Finance for Inclusive Entrepreneurship", OECD Publishing, Paris.
- O'Regan, C. (2017), "Enhancing labour market opportunities by encouraging home-based entrepreneurship – an Australian perspective", presentation at the OECD seminar "supporting the

- Development and Growth of Home-Based Businesses”, available at: <http://workandhome.ac.uk/wp-content/uploads/sites/233/2017/10/Carmel-ORegan-presentation.pdf>.
- Payne, M. (2017), “Inclusive entrepreneurship in small towns through co-working and mentoring of home-based entrepreneurs”, presentation at the OECD seminar “supporting the Development and Growth of Home-Based Businesses”, available at: <http://workandhome.ac.uk/wp-content/uploads/sites/233/2017/10/G4G-presentation-template-Mandy-Payne.pdf>.
- Philip, L., Cottrill, C., Farrington, J., Williams, F. and Ashmore, F. (2017), “The Digital Divide: patterns, policy and scenarios for connecting the “final few” in rural communities across Great Britain”, *Journal of Rural Studies*, Vol. 54, pp. 386-398.
- Pratt, J. H. (2006), *The Impact of Location on Net Income: A Comparison of Homebased and Non-Homebased Sole Proprietors*, Small Business Administration (SBA) Office of Advocacy, Washington, DC.
- Reuschke, D. (2016), “The Importance of Housing for Self-employment”, *Economic Geography*, Vol. 92, No. 4, pp. 378-400.
- Reuschke, D. (2015), “Self-employment as a route in and out of Britain's South East”, *Regional Studies*, Vol. 49, No. 4, pp. 665-680.
- Reuschke, D. and D. Houston (2016), “The importance of housing and neighbourhood resources for urban microbusinesses”, *European Planning Studies*, Vol. 24, No. 6, pp. 1216-1235.
- Reuschke, D. and C. Mason (2015), “Urban home-based businesses: how distinct are they and their owners?” In: Mason, C., D. Reuschke, S. Syrett and M. van Ham, *Entrepreneurship in Cities: Neighbourhoods, Households and Homes*, Cheltenham: Edward Elgar, pp. 223-248.
- Reuschke, D., C. Mason, S. Syrett and M. van Ham (2015a), “Connecting entrepreneurship with neighbourhoods and homes”, In: Mason, C., D. Reuschke, S. Syrett and M. van Ham, *Entrepreneurship in Cities: Neighbourhoods, Households and Homes*, Cheltenham: Edward Elgar, pp. 1-16.
- Reuschke, D., C. Mason, M. van Ham and S. Syrett (2015b), “Integrating entrepreneurship with urban and neighbourhood studies: lessons for future research”, In: Mason, C., D. Reuschke, S. Syrett and M. van Ham, *Entrepreneurship in Cities: Neighbourhoods, Households and Homes*, Cheltenham: Edward Elgar, pp. 273-285.
- Reuschke, D. and D. MacLennan (2014a), “Housing Assets and Small Business Investment: Exploring Links for Theory and Policy”, *Regional Studies*, Vol. 48, No. 4, pp. 744-757.
- Reuschke, D. and D. MacLennan (2014b), “Business Investment and Housing: Making the connections”, Centre for Housing Market Analysis in the Scottish Government Market Context Material, available at: <http://www.gov.scot/Resource/0045/00451081.pdf>.
- Riedl, R. (2017), “Policies for One-Person Enterprises and bespoke services for HBBs”, presentation at the OECD seminar “supporting the Development and Growth of Home-Based Businesses”, available at: http://workandhome.ac.uk/wp-content/uploads/sites/233/2017/10/Roman-Riedl_OECD-presentation.pdf.
- Rodríguez-Pose, A. and Tselios, V. (2015), “Toward Inclusive Growth: Is There Regional Convergence in Social Welfare?”, *International Regional Science Review*, Vol. 38, No. 1, pp. 30-60.
- Sayers, J. G. (2010), “Home-based businesses in the city”, *Small Enterprise Research*, Vol. 17, No. 2, pp. 165-176.

- Scopelliti, L. (2017) “Locally fostering home-based entrepreneurship and growth”, presentation at the OECD seminar “Supporting the Development and Growth of Home-Based Businesses”, available at: http://workandhome.ac.uk/wp-content/uploads/sites/233/2017/10/Lucia-Scopelliti_presentation_OECD.pdf.
- Spinuzzi, C. (2012), “Working alone together: Co-working as emergent collaborative activity”, *Journal of Business and Technical Communication*, Vol. 26, No. 4, pp. 399-441.
- Stam, E. and van de Vrande, V. (2017), “solopreneurs and the rise of co-working in the Netherlands”, In: Van Ham et al., eds., *Entrepreneurial Neighbourhoods: Towards an understanding of the economies of neighbourhoods and communities*, Cheltenham, UK: Edward Elgar Publishing, pp. 65-79.
- Steenbeek W. and V. Schutjens (2014), “The willingness to intervene in problematic neighbourhood situations: A comparison of local entrepreneurs and (un)employed residents”, *Tijdschrift voor economische en sociale geografie*, Vol. 105, No. 3, pp. 349-357.
- Thompson, P., Jones-Evans, D. and Kwong, C. (2009), “Women and Home-based Entrepreneurship”, *International Small Business Journal*, Vol. 27, No. 2, pp. 227-239.
- UK Department for Business, Innovation and Skills (2016), “Longitudinal Small Business Survey 2015: Businesses with no employees”, BIS research paper 290, Department for Business, Innovation and Skills, available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/522366/bis-16-226-zero-employees-report.pdf.
- UK Department for Culture, Media and Sport (2016), “Emerging Findings from the BDUK Market Test Pilots”, available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/497369/BDUK_Market_Test_Pilots_-_Emerging_Findings_Feb_2016.pdf.
- Van Gelderen, M., Sayers, J. and Keen, C. (2008), “Home-based Internet businesses as drivers of variety”, *Journal of Small Business and Enterprise Development*, Vol. 15, No. 1, pp. 162-177.
- Van Ham, M., Reuschke, D., Kleinhans, R., Mason, C. and Syrett, S., eds. (2017), *Entrepreneurial Neighbourhoods: Towards an understanding of the economies of neighbourhoods and communities*, Cheltenham, UK: Edward Elgar Publishing.
- Wainwright, T. and Kibler, E. (2014), “Beyond financialization: older entrepreneurship and retirement planning”, *Journal of Economic Geography*, Vol. 14, No. 4, pp. 849-864.
- Walker, E. (2003), “Home-based businesses: Setting straight the urban myths”, *Small Enterprise Research*, Vol. 11, No. 2, pp. 35-48.
- Williams, F., Philip, L., Fairhurst, G. and Farrington, J. (2016), “Digital by Default” and the “hard to reach”: Exploring solutions to digital exclusion in remote rural areas”, *Local Economy*, Vol. 31, No. 7, pp. 757-777.
- Wilkins, A. (2017), “Caboodle: co-working with childcare”, WORKANDHOME blog <http://workandhome.ac.uk/2017/11/07/caboodle-co-working-with-childcare>.
- Wilkins, A. and Reuschke, D. (2017), “Co-working in homes and neighbourhoods”, ERC WORKANDHOME working paper, University of Southampton <http://workandhome.ac.uk/wp-content/uploads/sites/233/2017/08/Co-working-research-profiles-.pdf>.
- Wynarczyk, P. and J. Graham (2013), “The impact of connectivity technology on home-based business venturing: The case of women in the North East of England”, *Local Economy*, Vol. 28, No. 5, pp. 451-470.