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# **Silver Economy**

Active aging

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# 1. Executive summary

Changes in the demographic structure of Europe mean that the share of healthy elderly people in the total population is becoming larger than ever before. At present, it is not only desirable, but even necessary to help elderly people age actively. Otherwise, there is a risk that an increasing share of the EU citizens will be socially excluded, i.e. unable to contribute to their community. This is not in keeping with the European values and does not build a healthy social fabric.

The need to support active aging is addressed by a whole range of products. First, mobile phones or other communication devices accessible to seniors encourage them to go out, reassuring them that help can be called anytime. Second are state-of-the-art mobility aids that not only help move, but also live an active life, while not stigmatising elderly people. Third, a whole universe of social innovation uses the Internet to create inter-generational links, foster exchange of skills and services and help seniors hold jobs that fit their needs.

The “baby boomer” generation is associated with a relatively high and stable income. Also, numerous seniors continue working even in their old age. This leaves them with generally higher income, as compared to pensions, that could be spent on active aging products. Finally, working longer sustains seniors’ interest in living active lives.

Active seniors bring benefits to the entire society. If elderly people are excluded, they do not contribute their rich life experience and often considerable free time to the society. As a consequence, they are much more likely to feel redundant and isolated. Finally, their health deteriorates, increasing the burden on social protection and public healthcare.

Market uptake is driven by several factors. One is that many European seniors have well-developed consumer habits and are interested in innovative products, provided they are functional and not stigmatising. Another important market driver is, paradoxically, the economic crisis. First, it encourages seniors to look for additional income, thus fostering active aging and spurring services like job boards for seniors. Second, it requires cost-saving, fostering collaborative economy and meeting generations.

However, there are also obstacles to developing the EU market for active aging products. Regulatory complexity and fragmentation may limit market uptake, in particular on the part of the public sector. Also, these regulatory barriers are likely to delay and complicate expansion within the Single Market. If public sector subsidies do not level the playing field, citizens of some Member States may be more likely to afford active aging than others. The outcome could be damaging for the Single Market.

Leveraging on the above drivers and neutralising the obstacles requires actions on the part of the public sector. These actions should not be limited to policy change, but focus on the attitudinal change. First, it is recommended that the support for innovation pays more attention to social innovation, since now it is focused largely on technological innovation. Second, but no less importantly, the public sector is invited to develop a sense of urgency in supporting products for active aging. A sense of urgency is understood here as stepping up measures bringing the actual products to the EU consumers.



## 2. Active aging

The present case study is the second within the trend “Silver Economy”. While the first case study no 47 “Independent living” describes ways of helping seniors live an independent life at home, this study explores companies that assist in active aging and community involvement of elderly Europeans, as explained in detail below.

### 2.1. Trend presentation

The silver economy can be defined as “existing and emerging economic opportunities associated with the growing public and consumer expenditure related to population ageing and the specific needs of the population over 50.”<sup>1</sup>

Indeed, the age structure of the European population is expected to change significantly over the next decades. By 2060, the share of people aged 65 and above will increase from 18% to 30% compared to now, while the share of people aged above 80 will more than double.<sup>2</sup> At the same time, the percentage share of the working age people (15-64) in the total population is expected to substantially decrease, from 67% to 57%.

Not only are Europeans living increasingly longer, but also in better health. European countries boast the highest health life expectancy, i.e. an indicator measuring how many equivalent years of full health on average a new-born baby is expected to have.<sup>3</sup> Also, in the WHO’s World Health Report 2000 12 EU Member States can be found among the 20 best performing healthcare systems.<sup>4</sup>

Also, the cultural paradigm of aging changed markedly in Europe. In the past, the few elderly people that lived into their later years were likely to live a low-key lifestyle centred around their households and caring for the future generations. The elderly Europeans of today and tomorrow will have spent their entire lives working, traveling, and consuming increasingly sophisticated devices. It is to be expected that they may want to continue their habits also later in life.

Also, their family relationships are likely to be different from those in the past. Job mobility may leave seniors in different countries than their children and grandchildren, bringing about a number of consequences. First, seniors may participate in their children’s and grandchildren’s lives less, leaving them more time for other pursuits, but also fewer opportunities to go out and meet people. Second, having a family abroad may require travelling longer distances than before. Third, communicating with family members living far away may incentivise seniors to acquire electronic devices like a smartphone or a tablet, and learn how to use them.

In light of above, supporting the culture of active aging in Europe is a necessity to prevent social exclusion of the elderly and respond to modern societal trends. Accordingly, the European Commission came up with the initiatives like European Innovation Partnership on Active and Healthy Ageing<sup>5</sup> and the Active and Assisted Living Joint Programme<sup>6</sup>. At the local level, 110 European regions selected Active and Healthy Ageing as a smart specialisation priority.

Last but not least, the private sector offers with a wide array of products and services fostering active ageing. They can be organised into the following groups:

- Mobility devices that, unlike wheelchairs, can be used on the uneven surface, making it possible for seniors to holiday in the wild and not stigmatising them;
- Easy-to-use communication devices that encourage elderly people to go out, reassuring them that help is easily reachable in case of emergency;
- Social innovation fostering collaborative economy and building inter-generational bonds.

The section below presents real-life companies representing each of the above groups. Zoomability offers an attractive terrain vehicle, Gociety makes using smartphones more intuitive to the elderly, Favour Exchange aims at building inter-generational bridges and BiTWiN intermediates a 45+ job market.



## 2.2. Overview of the companies

**Table 1: Overview of the company cases referred to in this case study**

Company	Location	Business innovation	Signals of success
Zoomability	Sweden	Zoomability produces Zoom, a 4-wheeled light, small and electric all-terrain vehicle that helps people with reduced mobility move on the uneven surface, e.g. in the mountains.	- Selected for the 2015 EDF Pulse Award in the Health category
Favour Exchange	Italy	The Favour Exchange project envisages the creation of several communities bonded by trust and geographical proximity where people can share goods and services via an online platform.	- Nominated to the 2015 EIT CHANGE Award
Gociety	Netherlands	Gociety offers GoLivePhone®, an easy to use smartphone developed for seniors and other services related to it, like a web app connecting the carer and the phone user.	- More than EUR 250,000 gathered following a crowdfunding campaign in the Netherlands
Bitwiin	France	Bitwiin is an online job board targeting employees above 45 years of age and connecting them with employers	- Operational since 2008 - More than 15,000 seniors and 4,000 employers registered on the website

**Problem 1** – Seniors want to continue living an active life, even though their mobility often deteriorates with age. However, traditional mobility aids like wheelchairs and walking frames are not adapted to outdoor use in leisure circumstances, e.g. in the mountains, and carry the stigma of the old age.

*Innovative solution 1* – Zoomability developed an electric all-terrain vehicle (ATV) called “Zoom”, designed for people with reduced mobility who want to enjoy active lifestyle.

A symmetrical 4-wheel drive makes it possible to use the Zoom on all kinds of terrain. The vehicle weighs 80 kilograms, has a maximum speed of 20 km/h and can cover distance of circa 40 km in one charging cycle. Driving requires using arms only and includes a seatbelt.

Zoom enables elderly people to take part in the activities requiring more mobility than just running everyday errands. These could include hiking and other types of holiday leisure. Thanks to this, seniors and/or people with disabilities can remain active members of their societies instead of being nearly homebound and limited only to wheelchair-friendly areas.

*Zoom can be used on all kind of surfaces, from sidewalks to sand and snow*



Source: Zoomability<sup>7</sup>

**Problem 2** – In the times of long working hours, online communication and weakening community bonds, elderly people may feel isolated in their neighbourhoods. As a result, they do not know who to turn to if they need help, which can decrease their quality of life. Also, if seniors are not able to interact with others, it deprives the community of potentially valuable knowledge and skills.

*Innovative solution 2* – Young Italian researchers Steven Tait and Michele Caraviello (within the Joint Open Lab S.K.I.L. of Telecom Italia)<sup>8</sup> developed a project called “Favour Exchange”, a geo-located platform enabling people from the same community share goods and services.

Favour Exchange aims at connecting neighbours. The application is meant to be divided into three parts: “gift”, “borrow” and “time”. As the names indicate, the sections will help people give and lend/borrow physical tools but also spend their time performing services, like grocery shopping or small repairs.



From a senior's point of view, such platform offers ways to stay socially active. Examples are numerous and could include younger neighbours helping the older ones with the shopping, older neighbours helping babysit children in return for other favours, organising a community reading club for seniors and many more. The ultimate outcome could be less social exclusion because of newly created neighbourly and inter-generational bonds.

#### *Favour Exchange helps generations meet*



Source: Favour Exchange<sup>9</sup>

**Problem 3** – Elderly people often do not feel at ease using mobile phones as they find them inaccessible. As a consequence, they have little connectivity, leading to less contact with their families.

*Innovative solution 3* – Gociety offers mobile solutions targeting elderly people: GoLivePhone<sup>®</sup> and GoLiveAssist<sup>®</sup>.

The GoLivePhone is a senior-friendly mobile phone featured with easy-to-use controls and dedicated applications. These include: intelligent fall detection, activity monitoring, intelligent geo-fencing, agenda and medication management.

These simplifying solutions make seniors more eager to use mobile devices. This, in turn, reassures them that they can call for assistance anytime, wherever they are. As a consequence, seniors are likely to go out more often and thus enjoy a social life and be part of community.

#### *Gociety's GoLivePhone and its smart applications*



Source: Gociety<sup>10</sup>

**Problem 4** – Older people often have valuable professional experience and skills but may be laid off or forced to retire as companies cut costs. As a result, there is an abundance of skills that does not benefit the society anymore. Also, elderly people who may want to work, cannot anymore.

*Innovative solution 4* – BITWiiN is an online platform designed to match senior job seekers and companies looking for experienced professionals, often on a part-time basis.

Companies that need an employee on a part-time/temporary basis post job ads on the website for free. Seniors can apply to these ads and, if they are employed, BITWiiN charges a commission equivalent to a percentage of their income. The job board caters for a distinctive job market, different from the one for younger people. Unlike younger professionals, seniors look rather for part-time jobs and are less likely to be interested in building a career. Companies look for flexibility, both in terms of working time and the type of contract they sign. This means that most seniors work as independent contractors or consultants so that companies do not have to commit to long-term contracts.

The outcome is that seniors can stay active but also adapt this activity to their needs and physical condition. Multiple actors benefit from this situation. First, seniors can earn additional income, stay in touch with people and the transition to full-time retirement is smoothed. Second, society as a whole benefits, as the unique skills and many years of experience that elderly people have are still used in the market. Third, companies, especially smaller ones, profit from having additional workforce but bear a lesser burden of employment-related costs. This is advantageous to the economy as a whole.

#### *BitwiiN is a job board targeting seniors*



Source: BitwiiN<sup>11</sup>



## 3. Impact of the trend

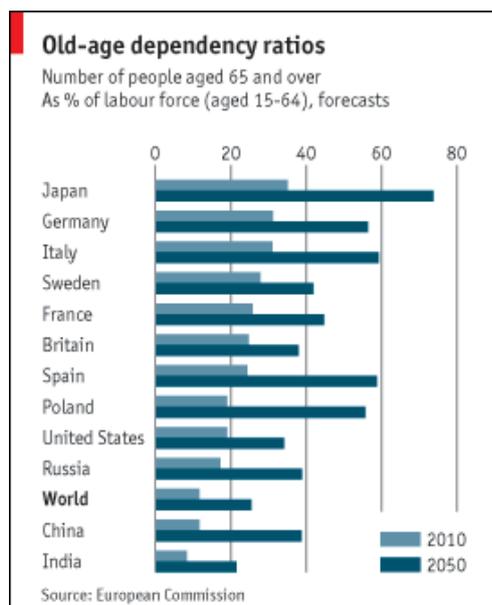
In order to assess and understand the full impact of the trend, both its market potential and social relevance are discussed in the following sections.

First, European seniors belong to the generation of people willing and able to consumer goods and services. Second, active aging prevents social exclusion, making European seniors healthier and more involved in their communities. European Commission defines exclusion as “a process whereby certain individuals are pushed to the edge of society and prevented from participating fully by virtue of their poverty, or lack of basic competencies and lifelong learning opportunities, or as a result of discrimination”.

### 3.1. The market potential of the trend

In the EU, the old-age dependency ratio, i.e. the number of people aged 65 and above divided by the working age population, is projected to rise on average by 26.5 percentage points. Countries like Poland, Slovakia or Romania will see their old-age dependency ratio increase dramatically, i.e. by more than 43 percentage points. This means that fewer economically active people will have to support a larger elderly population, making it more difficult for governments to fund pensions and other assistance.<sup>12</sup>

**Figure 1: Old-age dependency ratios in the world**



Source: *The Economist*

Not only there are proportionately more elderly people in the society, but have considerable spending power. As noted by Euromonitor, spending power of the “baby boomer” (that is, 60 and above) generation will reach globally EUR 15 trillion by 2020.<sup>13</sup>

This stems from the fact that many Europeans who are entering retirement age now, spent their lives working relatively well-paid jobs in the times of booming economy. As a result, they are likely to benefit from satisfactory pensions, savings and financial investments.

This is reflected by the fact that median disposable income of people aged 60 or more in the EU is superior to those of people under 59 in 8 countries and is on average constantly increasing<sup>14</sup>. The outcome is a considerable market that producers of active aging products could tap into.

### 3.2. The social potential of the trend

Life expectancy at birth has been increasing significantly in developed countries and especially in Europe. Since 1960, life expectancy of men rose from 66.8 to 75.7 and from 72.3 to 82.1 for women.<sup>15</sup> In the period to 2060, life expectancy at birth is expected to increase by 6.5 years for women and 8 years for men. Interestingly, life expectancy is also on the increase for people who are already in their sixties. As a consequence, people aged 65 and above will represent a larger proportion of total population.

At the same time, however, according to a study by a British think-tank International Longevity Centre there is an important relationship between social exclusion and age. Increasing age was found to be correlated with exclusion from social relationships, service provision and material consumption, especially with respect to people over 80.<sup>16</sup> For example, in the United Kingdom almost one third of people over 80 years of age were found to be excluded from basic services and almost one in four were found to be excluded from social relationships. In both cases these proportions were far higher than among younger people.

Isolation and feelings of loneliness contribute to a deteriorating health and well-being and, consequently, shorten seniors' lifespan.<sup>17</sup> Therefore, encouraging seniors to stay active is likely to contribute to their good health and keep sharing with others even in their old age.



## 4. Drivers and obstacles

This section presents drivers and obstacles in the market uptake of products for active aging in Europe. The market is driven by the fact that European seniors display interest in products that are functional but do not stigmatise them. Second market driver is the economic crisis enabling collaborative economy and keeping seniors active by keeping them in the job market.

As far as obstacles are concerned, regulatory complexity and fragmentation in Europe may hamper public sector uptake of products for active aging. If public sector is not a major customer, citizens of some Member States may be less likely to afford such products, undermining the Single Market.

### 4.1. Seniors' interest in "cool" products fuels the market

Many of seniors have been consuming high-quality products and services for many years and wish to continue doing so. This is an opportunity for products supporting active aging, provided they satisfy the following conditions.

First, European seniors value functionality. According to Gocety, elderly people do not necessarily look for the most state-of-the-art devices, unlike the younger generation. Rather, they look for an easy-to-use interface and an affordable device.

*"Seniors do not want to be stigmatised" – Gocety*

Second, seniors do not want to be labelled as consumers of "goods for elderly people". They look for products that are both easy-to-use and "cool". i.e. smart and visually attractive. For instance, Zoomability takes the view that elderly people feel more comfortable with its recreational terrain vehicle than an electric wheelchair, carrying a stigma of disability and old age.

### 4.2. Economic crisis enables social innovation

There are several ways in which the economic crisis may act as a driver of social innovation in active aging.

First, in the times of crisis and still fragile recovery in Europe, companies are looking for savings. Older employees tend to cost companies more than the younger ones as higher seniority is usually associated with higher pay. As a result, firms may be willing to lay off people aged 50 and above or convince them to retire early.

*"Before, the job market for seniors was more developed in the U.S. as people had little or no pensions." – BITWiiN*

However, there are other responses to cost cutting that actually create unprecedented chances for seniors. Notably, as noted by BITWiiN, some companies, mostly SMEs, need experienced professionals but cannot afford or do not need full-time employees. This can be a chance for older employees approaching retirement. Since they are less likely to be burdened with expenses like mortgage or children's education, they are more likely to accept part-time work than younger people. This creates an entire unique job market, markedly different from the market for younger people, fostering the development of intermediating companies like BiTWiiN.

Second, the crisis has taken a heavy toll on public finances. The resulting cuts in pensions and other benefits in some Member States left pensioners in the EU with lower disposable income. Supplementing it may trigger social innovation relating to active aging. For instance, seniors may turn to entrepreneurship out of necessity. Thanks to their previous work experience, they may in fact be desirable franchisees, as observed by BiTWiiN. Younger seniors may also be targeted by private individuals and elderly care homes as carers for older seniors. The outcome could be a new generation of elderly entrepreneurs.

Finally, the environment of high unemployment and low pensions in many European countries fosters collaborative economy and, through it, active aging and generational solidarity. This stems from the fact that when a number of people, many of them elderly, have a lot of time and scarce funds, creative ways of satisfying needs have to be found. An example is an Italian project "Favour Exchange", a smartphone application enabling neighbours to lend, give and exchange products and services. It could be easily imagined that, thanks to such service, an elderly person could meet a younger neighbour and help each other, e.g. through making a washing machine available in exchange for grocery shopping.

*"The project helps generations meet." – Favour Exchange*

### 4.3. Regulatory complexity hampers public sector uptake in Europe

Interviews revealed that public sector is interested in products for active aging. However, regulatory complexity often makes market uptake from public sector particularly challenging. This stems from the fact that public sector has to comply rigorously with all the applicable laws as it makes purchases using public funds. The laws in question may be fragmented, or not always relevant to innovative products for active aging. Consequently, producers find it time-



consuming and expensive to satisfy the conditions and sell their products to the public sector. Since the public sector usually purchases larger quantities than individual buyers, this deprives market actors of the effect of scale that would have made production cheaper and more efficient.

For example, Zoomability applied for a CE marking, an EU-wide certification of compliance with the relevant EU legislation. As it turned out, the EU act most relevant to the product was the Machinery Directive 2006/42/EC. In the company's view, the directive was designed to regulate older generation products and had a limited overlap with the Zoom. In addition, the product did not comply with the laws governing devices like ATVs (All Terrain Vehicles), recreational vehicles or powered wheelchairs. Ultimately the product had to be adapted to comply.

Moreover, the CE marking did not solve all the regulatory issues. While the product could be purchased, legal use required additional compliance with national rules governing matters like: maximum driving speed, driving license requirements, safety and others. These rules could differ not only between the Member States, but even at a regional level. As a result, Zoomability incurred additional expenses and experienced delays in entering each of the national EU markets, which slowed down and complicated product uptake.

This was not the case in the U.S., despite often great differences between the laws of individual states. There, compliance was ensured by way of a product manual developed together with local experts. Once the product was featured with these safeguards, the company could purchase an insurance policy sell the Zoom all over the U.S.

One final example of the untapped market potential of public sector also comes from the U.S. Zoomability successfully offered its product to non-profit foundations, bodies that are not public but, like public sector, provide free or below market price services to people in need. In the U.S.,

non-profit foundations are not subject to stringent regulation, which facilitated product uptake. As a result, Zoomability sold a multiple of what it sold in Europe.

While the product was originally developed in Europe, the company is now convinced that the U.S. is the future of its operations. Notably, the use of the Zoom by American war veterans is marketed as flagship example on the company's website.

#### 4.4. Purchasing power inequality can undermine the Single Market

The first case study within the trend Silver Economy named public sector as a major customer of products for independent living. Even in the regions where individual buyers had cultural reservations or could not afford such products, demand from public sector created the market. However, in the case of products for active aging, market uptake from public sector is uncertain, as described in the paragraph 4.2 above.

As a result, elderly people are less likely to receive products for active aging as part of e.g. governmental programmes. Rather, they would need to purchase them using their own resources. This may create affordability problems. Moreover, such affordability issue is likely to have an inequality dimension to it. That is, seniors in certain European countries and/or regions may have the capacity to purchase a given product, while it will be out of reach for the elderly elsewhere. For instance, pensioners in Germany and Sweden are particularly likely to afford a vehicle offered by Zoomability costing several thousands of euros.

The main consequence of the above is that, although a product is launched in the European Union as a whole, affordability can limit its market uptake. Therefore, in practice, certain innovations may not reach some parts of Europe. Such a market can be hardly seen as uniform, undermining the principle of the Single Market.

## 5. Policy recommendations

Developing "made in the EU" products and services for active aging necessitates not only policy changes as such but, most of all, adopting a different way of thinking.

First, it is recommended that policymakers pay more attention to supporting social innovation as currently the focus is put on innovating technological solutions.

Second, a sense of urgency is needed so that active aging products are not only developed, but also put on the European market.

### 5.1. Support social, not only technological, innovation

As observed by the interviewees, a major part of public funding, may it be EU, national or regional, is directed at technological innovation. On the other hand, there is little public support to SMEs developing social innovation. At the same time, it is social innovation that could be the next game-changer in Europe, creating inter-generational links and building collaborative economy.



This potential has already been recognised by some regional authorities. One is the province of Trento supporting the project Familink<sup>18</sup>, a sister project of Favour Exchange. Notably, the province sponsored and adopted Familink as an official application promoting local events and creating social inclusion, connecting people in local context. Favour Exchange will be implemented as natural upgrade/extension of Familink

Despite such encouraging examples, it is recommended that both financial and operational support to social innovation is stepped up. First, a European label for Silver Economy could increase the visibility of socially innovative companies. Second, special platforms or dedicated meetings could help companies gain access to specific markets, like low-population areas. Third, socially innovative companies should be made eligible for the existing financial support for innovation. Also, dedicated financial instruments for social innovation could be considered.

## 5.2. Develop sense of urgency in bringing products to the market

Certain interviewees took the view that European decision makers do not display sufficient sense of urgency in bringing products to market. The reason is, they argue, that Europe has been aging for so long that related threats do not seem imminent. As a consequence, products for active aging are supported, but more in the sphere of research than bringing the actual product to the market.

Against this background, the following sets of actions are recommended.

### **Ensure practically trained human resources assisting companies in accessing the EU market**

First, EU support is needed to ensure that centres assisting companies (e.g. clusters and accelerators) have sufficient and adequately trained human resources.

One, companies like Gociety noted that staff members of e.g. accelerators often have only theoretical training, not the actual entrepreneurial experience. One remedy to this situation could be to create a platform facilitating interaction (e.g. in the form of trainings) between the accelerators and professional networks like chambers of commerce.

Two, it is recommended that the headcount of research centres supporting companies is stepped up. This would prevent the situations where the market launch of a product is delayed due to technical problems that cannot be solved since there are too few experts available.

Insufficient human resources also affect projects that, like Favour Exchange, generally benefit from strong support from big companies and research institutions. During the interview, project leaders shared that many good ideas had to be dropped as there were too few people available to work on them; priority is given – as understandable – to other projects with higher revenue potential. In their view, a few trainees and one researcher would largely suffice to deal with the situation. This could be achieved with EUR 40,000 per year.

Solving the above issue does not necessarily mean creating additional instruments as the existing ones could be adapted.

For instance, Horizon 2020 funding to researchers (e.g. within Marie Skłodowska-Curie actions) could also involve mandatory placements in applied research centres, incubators and others. In a similar vein, scholarships for Ph.D. students and post-docs like Erasmus Mundus could be tied to mandatory placements in bodies supporting testing and marketing of products.

*“Sometimes good ideas have to be dropped, because we lack people” –  
Favour Exchange*

These solutions could bring multiple benefits to different actors. Start-ups would receive more specialist support they now often lack, laboratories would have additional staff without incurring significant costs and young researchers would get professional experience related to real economy, as opposed to pure academia.

### **Support networking between industry actors**

Second, the Commission could further support the development of pan-European networks of professionals operating in the industry of products for active aging. These could take form of meetings between e.g. hospitals, companies, applied research centres and financiers from all over Europe. Currently, networks do exist, but they are limited mostly to research.

### **Adapt part the financing to the needs of the companies**

Third, part of EU financial support should be adapted to the needs of producers of products for active aging. This could mean investment horizons of one year or even shorter and more products like innovation vouchers financing advanced proof of concept. To combat risk aversion of investors, a co-investment equity instrument could complement the existing equity providers, encouraging them to take more risk. In particular, support to Private Equity funds specialised in later stage financing could help companies go through the “valley of death” in financing.



## 6. Appendix

### 6.1. Interviews

Company	Interviewee	Position
Zoomability	Bjoern Larsson	CEO
Favour Exchange	Steven Tait, Michele Caraviello	Researchers
Gociety	Frank Verbeek	CEO
Bitwiin	Bertrand Favre	Founder and CEO

### 6.2. Websites

Company	Web address
Zoomability	<a href="http://www.zoomability.com">www.zoomability.com</a>
Favour Exchange	<a href="http://www.mobileterritoriallab.eu/solutions/favour-exchange">www.mobileterritoriallab.eu/solutions/favour-exchange</a>
Gociety	<a href="http://www.gociety.eu">www.gociety.eu</a>
Bitwiin	<a href="http://www.bitwiin.com">www.bitwiin.com</a>

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