

Longevity Dividend Round Table

Wednesday 19th June

Created by



LONGEVITY
LEADERS

In partnership with



4Gen
Ventures

Seven years ago, Legal & General concluded that demographic change was its number one growth driver – and still is, as a wide range of the company’s business activities (from pensions, to risk transfer and investment management and life insurance) were related to the ageing demographic. This should be true for many businesses in many sectors. If the global over-50’s were a sovereign state, it would be the third largest economy in the world by GDP – and growing predictably, so why not target it better?

There is a need for the private sector to do this: intergenerational politics is difficult, and the scale of economic investment required is too big for a cash-strapped public sector. Some politicians know what they need to do, but not how to do it and get re-elected. Private sector engagement can operate in three ways: a) creating products and services that older people will consume because they are attractive; b) solving problems (for which someone will pay), like better management of long-term conditions like diabetes which costs the NHS £10bn pa; and c) providing solutions to prevent these problems in the first place.

This has multi-sector applications: financial services, education and training, housing, food, retail, urban environment and transport – plus obviously health and social care. These broadly reflected four workstreams covered by round table participants: Health and Social Care; Housing; Work and Products and Services. None of us have a holistic solution, we have to work together and by doing so we could enable business to be both socially and economically useful, and collectively make the UK a global leader in the longevity economy.



About a year ago Longevity Leaders started to see the tremendous opportunity within ageing. Our Life Science Executive network of biotechnology companies and investors drew our attention to the revolutionary field of ageing science, something that is set to revolutionise how we treat disease. The aim of the ageing science community is to eradicate later life disease by improving our understanding of the primordial mechanisms of ageing. Companies like Unity Biotechnology and resTORbio are showing promising early clinical results in humans.

But these therapies are at least ten to fifteen years off. In the meantime, it’s become evident that not only are our health and social structures for an ageing society are inadequate, but that there is a huge opportunity for private sector to fill that gap. There is an emerging market in products and services that facilitate ageing well, representing a \$17trn market opportunity worldwide across health, care, financial services, mobility, education and re-education, leisure and work.

We see a real need to connect the worlds of science, business, technology and policy to promote the cause of our ageing society. None of us are exempt from growing older, and we’d like to see the structures in which to do so improve. With that in mind we were pleased to gather together a group of influential business leaders for the Longevity Dividend Round Table.



Round Table Attendees

| | | |
|--------------------------|---|---------------------------------------|
| Nigel Wilson | CEO | Legal & General |
| John Godfrey | Corporate Affairs Director | Legal & General |
| Phil Bayliss | CEO of Later Living | Legal & General |
| Steve Ellis | CEO of Retirement Living Solutions | Legal & General |
| Terry O'Dwyer | CEO | Longevity Leaders |
| Angela Tyrrell | SVP | Longevity Leaders |
| Dominic Endicott | Partner | 4GEN Ventures |
| Alasdair Greig | Partner | 4GEN Ventures |
| Simon Wainwright | CEO | RGA UK |
| John Tonkiss | CEO | McCarthy & Stone |
| Liv Garfield | CEO | Severn Trent |
| Cliff Prior | CEO | Big Society Capital |
| Alice Hu Wagner | Managing Director, Strategy Economics and Business Development | British Business Bank |
| Humphrey Cadoux - Hudson | Managing Director of Nuclear Development | EDF Energy |
| Clive Bolton | Managing Director, Life and Pensions | LV= |
| Helen Lamprell | General Counsel & External Affairs Director | Vodafone |
| Simon Martin | Chief Commercial and Data Officer | Mumsnet |
| Mairi Johnson | Chief Partnerships Officer | Babylon |
| Dave Evendon-Challis | Vice President Innovation - Consumer Health | RB |
| Kathleen Sullivan | Head of Insurance | IBM UK |
| Yvonne Sonsino | Partner | Mercer |
| Jeremy Collins | Property Director | Fenwick |
| Lynne Corner | Director of VOICE | National Innovation Centre for Ageing |
| Andy Briggs | Government Business Champion for Older Workers | |
| Mary Bright | Senior Manager | Aviva |
| John Haynes | Operating Unit Director – Services North | Engie |

All of us as leaders have an obligation to upskill workforces and train people for life
-Nigel Wilson, Legal & General

A great opportunity for us is a great life lived, rather than a real estate transaction
- Phil Bayliss, Legal & General

Is Age-Tech the new Fin-Tech?

The opportunity for UK business

Fin-tech start-ups have exploded in value to +\$250B, annual financing growing 20x to \$40B

The UK has over-performed in Fin-tech by harnessing London's role as global finance epicentre and 'tech' centre, and via depth across all financing stages

'Age-tech' could explode to comparable or even larger size to Fin-Tech. +\$20 trillion in global spend, growing to \$30 trillion by 2025

Top 10 US tech firms easily generate \$300B in Age-tech today, will likely gain share to 2025

This progression has happened in 5-6 years, faster even than the overall rate of tech growth

In contrast, the UK has lagged in the Prop-tech sector (Since 2011, 18x growth to \$18B), despite a strong property tradition, suggesting no vertical can be taken for granted

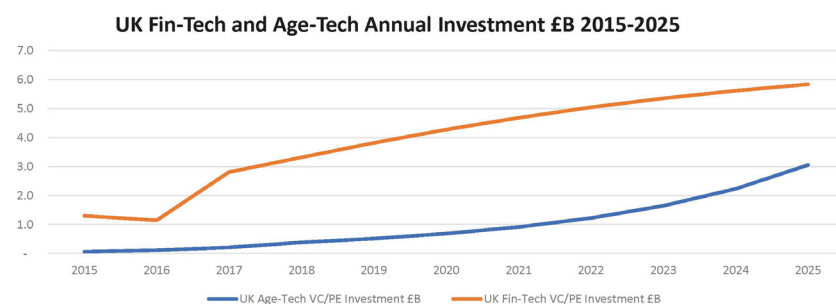
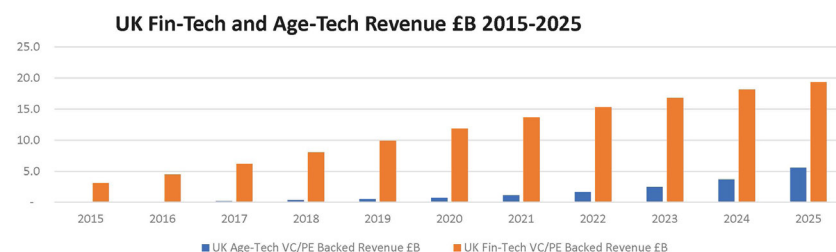
Digitization could grow from 4% to 10% by 2025, Age-tech thus \$800B to \$3 Trillion

UK Age-tech VC-backed revenue could grow to \$5B (10x today) by 2025 (global market \$50B)

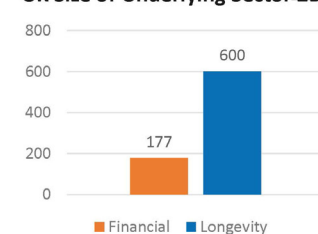


Dominic Endicott
Partner, 4Gen Ventures

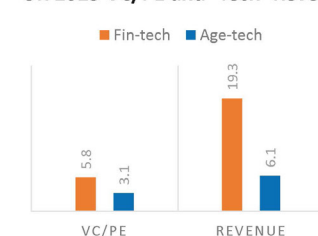
UK Age-Tech vs. Fin-Tech suggest substantial potential headroom



UK Size of Underlying Sector £B 2018



UK 2025 VC/PE and 'Tech' Revenue £B



Source/Notes: UK Age-tech revenue projections built from averaging the combined revenue of 15+ individual Age-tech markets with a top-down estimate; UK Age-Tech VC investment based on ratio to revenue of 1x revenue in 2018 declining to 0.5x revenue; UK fin-tech revenues 2018-2025 are based on recent growth rates with an 80% annual decline in projected growth rate; UK fin-tech VC projections to 2025 also based on 80% annual decline in growth rate starting with 18% in 2018/2017

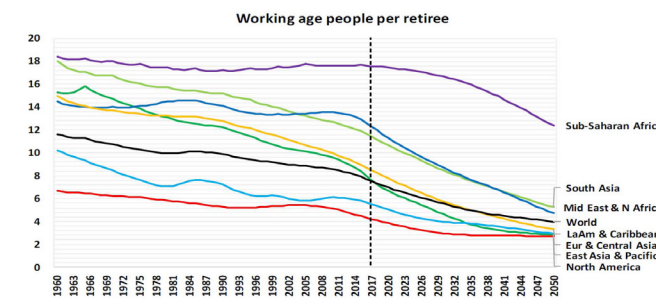
Global longevity is a game changer



Billions of people Over 50 by decade (Global)

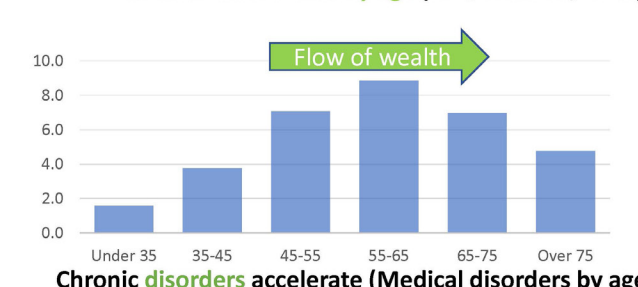


Fewer workers per retiree

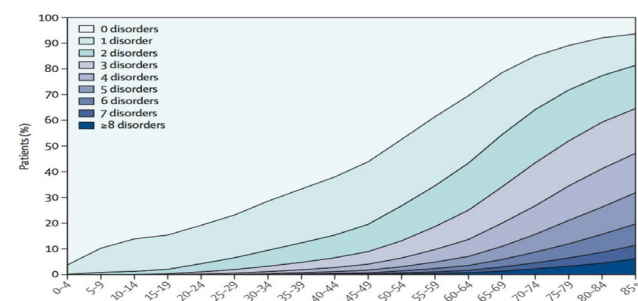


Source/Notes: World Pyramid; US Office of Management and Budget; Barnett et al, The Lancet; World Bank, Bernstein 4Gen estimates

Wealth distribution by age (US \$ Trillions, 2013)



Chronic disorders accelerate (Medical disorders by age)

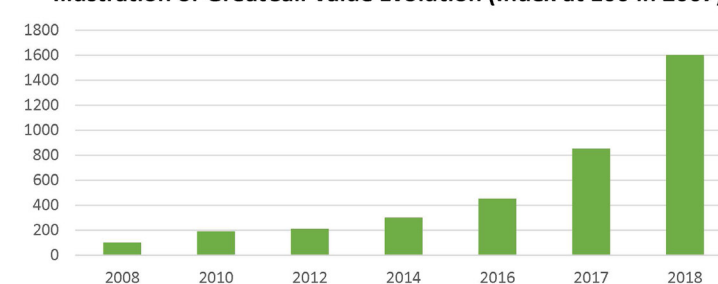


The new wave of connected care and digital health has the potential to dramatically reduce the costs of care homes and for addressing loneliness
- Helen Lamprell, Vodafone

Recent exits suggest the value inflection is beginning



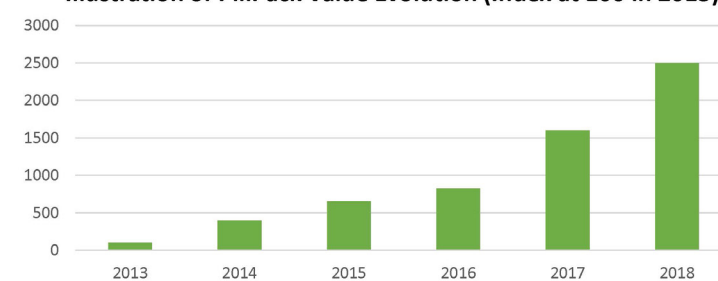
Illustration of GreatCall Value Evolution (Index at 100 in 2007)



Comments

- Leader in connected health solutions targeting +70s customers in US
- Business model evolved from D2C, to retail, to eventually integration into the healthcare system
- \$70M raised, primarily in 2007-2009 period
- Value lift 2017-2018 by reaching profitability and becoming leading age-tech firm in US
- Acquired for \$800M in 2018, largest ever acquisition by electronics retailer, Best Buy, in push to become relevant for +50 customers and break into the longevity economy

Illustration of PillPack Value Evolution (Index at 100 in 2013)



Comments

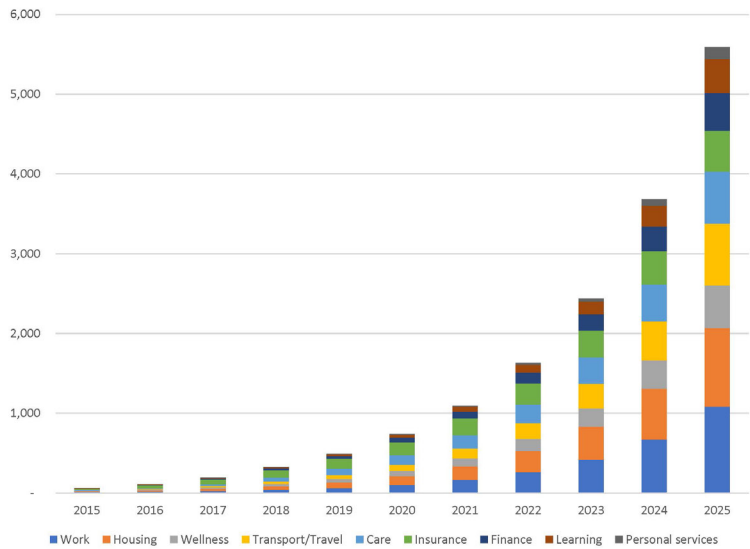
- Smart pharmaceutical distribution – enabling reductions in errors and unused prescriptions
- Business model primarily D2C
- Raised \$118M in 2013-2016
- Rapid value lift in 2017-2018 as company approached \$100M revenue
- Acquired for \$1B in 2018 by Amazon, as part of its entry into the pharmaceutical and health-care businesses

Source/Notes: PillPack based on Crunchbase information on round sizes and typical ratios by stage, published valuation of \$330M in 2016 and exit value of \$1B in 2018. Press reports

Age-tech will drive potential markets for VC-backed firms



UK Age-Tech VC-backed Projected Revenue £M: 2015-2025



Source/Notes: 4Gen build-up across 15 sub-markets from 2015 through 2025

- Comments/Implications
- Revenue generated by customers >50 years, other associated revenue for start-ups is excluded
 - As with any fast-growing market, projections are highly dependent on assumptions of take-up rate of services, revenue share, margin share. They are likely to be more predictive of aggregate growth across the Age-Tech theme than of individual vertical growth
 - Bottom-up aggregate has been calibrated with top-down calculation and calculations are within a comparable range
 - Aggregate Age-tech revenue CAGR 2018-2025 is c.50%, which is consistent with a high growth phase of a vertical
 - 2025 Age-Tech projected revenue is c. 1% of UK Longevity economy; in comparison Fin-Tech 2018 revenue is 4.5% of UK Financial sector and 2025 revenue is 10.9% of UK financial sector
 - This suggests: there could be a higher growth pattern in Age-Tech from 2018-2025 and there is ample ‘head-room’ for post 2025 Age-Tech growth

No matter what happens with Brexit, we’re still going to have an ageing population
- *Andy Briggs, Government Business Champion for Older Workers*

Examples of start-ups in Age-tech



| Purpose | | | Assets | | | Services | | | |
|------------------------------|----------------------------|--------------------------------|----------------------------|--------------------------------|-------------------------|----------------------|-------------------------|--------------------------|---------------------|
| Work | Learning | Community | Finance | Insurance | Home (mortgage, rental) | Care | Wellness | Home services | Transport |
| Flexible work Applied | On-demand Edu.me | Repurpose TAONR MensShed | Spend management OvalMoney | Insurance management HeyBrolly | Mortgage StrideUp | Domiciliary OnCare | Fitness Uniper (Israel) | House cleaning HouseKeep | Commute Zeelo |
| Enhance Talent Portify | Enhance Talent Learnhownow | Co-living Lyvly | Retirement Kindur (US) | Car insurance Cuvva | Rental GoodLord | Institutional Alcove | Weight OurPath | Laundry LaundryHeap | Travel Snap |
| Fluid transitions Employable | Enhance Talent LearnAmp | Peer based insurance Insurepal | Fraud Ever Safe (US) | Simplified insurance Sherpa | House buying Ahauz | Nurses Florence | Concierge Journey | Utilities Homeshift | Tours Wandering Tom |

Case study Source/Notes: Start-ups all in the UK unless otherwise noted. Typically, will have raised below < £5M and be in position for a seed+ or Series A or early Series B raise

Case Study

Harnessing technology to tackle loneliness

Presented by: Helen Lamprell, General Counsel & External Affairs Director, Vodafone

It is a great irony of our age that we live in a hyper connected society, yet data tells us that we have never been lonelier. Loneliness is not only prevalent in older populations - it cuts across generations and affects swathes of the population – from digital-native young adults to mothers on maternity leave through to elderly people in care homes.

Vodafone is in the business of connectivity. In the recently commissioned report “Harnessing technology to tackle loneliness” they sought to understand the depth and breadth of the problem, particularly looking to understand the cost of loneliness, with a view that this research would spur action to tackle the problem.

So, what did the report conclude? An ecosystem of providers must pull together to collaborate. Connectivity has the potential to keep people together, but it needs to be developed in a way that consumers can relate to. Visuals are often better than voice or text, for example. IoT, monitoring and connected devices also have the potential to keep people in their homes safer, for longer, allowing people to achieve their goals of extra years of quality independent living. The new wave of connected care and digital health has the potential to dramatically reduce the costs of care homes and for addressing loneliness.

An emotional lever we’re missing here is hope. 60% of senior stay in their old homes. Can we tap into their desire to do right by their children and grandchildren?
- *Mary Bright, Senior Manager, Aviva*

Age tech is populated by services you’ve never bought before, will only buy once, are unlikely to return and will never buy again. How can we improve that experience for consumers?
- *Clive Bolton, Managing Director, Life & Pensions, LV=*

Major themes discussed at the Longevity Dividend Round Table

Angela Tyrrell, SVP, Longevity Leaders

The “Big Tech” threat

It is evident to those who are watching that the big technology companies – Facebook, Google and Amazon among others – see the opportunity in an ageing market. These companies are making quiet changes to ensure that they are positioned to capitalise on this opportunity. If traditional businesses want to “win” this market the next two years are critical.

There are some weaknesses. Technology companies themselves tend to hire young, and if they genuinely want to capture this market, they need to embrace older workers. In recent years these companies are also suffering from a lack of trust which might be key to winning over ageing consumers (and all consumers, really). But there is still a question of whether trust issues are really fundamentally shifting consumer behaviours. Traditional businesses will dismiss the threat of Big Tech in ageing at their peril.

Are we bold or radical enough to confront the challenge?

In the UK, ageing has a PR problem. Stigma makes innovation difficult compared with the US or China. Other countries – Japan, Norway, Australia – are providing better for their ageing communities. Only 0.5% of homes are fit for assisted living in the UK, vs 5% in New Zealand. These problems are institutional and overly reliant on government to solve. A massive cultural shift is needed to create impetus to change. Private sector needs to self-disrupt the system, pulling together available capital and putting it to work.

Embracing an ageing workforce

Older populations are the fastest growing segment of the workforce. The value that older workers bring to businesses has been underestimated and needs to be tapped into. Leaders have an obligation to develop flexible working options, deliver knowledge transfer between generations and invest in reskilling and retraining.

It is surprising how inaccessible learning is in later life. One solution is in the exploration of new models of learning: is there scope to repurpose people vs rehiring? Technology might also deliver emerging re-education opportunities, particularly with the rise of Artificial Intelligence taking over menial tasks and new roles for people emerging.

Giving people choices

75% of our wealth lies with the over fifties. 50% of consumer spending comes from this same demographic. If businesses don’t embrace the opportunity for products and services, they are missing an opportunity. While providing ageing consumers with more choice in fields like health, care and housing, businesses also have the chance to take costs out of social systems at breaking point.

The real problem here is that age-related product stigma is profound. Consumer businesses need to understand the importance of “all age” technologies and products to encourage uptake. They need better-designed products that reflect the reality of people’s lives. They need to produce things that have a value for which someone will pay – for example, health and social care delivered in a way that is attractive. The need to realise that a sixty-year-old consumer is very different from a ninety-six-year-old. Finally, they need to understand who their customer actually is: is it the “aged” individual? Is it their adult children? Is it their carer or health provider?

Major themes discussed at the Longevity Dividend Round Table

How can business address loneliness

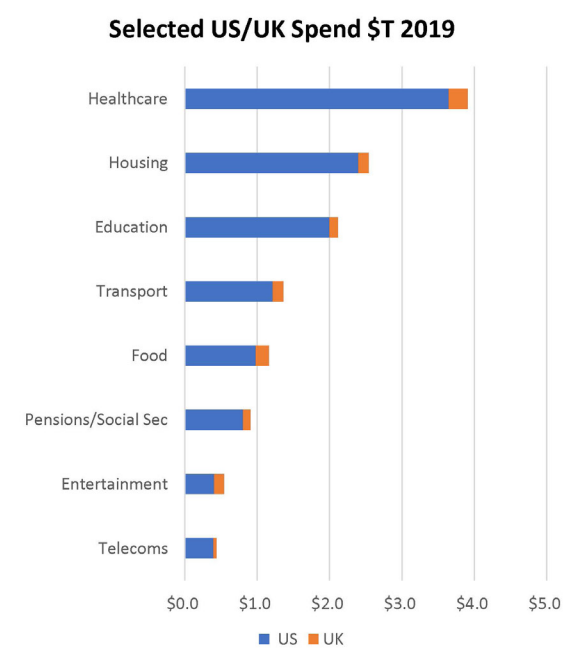
We live in a hyper connected society, but we are lonelier than ever. While loneliness isn’t exclusive to our ageing population it is a prevalent problem. Lonely people visit their GPs more and are more prone to unhealthy behaviours that result in an increased burden on our health and care systems. So how can this be tackled? An ecosystem of providers needs to pull together to collaborate.

Those in the business of connectivity have the potential to keep people together via relatable consumer products, particularly with the development of visual interactive tools. But the online and offline need to be fused to address this challenge, and it’s important to remember that affordability of technology is a very real barrier. Retailers may have a role to play in providing community, engagement and purpose for an ageing demographic. Keeping ageing people in work and investing in a happier workplace also has an important role to play.

What can we do with an extended, high quality life?

Many of the problems associated with ageing – financial preparedness, physical health, maintaining a sense of purpose – can be addressed to some extent with earlier engagement and planning. The prevention agenda is key – if people invest in their futures earlier, the experience of ageing will invariably improve. At the moment, asking people to engage early is asking people to acknowledge their own mortality. Business needs to help people understand that they do need to invest in their futures, because they have a future.

Trillion-dollar opportunities for corporations (UK/US Lens)



Source/Notes: US ONS; UK BLS; Research and Markets; Nuffield Foundation

10 Ideas for UK-based Corporations:

Strategy: Borrow/build; Prototype in UK, scale in US

1. **Food** – personalized, nutritious, delivered
2. **Re-invented home** – 4-generation homes
3. **Re-invented towns**– distributed work/live/play/ consume
4. **Mobility** – Walkable, Micro, EV/AV, New transit, multi-modal
5. **Finance** – massified wealth-management
6. **Insurance** – real-time, contextual, value-oriented
7. **Wellness** – focus on social determinants of health
8. **Health** - UK health ecosystem as services export platform
9. **Education** - 100-year life ed model
10. **Connectivity** – Fiber everywhere

Next Steps

The aim of the gathering was never just to stimulate discussion, but to promote action. We believe this is just the start of a global movement that will inspire real change and action. Furthermore, we believe British business has a unique opportunity to occupy centre stage in this movement, with huge rewards on offer.

At the end of the discussion, we asked each of the business leaders in the room to submit one burning question they felt required answering, and one wish they would desire fulfilled through action from this collective of private sector leaders. Longevity Leaders will be meeting with each executive individually over the next few weeks to unpack and explore the best path forward to ensure that this movement becomes a genuine force for change, whether in the field of upskilling and training older workforces, developing community-minded projects to tackle loneliness or a look at how their business might adapt products and services to meet the needs of an ageing society.

We already have lots of ideas being generated from the group of a path to action and fully indeed to realise this mission. With this in mind, the group agreed to reconvene in October 2019 where we can feed back our proposed action plan, and further workshop how to become age-ready employers and businesses.

To request an invitation to join them, please contact angela@longevityleaders.com.

Stigma in the UK makes innovation difficult compared with the US

- *Kathleen Sullivan, IBM UK*

There's a big difference between 60 and 96. Don't think about age as a number.

-*Lynne Corner, National Innovation Centre for Ageing*

The prevention agenda is key. Getting people to invest in their future and to get this idea front of mind is critical

-*Dave Evendon-Challis, RB*

Companies need to work out the scope to repurpose employees and create role transitions for ageing employees

-*Yvonne Sonsino, Mercer*