COMMISSION STAFF WORKING DOCUMENT

Progress of the European Innovation Partnership on Active and Healthy Ageing
### TABLE OF CONTENTS

1. Introduction ........................................................................................................................................... 2  
   1.1. Policy context ................................................................................................................................. 2  
   1.2. Using digital innovation in response to demographic change ....................................................... 4  
   1.3. Scaling up digital innovation for active and healthy ageing ......................................................... 5  
   1.4. Partnership's role in the Transformation of Health and Care in the Digital Single Market strategy ........................................................................................................................................... 7  
2. Mobilising the innovation value-chain .................................................................................................. 8  
   2.1. Action Groups .................................................................................................................................. 10  
   2.2. Reference sites ................................................................................................................................. 11  
4. Monitoring results ................................................................................................................................. 15  
   4.1. Improving the health and quality of life of Europeans with a focus on older people .............. 16  
   4.2. Supporting the long-term sustainability and efficiency of health and social care systems ...... 17  
   4.3. Enhancing the competitiveness of EU industry through business and expansion in new markets ........................................................................................................................................... 17  
5. Identifying the way forward .................................................................................................................. 19  
   5.1. Aligning the Partnership priorities with the Commission policy on the digital transformation of health and care ........................................................................................................................................... 19  
   5.2. Involving the Partnership members in the digital transformation of health and care ............ 23  
6. Conclusion .............................................................................................................................................. 27
1. Introduction

This document provides an overview of the European Innovation Partnership on Active and Healthy Ageing (hereafter "the Partnership"), its achievements and plans. This includes feedback from the last Conference of Partners of the Partnership in February 2018, where participants assessed their cooperation since the previous Conference of Partners, and provided recommendations for the future in the context of the Digital Single Market Strategy\(^1\).

In particular, at the Conference of Partners, there was broad agreement that the Partnership is well aligned with the three priorities on health and care as set out in the mid-term review of the Digital Single Market\(^2\) Strategy. On the one hand, the outcomes from Partnership's cooperation are in line with policy objectives set out in the Communication on enabling the digital transformation of health and care in the Digital Single Market\(^3\). On the other hand, the Partnership is considered to be an important platform for delivering on those priorities, through close collaboration between its partners, the Commission departments and other relevant actors involved in digital innovation of health and care in the EU. Effective policies allowing for active and healthy ageing are closely associated with harnessing and scaling-up digital innovation and form a key aspect of the transformation of health and care in the context of the EU Digital Single Market Strategy.

1.1. Policy context

Ageing is one of today’s major societal challenges in the EU and beyond, affecting labour markets\(^4\) and the sustainability of health and care systems\(^5\). Ageing is linked to the rise in chronic conditions that affects the quality of life of millions of citizens.\(^6\) Globally, Europe has the highest burden in the world of chronic diseases, which are responsible for 86% of all deaths and 77% of health and long term care spending. Chronic diseases are preventable, but it is estimated they will claim the lives of 52 million people in the Europe Region by 2030\(^7\). These chronic conditions are often associated with disabilities\(^8\).

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2 Mid-Term Review on the implementation of the Digital Single Market Strategy A Connected Digital Single Market for All COM(2017) 228 final
8 United Nations Convention on the Rights of Persons with Disabilities, Article 1: “Persons with disabilities include those who have long-term physical, mental, intellectual or sensory impairments which in interaction with
In line with the mid-term review of the Digital Single Market Strategy, in April 2018 the Commission has put forward a Communication on enabling the digital transformation of health and care in the digital single market; empowering citizens and building a healthier society. It addresses three priority areas for the digital transformation of health and care:

(i) citizens’ secure access to and sharing of health data;
(ii) better data to promote research, disease prevention and personalised health and care; and
(iii) digital tools for citizen empowerment and for person-centred care.

This Communication identifies actions to be undertaken by the Commission, Member States and stakeholders to empower citizens and contribute to a healthier society. The mission of the Partnership is linked to the ambitions outlined in the Digital Single Market strategy and the Communication: to build a healthier society that can cope with demographic change, address inequalities, maintain resilient healthcare systems, and provide quality care services to citizens across the EU.

Demographic change requires re-thinking health and care systems, boosting investments and creating jobs in the technology and the health and care sectors. Digital technology enables feedback between users and healthcare providers in order to prevent, screen, diagnose, manage and treat chronic diseases and their co-morbidities.

However, implementations of digital health and care solutions remain mostly local, small-scale and unevenly distributed across the EU. This fragmentation limits the potential of healthcare systems to support patients with digital solutions for prevention and management of chronic diseases. It also hinders EU small and medium-sized enterprises capacity to attract investments and compete globally.

Deploying innovative digital solutions across borders are a key component of the transformation of health and care in the Digital Single Market Strategy. The organisation and delivery of health and social care are the responsibility of the Member States. In some Member States, particularly those with federal or regional systems, regional authorities are responsible for financing and providing healthcare. Nevertheless, in accordance with the

various barriers may hinder their full and effective participation in society on an equal basis with others.”

The Commission can promote public health and the prevention of disease and support cooperation between the Member States, for example, to improve the complementarity of their health services cross-border. The Commission can also take action to stimulate innovation, economic growth and the development of the Single Market in close coordination with Member States.

Health and care authorities across Europe face common challenges, which can be best addressed jointly. To this end, the Commission has been working with the Member States, across borders to tap into the potential of innovative solutions, such as digital technologies and data analytics, and in doing so assist Member States in pursuing the reforms of their health and care systems by pooling investments, sharing experiences about deploying innovative solutions, measuring impact, and transferring innovation across several Member States and regions.

The Partnership provides a valuable platform to work with leading innovators on the supply side who are developing new digital services and products and with pioneers on the demand side of health and care innovation, notably from the regional and local healthcare authorities that are responsible for health and care services to citizens across the EU.

The Partnership covers the wide value-chain that is involved in health and care innovation, from development of new solutions to frontline implementation of health and social care services enabled by digital technology that can have an impact on the lives of millions of Europeans.

Stimulating further alignment of the Partnership’s strategy and priorities, with the policy priorities of the Commission, was a key area of discussion at the 2018 Conference of Partners of the Partnership.

This document takes stock of the progress achieved by the Partnership until now. It also outlines how the Partnership should work in the future to deliver on the goals of the Digital Single Market Strategy for Europe, particularly on the digital transformation of health and care.

1.2. Using digital innovation in response to demographic change

The Partnership was launched by the Commission in 2011. The Strategic Implementation Plan of the Partnership provided a mandate until 2020 and gave the Partnership the ambitious mission of harnessing innovation to deliver better quality of health and social care services to the ageing population across the EU. The implementation plan focused on promoting people-oriented, demand-driven innovations, including digital innovation, for ageing well. The goal
was to bring real benefits to end-users, help health and care systems to contain costs and unlock EU-wide business opportunities.

The 2012 Commission's Communication “Taking forward the Strategic Implementation Plan of the European Innovation Partnership on Active and Healthy Ageing”\(^{13}\) provided further details on the mandate and scope of the Partnership activities until 2020, notably by highlighting the need to promote innovations contributing to a "triple win" for the EU:

(i) improving the health and quality of life of older people;;

(ii) supporting the long-term sustainability and efficiency of health and social care systems; and

(iii) enhancing the competitiveness of EU industry through business and expansion into new markets.

The aim of this European Innovation Partnership is to help strengthen EU research and innovation, by linking different players in the innovation value chain, ranging from the developers of innovative products, services and solutions to those that implement these innovations or use them on a daily basis.

The Partnership has increasingly supported Union policy goals on the digital transformation of health and care in the Digital Single Market. It has contributed to large-scale implementation of cross-border digital health and care solutions and helped Member States, regional authorities and innovators to exchange lessons and experiences, accelerating deployment of digital innovation and reducing risks associated to investments in health technology.

1.3. Scaling up digital innovation for active and healthy ageing

Since 2011, the Partnership has become an important platform, bringing together the relevant actors at EU, national and regional levels across different policy areas. It has pooled expertise and resources to deploy innovations on the ground and provided example of best practices to integrate active and healthy ageing into policy agendas.

The Partnership’s last call for invitations for Commitments\(^{14}\) and Reference sites\(^{15}\) was completed in 2016. It recorded a significant increase in the number of commitments to the Partnership (from 517 to 994) and more than twice the number of applications to become Reference sites (as compared to 2012).

\(^{13}\) Taking forward the Strategic Implementation Plan of the European Innovation Partnership on Active and Healthy Ageing. [COM(2012) 83 final].

\(^{14}\) Stakeholders wishing to get involved in one of the six Action Groups have been selected through an ‘Invitation for Commitment’ application process, whereby they committed to develop, promote or deploy innovative solutions for active and healthy ageing.

\(^{15}\) “Reference sites” are regions, cities, integrated hospitals or care organisations that focus on a comprehensive, innovation-based approach to active and healthy ageing. They offer concrete examples of their positive impact on active and healthy ageing.
Since 2012, the Partnership has engaged over 1.500 regional and local authorities, 3.500 partners, and 500 leading organisations that represent public administrations, academia, civil society, industries, innovators, small and medium-sized enterprises and financial institutions.

In 2016, the Partnership awarded the title of Reference sites to 74 regional ecosystems (representing public authorities, academia, civil society and industry) from 23 countries\(^\text{16}\) committed to supporting the transfer and scaling-up of their innovations across the EU. Together, these 74 Reference sites represent an overall investment commitment of over EUR 4 billion (period 2016-2020) in the deployment and scaling-up of innovation, including digital innovation, for active and healthy ageing, which will in turn contribute to improving the lives of millions of Europeans.

The Partnership has also supported the large-scale implementation of a number of initiatives by financing "twinning" between Reference sites. In total, 20 pairs of "originators" and "adopters" of digital innovative ICT solutions were selected to exchange knowledge and expertise on topics such as Electronic Health Records (EHRs), ePrescription solutions, integrated health and social care ICT service platforms, homecare, and tele-monitoring, among others.

The Partnership has contributed to link policy goals and various initiatives of the Commission, by also involving the European Parliament and the Committee of the Regions in its activities.\(^\text{17}\)

Although the Partnership is not a funding programme, it has developed valuable links with existing funding instruments supporting innovations, including digital innovation, on active and healthy ageing, such as Horizon 2020\(^\text{18}\), the Public Health Programme (2014-2020), the European Institute of Innovation and Technology (EIT health)\(^\text{19}\), or the European Structural Funds through the Smart specialisation strategies.

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\(^{16}\) Austria, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Finland, France, Germany, Greece, Cyprus, Ireland, Italy, Norway, Poland, Portugal, Serbia, Spain, Sweden, The Netherlands, Turkey, Ukraine, United Kingdom.


1.4. Partnership's role in the Transformation of Health and Care in the Digital Single Market strategy

Stimulating further alignment of the Partnership’s strategy and priorities with the evolving policy priorities of the Commission was a key topic for discussion at the 2018 Conference of Partners of the Partnership, held in Brussels on the 27 and 28 February 2018.

Many stakeholders consider that the Partnership has further potential to contribute to the transformation of health and care in the Digital Single Market, particularly through cooperation mechanisms for cross-border scaling up of digital health and care.

The Partnership, thanks to its wide community, can help the large-scale deployment of digital tools that enable feedback and interaction between patients and healthcare providers, by contributing to health promotion, prevention and citizen empowerment as well as quality and integrated person-centred care, particularly on non-communicable diseases, leading to a better understanding of the outcomes of healthcare systems.

Several partners of the Partnership are currently involved in the implementation of national or regional digital health portals and Electronic Health Record systems that provide citizens and healthcare professionals with access to personal health data (examples include Austria and Croatia as well as the regions of Aragon, the Balearic Islands, Andalusia, Galicia, and Murcia in Spain, and Campania and Lombardy in Italy). Some of these partners have already initiated plans to link genomic data and biobanks to Electronic Health Record systems that are currently being implemented and made accessible to citizens through patient / user portals.

Several organisations within the Partnership are experimenting with data-enabled risk stratification to create more personalised, sustainable and effective healthcare services (such as Osakidetza in the Basque Country, in Spain). Others are still investing in advanced technology solutions, and collecting evidence that these investments generate tangible returns, in the form of efficiency or quality of life gains (e.g. in Catalonia and Valencia — both in Spain).

The different tools and initiatives developed by the Partnership (e.g. the Maturity Model developed by the Action Group on integrated care\(^\text{20}\)) contribute to capacity building in EU Member States and within regional authorities, thus addressing the demand side of digital transformation of healthcare, helping to tackle fragmentation, and supporting emerging digital health technologies across the Union.

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Across the Partnership’s Action Groups and Reference sites, partners are involved in initiatives that can contribute to the policy priorities identified in the Communication on the digital transformation of health and care in the Digital Single Market.

2. Mobilising the innovation value-chain

To address demographic change and draw lessons on how the EU can successfully build an innovation ecosystem to tackle the ageing of the EU’s population, the European Innovation Partnership concept was launched by the Commission as a pilot under the Innovation Union flagship initiative of the Europe 2020 strategy.

The Partnership has set up a new model of collaboration that brings together a wide range of stakeholders to cooperate on research, ICT, social care, and insurance. The Partnership's agenda was set up with the aims to increase by two the average number of healthy life years of Europeans by 2020, while simultaneously achieving a triple win by (i) improving the quality of people’s lives, (ii) supporting the long-term sustainability of health care systems and (iii) creating economic opportunities for innovative businesses.

Over the years, the Partnership has helped to build a strong and growing network of like-minded professionals, provided prominence to proven solutions, opened up new markets, and influenced both local/regional and national policies. In 2015 and 2016, the success of the European Summits on Innovation for Active and Healthy Ageing — with more than 1,400 and 2,000 participants respectively — demonstrated the existence of a robust and wide-ranging community.

The partners have worked together across two main strands of activity:

1. The Reference sites, which consist currently of 74 regional or local ecosystems that implement a comprehensive, innovation-based approach to active and healthy ageing, and offer concrete evidence and illustrations of their impact on the ground, and

2. The six Action Groups, which at present count over 3,500 partners that have joined the groups by submitting a commitment (both individual and joint commitments) to contribute to the overall goals of the Partnership. The Action Groups focus on sharing information and solutions on how to overcome bottlenecks, pooling knowledge and resources and acting on shared goals.

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22 Strategic Implementation Plan. 2011. European Innovation Partnership on Active and Healthy Ageing
23 Monitoring Survey of the EIP on AHA, 2013.
To support the scaling-up strategy, the Partnership has developed a number of cross-cutting activities that contribute to the policy priorities of the Commission. These activities include:

- The ‘Blueprint on digital transformation of health and care’\(^{24}\), which is a policy initiative that gathers representatives from the demand and supply sides of digital health and care innovation, and aims to provide policy direction on the adoption of digital health and care innovation in the EU.

- The ‘Innovation 2 Market’ initiative\(^{25}\) targets innovative small- and medium-sized enterprises and start-ups, already operating at national or regional level, that aim to scale up cross-border their digital health and care solutions. It helps to identify difficulties that innovators encounter when trying to scale up solutions across borders in the Union (through different regulatory approaches and certification requirements), and feeds into the activities of the Partnership.

- The ‘Monitoring and Assessment Framework for the Partnership’\(^{26}\) (MAFEIP) is an impact assessment tool to support evidence-based decision-making process for all institutions and users in the health and care sector.

- The ‘Innovative Practices Repository’\(^{27}\), which contains hundreds of practices implemented at regional level that can be transferred to other regions through the ‘Transfer of Innovation Twinning Support Scheme’\(^{28}\) — a mechanism that twins experienced regions with other regions planning to invest in large-scale deployment of new digital health and care solutions, and that wish to learn from the experience of others.

The Partnership has worked in close cooperation with the most successful research and innovation projects related to digital tools for active and healthy ageing. In doing so, EU-funded research and innovation actions and the Partnership have benefited from each other's knowledge and activities to the benefit of citizens and institutions: The research community brought its expertise by sharing the main outcomes of projects with the Partnership’s members while the Partnership’s members took up and implemented certain successful projects. The benefits were thus mutual.

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\(^{25}\) [https://ec.europa.eu/eip/ageing/innovation-market-i2m_en](https://ec.europa.eu/eip/ageing/innovation-market-i2m_en)  
\(^{26}\) [https://ec.europa.eu/eip/ageing/mafeip_en](https://ec.europa.eu/eip/ageing/mafeip_en)  
\(^{27}\) [https://ec.europa.eu/eip/ageing/repository_en](https://ec.europa.eu/eip/ageing/repository_en)  
2.1. Action Groups

The stakeholder-led **Action Groups** focus on six areas\(^ {29} \):

1. innovative approaches for adherence to medical treatments;
2. prevention of falls;
3. avoiding functional decline and malnutrition of older people;
4. independent living;
5. integrated care and
6. age-friendly communities and environments.

![Pie chart illustrating number of commitments per Action Group (January 2018)](image)

The Action Groups have been working at technical level and have delivered a range of real outcomes. They have:

- Proposed close to 1,000 commitments (from 517 to 994 after the 2016 call for commitments).
- Prepared inventories of good practices to support the exchange of knowledge\(^ {30} \).

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\(^{29}\) [https://webgate.ec.europa.eu/eipaha/actiongroup](https://webgate.ec.europa.eu/eipaha/actiongroup)

\(^{30}\) [https://webgate.ec.europa.eu/eipaha/library/index/show/id/726]
[https://webgate.ec.europa.eu/eipaha/library/index/show/id/727]
[https://webgate.ec.europa.eu/eipaha/library/index/show/id/728]
[https://webgate.ec.europa.eu/eipaha/library/index/show/id/825]
• Prepared practical tools to support delivering innovative care, such as evidence-based screening programmes for preventing functional decline; community-based programmes on prevention and management of frailty\(^\text{31}\); guidelines for improving adherence to treatment; decision support systems to empower poly-medicated patients; cost-efficiency case studies for falls prevention technologies; multi-stakeholders initiatives to improve the knowledge and skills of professionals and caregivers; standards and technical interoperability guidelines for social alarms; guidance to develop ambient assisting living solutions oriented to personal user experience; a maturity model to assess the readiness of regions or care authorities for deploying integrated care; an integrated care pathway for respiratory disease; people-centric approaches to age-friendly environment; and an EU Covenant network of age-friendly regions and cities\(^{32}\).

• Implemented services for Europeans, such as: adherence programmes and pilots in 18 regions and nine Member States; 33 special practices for falls prevention in nine countries; and regional integrated care programmes and innovative chronic disease management programmes in 45 regions — where, in 14 of them, the services are covering over 10% of the target population.

2.2. Reference sites

Complementing the Action Groups, the European Innovation Partnership has also piloted a new way of profiling robust integrated local approaches. They are called Reference sites\(^\text{33}\). Based on a peer reviewed self-assessment process, a total of 74 regional and local ecosystems from 23 countries have been awarded Reference Site status.

The successful Reference sites have demonstrated excellence in the development, adoption and scaling-up of innovative practices for active and healthy ageing. They serve as a reference of good practice to other regions. They provide evidence and real examples of the impact (i.e. improved outcomes and transferability) of the innovative components of their model/system.

Together these regions represent a commitment of over EUR 4 billion euro (2016-2020) to invest in innovative solutions that will lead to improvements in the quality of life of the ageing population, support efficiency and sustainability of health and social care delivery, and stimulate economic growth and competitiveness. These investments will benefit an expected five million people over the next three years.

\(^{31}\) Frailty is a syndrome related to the ageing process that describes the state of ‘limited functional reserve’ or ‘failure to integrate responses in the face of stress’.


\(^{33}\) [http://www.scale-aha.eu/reference-sites.html](http://www.scale-aha.eu/reference-sites.html)
At regional level, the European Innovation Partnership on Active and Health Ageing has developed a particularly strong presence through the involvement of the Reference sites. The active and healthy ageing agenda has reached relevant policy makers, health and care professionals, industry, ageing people and their families, by creating new networks and ecosystems — for instance through the Ageing Well in Wales Programme.\(^{34,35}\)

The Partnership has also helped to make stronger connections across regions that have resulted in closer professional ties and practical knowledge exchange, as evidenced by collaboration on specific projects and signed or pending Memoranda of Understanding (examples include collaboration between Scotland–Basque Country, Scotland–Catalonia, Greece–Scotland, Catalonia–Greece and the Basque Country–Aquitaine region). Interregional collaboration was supported by various networks of regions such as EUREGHA,\(^ {36}\) ERRIN,\(^ {37}\) AER,\(^ {38}\) ENSA\(^ {39}\) and CORAL.\(^ {40}\)

\(^{35}\) [http://echalliance.com](http://echalliance.com)
\(^{36}\) [http://www.euregha.net/](http://www.euregha.net/)
\(^{37}\) [https://www.errin.eu/](https://www.errin.eu/)
\(^{38}\) [https://aer.eu/](https://aer.eu/)
\(^{39}\) [http://www.ensa-network.eu/](http://www.ensa-network.eu/)
\(^{40}\) [http://www.coral-europe.eu/](http://www.coral-europe.eu/)
At national level, there have also been instances of the Partnership supporting cooperation in the field of active and healthy ageing, for example, the Greek innovation partnership on active and healthy ageing, the development of a national adherence implementation plan in Italy, and the Dutch top sector policy on life sciences & health. National health or social protection authorities in a number of Member States - including France (its National Pension Scheme), Spain (the Ministry of Health) and Germany (Ministry of Health) have been increasingly supportive.

The German Federal Ministry for Family Affairs, Senior Citizens, Women and Youth has been awarded the status of ‘National Reference for Excellence in promoting innovation for active and healthy ageing’, by the Partnership. Moreover, the Italian national network PROMIS41 ‘Programma Mattone Internazionale Salute’ has already proven to be very efficient in organising exchanges of experience between Partnership regions and in promoting the Partnership’s activities in Italian regions.

### 3. Scaling-up local successes across the Digital Single Market

Seven years after its launch, the Partnership has mobilised stakeholders to promote the agenda of active and healthy ageing at European, national and regional levels.42 At the EU level, the Commission together with the partners has developed a **strategy for scaling-up innovations in active and healthy ageing**43 to support the large-scale implementation of the successful initiatives.

![Figure 3: European Scaling up strategy: Five-step model of scaling up.](image-url)

The ‘how to scale up’ section of this strategy provides practical support in implementation, sharing key success factors and lessons-learned. It is built on the experience collected in the **Reference Sites Excellent Innovation for Ageing ‘How to’ Guide**, which provides information

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42 **Council Conclusions on European Innovation Partnerships** [published. 3169 Competitiveness Council meeting 30 - 31 May 2012]
43 **European scaling up strategy in active and healthy ageing** (2015)
on how the Reference sites have created their successes, what they learned along the way, and what elements of their approach could be used by others.44

The **Blueprint on digital transformation of health and care**45 is the follow-up of the Partnership Scaling-Up Strategy.

In 2016, the **transfer of innovation twinning support scheme** was launched and its findings were intended to contribute to this strategy. The twinning scheme applied in the active and healthy ageing domain is a new concept that aims to de-risk investment in digital innovative ICT solutions by financing the exchange of knowledge and good practice in digital health solutions with high potential for replicability and scaling-up.

Twenty pairs of originators and adopters of innovations were selected to exchange knowledge and expertise with financial support to cover the travel and accommodation costs of the twinning activities. The 20 pairs represent a variety of solutions being adopted by Reference Site organisations from 13 different European countries. In total, 43 organisations were involved in the twinning scheme.

Depending on the twinning topic, the level of cooperation varies from knowledge exchange and training to adaptation, partial or full adoption, and acquisition. The scheme is in line with the objectives of the Communication on the digital transformation of health and care in the Digital Single Market, in particular, the priority related to large-scale deployment of innovations in the EU.

The scaling-up and twinning experience of the European Innovation Partnership Regions has proven to be very successful. An analysis of the 2017 experience was recently carried out46 for the benefit of the regions and partners. A twinning typology was developed as a result of this survey, which reflects the diversity of backgrounds, intentions and objectives among twinning projects. This analysis will play a key role for further twinning initiatives over the next months and years.

In addition to this typology, an analysis of success factors and barriers to transferring innovation has also been undertaken. The experience already acquired can be used to support capacity building and technical assistance in the implementation of Digital Single Market priorities by all the parties involved, especially at regional level.

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46 Study on support to scaling-up of innovations in Active and Healthy Ageing (2017) – empirica: [http://www.scale-aha.eu/home.html](http://www.scale-aha.eu/home.html)
4. Monitoring results

A Monitoring and Assessment Framework47 (MAFEIP) has also been developed, initially in response to the Partnership's specific monitoring needs, so as to capture the impact of its innovations towards the quality of life and sustainability objectives. The Monitoring and Assessment Framework also enables early impact assessments of an innovative process in the health and care sector.

This tool can help decision-makers to take informed decisions about the future design of this innovative process or about its deployment on a larger scale. The potential users of the Monitoring and Assessment Framework are those stakeholders in the health and care sectors who are seeking to develop and deploy innovative processes to improve quality of care, better accessibility or more efficient use of resources. At present, from the Partnership perspective, MAFEIP represents the key instrument to estimate the impact of actions taken under the Partnership.

The Monitoring and Assessment Framework tool has been tested by a diverse range of institutions (regional governments, large companies, small and medium-sized enterprises and academia) to assess the potential impact of new proposals for actions in the health and social care sector. The use cases aim to provide the results of the health and economic outcomes achieved in a variety of social and technological actions carried out by the different Actions Groups of the Partnership. Examples of innovative interventions analysed with the Monitoring and Assessment Framework, among others, include novel ICT tools necessary to integrate care pathways across organisations and locations, technology scenarios for improved dementia care management, and devices for improved fall risk assessment.

A number of innovative practices develop by the Reference sites and Action Group members of the Partnership already demonstrate evidence on the outcomes of the programme. These impacts are captured in each of the ‘triple win’ objectives listed below.

Overall, the Partnership programmes and initiatives launched at regional and local levels involved:

- 1.689 regional and local authorities;
- around one million people who took part in training, empowerment and advocacy activities; and
- more than 93,000 citizens who participated in activities to better prevent and manage non-communicable diseases.

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47 https://www.mafeip.eu/
4.1. Improving the health and quality of life of Europeans with a focus on older people

The partners are working to maximise the impact of preventative measures and care services for improving the health and quality of people’s lives. There is a strong focus on better managing non-communicable diseases and conditions, including the adherence to medical plans, and tackling multiple morbidities, whilst ensuring that solutions and services are inclusive for people of all ages and accessible for those with disabilities.

Around 125 million Europeans are involved in adherence to medical plans related initiatives and more than 100,000 European pharmacists have been targeted for adherence-improving interventions based on innovative technology solutions. There is also a network of professionals involved in training for fall prevention who are based in 55 European cities, from 35 regions in nine countries.

Another line of work conducted by partners is on addressing susceptibility to frailty in older people and reducing falls. Many end-users are involved in frailty-related (cognitive and physical) activities. They have:

- organised more than 28,700 screenings/assessments throughout the EU;
- carried out the follow-up of more than 2,900 older adults affected by chronic diseases and conditions;
- provided more than 15,000 home care services to pre-frail and frail adults; and
- given training to more than 6,300 informal caregivers.

Promoting age-friendly healthy environments aims to fulfil the needs of people of all ages, including older adults. More than 150 regional and local authorities have joined the Covenant on Demographic Change, and they are committed to developing such age-friendly environments.

Examples of Reference Sites with measurable impact include:

- Northern Ireland’s Department for Health, Social Services and Public Safety (DHSSPS) has been implementing a series of programmes to improve adherence through innovative technology-supported solutions as well as intra-professional collaboration. These improvements in efficiency have been estimated to reduce the costs by £48 per month per patient.

  - The Dutch ParkinsonNet, as part of the Nijmegen Model of networking for active and healthy ageing, is developing regional networks of primary and secondary Parkinson’s care

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48 Adherence is the extent to which a person's behaviour corresponds with agreed recommendations from a healthcare professional. It encompasses medications, physical activity, diet and visits to health professionals.


50 Service Innovation in the Health and Social Care Sector in Northern Ireland
supported by evidence-based guidelines and online tools. Evidence suggests that it empowers patients, improves the quality of care, and has contributed to a 50% reduction in the risk of having a hip fracture.51

4.2. Supporting the long-term sustainability and efficiency of health and social care systems

The ageing population and the growing prevalence of non-communicable diseases and conditions increase the demand for health and social services. Tight budgets, costly technological development, and the projected lack of a health workforce make it even more pressing to find solutions that improve the efficiency of today’s care systems, shift care from costly institutional and hospital settings to primary and community care, and ensure a continuity of care services for patients.

Examples of Reference Sites with measurable impact include:

- Scotland is integrating health and social care services through a legislation introduced in May 2014 and an allocation of over half a billion pounds of Government investment over the period 2014-2017. Scotland’s Telecare development programme is an important part of community services. Overall efficiencies in 2006-11 period are estimated to have been around 109,000 hospital bed days and EUR 92.1 million saved52.

- The Galician Department of Health is running IANUS, a system of electronic medical records that aims to improve the fluidity of healthcare processes. All patients in the region are covered and benefit from having electronic prescriptions, a 19% reduction of waiting on the first appointment and improved diagnostic times53.

4.3. Enhancing the competitiveness of EU industry through business and expansion in new markets

‘Silver consumers’ create a strong potential demand on existing or emerging markets, such as independent living and smart homes, health and wellbeing, health workforce, tourism, skills, autonomous vehicles, and robotics. These new markets are often services-oriented and have the potential to create new jobs. To achieve the full impact of the silver economy54, market fragmentation needs to be tackled and innovation ecosystems that promote open and personalised interoperable solutions need to be encouraged. On best practice on

53 Study on support to scaling-up of innovations in Active and Healthy Ageing — ScaleAHA Final Report (2017)
54 "The Silver Economy is considered part of the general economy that are relevant to the needs and demands of older adults. It is the sum of all economic activity that serves the needs of people aged 50 and over, including the products and services they purchase directly and the further economic activity this spending generates". The Silver Economy Final Report (May 2018).
interoperability, partners have identified eight best practices around innovative procurement and 14 on user empowerment.

Examples of Reference sites with measurable impact include:

- The Andalusian strategy on active ageing targets all citizens aged 65+ years in the region and improves their social welfare through integrated policies on: living in safety; healthy living, participation, contribution and innovation, and lifelong learning. The initiative has been successful in boosting the silver economy of the region, contributing to the creation of 322 non-profit organisations and over 2.600 jobs\textsuperscript{55}.

- The region of South Denmark is building on a closer integration of the hospital, the university and businesses to develop new solutions in health. The smart specialisation strategy of the region, which has identified health and innovation as one of its priorities, is linked to a clear growth model. According to the region over 700 additional jobs were created in the period 2010-2012 thanks to these efforts. There was also a positive impact on the turnover of companies involved in the initiative\textsuperscript{56}.

\textsuperscript{55} European Innovation Partnership on Active and Healthy Ageing: Reference Sites — Excellent innovation for ageing. A European Guide

\textsuperscript{56} Stimulating jobs and growth from welfare technologies from Growing the Silver Economy in Europe. Report of an event organised by the European Commission in Brussels on 23 September 2014, Page 5.
5. Identifying the way forward

The Partnership has delivered high impact results since it was launched. Action Groups and Reference sites continue delivering valuable outputs according to their Action Plans established on a bi-annual basis. Meanwhile, an impact monitoring framework and scaling-up strategy are in place to support capacity building, exchange of experiences and scaling-up of innovative practices at the EU level. All of these achievements can be capitalised on to move the active and healthy ageing agenda further, and ensure that more citizens — including patients, carers and professionals — across the EU will benefit from access to digital health and care tools that enhance the quality of life and care provided to the ageing population.

5.1. Aligning the Partnership priorities with the Commission policy on the digital transformation of health and care

Regions and institutions active in the topics covered in this document are already working in close cooperation with the four sets of stakeholders concerned with the Partnership's targets:

1. health care authorities and policy makers;
2. the research community;
3. the industry (including start-ups and small and medium-sized enterprises); and
4. civil society representatives.

In this respect, the European Innovation Partnership community’s work can provide valuable experiences for how to implement the health and care priorities of the Digital Single Market strategy.

There is scope for building a stronger link between the Partnership priorities and the Union policy priorities identified in the Communication on the digital transformation of health and care in the Digital Single Market, the European Pillar of Social Rights and with the Sustainable Development Goals related to health. More specifically, the Partnership can further contribute to the third priority area of the Communication, aiming to scale up digital innovation for citizen empowerment and for person-centred care.

The experience of the Action Groups has already brought an important contribution to the implementation of ICT-supported integrated care solutions — methodological tools, change management tools — that have been shared with the whole Partnership community. More widely, these kinds of tools could be used in any context dealing with person-centred care:

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57 In particular principle 16 — ‘Health care: Everyone has the right to timely access to affordable, preventive and curative health care of good quality’ and principle 18 — ‘Long-term care: Everyone has the right to affordable long-term care services of good quality, in particular home-care and community-based services’ — of the European Pillar of Social Rights

58 In particular Sustainable Development Goal 3 — ‘Ensure healthy lives and promote well-being for all at all ages’, and target 4 — ’By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being’.

59 For example the Scirocco project, [https://www.scirocco-project.eu/](https://www.scirocco-project.eu/)
from adherence to treatment to physical and cognitive decline; and from standards and interoperability to independent living solutions and smart living environments for ageing well.

Some integrated care initiatives have already been scaled-up by partners, thanks to the active involvement of pioneering regions, structured networking at national level, and clear support from national authorities. The Partnership should further support scaling-up initiatives in line with these principles, together with improved information on, and better access to, funding programmes.

In particular, the Partnership could contribute to tackling fragmentation and supporting regulatory convergence on the supply of emerging digital health technologies across the Union. More specifically, it can provide valuable input to cooperation mechanisms, enabling dialogue between the demand and supply sides, to stimulate market uptake in innovation in health technology by learning from already existing experiences at local, regional and national levels, some of which were presented at the Conference of Partners in 2018. It is important to bring together innovative small and medium-sized enterprises and start-ups already operating at national or regional levels that have ambitions to scale up their digital health and care solutions cross-border.

As it was suggested at the Conference of Partners in 2018, this can be undertaken by enabling regular exchanges with the demand side (both public and private actors), encouraging knowledge transfer, and upskilling procurers or even via through cross-regional procurement. This action would require identifying the difficulties that innovators experience when trying to scale up solutions across borders in the Union (such as different regulatory approaches, different criteria in procurement and purchasing, and certification requirements), enhancing the visibility of market opportunities in the EU, and defining measures that might improve the cross-border deployment of those solutions.

With the Reference sites and other partners already developing strategies on scaling-up innovation in particular fields, discussions at the Conference of Partners in 2018 suggested that the Partnership has an important role to play in stimulating the creation of a connected network of expert regional centres for digital care technologies.

The different tools and initiatives developed by the Partnership can also strongly support the capacity building and technical assistance to EU Member States and regional authorities, therefore addressing the demand side of digital transformation of healthcare.

For instance, **twinning schemes** have already demonstrated the capacity to scale up and have been instrumental in both mobilising private financial support and reducing the risks to potential investors. Partners at the Conference of Partners in 2018 advocated for financial support for capacity building and technical assistance to be mobilised through such instruments as the Health Programme, Horizon 2020, Structural Reforms Support Service,
and the European Investment Advisory Hub. Measurement (e.g. MAPEIP) is also key in supporting adoption and upscaling of innovation.

The partners also underlined that, in the health and care domain, it is fundamental to support the supply side and have a long-term investment strategy for the large-scale deployment of innovation that is integrative and considers needs from different perspectives (such as infrastructures, technology, and services). Investing in this field requires mastering risks and considering the particularities of committing to social infrastructures.

Moreover, at the Conference of Partners in 2018, the partners outlined the added value and considerable potential in blending funding sources, and involving new players and partners. A list of possible funding instruments and investment mechanisms for research and innovation includes:

- public private partnerships;
- lending equity schemes supported by the European Investment Bank InnovFin instrument;
- Horizon 2020 and the upcoming Horizon EU;
- regional economic development agencies;
- venture capital;
- social impact investment;
- payment-by-results schemes;
- health insurance and pension funds.

The creation of a European Fund for Social Infrastructures that would combine private and public funding could address this emerging need for increased investment. Possible follow-up activities discussed at the Conference of Partners in 2018 also included bringing together complementary initiatives such as the Joint Programming Initiative on More Years Better Lives and the Active and Assisted Living programme, together with the Partnership, which — since its launch — has operated as a voluntary scheme.

In addition, the Partnership should also be able to contribute to the first and second priorities of the Communication on the digital transformation of health and care in the Digital Single Market. The Partnership indeed provides experiences of regional partners involved in health information sharing, contributing to secure exchange of health records, and to personalised medicine and treatments.

At a cross-border level, interoperability is a key issue for Digital Single Market strategy deployment, to empower citizens, ensure security in access, connect and share health data (i.e. the first priority of the Communication). At the Conference of Partners in 2018, several regions illustrated their experience in implementing interoperable Electronic Health Records systems that provide citizens with access to their health data. These regions expressed their

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60 http://www.eib.org/eiah
willingness to support future EU measures to advance cross-border interoperability of Electronic Health Records systems across the Union. Partners agreed on the significant added value in fostering cross-border interoperability for citizens and potential patients.

Partners suggested that, in the health field, technological solutions, such as blockchain, could support the principles of citizen’s right to access their data enshrined in article 15 of the General Data Protection Regulation\(^{62}\) and the real implementation of cross-border interoperability developments for the benefit of individuals.

On the use of **better data to promote research, disease prevention and personalised health and care** (i.e. the second priority of the Communication), the Conference of Partners in 2018 highlighted that the EU is well positioned to be a global leader in genomics for a considerable number of reasons. These include its:

- large and heterogeneous population;
- social health systems that work to high standards and with the same values;
- application of similar legal frameworks;
- data infrastructure that is already in place;
- scientific expertise and technology capabilities in both genomics and other health-related, research, available innovation funding; and
- several major national and EU initiatives on genomic science that have delivered successful results.

Based on a recently adopted Declaration of cooperation\(^{63}\), the EU could link up access to national initiatives such as genomics databanks and biobanks and reach a larger population sample, so as to come closer to the scale that is needed to achieve significant breakthroughs in personalised medicine, cancer research, brain-related diseases and other conditions. In order to achieve such scale, however, the EU would need to develop a secure cross-border infrastructure that connects different genomic initiatives that are supported by agreements on standards for genomic data generation, analysis, privacy, and secure distributed access to genomic and associated clinical and other phenotype data.

Further progress should be made by the Partnership in this direction following an approach build on community-based care enhancing the availability and use of health data towards disease prevention, promotion of healthy lifestyle and better healthcare, anticipation of disease outbreaks, quality of life control. This should be achieved by building trust between healthcare authorities and citizens and addressing the concerns of the latter regarding the risk of privacy breaches, cybersecurity risks and the quality and reliability of data.

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\(^{62}\) Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC, OJ L 119/1 of 4.05.2016, particularly Article 15 (right of access)

As a whole, the Partnership should encourage all Action Groups and Reference sites to reflect on currently existing or upcoming projects/initiatives that would contribute with practical interventions and experiences and as well as lessons-learned to any of these three priority areas on the digital transformation of health and care in the Digital Single Market.

5.2. Involving the Partnership members in the digital transformation of health and care

The ability of the Partnership to strengthen alignment with the EU policy priorities related to the digital transformation of health and care in the Digital Single Market and deliver on its scaling-up ambitions requires further engagement. The "Widening the support for large scale uptake of Digital Innovation for Active and Healthy Ageing" (WE4AHA)64 coordination and support action will continue to support this work during the current mandate of the Partnership until 2020.

Action Groups

Between 2018 and 2020, the Commission intends to continue to work with the partners to strengthen alignment between the activities of the Action Groups and the priorities of the Commission’s Communication on the digital transformation of health and care in the Digital Single Market.

All Action Groups are planned to be invited to work together to identify regulatory convergence areas, notably in independent living and integrated care.

Furthermore, the Action Groups’ members are expected to update their commitments regularly at the end of each year from now to 2020. The commitments update is important to track results and impacts. This information will be required and compiled as part of progress reports that each Action Group is preparing and that will be regularly published on a yearly basis. Commitments that have never reported progress will be erased from the Commitment Tracker Tool65.

Information from the Action Groups will be also used for the review of the Action Plans that is expected to take place throughout 2018. New Action Plans that are valid until 2020 would need to be developed in 2018 and aligned with the priorities identified by the Commission in its Communication on the digital transformation of health and care in the Digital Single

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64 WE4AHA: Enabling large-scale uptake of digital innovation for active and healthy ageing, is an EU-funded project (a coordination and support action under the Horizon 2020 Framework Programme), which aims to advance the effective, large-scale uptake and impact of digital innovation for active and healthy ageing (AHA): https://ec.europa.eu/digital-single-market/en/news/we4aha-enabling-large-scale-uptake-digital-innovation-active-and-healthy-ageing.


65 https://ec.europa.eu/eip/ageing/commitments-tracker_en
Market. Each new commitment will be checked against the coherence of the objectives of the new Action Plans and therefore with the priorities of the Digital Single Market. A fourth call for commitments will be launched in early 2019 once the new Action Plans have been finalised.

In the meantime, the European Innovation Partnership partners will continue working on deepening the Blueprint at a technical level, identifying barriers and incentives for scaling up innovation focused on specific use cases that reflect the priorities identified in the Communication on the digital transformation of health and care in the Digital Single Market.

Reference Sites

In 2018, through the WE4AHA coordinated and support action, the Commission intends to work with the Reference sites of the Partnership to define the criteria that will underpin the 2019 call for Reference sites. As discussed during the Conference of Partners 2018, the 2019 criteria will be closely associated with the priorities of the Commission’s Communication on the digital transformation of health and care in the Digital Single Market, notably on the implementation of cross-border interoperable Electronic Health Records systems accessible to citizens, the contribution to EU-wide efforts to pool genomic databanks, and the advancement of personalised medicine solutions.

Reference Sites will also have the opportunity to contribute to updating the Blueprint and, leveraging on the Monitoring and Assessment Framework tool, to estimate the health and economic outcomes of social and digitally-driven innovations in specific territories. Thematic workshops will be organised and the performance and key elements of the current 74 Reference Sites will be analysed.

Twinning

In 2019, the Commission intends to support the scaling-up of digital health innovation through the Transfer of innovation twinning support scheme, foreseen in the WE4AHA coordinated and support action. The funding attributed through the 2019 scheme will be subject to a new set of conditions to meet the principles identified in the Commission’s Communication on the digital transformation of health and care in the Digital Single Market. These conditions will notably focus on the transfer of innovative solutions that empower patients and enable feedback between users and healthcare professionals. Additional funding for twinning is also foreseen under the Health Programme. This activity will be planned in collaboration with the Member States’ Steering Group on Health Promotion and Prevention and Management of Non-Communicable Diseases.

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66 The Partnership – Future Outlook by Jose Usero (Funka) at the Conference of Partners 2018, 27/02/2018

67 Report on the 2018 Conference of Partners Sessions, 27-28/02/2018

The partners will be involved in the revision of the Blueprint on the digital transformation of health and care for the ageing society. The Blueprint will be regularly updated from September 2018 to December 2020. The updating process will be based on a co-creation mechanism that is inclusive, transparent, and open to all the stakeholders involved in the partnership.

Starting from the current ‘champions’ that contributed to the drafting of the initial version of the blueprint, additional players will be encouraged to contribute to its evolution. The updated versions of the Blueprint will continue to reflect the policy vision of the partners, but will also encompass further technical work on use cases identified in line with the priorities of the digital transformation of health and care in the Digital Single Market. These use cases will describe particular areas of application of digital health and care solutions, the barriers and incentives that can enable scaling up of digital health and care solutions in that area of application, and a joint vision developed by stakeholders both on how to overcome these barriers and support the cross-border scaling up of digital health and care solutions.

**Innovation to Market (I2M)**

As foreseen in the WE4AHA coordinated and support action, the “Innovation to Market” initiative will explore the opportunities for cross-border scaling up of digital health and care solutions. Mainly innovative enterprises and start-ups will be involved in the definition of measures that might improve the cross-border deployment of those solutions. The I2M initiative will be aligned with the Communication on digital transformation on health and care in the Digital Single Market. Key opinion leaders and entrepreneurs will be mainly involved in the definition of an I2M Plan through a participatory mechanism. The I2M Plan will be initially delivered in 2018 and yearly revised, to assess progress.

**Monitoring and Assessment Framework (MAFEIP)**

A new version of the Monitoring and Assessment Framework is scheduled for 2018 after consultation and in-depth discussion with the Partnership community. Technically speaking, the tool provides an early (medical-economic) assessment of the policy measures and of their anticipated impact, to guide further design, development or evaluation. In order to validate the existing Monitoring and Assessment Framework concept and tool, 2017 was used to initiate and structure the MAFEIP user community and to analyse real life utilisation of the tool. The users’ feedback was used as a basis to support and frame technical proposals in the perspective of changes, improvements or adaptation of the existing Monitoring and Assessment Framework tool.

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69 Blueprint Digital Transformation of Health and Care for the Ageing Society (version 15.01.2017)
70 https://ec.europa.eu/eip/ageing/innovation-market-i2m_en
71 http://mafeip.eu/
Specific case studies have been defined in connection with the Partnership members and Action Groups’ topics and scopes, both to illustrate the utilisation of the tool by new adopters and to make it more accessible to lay people. The key outcomes and proposals of the 2017 study on the Monitoring and Assessment Framework were presented during the Conference of Partners 2018 to encourage attendees to make an informed choice on the tool evolution and future redesign in full compliance with Union priorities and the user community’s needs.

In the future, the Partnership members will be actively incentivised to use the tool through a yearly report on its use. Outputs will be produced starting from August 2018.

Figure 4: EIP on AHA main activities and milestones 2018-2020.
6. Conclusion

The Partnership has fulfilled its primary mission to provide a platform for cooperation between stakeholders involved in innovation of health and care, including digital innovation, focusing on active and healthy ageing. Since its launch, a range of mechanisms have been put in place to support that cooperation, increasing visibility of good practice, as well as enabling exchange of knowledge and collaboration between partners.

In that regard, the impact of the Partnership can be estimated by the level of engagement generated, as indicated by e.g. the number of submissions for Reference site status, commitments to the action groups, or twinning activities. Then many partners consider that their engagement in the Partnership is worthwhile, as repeatedly stressed during the last Conference of Partners, without prejudice for them to call for reviewing specific methodologies or areas of work and, in general, to seek improving the added value of the Partnership for their members.

As for specific impact, progress has been made towards the Partnership’s headline target to increase by two the average number of healthy life years of Europeans by 2020. Moreover, since the launch of the Partnership in 2011, there has also been much progress on digital innovation for active and healthy ageing across the EU, as illustrated by some cases of countries and regions mentioned in this report. The partners have been successful in connecting and engaging public and private stakeholders in the innovation value-chain to accelerate scaling-up innovation for active and healthy ageing.

The current mandate of the European Innovation Partnership is valid until 2020. The Partnership is now expected to reflect on its future in the period beyond 2020, and on how it can build on its achievements and further improve its functioning and results. This includes in particular further reflection on how the large community of partners the Partnership has so far mobilised can better contribute to the policy priorities, specifically the actions stemming from the Communication on digital transformation on health and care in the Digital Single Market adopted in April 2018.

Both Action Groups and Reference sites started these reflections at the annual Conference of Partners on 27-28 February 2018 and are expected to present their recommendations to the Commission. For its part, the Commission has taken good account of the feedback from the Partnership when formulating its recent policy orientations on digital transformation of health and care and considers that the Partnership can play an important role in delivering on those policy orientations.\footnote{Enabling the digital transformation of health and care in the Digital Single Market; empowering citizens and building a healthier society, Commission Communication [COM(2018) 233 final], page 3}