SILVER ECONOMY ACCELERATING STRATEGIES

Funding Models for Silver Economy Housing:

Financial innovation for age-friendly housing and agetech adoption

Report 2C – Belgium

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1. Introduction

Our first report on this topic, *Report on Funding Models for Silver Economy Housing* (Dec 2019)[1], set out the background on the case for and costs of age-friendly housing design and incorporation of agetech products. We made some broad suggestions of innovative financial models and mechanisms that could help to increase the scale of adoption, with the core principle being that cost-effective expenditure in this area will both save money in reduced health and social care costs by preventing later problems, but also enable people to live longer, healthier and happier lives at home rather than going into care or hospital.

It was stated that the additional costs of basic age-friendly design improvements at the point of construction (level access, wider doorways etc) can cost as little as £/€2000 extra on a house or apartment[2]; and a useful package of agetech products could be installed or retrofitted for up to £/€5000[3]. In terms of a typical house or flat of say £/€250,000[4] this might add £/€6k or 2.4% to the cost.

The final reports are 4 short documents, one per partner country, looking at what financial innovations might enable these costs to be funded on the basis that they would be an investment worth enabling, and seeking the path of least resistance towards achieving this.

We are now writing in the COVID-19 period, and expecting the financial landscape to change significantly as the recovery happens. If finding ways to creatively finance better age-friendly housing and technology was becoming increasingly urgent before the crisis, it will be even more so afterwards. National governments, local authorities and housing providers are all now more sensitised to the need to provide households with smarter services to enable them to cope with threats to their health. This also creates opportunities for the providers of relevant products and services, and for those who invest in them, so the benefit is both social and economic.

Awareness of the need and opportunity may be greater, but availability of funding may be reduced. This makes it all the more important that the value for money and cost benefit case of products and services is made more strongly, and ideally that they rely less on state funding. So we look at ways of developing independent funding solutions or other self-funded mechanisms as progress may otherwise be delayed.

It is important to note that this report is not specifying a particular set of design features for new build or retrofit packages, or of any particular agetech products. It is assumed that the cost-benefit case can be made by focussing on those that provide the best value for money for each setting and for particular groups of older people according to their needs. We are dealing solely with the challenge of how in principle the cost of such design, adaptation or packages can be incorporated into the financial model of different phases of the construction and operation of housing that improves healthy independent living.

Some of the 'costs of failure' here are very high, and were discussed in the previous report. But with hip and femur fractures costing health systems around £30,000 it is self-evident that interventions that might reduce them by even 10% would be worth spending up to £3,000 to achieve.

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[1] Available on SEAS2Grow website www.seas2grow.com
[2] Lifetime Homes website – 'costs' http://www.lifetimehomes.org.uk/pages/costs.html
[3] Based on Smart Homes NL experience
[4] BE average house price €242,000 (Statbel 2020) cf. UK €275,000 (Halifax index Oct 2020)

Smart caring home products that are beginning to address such issues in an integrated manner are now widely available (see appendix 1) and a range of other complementary agetech products for more specific conditions (see previous report).

The challenge is how to improve awareness and robustness of the case, and then how to fund wider adoption.

Our earlier report identified a set of initial plausible financial innovations classified into 3 broad categories:

A. Mechanisms to unlock additional funding sources
B. Tax reliefs or other policy levers
C. Business model innovations.

They were also broken down by whether they are targeted at the developer or provider of the housing (both public and private); the consumer or their family; or another actor such as a local authority or home improvement agency. The full list is provided in Appendix 2.

Each country in the project was asked to consider the example financial mechanisms and these questions:

1. Which of the possible models on the list is relevant to your country, and why?
2. What financial innovations for age-friendly housing and technology are you already aware of? Is there anything similar to those items on the list already happening?
3. What financial innovations in other sectors could be applied to agetech?
4. Which single financial innovation would be the best one to propose for your country?
5. Do you have any expert contacts who might help?

The responses are outlined in the following section.

2. Belgium policy options response

The Belgian partner Licalab provided some initial housing data and suggestions of where progress is being made in age-friendly housing and technology. Allia then developed the master list of ideas, against which a second response was given. These are outlined in the next 2 sections.

a. Context and existing areas of innovation

Data provided by the Belgian partner highlighted a number of the key trends in the country and region.

In 2019 Flanders had 747 assistance living home complexes, comprising a total of 19,602 individual units. There are 261 complexes known to be planned.

The programming of residential care centres (and short-stay centres) has been suspended until the end of 2025. This means that the government cannot grant additional housing facilities through prior authorization for new initiatives or for the expansion of existing residential care centres.

The recognition calendar specifies how many housing units will be added each year up to and including 2018. All available prior permits for those residential facilities have already been distributed and granted.

On 15 September 2017, the Flemish Government approved the extension of the temporary suspension for granting prior permits for additional capacity in residential care centres and short-stay centres until 31 December 2025.

In 2015 though still 9,641 extra beds were programmed as being necessary in residential care centres in Flanders, compared to the existing 74,791 beds.

Total amount of private residential care centres in Flanders:

- 311 Private Centres for short stay for 65+
- 575 Private care homes (longer stay)
- 213 day centres

This is slightly more than the amount of public housing for the elderly:

- 200 Flemish local governments retirement homes
- 226 local Flemish service centres (2015)
- 60 regional Flemish service centres (2015)

Retirement communities or villages ('woonzorgzones') are not that common yet in Flanders, but they start to arise as alternative forms of classic retirement homes with the goal of 'Ageing well in place'. There may be 5-10 in Flanders and 33 in Brussels.

The concept of a **residential care zone (woonzorgzone**) is based on a broad view of living and care with the aim of full participation in society of all residents. However, it is very important to know that the creation of a residential care zone or a 'care-friendly neighbourhood' initially starts from an existing (residential) situation, whereby the link is made with care. A residential care zone is a normal residential area, municipality or district, with a large majority of residents who no more than normal make use of care and welfare facilities. Although the majority of residents do not make use of care, they do appreciate the accessible living environment, the availability of adapted housing and the good (care) facilities in the neighbourhood.

In a residential care zone there is a good spread of different housing forms: life-course resistant and adapted homes, forms of group living (with care services), assisted living homes, social housing. There are also a number of care homes/nursing homes in the district where 24-hour intensive care can be provided.

The vast majority of elderly people want to continue living in a trusted environment with a preference for their own home. 95.2% live independently. Their future relocation preferences reported in the Belgian Ageing Studies (2016) were:

- To Assistance living flat: 17.1 %
- To Adapted home: 9%
- Co-housing elderly: 5.7 %
- Living with children: 4.5 %
- To Nursing home: 4.4 %

Home adjustments would be another option to achieve independent living, but only a small segment of the elderly is prepared to do this. These are mainly young elderly, because most elderly don't have the financial means to do so. Some elderly prefer their children to take care of them when they get more care-dependent or need help more frequently (1 out of 40 elderly 60+)

The environment is very important for them, so needs to be age friendly.

In addition, it is also important to strengthen self-management in the elderly. This means that the elderly themselves have the opportunity to make choices in accordance with their own needs and possibilities. Self-reinforcing work requires change, both in mentality as well as behaviour, and this among professionals, health care providers, social services, policy makers, as with the elderly themselves.

Policy and administration of housing and care in Flanders is undergoing a significant transition since the 2018 elections, which resulted in the previous Flemish bodies responsible (OCMWs) being abolished, and municipalities taking over all powers and thus becoming the only local government. They are responsible for the 200 public sector residential homes as well as a larger number of service centres.

The Flemish adjustment premium: to adapt the home to an older resident. The adjustment premium is a renovation premium that focuses specifically on well-defined home adjustments for seniors (over-65s). Within the adaptation premium there are 2 components: an adaptation premium for renovations that make the home more accessible, and an adaptation premium for technical installations and appliances. This can include 'installing fixed electro-mechanical aids anchored in the home to move around' as well as some automation – though limited to the entrance door, garage door or shutters.

This premium creates some opportunities for Agetech.

b. Belgium innovation response

Expert research by the project partner resulted in the following response to the financial innovation questions.

The local government perspective is a preference for **solutions involving local government working with the private sector (innovation B5** – see appendix). Local governments can negotiate with private building companies to make sure that they make the new houses age friendly. If interesting examples can be shown, this is an added value in the negotiation. For instance, the City of Turnhout is working closely together with private developers in a few large scale developments of over 3000 new houses. The City found it important to make sure that private developers incorporate age friendly features. The developers agreed that it would be an interesting marketing asset if they did so. It's not about technology, but mainly about age friendly building (width of doors, height of kitchen).

Some of the innovative housing developments under this partnership are:

- Niefhout https://niefhout.be/
- Turnova http://www.turnova.com/wonen
- Heizijdse velden https://triasarchitecten.be/heizijdseveldenturnhout

In Leuven the private developer Resiterra is promoting their large new inner city community Hertogensiteas designed for all 'from starters and families to care-dependent and elderly residents'. https://www.resiterra.be/kopen/hertogensite/

There was also input from the perspective of a private residential housing development company. They agree with **innovation B5** above but also feel innovation **A1, consumer loans for age-focussed adaptations and technology packages**, could work. The company feels these loans would motivate private developers the most to invest in senior housing.

For public developers (social housing developers/agencies, care homes and nursing homes) the best approach would be **innovation A2 where the loan finance is routed via the local authority or housing association**.

In Flanders citizens can get a renovation premium (on certain conditions of course). It would be beneficial to implement AgeTech in houses of older people if this premium would also take into account costs that are made to implement technology in the senior houses, rather than just the basic renovations it currently focussed on (roof, energy consumption/isolation, exterior joinery, etc..).

In terms of property development incentives, this has been applied to encourage the development of service flats, which are a significant part of provision in Belgium. According to figures from Probis Consulting, a consultancy firm active in the healthcare sector, Flanders has 20,538 flats in service residences. Wallonia has 2,588 and Brussels 1,336. The difference between the north and the south of the country is therefore huge.

For a few years the market in Flanders has been opened completely. As a result, many extra assisted living units could be developed.

In an assisted living home, people aged 65 and over (60 in Wallonia) can lead an independent life in an apartment building with facilities, ranging from a meeting room to care, a caretaker, hot meals and even an indoor swimming pool in the most luxurious residences. The buildings are subject to legal standards.

Developers mainly focus on active seniors who have just passed the age of seventy, but in practice most residents are in their eighties.

A magazine article from 2017 set out some interesting perspectives on the state of the market for service flats as investments.[5]

Most residences are located in Antwerp (6,540 residential units), West Flanders (6,540) and East Flanders (4,272). Walloon Brabant (150 units), Luxembourg (269) and Namur (396) lag far behind.

In Belgium it costs +/- 34.2 euros per day in a service residence for a one-bedroom flat; +/- 42.8 euros for a two-bedroom flat. A one-bedroom flat is on average 54 square meters in size and a two-bedroom flat 77.5 square meters.

The flats attract investors relatively easily who are looking for a safe investment, but it is a lot harder to find tenants for it. And that is of course detrimental to their returns. "In some cases, the vacancy rate rises to 20 or 30 percent," says Philippe Mestach, head of the Service Residences Department at the Latour & Petit real estate agency. “We note that the prices are very high. You have to pay an average of 2500 to 3000 euros per month for a flat: 1000 euros rent, 1000 euros for services, 400 to 500 euros restaurant costs, 150 euros for the manager." The result is that investors are not getting the return on investment they hoped for.

[5] https://trends.knack.be/economie/immo/de-vastgoedmarkt-voor-actieve-senioren-hapert-huurleegstand-loopt-op-tot-20-of-30-procent/article-longread-911587.html

He adds that people also move to a residence at a later age. The age of the residents has jumped from 70 to 85 years. In the past, people spent an average of 15 to 20 years in a service residence. Today it is five years.

According to Professor Trybou, a health economist at the University of Ghent: "More and more residential housing complexes struggle to find tenants. Prices are often relatively high for the middle class, certainly in comparison with the traditional rental market. To distinguish themselves from that traditional rental market is it is important to devote sufficient attention to the framework and services."

The situation forces the players to revise their model. There are various options for making service residences more accessible. In this way they can drastically reduce the common costs for all kinds of services or collaborate with a residential care centre to be able to offer additional care services.

We notice that the occupancy rate increases considerably if the residences are close to a residential care centre.

Given this oversupply it is unlikely that further incentives should be considered for this sector, but we would encourage the incentive to be conditional on the provision of affordable packages of agetech products which provide greater reassurance to residents, and may in fact reduce some of the staff/service costs which are highlighted above as expensive.

Belgium is also interested in **innovation C7, hybrid business model for both self-payers and those covered by the state**. Targeting people with money is relevant: more and more people understand the need to stay longer at home and in Belgium the people of 65-70 do some renewal works in their houses they built themselves when they were 25-30. These people have money most of the time because they have repaid their loan for the house.

Innovation C8 of expanding the role of home improvement agencies would help the delivery of this concept – a combination of dedicated advice and local grants. Local authorities give information to elderly people about home adaptation. There is always a lot of interest here: in this phase of life, people experience the limitations of their own homes and are prepared to make adjustments - as far as financially feasible. Advice could come from home care organisations like 'Landelijke Thuiszorg /Ferm',[6] that provide advice at home regarding home adaptation as well as advice regarding the financial intervention that exists for this. Home care organisations also offer support for premium applications.

Finally, what financial innovations in other sectors could be applied to agetech?

There are already loans to make houses more energy-sustainable: like small loans for insulation, for solar panels. This model could also give loans to elderly people that want to invest in technology for living at home for longer. This would require better standards and rules, as apply to sustainability and climate, where government creates financial incentives for the people to make sure they meet those standards. For age friendly living, there are still no such standards and rules, so financial incentives are less high on the political agenda.

[6] https://www.samenferm.be/diensten/thuiszorg/woningaanpassing

3. Discussion and recommendations

We propose that in the first instance there is in fact a single unified economic model for all 4 regions (nations) as follows:

To achieve improved healthy ageing outcomes, each state must find the most financially efficient way to cover the cost of high impact (high ROI / rapid payback) forms of improved new build design and agetech installation, as well as the larger task of adding agetech retrofit and adaptation to existing stock. The goal is to achieve better than current overall outcomes and value for money for all key stakeholders ie. senior citizens, state, housing providers and care providers, thereby improving independent healthy living outcomes whilst preventing unaffordable levels of expenditure.

Each country/region has a different mix of housing culture and policy, and arrangements for financing the care and support of senior citizens. So the details of the best version of this economic model vary in each region.

Within this overall economic model there are separate strands or sub-models which are also common to the 4 regions but need to be tailored to the specific circumstances. They are best considered in a logical sequence based on either the provision of new build housing or of adaptations to existing housing. These have been identified from the list of ideas proposed in the previous discussion paper, and represent the most promising approaches:

Economic model interventions for age-friendly housing

1

The most fundamental is to start with **planning policy** to ensure that the most ambitious standards are set for smarter caring housing that increasingly looks after its occupants as they age, thereby improving healthy ageing outcomes and reducing state expenditure. Closely linked to this is the ability of the state to identify sufficient of its own **land** (or to acquire it) to control the delivery of such planning goals more precisely, and with conditions attached to specifications and targeted residents.

The economic model case is that the cost of achieving planning policy targets is generally absorbed into the business models of private sector developers and/or the housing market. At the margins there may be a trade-off between setting aspirational targets and achieving a lower scale of delivery.

2

The next logical step, if the first means of achieving the economic model cannot be used (either because of policy resistance – perhaps in the form of lobbying from the property sector – or in the case of housing that has already been completed) then national and local government should find efficient and robust ways to **incentivise housing developers and builders** to achieve age-friendly and agetech outcomes, including the buyers of completed units.

We propose a tax relief on the rate of taxation of developer profit proportionate to the number and level of age-friendly design/technology inclusion in new build schemes.

The economic model here is based on the amount of tax revenue foregone leveraging a greater sum in future revenue expenditure saved.

3

Next comes any means to enable and **incentivise older people and/or their families** to purchase age-friendly or agetech fitted housing, or to retrofit products into existing housing.

Simplest route: Reduce or remove VAT on renovations, adaptation and agetech products; or reduce or remove purchase tax on new age-adapted housing.

Economic model: the tax revenue foregone model applies here.

4

Next there are **self-payers who need an appropriate and affordable level of service** which can also help to **cross subsidise those who cannot pay** – enabled through supporting home improvement agencies to grow and become a key part of delivery.

There is a need for coordination of adaptation information and funding into a single point of contact – this could help coordinate the practical delivery of adaptations by trusted public and private sector contractors.

Economic model: better coordination and building the capacity of silver economy companies to deliver high quality installations will achieve economies of scale and greater impact without any necessary increase in public expenditure.

5

Finance system to increase agetech uptake and enable individuals, their families and local authorities to cover the upfront cost of agetech installation through a standardised rental or leasing model repaid by the best combination of self-payment, welfare benefits, insurance policy or state cost savings. Creating an organisation to address this would also address the identified problem of the lack of information about suitable products and the best way of funding them.

Economic model: Part of the reason for slow uptake of agetech products is a market failure caused by lack of liquidity combined with lack of information about products and funding opportunities among the target audience (or their families). Both problems can be addressed by modest initial expenditure to create the vehicle that offers the credit function, with the liquidity itself being ultimately revenue neutral or in fact profit-making (and therefore able to assist the most needy individuals as well as foster innovation) as is the case with the parallel Motability example operating in the UK.

We can summarise and simplify those options into a single set of interventions, with a very brief reflection on the Belgian perspective as represented to us:

Process stage	**New build**	**Retrofit**	**Belgium?**
Planning system	Set the 'rules of the game' for developers	N/A	Municipalities negotiate with developers
Public land allocation	Terms of use linked to policy outcomes	N/A	Can be a useful tool
Construction of smart caring homes	Tax incentive for developers / investors	Tax relief on adaptations	Explore both
Incorporation and provision of agetech	Widen tax incentives to include	Adaptation funding to include more agetech	Use of adaptation premium is important, needs policy maker support
Consumer acquisition of agetech products	N/A	Financing vehicle for consumers. Information campaign	Explore with tech library idea / credit facility

In each case the primary role to stimulate the increased level of activity comes best from central or regional government as it has the overview and can take decisions where increased investment in one area has benefits across other areas (eg. housing funding achieving health savings).

However, other actors can initiate change by piloting innovative approaches, for example local government, housing associations and property developers especially those targeting the elderly. These can demonstrate how scaling a successful approach would be possible through government support.

Final Belgium recommended priorities

For Belgium/Flanders we recommend that the following areas are explored with stakeholders in the dissemination of the project findings:

Overall, the preferred approach is a combination of strong local governments that steer private building companies to build more age friendly new houses with giving small and cheap loans to elderly that renew their houses. Such loans could also be encouraged by regional authorities. In Belgium a large proportion of the elderly own their own house. The shift to more renting and public housing will take some time, although increasing numbers of young people are not able to buy or build a house of their own anymore.

<u>For new build:</u>
With institutional care development currently paused until 2025 it makes the development of new housing and retrofit of existing stock more urgent.

We therefore agree that local authorities should use all available **planning and other policy tools** to insist that private developers achieve the highest level of age-friendly housing delivery, as well as beginning to innovate with the use of technology for specific older customers.

We also recommend that the regional and national government consider a **pilot tax break** to assist this, starting with those that would reduce the cost of approved agetech product installations. Specifically we recommend setting a lower or zero rate of VAT and/or a reduction of corporate tax on property developer profits pro rata to actual delivery of units.

For retrofit:
We strongly recommend the development of a system to make the acquisition or installation of agetech products easier and more popular. This is best done through the **agetech financing service** proposed earlier which makes loans available on favourable terms for selected products, allowing the cost to be spread over time. It could operate on a national, regional, local authority or even housing association basis.

Alternatively, as under development in the Nord region in France, a **technical library** for agetech products could lend the items on a trial or long term basis, with or without payment according to the funding arrangements. The credit/loan system and the agetech library could be combined for greater impact. AgeTech solutions could also be provided by home care organisations through their home care shops combined with the tailor made advice they give to the elderly at home.

We further suggest that the **Flanders renovation premium should be extended to include agetech installation**.

The rate of installations could be accelerated by pump-priming funding to build the **capacity of home improvement agencies** to undertake this work, ideally targeting a mix of self-paying, state-funded and unfunded customers.

In conclusion there is an opportunity for the governments of the project participant countries to accelerate progress towards age-friendly and agetech-enabled housing for their ageing populations through adopting and supporting some of the financial and economic model innovations outlined.

The opportunity is increased by recent mass awareness and sensitisation to the issue – Covid-19 has helped raise awareness of the needs of the elderly in general, but particularly around loneliness and vulnerability; and also the problems of care homes. At the same time, the need for technology familiarisation that was previously held as a barrier to progress has now been accelerated by the pandemic.

Other outstanding challenges remain:

- A proven product range with clarity on optimum deployment, cost effectiveness and financial returns – AgeTech Accelerator has a key role in testing, validating and assisting with investment for further products that will improve on the capability and cost-effectiveness of options available to frontline teams
- An effective marketing system which enables consumers to understand what is becoming available
- Trusted installation partners such as local authority assistive technology departments and any certified partners; and home improvement agencies.

With further progress here we will be in a strong position to start developing the financing system to accelerate this deployment. Has the time for silver economy housing and its ultimate expression, the smart caring home, finally come?

Appendices

1. Towards the Smart Caring Home

We present below a basic smart caring home package for a user profile which is perhaps most urgently in need of such support: an older person living alone who is at the start of physical and/or cognitive decline which could accelerate, particularly if a critical incident such as a fall were to occur. In terms of the Life Curve presented in the previous paper, they are at risk of starting a rapid decline which is potentially costly to the state in terms of social care and hospitalisation. The products listed address a set of challenges, not all of which are likely to apply at the same time, but can be selected as appropriate in order to provide support which can slow or even reverse the decline and change the journey along the life curve to one which is extended in time, flatter in deterioration and less marked by painful incidents.

User profile – living alone, declining cognition, risk of falling, low tech user			
Main product focus: low level intervention aimed to prevent first healthcare crisis with combination of face to face and technology solutions			
Passive sensor system monitoring changes to routines, health signs, wellbeing			
Tendertec	https://www.tendertec.co.uk/pricing	B2C product designed to pick up potential problems. Falls alerts, daily living activity reports, exit and wander alerts, visit alerts, trend monitoring.	£79/mth subscription
Kraydel Konnect	https://www.kraydel.com/	See below – also has wellbeing monitoring sensors	£350 plus monthly £30-50
Health Navigator	https://www.health-navigator.co.uk/	Proactive health coaching to prevent unplanned hospital care	Free
Falls prediction and prevention (also included in above)			
Zing	https://zing.fm/	Smart night light that learns personal routes and light up pathway	$49 ea
WOM phone	https://wom-mobile.com/about-us	User friendly phone with design cases which incorporates alarm, fall detection and fall prediction.	No costs on website
Cognitive Function maintenance			
Mitocholine	https://mitocholine.com/	Compound to add to food and drink which increases brain energy and slows down cognitive decline	Close to market but no price info
My Cognition	https://mycognition.com/product-home/	Training programme designed to improve cognitive fitness	No costs on website
MemRabel Clock	https://medpage-ltd.com/Memrabel-2-Dementia-Clock	Digital clock with reminders and alerts	£120
Social contact and interaction			
Buddy Hub	http://www.buddyhub.co.uk/	Matching older people to new friends	No costs on website

Local treasures	https://www.localtreasures.me/about-us/	Vetted local people to help with everyday tasks	No costs on website
Kraydel Konnect	https://www.kraydel.com/	TV-based communication portal with built in wellbeing sensors	Hub = £350 + monthly subscription = £30-£50
Move It or Lose It	https://www.moveitorloseit.co.uk/	Local exercise classes for seniors	Currently digital £6.99/month
Safety and security			
RF Lightwave technology	https://lightwaverf.com/	Smart home tech that will turn off all sockets downstairs when the upstairs light is turned on	Lighting and power starter kit £239
Medication adherence			
YourMedPack	http://www.yourmeds.net/	Organises medication, audible alerts and auto orders	Buy now link on webpage not working
Nutrition, hydration and exercise			
SitnStand	http://www.sitnstand.com/	Portable smart rising seat	£450 - £500
Droplex Hydration	https://www.droplet-hydration.com/	Smart base fits onto specially designed mug or tumbler with reminder to drink. 5 piece set.	£35
Hygiene			
Wash seat	https://washseat.co.uk/	Toilet seat which incorporates a warm wash	£235 or £55/month

Ad van Berlo of Dutch partner Smart Homes comments that in addition to a suitable sensor system and any additional specifically agetech products to assist the resident, a blend of more conventional smart homes products would add further benefits:

- extra IT infrastructure: €1500
- electronic doorlock €500
- automatic lighting + dimming: €300
- energy control: €200
- wireless audio (good quality) around the house: €1000
- security alarms €300
- installation €500.

However the question of recurring charges for some agetech products requiring monitoring could be a barrier for some potential installations. In NL monthly fees are partially reimbursed.

In conclusion, a combination of suitable but mainly generic smart home products and carefully selected agetech specific products is the start of the smart caring home becoming a reality.

We believe that the first products and packages which combine proven benefits, clear cost-effectiveness and dedicated sources of funding – and are communicated in a trustworthy way to users – could take off exponentially.

2. Financial innovation menu from previous Dec 2019 report

A. Mainly new funding mechanisms:

1. Consumer loan for age-focussed adaptations including approved technology packages:
   a. Repaid by an outcomes contract with a statutory social care provider
   b. Repaid by private individual or their family on death, linked to value of estate where sufficient. Details to be worked out including which products for which conditions are approved and eligible; how the loan is made and possibly secured.
2. Loan to local authority or housing association for additional cost of age-focussed design/technology, with or without outcomes link:
   a. Sourced from state: e.g. main department of health or similar; or from or on behalf of a social care department.
   b. Or sourced from commercial loan finance or social investment according to market appetite for risk and/or corporate partnership goals.
3. Government-backed equity release for approved downsizing – an example from a think tank has been developed for how to do this at little or no cost to the government.
4. Government/local authority innovation fund (grants/loans) for products with the greatest cost-benefit potential for positive impact.

B. Mainly tax/policy:

5. Private developer/housebuilder – if they cannot directly charge a slight increased price on the basis that the unit is more marketable to its target audience who will be willing to pay for peace of mind – they could be incentivised by:
   - a tax break for inclusion of age tech as suggested by the IME
   - or covered by a separate investment where the return is paid by either the resident as a service charge or on their behalf by a health or social care agency. This could be sourced from a social investor or other government fund such as Big Society Capital or other dormant assets. 'Age Friendly Housing Investment Fund'?
   - A version of government low cost finance for first time buyers, but where older people buying an age-friendly home are given assistance with the extra cost e.g. in the form of an interest free loan, which could be recouped when they move (unless to another age-friendly home) or die.
6. Planning system discounts linked to achievement of age-specific requirements over and above minimum standards.

C. Mainly new business models:

7. People with money/assets – a hybrid funding model combining with public money could also achieve more than either on their own. This could help address the challenge of funding long term social care, which the government has repeatedly delayed addressing properly.
8. Home improvement agencies are beginning to move into the self-funded (i.e. private) market, building on the high level of trust they enjoy as local authority agencies, and could both extend the impact of adaptations to move older people but also help cross-subsidise delivery to lower income people.