NATIONAL LONGEVITY DEVELOPMENT PLANS: GLOBAL OVERVIEW 2019 (*First Edition*)

National Longevity Development Plans

Global Landscape Overview 2019: First Edition

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Report Purpose, Score and Structure

The purpose of this report is to offer an overview of government initiatives from around the world which were enacted in recognition of the demographic challenge each country faces.

It is our hope that cataloging various government initiatives may offer the British government some idea of the building blocks available for the construction of what would become the world's first Longevity National Development Plan.
We also aim to demonstrate how far the UK is already ahead of the game in this regard, and is therefore, the cradle of the fourth industrial revolution.

The first chapter, **National Longevity Development Plans Global Landscape Overview 2019** identifies the broad categories of a government initiative to be considered: different orders of magnitude ranging from small municipal programs to national industrial strategies; and the different areas of intervention, from the financial to the biomedical. These categories are used to developing a methodology for evaluating various initiatives and ultimately ranking countries according to the likelihood of their Longevity-related projects to yield tangible deliverables like increased Healthy Longevity.

The subsequent chapters serve as country-specific overviews of government initiatives designed to combat the the silver tsunami in their own way, ranging from technocratic tiger economies such as Singapore and Hong Kong to large parliamentary democracies such as Spain and, of course, the UK. A broad spectrum of foreign examples of government initiatives is shown here. Some have a more biomedical focus, some a more digital, some national and some municipal, depending the economic conditions and political traditions of each nation. But more importantly, some are more integrated\comprehensive than others, and all exhibit varying degrees of long-termism.

This is a result not of circumstance but of *political will*. And, as evidenced by the multitude of UK government initiatives listed here, there is no shortage of political will to address the ageing population challenge in the UK, which is one of the reasons the nation was ranked as #1 in our proprietary analysis of the strength and relevance of its Longevity initiatives.

It is the recommendation of this report that this political will now be directed at developing a National Healthy Longevity Development Plan, and that this initiative start with the creation of a Blueprint and Framework for such a plan, spearheaded by the the All-Party Parliamentary Group for Longevity, in collaboration with a number of relevant cross-sector institutional collaborators.

The All-Party Parliamentary Group on Longevity

All Party Parliamentary Group for Longevity

Preventive Medicine
Innovations in Healthcare
Problem of Ageing Population
Financial Reform for Pension System

www.parliament.uk

Longevity uk
www.longevityinternational.org

APPG for Longevity Officers

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Executive Team Longevity International UK APPG for Longevity

Eric Kihlstrom

Head of Industry Collaboration

Tina Woods

CEO & Co-Founder
Secretariat Director

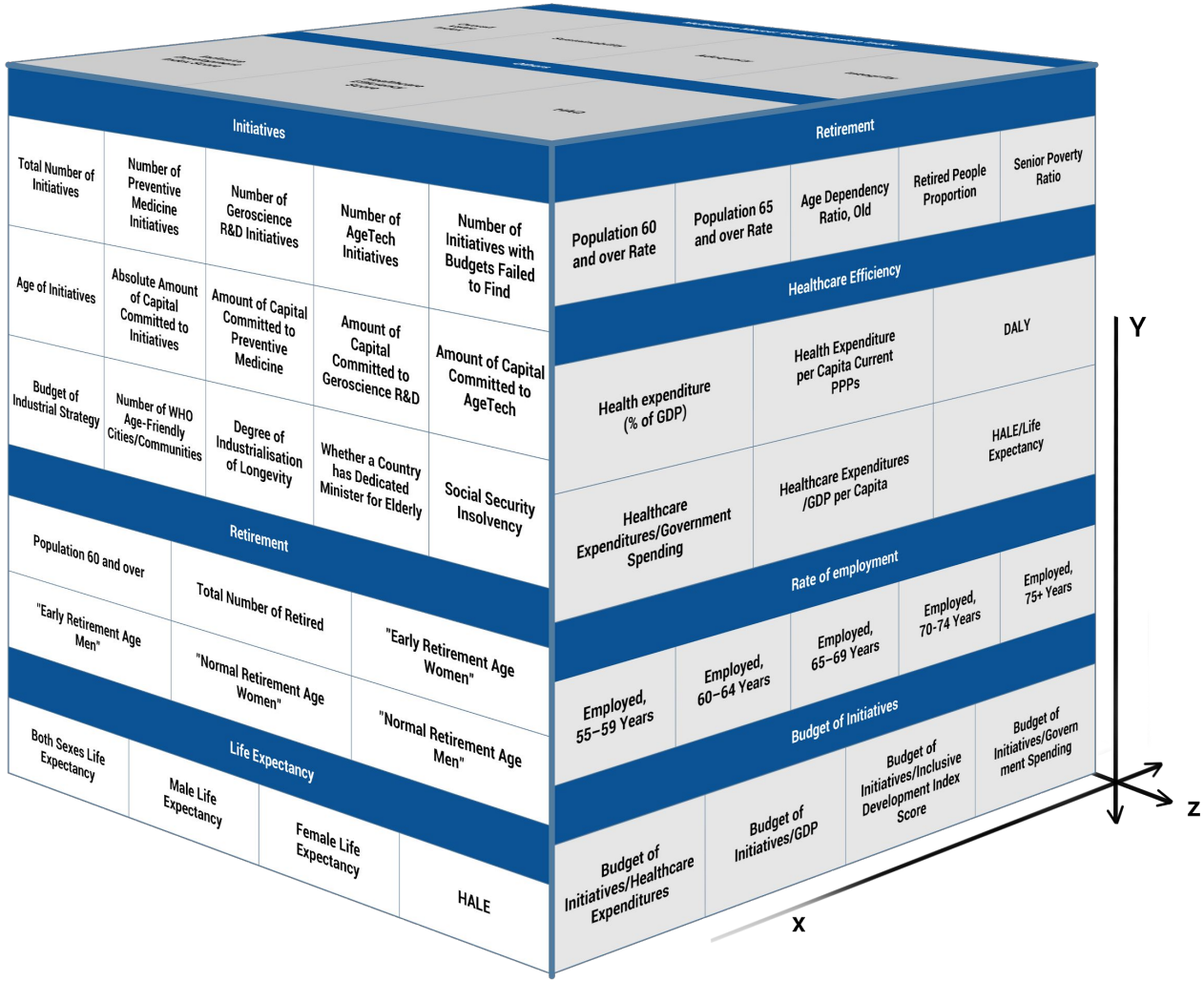
Dmitry Kaminskiy

Head of International Cooperation Division

Ranking Countries on the Strength, Scope and Relevance of their Government Longevity-Related Projects and Initiatives

POSITION	COUNTRY	COUNTRY SCORE
1	United Kingdom	5.29
2	Netherlands	4.36
3	Singapore	4.15
4	South Korea	4.00
5	Israel	3.94
6	Switzerland	3.93
7	Hong Kong	3.41
8	Japan	3.10
9	USA	3.07
10	Spain	1.94
11	European Union	1.88
12	China	1.85

Government Longevity-Related Projects and Initiatives Analytical Framework



Overall, there are 6 levels of proprietary metrics which differ based on the nature of the parameters they consist of.
Indicators, their growth rates and their ratios are calculated separately and then integrated in the final metrics system.

The whole metrics can also be subdivided into 2 categories based on the logic of the parameters, namely:

- Indicators of potential (or lack thereof);
- Indicators of actual success (or lack thereof).

Thus, the ranking system reflects both strengths and opportunities of different countries regarding the development of national longevity strategies. It can be applied for the evaluation of the current state of a country, as well as of its prospects.

Some metrics indicators are directly interconnected, since the ratios are derived from single values which are parameters themselves.

Government Longevity National Development Plans: Analytic Framework Metrics

The metrics used in this report's proprietary analysis are divided into 6 levels, according to their complexity and importance:

1st level – **absolute values** – primary values of analysed parameters, both economic and health-related;
2nd level – **indexes** – includes Inclusive Development Index (IDI), Healthcare Indexes and Melbourne Mercer Global Pension Index.
3rd level – **ratios** – includes ratios in 4 main categories: Retirement, Healthcare efficiency, Life Expectancy and Budget of initiatives;
4th level – **growth rate of the values**– calculated compound annual growth rates of five to six years for the used indexes;
5th level - **growth rate of ratios** - compound annual growth rates of Ageing Population, Healthy Life Expectancy and Healthcare Expenditures;
6th level - **effectiveness ratios** - ratios that use growth rates of parameters to analyse cost-effectiveness of expenditures on healthcare.

You can review this framework in a bigger scale by this link - [Aging Analytics Agency Approach and Methodology.]

AGING ANALYTICS AGENCY

Initiatives	Retirement	Life Expectancy	Melbourne Mercer Global Pension Index	Others	Retirement	Healthcare Efficiency	Rate of employment	Budget of Initiatives	Healthcare Efficiency	GDP	Employment	Life Expectancy	Growth Rate of Ratios	Effectiveness ratios
Total Number of Initiatives													Age Dependency Ratio, CAGR (5 Years)	
Number of Preventive Medicine Initiatives	Normal Retirement Age Men					HALE/Life Expectancy							HALE / Life Expectancy, CAGR (5 Years)	
Number of AgeTech Initiatives	Normal Retirement Age Women				Senior Poverty Ratio	DALY	Employed, 75+ Years						Healthcare Expenditure / GDP per Capita, CAGR (5 Years)	
Number of Initiatives with Closed Budgets	Early Retirement Age Men	HALE	Integrity		Retired People Proportion	Healthcare Expenditure /GDP per Capita	Employed, 70-74 Years	Budget of Initiatives/ Government Spending				HALE CAGR (5 Years)	Healthcare Expenditure per Capita, CAGR (5 Years)	Life Expectancy CAGR (5 Years)/GDP per Capita, AAA, CAGR (5 Years)
Degree of Industrialisation of Longevity	Early Retirement Age Women	Female Life Expectancy	Adequacy	HAQ	Age Dependency Ratio, Old	Healthcare Expenditure/Government Spending	Employed, 65–69 Years	Budget of Initiatives/GDP		GDP, Current Prices, CAGR (5 Years)	Rate of Population Aging (65+ Years)	Female Life Expectancy, CAGR (5 Years)	Healthcare Expenditure per Capita / Government Spending, CAGR (5 Years)	Life Expectancy CAGR (5 Years) / Health Expenditure per Capita (Current US$), CAGR (5 Years)
Age of Initiatives	Total Number of Retired	Male Life Expectancy	Sustainability	Inclusive Development Index Score	Population 65 and over Rate	Health Expenditure per Capita Current PPPs	Employed, 60–64 Years	Budget of Initiatives/ Inclusive Development Index Score	Healthcare Efficiency Score, 5 Years Growth	GDP per Capita, PPP, CAGR (5 Years)	Average Growth of % of People in Workforce	Male Life Expectancy, CAGR (5 Years)	Growth of Population Aged 65+ / Population Growth, CAGR (5 Years)	Employed People Aged 65+, CAGR (5 Years) / Health Expenditure per Capita, CAGR (5 Years)
Social Security Insolvency	Population 60 and Over	Both Sexes Life Expectancy	Overall Value Index	Healthcare Efficiency Score	Population 60 and over Rate	Health expenditure (% of GDP)	Employed, 55–59 Years	Budget of Initiatives/ Healthcare Expenditure	Health Expenditure per Capita, CAGR (5 Years)	GDP per Capita, Current Prices, CAGR (5 Years)	Number of Employed 65+, CAGR (5 Years)	Both Sexes Life Expectancy, CAGR (5 Years)	Number of People Aged Over 65, CAGR (5 Years)	HALE CAGR (5 Years) / Health Expenditure per Capita (Current US$), CAGR (5 Years)
Budget of Industrial Strategy														
Amount of Capital Committed to AgeTech														
Amount of Capital Committed to Geroscience R&D														
Absolute Amount of Capital Committed to Initiatives														
Amount of Capital Committed to Preventive Medicine														
Whether a Country has Dedicated Minister for Elderly														
Number of WHO Age-Friendly Cities/ Communities														
	1st Level		2nd Level		3rd Level				4th Level				5th Level	6th Level

Methodology for Ranking Countries Efforts on the Front of Government Longevity-Related Projects and Initiatives

To assess countries according to the number and relevance of their government-led longevity projects and initiatives, a sum of metrics parameters taking into account 75 metrics were used.

Metrics Values

Each metric`s absolute value is recalculated into the *relative score* within the range [0.0-1.0]. To be more specific, if a metric is numeric, the formula for *score* calculation is the absolute value of a country divided by the maximal absolute value among the countries. If a metric is qualitative (yes/no), a value “yes” equals to 1.0 and a value “no” equals to 0.0. The qualitative metric “Degree of government industrialization of longevity” has 3 values according to the industrialization of Longevity in a country: *Industrial Strategies* (equals to 1.0); *National or metropolitan master plans* (equals to 0.5); *Independent or municipal government programs* (equals to 0.0).

Weight Factors

To equalize each metric in terms of significance among others the *weight factors* are applied. Each *weight factor* is in the range from -1.0 to 1.0, where 1.0 - the most favorable metric, -1.0 - the most detrimental metric and 0,0 - not an important metric at all (if the factor is negative, the higher positive magnitude of *relative score*, the worse for a country's score). The *weighted score* of a country for a particular metric is *relative score* multiplied by an *weight factors*.

Final Score

Consequently, the countries were ranked according to the sum of their *weighted scores* of each metric. The higher the final score the more advanced a country in terms of government Longevity-related projects and initiatives.

Planned Methodology Additions for Second Edition of the Report in Q3 2019

Further extensions in methodology will relate to all aspects of our proprietary ranking system, namely:

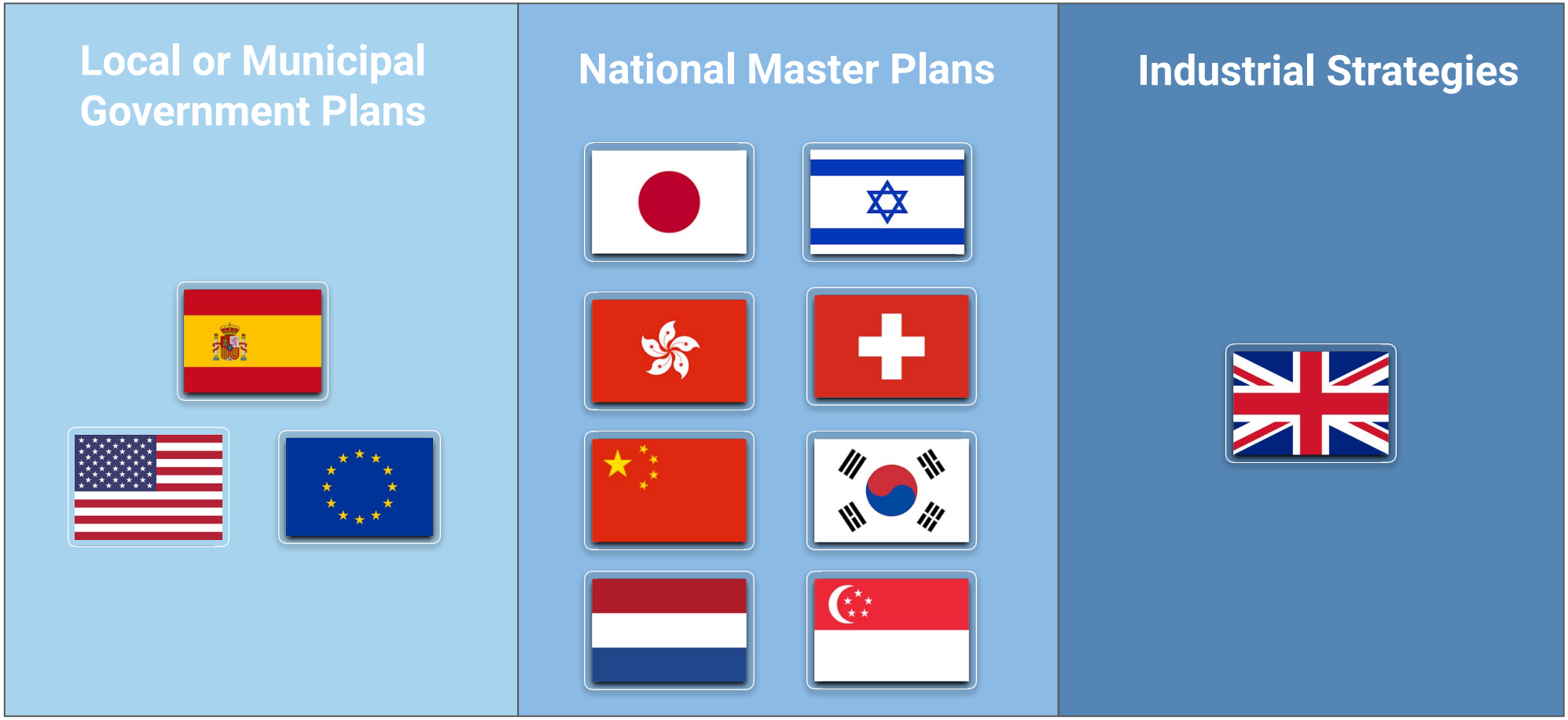
- Expanding the number of metrics parameters, as well as their categorization.
- Adjustment of weight factors in accordance with new statistics on investigated countries.
- Expanding the final ranking of countries and dividing them also into specific categories.
- Improving the distributions of the parameters, creating new levels and categories of metrics.

First edition	Second edition
12 countries or regions	More than 30 countries or regions
77 metrics and parameters	More than 100 metrics and parameters
6 levels of parameters	8 levels of parameters, some of which are regrouped
1 approach for weights assignment	3 approaches for weights assignment

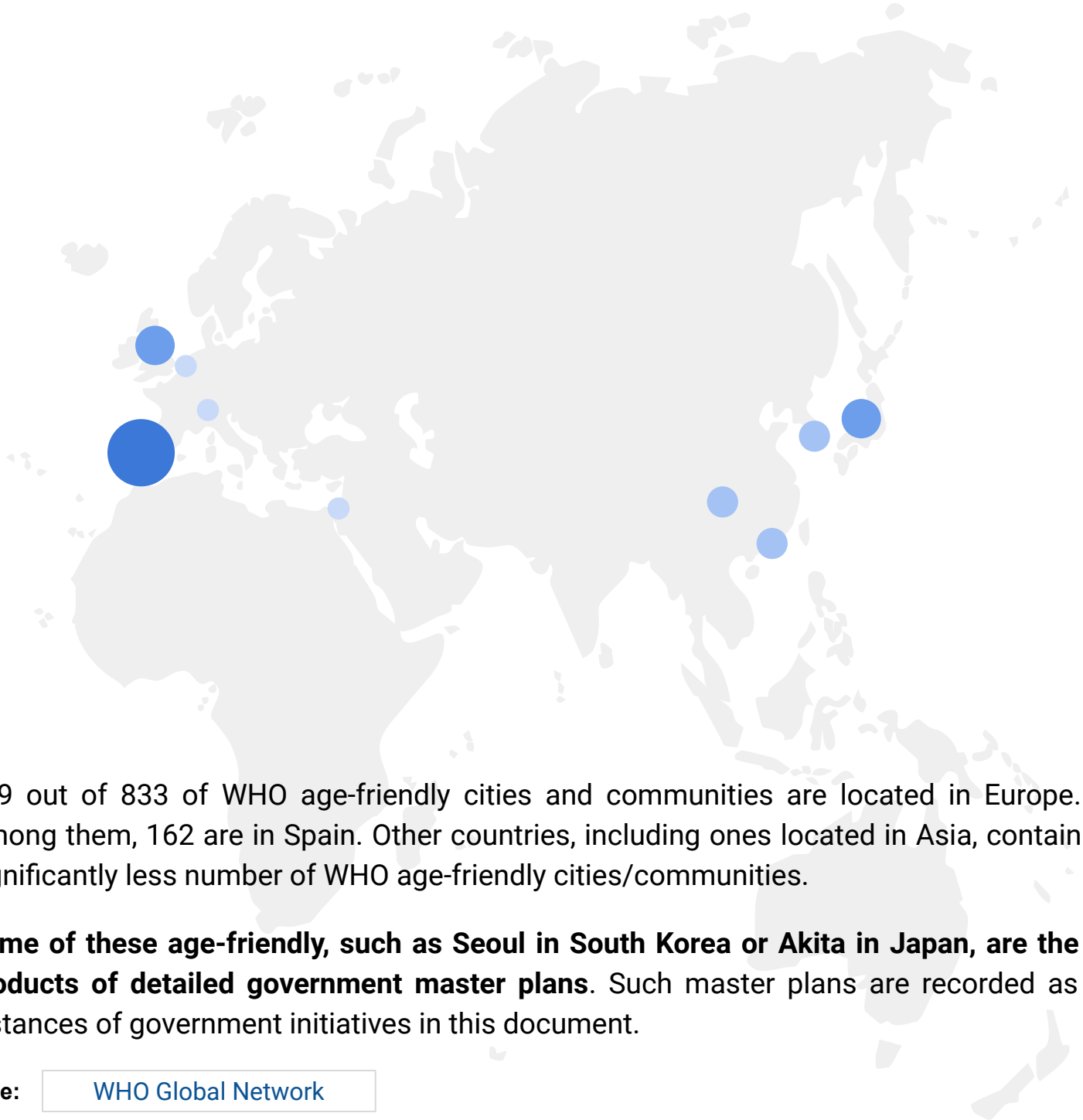
One of the foremost challenges faced during the production of this first edition of the report was the large volume of data, as well as gaps in data for different countries, which necessitated in many cases the manual aggregation and parsing of data, due to a lack consistent resources for the standardization of statistical data across many countries. To overcome these challenges and enable an even deeper level of analysis, from the third edition and onward advanced statistics and machine learning tools will be applied to automate aggregation of data, increase the scope and tangibility of insights derived from the analysis and to reveal trends otherwise hidden underneath the large volumes of unstructured data. This will enable aggregation of even larger quantities of data without burdening the clear and pragmatic analysis of that data, allowing sophisticated cross-sector analysis of tens of different countries and regions in an efficient manner.

Scale and Scope of Government Longevity Development Plans

Some government programs are more integrated than others, some showing more leadership than others in the industrialization of longevity. In this respect, the examples in this document fall into 3 main categories: **independent or municipal programs,** one plan per project (ad hoc) or per city**, national or metropolitan master plans** which bring together multiple sectors of government, and **industrial strategies** which include the use of research and development in pursuit of future economic dividends of Longevity. The next step is the **Longevity Industry Strategy**.



Age-Friendly Cities and Communities



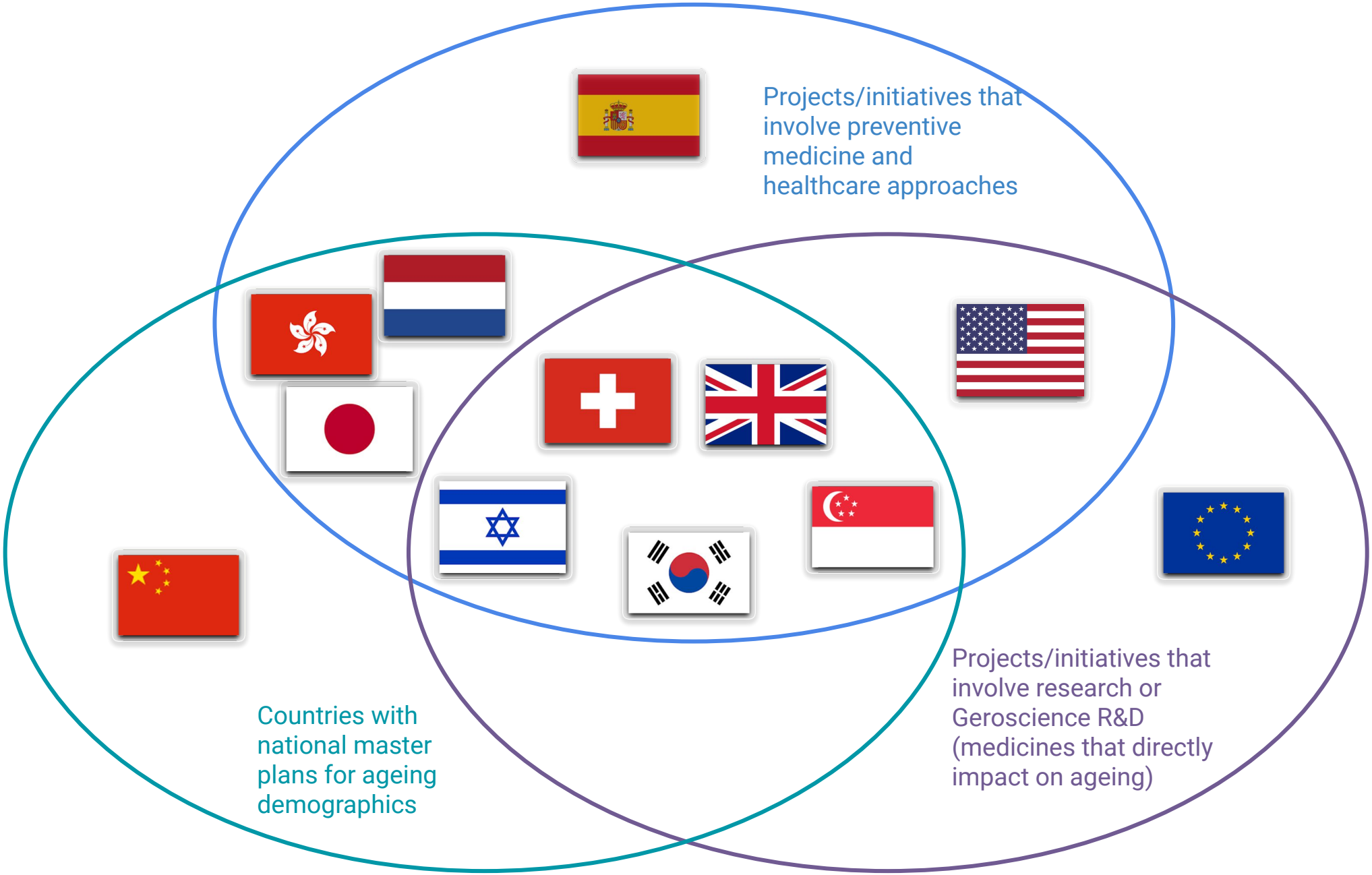
162	Spain
24	Japan
23	UK
11	South Korea
9	China
9	Hong Kong
4	Israel
3	Switzerland
2	Netherlands

319 out of 833 of WHO age-friendly cities and communities are located in Europe. Among them, 162 are in Spain. Other countries, including ones located in Asia, contain significantly less number of WHO age-friendly cities/communities.

Some of these age-friendly, such as Seoul in South Korea or Akita in Japan, are the products of detailed government master plans. Such master plans are recorded as instances of government initiatives in this document.

Source: WHO Global Network

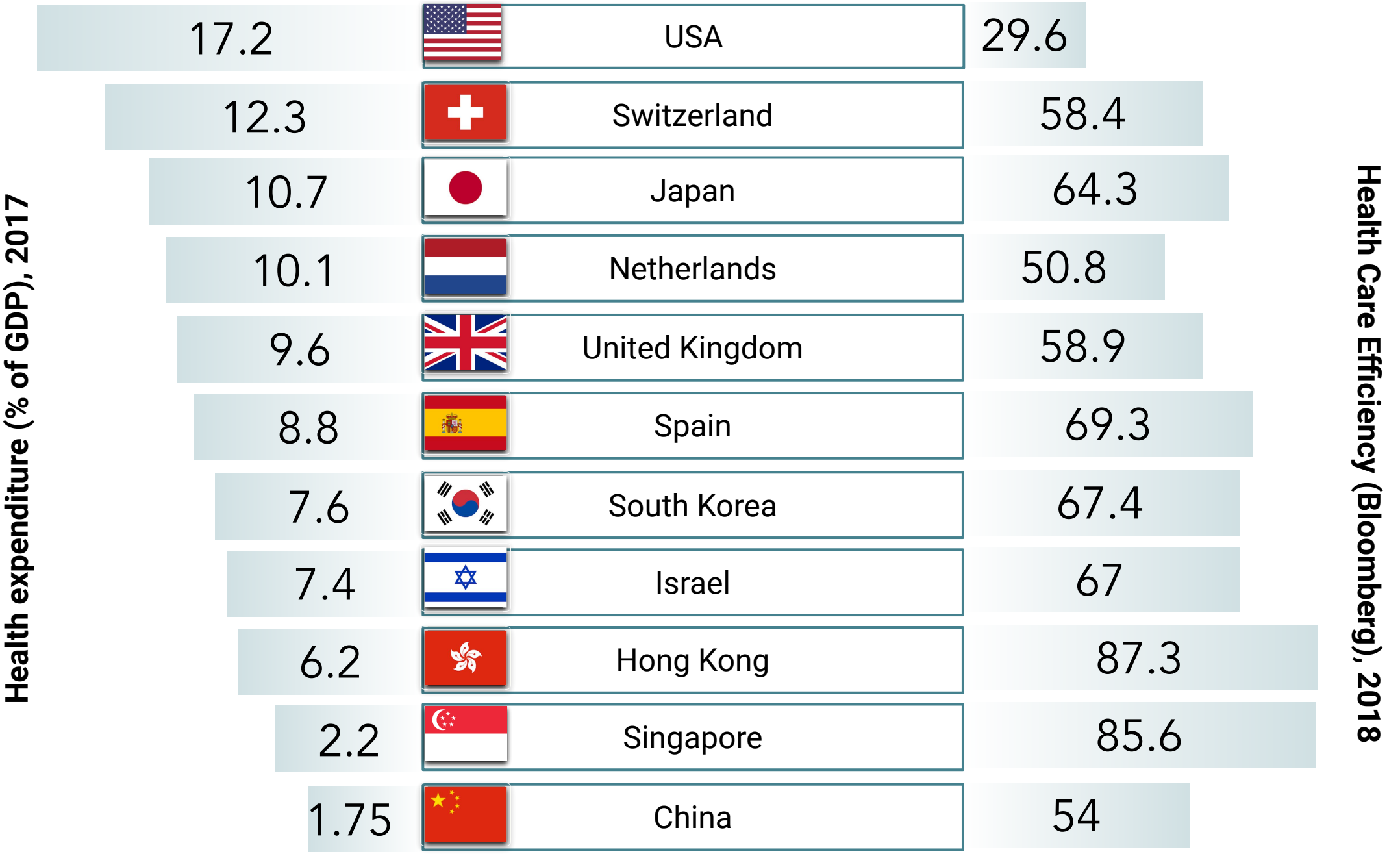
Longevity Initiatives Classification Framework



Life Expectancy and GDP per Capita

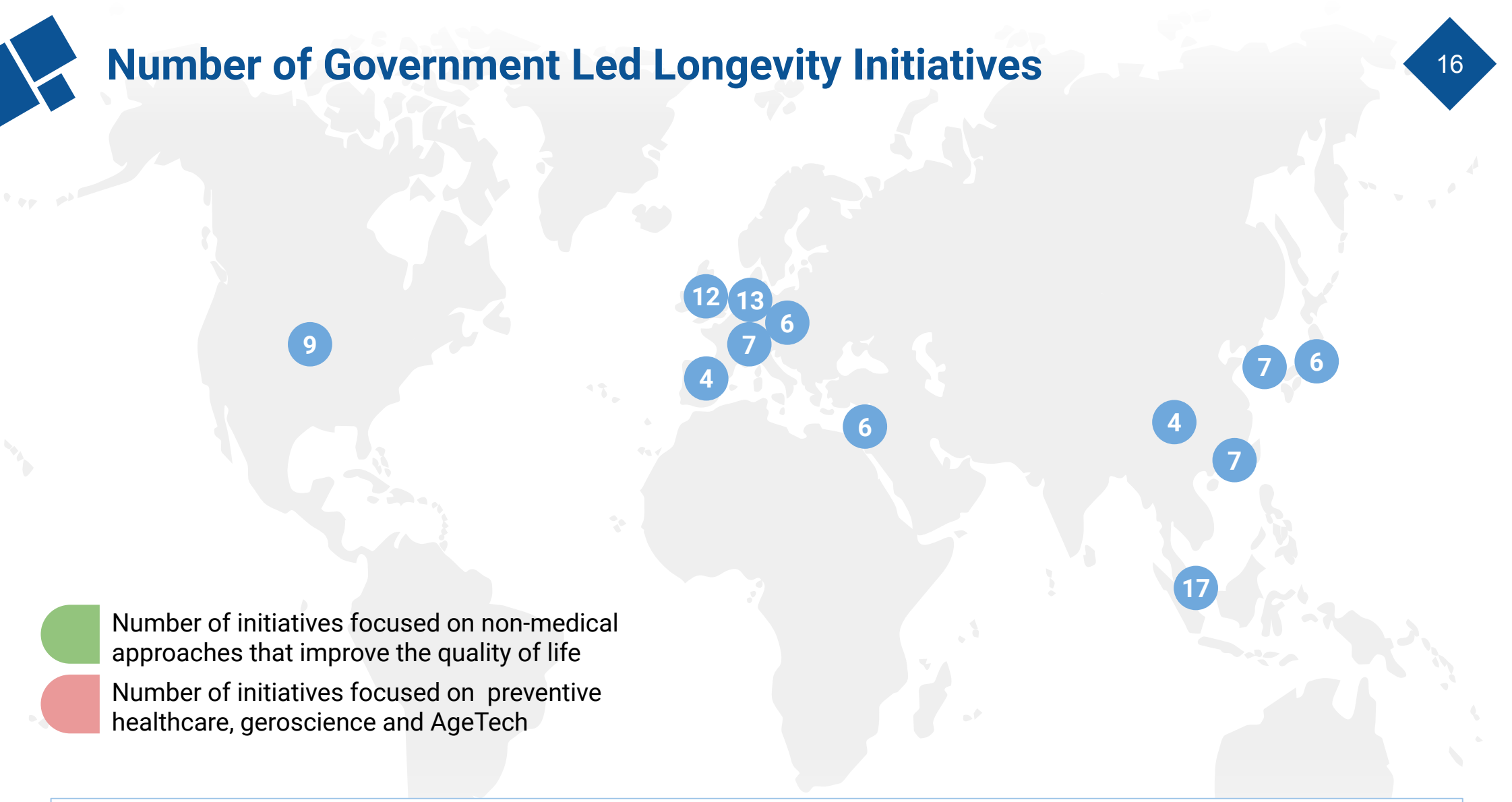
Sources: World Economic Outlook | Geoba.se - Life Expectancy

Health Expenditure and Health Care Efficiency Score



Sources: OECD.Stat - Health Status | Bloomberg Health Care Efficiency

Number of Government Led Longevity Initiatives



Number of initiatives focused on non-medical approaches that improve the quality of life

Number of initiatives focused on preventive healthcare, geroscience and AgeTech

8	4	UK	4	0	Spain	2	4	Israel	13	4	Singapore
5	2	Hong Kong	4	3	Switzerland	4	0	China	5	1	Japan
3	4	South Korea	9	4	Netherlands	6	3	USA	4	2	EU

Industrial Strategies, National Master Plans, Independent or Municipal Government Programs

BIRAX Ageing

Society 5.0

SEOUL METROPOLITAN GOVERNMENT

Seoul Metropolitan Government, South Korea ministry of Health and Welfare

CHARLS 中国健康与养老追踪调查 北京大学 PEKING UNIVERSITY

China Health and Retirement Longitudinal Study led by Peking University

Modern Aging Singapore NPTD Silver Infocomm

National Population and Talent Division, Modern ageing Incubator, Silver Infocomm Junctions

National Master Plans

INDUSTRIAL STRATEGY UK Research and Innovation Industrial Strategy Challenge Fund

UK Research and Innovation, UK Industrial Strategy, Industria; Strategy Challenge Fund

Industrial strategy

OAA OLDER AMERICANS ACT #BOLDAlzheimersAct AIM Affordable Care Act

Older Americans Act, The Building Our Largest Dementia, Affordable Care Act.

SPHN Swiss Personalized Health Network

Swiss Personalized Health Network

衛生署 Department of Health HKCSS 社聯 勞工處 Labour Department

Department of Health, Labour Department, The Hong Kong Council of Social Service

durango Ciudad amigable con las personas mayores

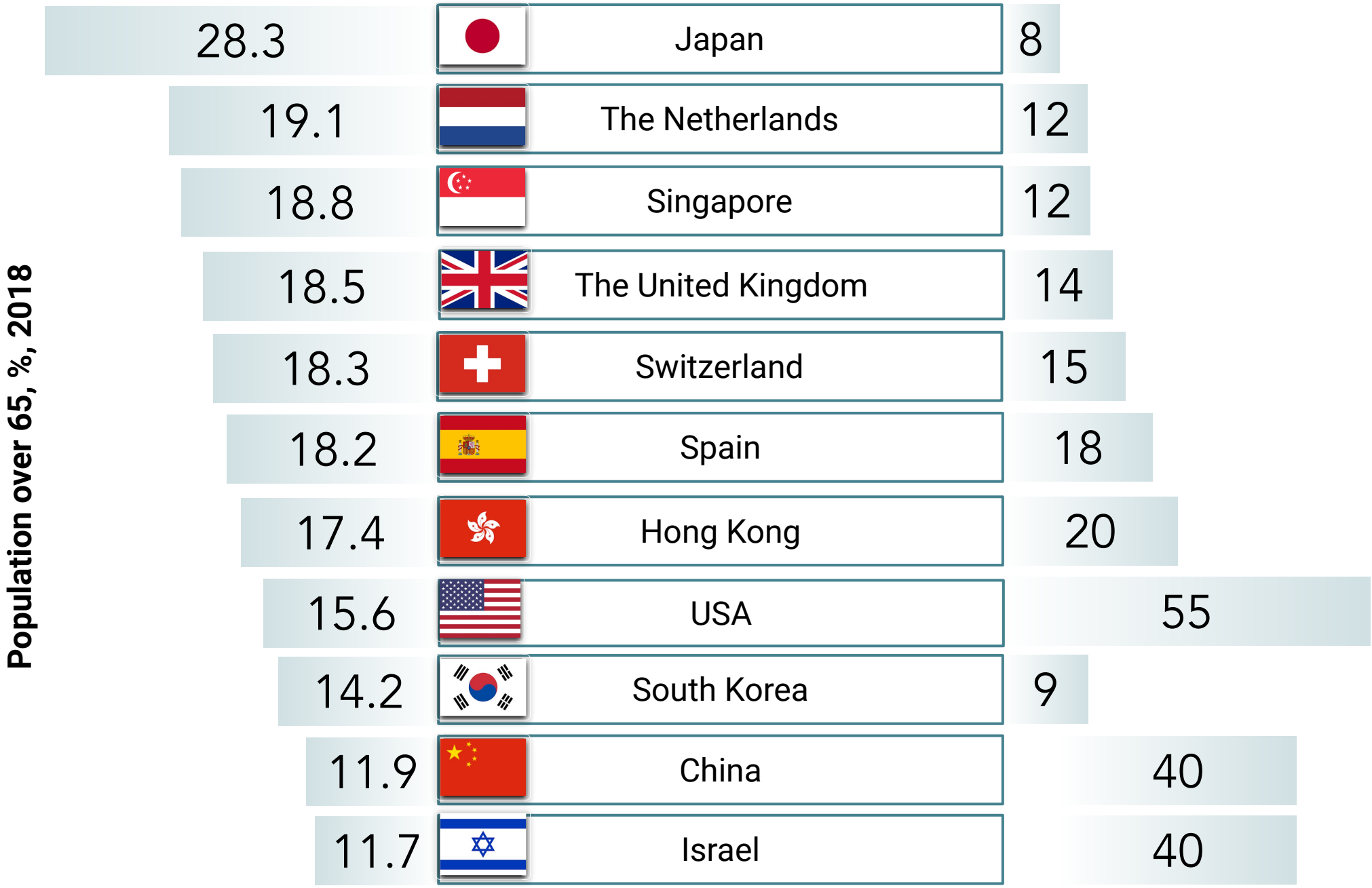
Durango, Age-Friendly City

CHRODIS Healthy Ageing Network Northern Netherlands Region of Knowledge and Development Deltaplan Dementie

Groningen Active Ageing Strategy, HANNN, Deltaplan for Dementia.

Independent or Municipal Government Programs

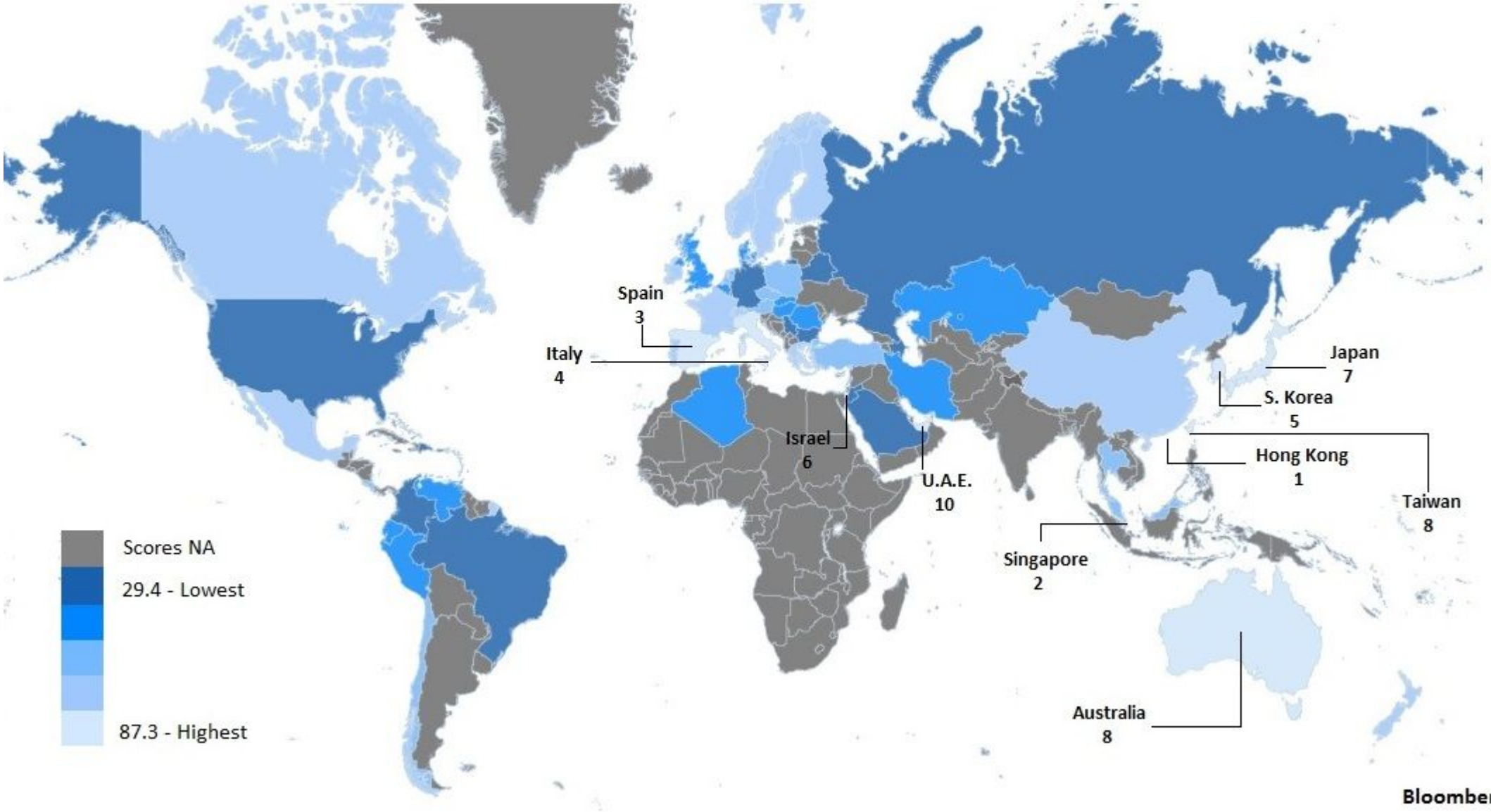
Ratio of Population over 65 vs. the Age of Relevant Initiatives



Source: National Bureaus of Statistics

2018 Bloomberg Healthcare Efficiency Index

Health Care Efficiency Scores in 56 Economies



Insolvency Predictions for Government-Funded Schemes

The financial condition of a few governments' retirement programs is shaky, with projected insolvency of some schemes. There is a sobering picture for the **U.S. Medicare and Social Security** programs are headed toward **insolvency** by 2026 and 2035 respectively. **Spain's Social Security Reserve Fund** had run out of money by 2018 which only added to concerns over Spain's financial situation. Increasing longevity, low-interest rates, and an unstable global economy are the reasons why South Korea's National Pension Service is expected to run dry by 2056. The China Academy of Social Sciences reported that **China's pension funds** could become **insolvent by 2035**, with a rapidly dwindling workforce unable to support the growing number of elderly people. The second pillar of **Switzerland's** pension system is under **severe pressure**, and pension schemes are projected to go down by 2025, with failed main reform proposal that was rejected in a public referendum.

To assess pension systems in other countries, the **Melbourne Mercer Global Pension Index 2018** was used. The Index shows that the **Netherlands** offer A-Grade world-class retirement income systems with good benefits - clearly demonstrating their **preparedness for tomorrow's ageing world.**

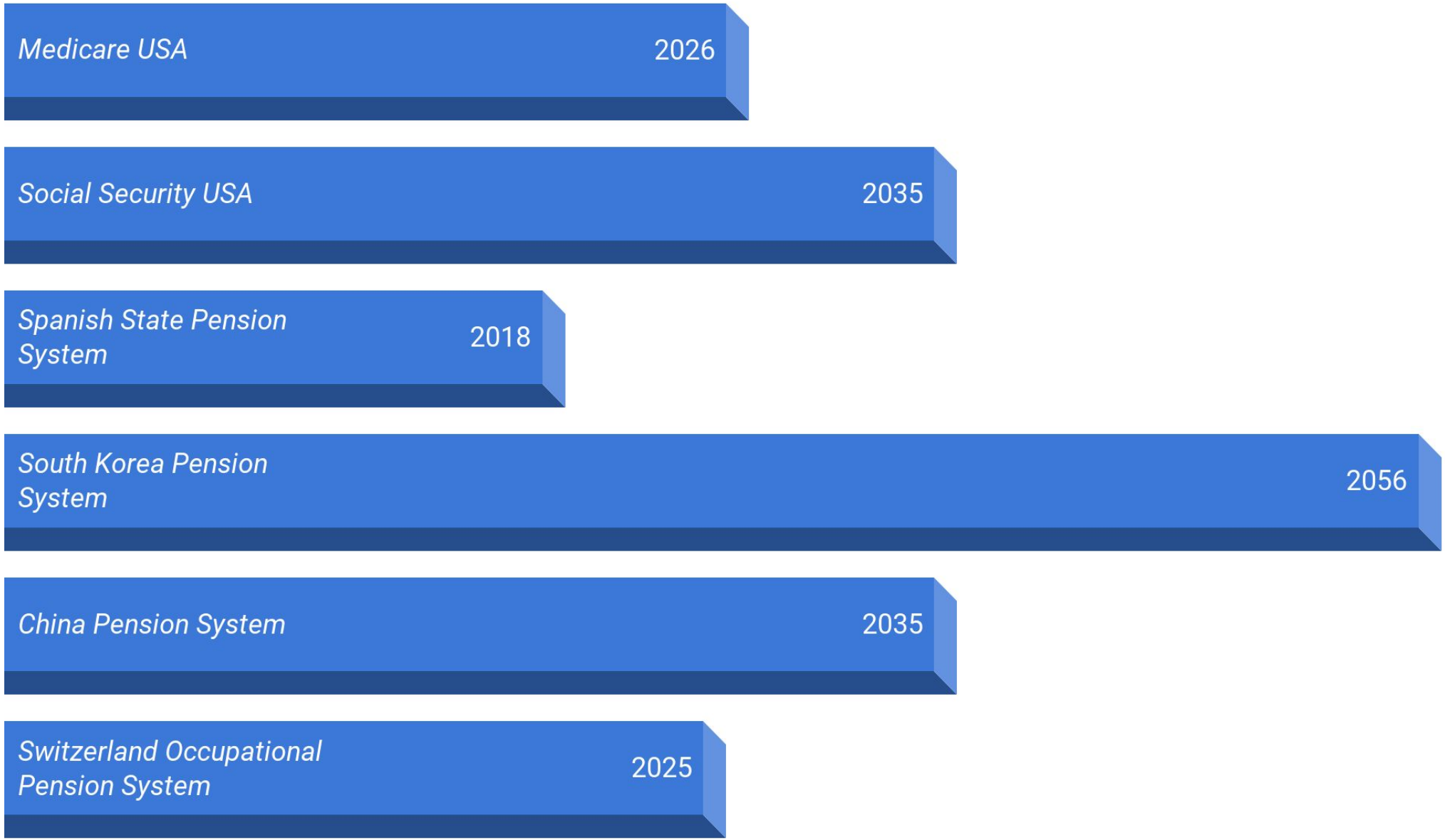
Source: Mercer Global Pension Index

Government-funded scheme	Country	Projected insolvency	Source
Medicare	USA	2026	bloomberg.com
Social Security	USA	2035	bloomberg.com
Spanish State Pension System	Spain	2018	mishtalk.com
South Korea Pension System	Korea	2056	thediplomat.com
China pension system	China	2035	reuters.com
Switzerland occupational pension system	Switz.	2025	ft.com

Melbourne Mercer Global Pension Index 2018

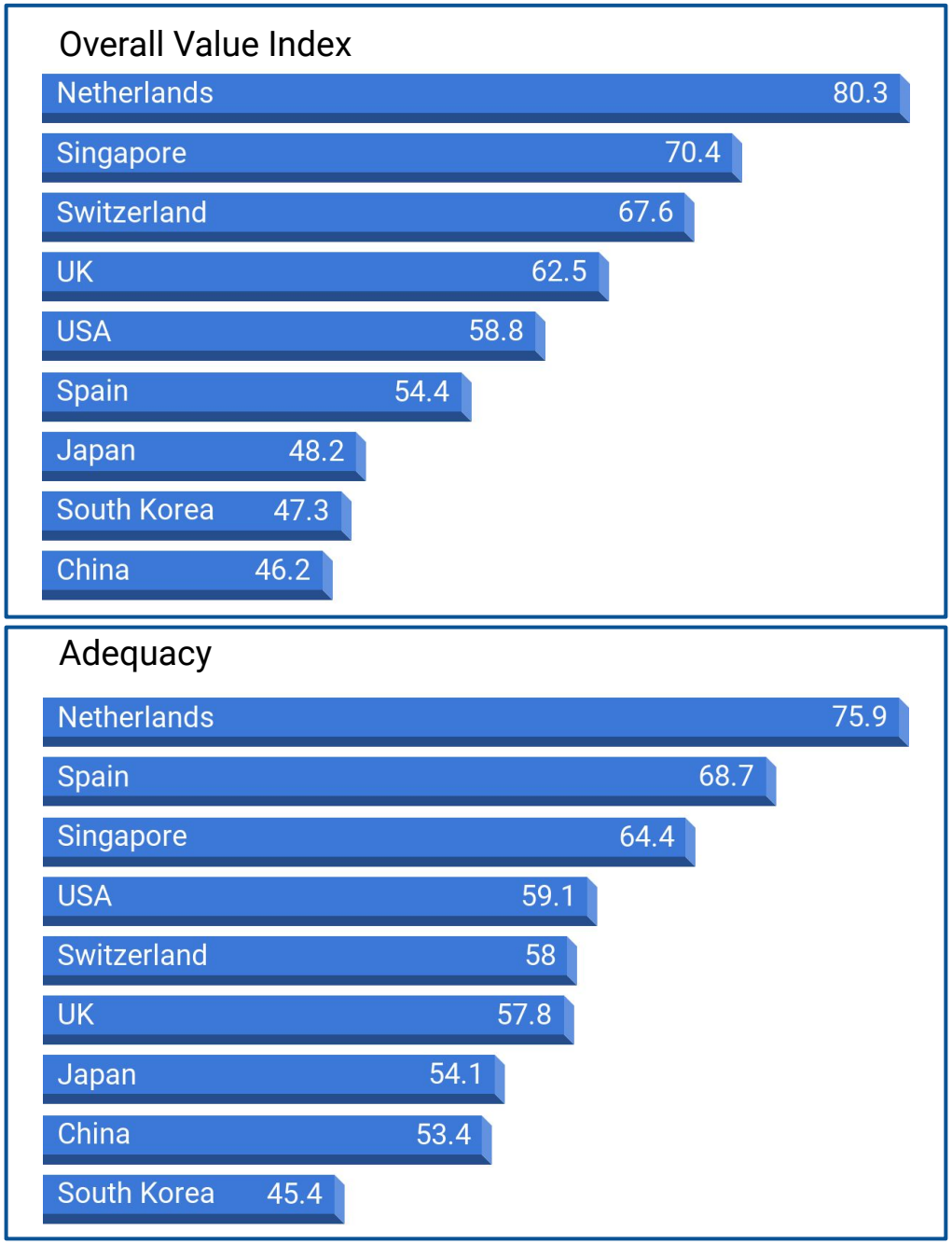
System	Overall Value Index	Sustainability	Adequacy	Integrity
Singapore	70.4	69.5	64.4	81.2
UK	62.5	53.4	57.8	82.9
Japan	48.2	32.4	54.1	60.7
South Korea	47.3	48.1	45.4	49.3
China	46.2	38	53.4	46
Spain	54.4	27.8	68.7	68.6
Switzerland	67.6	67.5	58	83.2
Netherlands	80.3	79.2	75.9	88.8
USA	58.8	57.4	59.1	60.2

Insolvency Predictions for Government-Funded Schemes



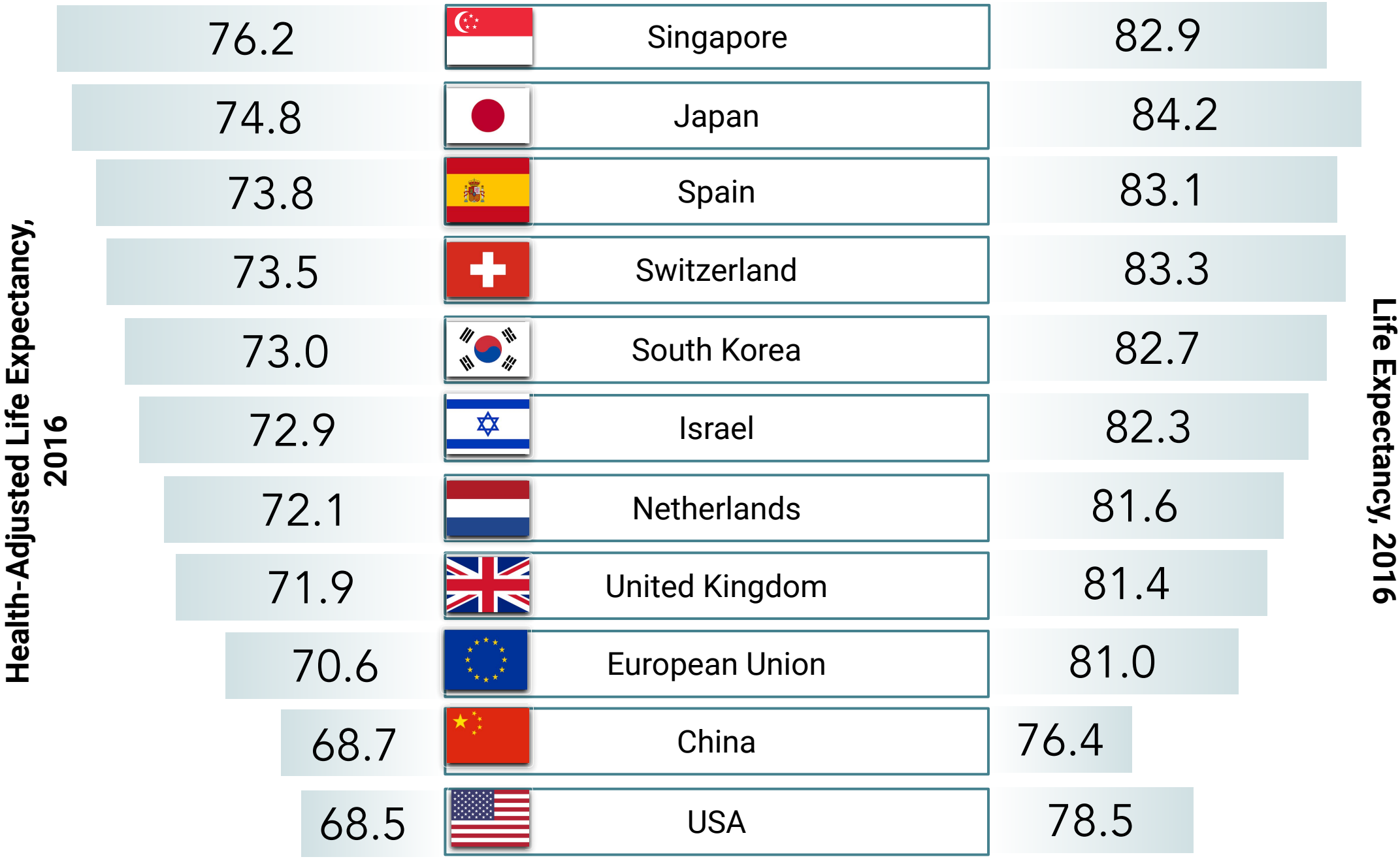
Sources: Bloomberg | MishTalk | Thediplomat | Reuters | Financial Times

Melbourne Mercer Global Pension Index 2018



Source: Mercer Global Pension Index

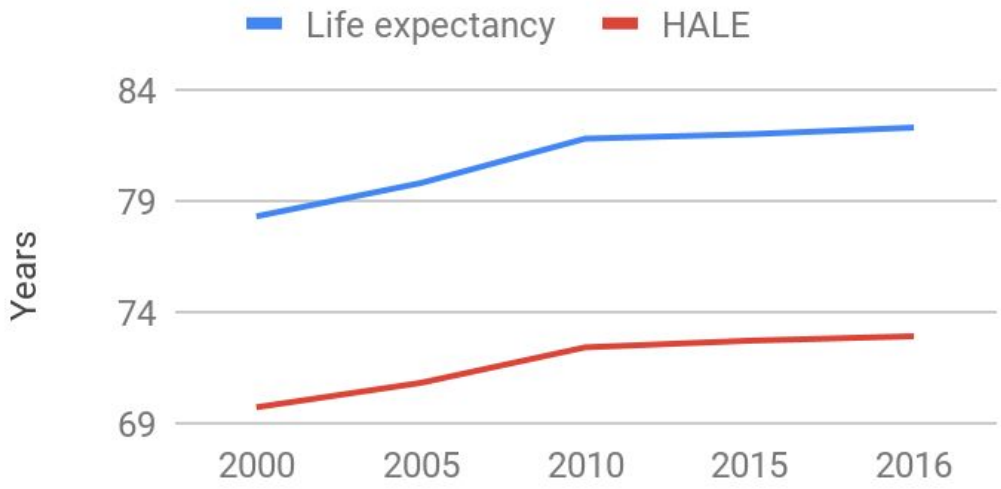
Health-Adjusted Life Expectancy vs. Life Expectancy



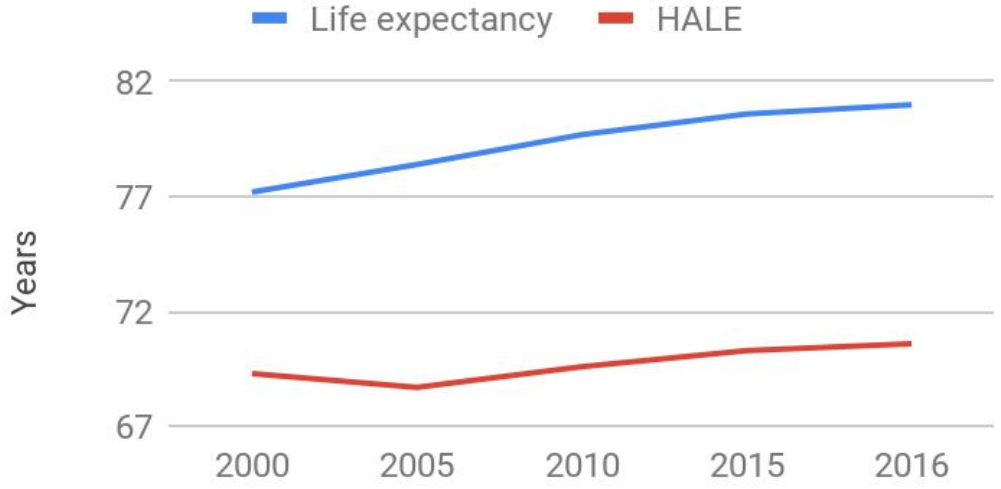
Source: GHO Life expectancy and HALE

Health-Adjusted Life Expectancy vs. Life Expectancy
Israel, EU, USA and China (2000-2016)

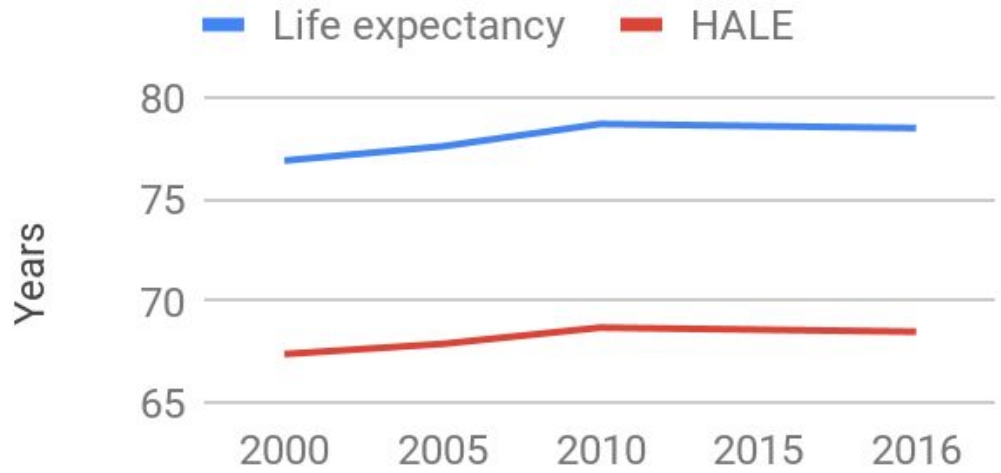
Israel



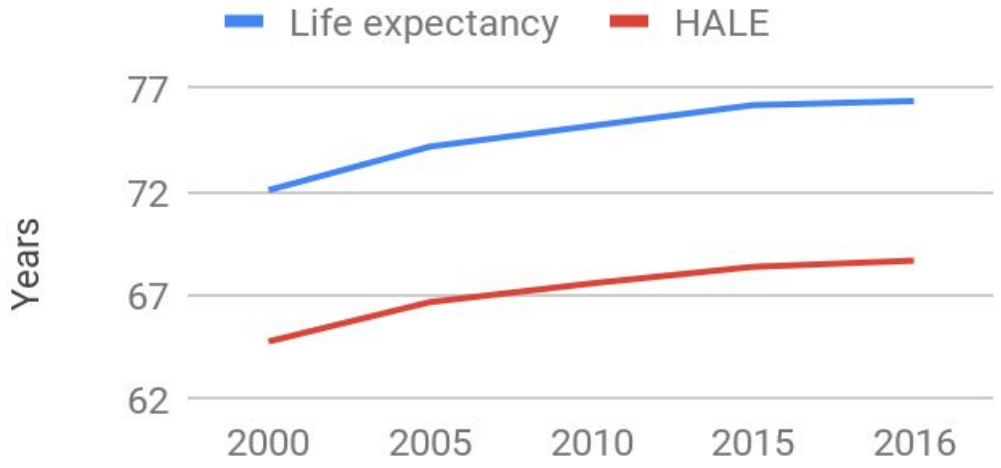
EU



USA



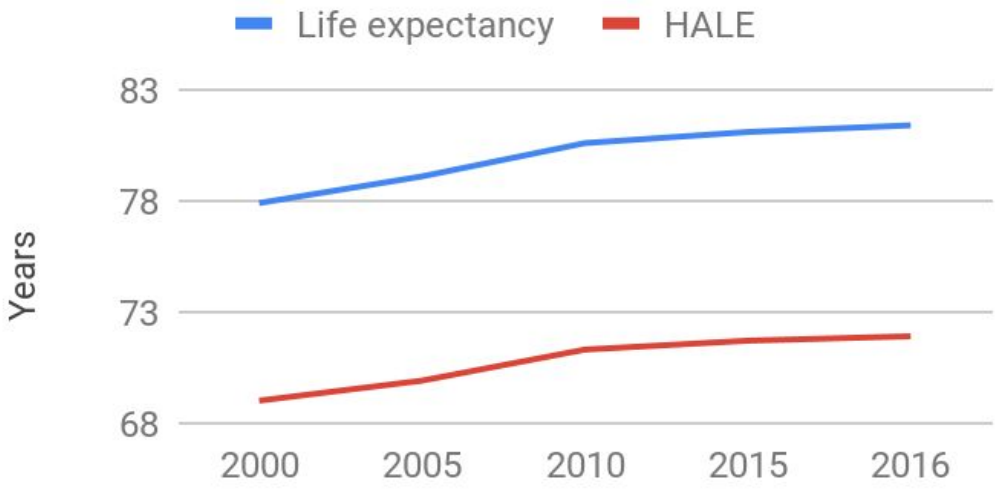
China



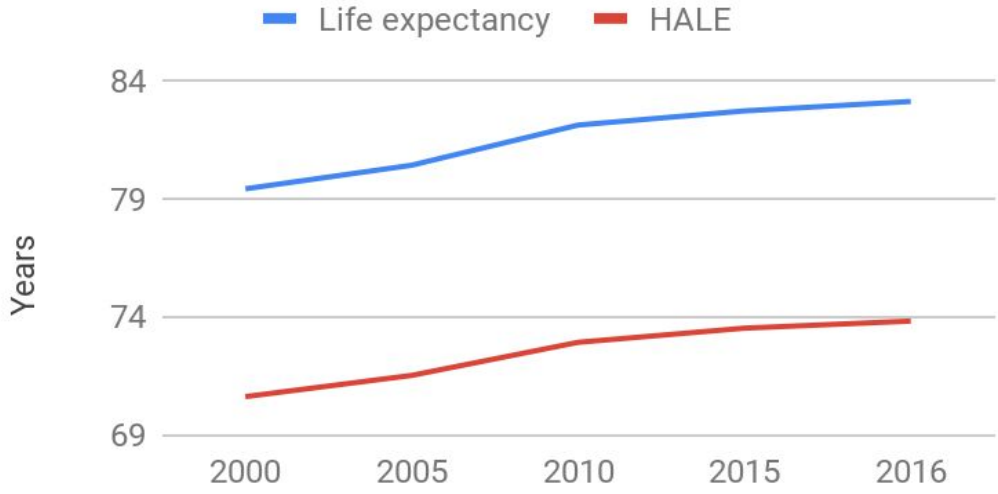
Sources: GHO Life expectancy and HALE | Life expectancy - WB Data

Health-Adjusted Life Expectancy vs. Life Expectancy
UK, Spain, Switzerland and Netherlands (2000-2016)

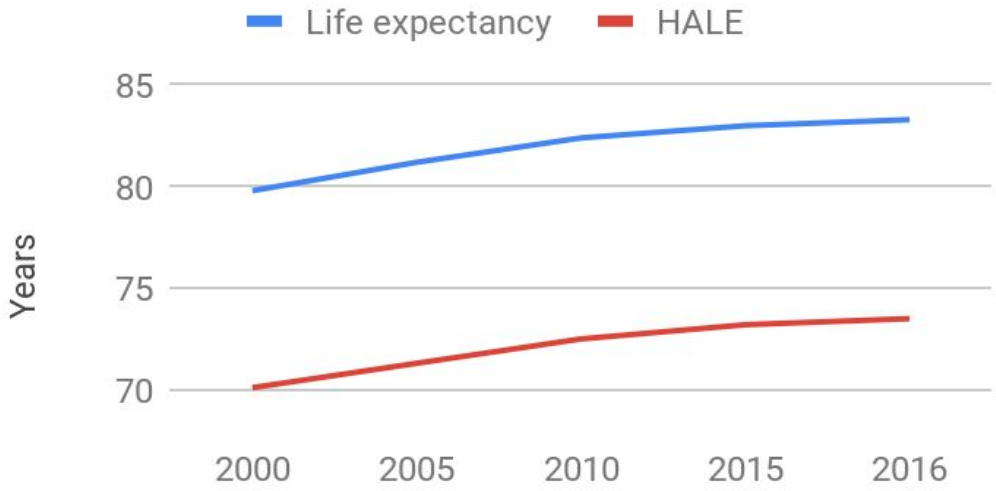
UK



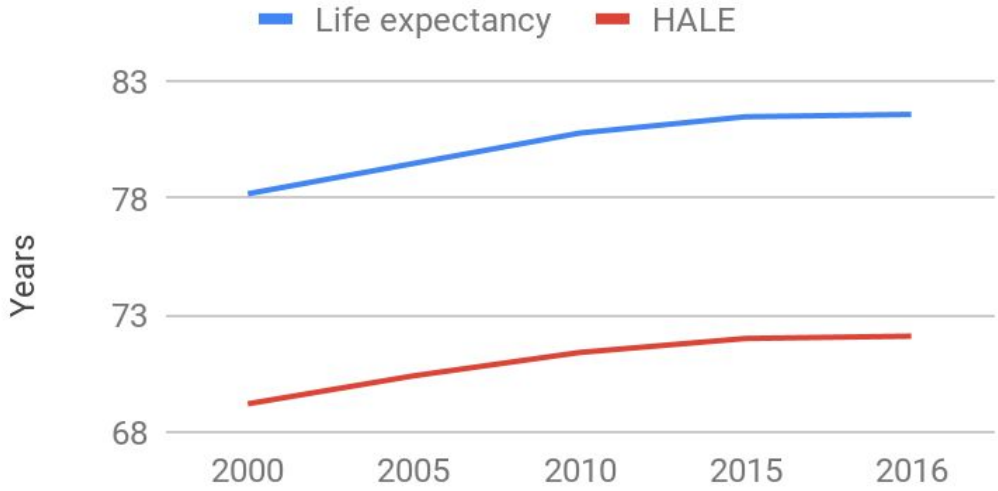
Spain



Switzerland



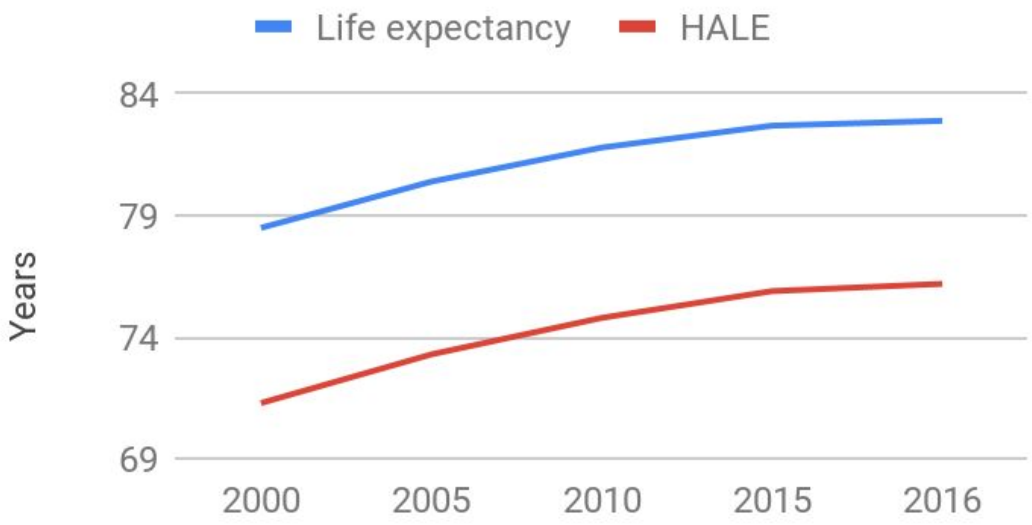
Netherlands



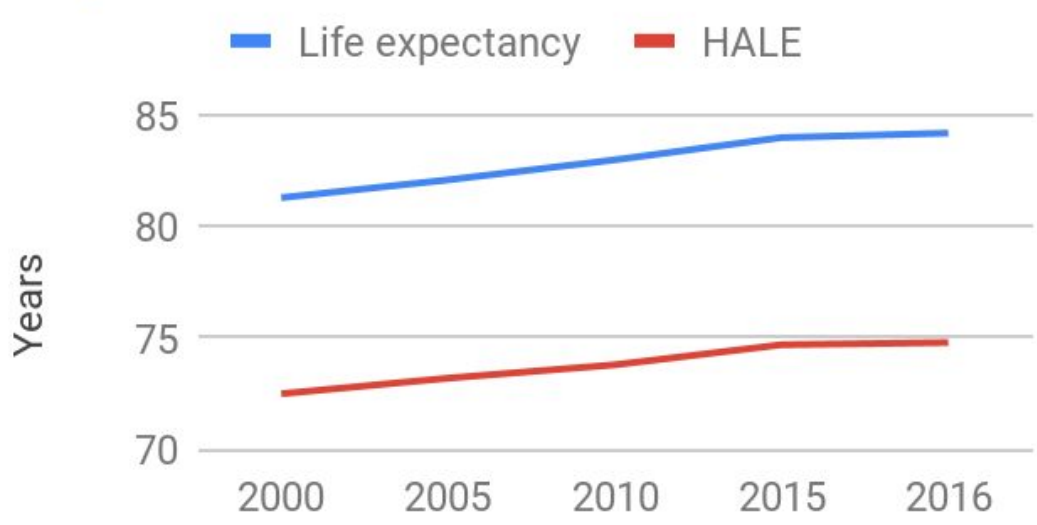
Source: GHO Life expectancy and HALE

Health-Adjusted Life Expectancy vs. Life Expectancy Singapore, Japan, and South Korea (2000-2016)

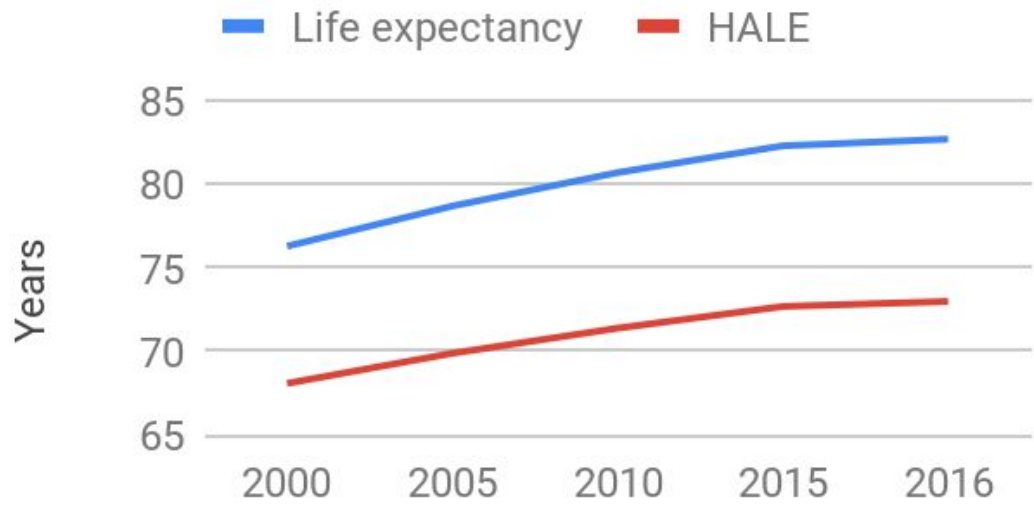
Singapore



Japan



South Korea



Source: GHO Life expectancy and HALE

Health-Adjusted Life Expectancy Countries Analysis

	HALE/life expectancy ratios 2016	HALE/life expectancy ratios 2000	HALE 2016, years	HALE 2000, years	CAGR HALE	CAGR HALE/Life expectancy ratio
Singapore	91.92%	89.02%	76.20	71.30	0.44%	0.08%
China	89.92%	90.83%	68.70	64.80	0.39%	0.00%
Japan	88.84%	89.18%	74.80	72.50	0.21%	-0.03%
Spain	88.81%	88.92%	73.80	70.60	0.30%	-0.01%
Israel	88.58%	89.02%	72.90	69.70	0.30%	-0.03%
Netherlands	88.36%	88.49%	72.10	69.20	0.27%	-0.01%
UK	88.33%	88.58%	71.90	69.00	0.27%	-0.02%
South Korea	88.27%	89.25%	73.00	68.10	0.46%	-0.07%
Switzerland	88.24%	87.84%	73.50	70.10	0.32%	0.03%
USA	87.26%	87.65%	68.50	67.40	0.11%	-0.03%
EU	87.16%	89.77%	70.60	69.30	0.12%	-0.20%

Source: GHO Life expectancy and HALE

Methodology for Health-Adjusted Life Expectancy Countries Analysis

HALE (health-adjusted life expectancy) refers specifically to the healthy number of years someone is expected to live at birth, which equals to their life expectancy minus the number of years expected to be lived in a state of illness or disability as opposed to life expectancy at birth that is defined as how long, on average, a newborn can expect to live, if current death rates do not change. Therefore, HALE is a more useful and revealing metric compared with average life expectancy.

For the report there were used the following metrics that helped us identify the leaders in longevity:

- CAGR (the Compound Annual Growth Rate) HALE is calculated as follows:

  CAGR HALE = (HALE 2016 value/HALE 2000 value)^(1/(16-1))-1, where 16 is the number of years between the start and finish values;

- HALE/Life expectancy ratio shows the gap between HALE and life expectancy, and is calculated as follows:

  HALE/Life expectancy ratio = HALE value/Life expectancy value;

- CAGR HALE/Life expectancy ratio illustrates whether HALE and life expectancy are converging (approaching each other), or diverging (e.g. life expectancy rising without an increase in HALE), and is calculated as follows:

  CAGR HALE/Life expectancy ratio = (HALE Life expectancy ratio 2016 value/HALE Life expectancy ratio 2000 value)^(1/(16-1))-1;

For the country to be considered as a leader in HALE, it should have the maximum possible values in all three aforementioned metrics, i.e. CAGR HALE must be at least greater than zero, HALE/Life expectancy ratio should be as close to 100% as possible, and CAGR HALE/Life expectancy ratio must be greater than zero.

The source for all the data for the analysis is WHO Life tables. Hong Kong is not included in the analysis because there is no HALE data for the country.

Health-Adjusted Life Expectancy Countries Analysis

Asian countries are on top of all the rankings. Singapore is the leader in a number of key metrics, i.e. Singapore has the smallest gap between HALE and life expectancy both in 2000 and 2016, and the country has the biggest annual growth in this metric. Japan has lost the leading position in HALE ranking to Singapore, but it's South Korea that has gained the most position in HALE rankings and has the biggest HALE growth rate.

	Ranking HALE/life expectancy ratios 2016	Ranking HALE/life expectancy ratios 2000	HALE ranking 2016	HALE ranking 2000	CAGR HALE ranking	CAGR HALE/Life expectancy ratio ranking
Singapore	1	1	1	2	2	1
China	2	2	10	11	3	3
Japan	3	5	2	1	9	7
Spain	4	7	3	3	6	4
Israel	5	6	6	5	5	9
Netherlands	6	9	7	7	8	5
UK	7	8	8	8	7	6
South Korea	8	4	5	9	1	10
Switzerland	9	10	4	4	4	2
USA	10	11	11	11	11	8
EU	11	3	9	6	10	11

Source: GHO Life expectancy and HALE

Males and Females Life Expectancy in 2018

Males		Females
81.1	Japan	87.1
81.2	Switzerland	85.2
80.3	Spain	85.7
80.4	Hong Kong	85.5
80.8	Singapore	85
79.5	South Korea	85.6
80.3	Israel	84.2
80	Netherlands	83.2
79.7	United Kingdom	83.2
77	USA	81.9
75	European Union	82
75	China	77.9

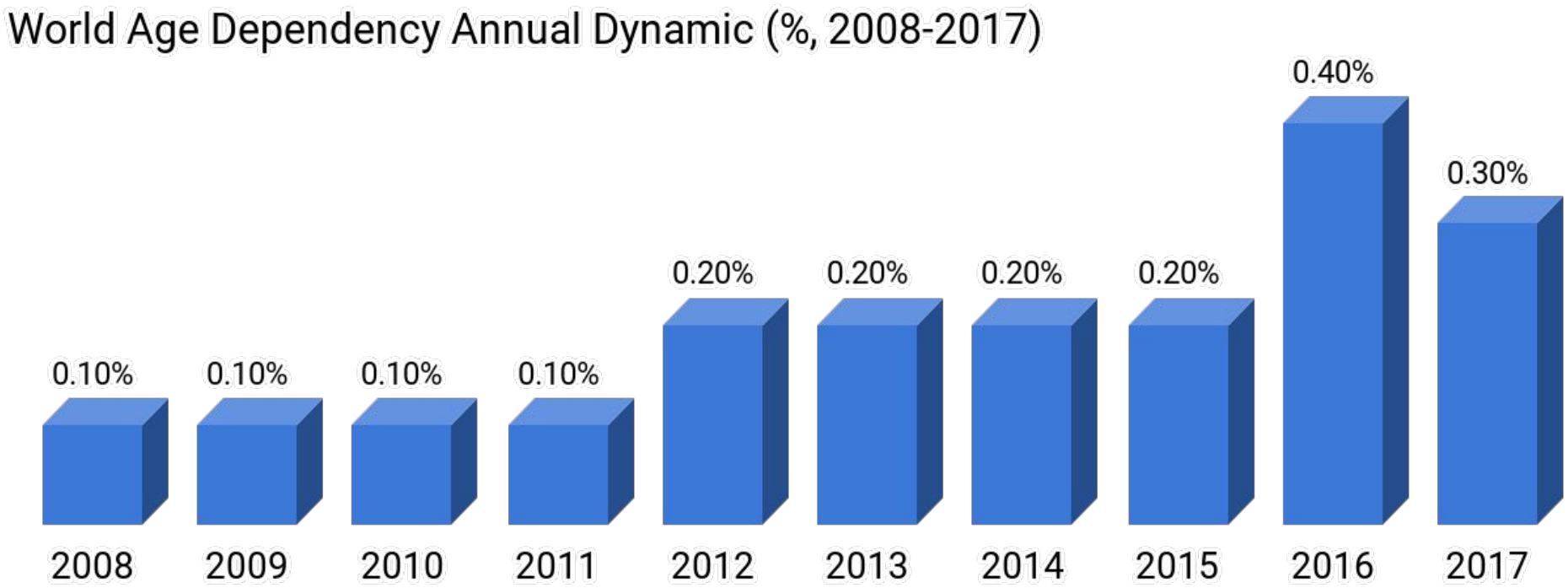
Source: World Life Expectancy

Age Dependency Annual Dynamic

The set of figures below shows an annual dynamic of age dependency throughout Israel, Singapore, the UK, Japan, South Korea, Hong Kong, China, Spain, Switzerland, the Netherlands, and the EU. This dynamic shows the growth of age dependency ratio in the current year, compared to the previous one. This allows to see the general tendency, which, we will see further, is positive in all countries.

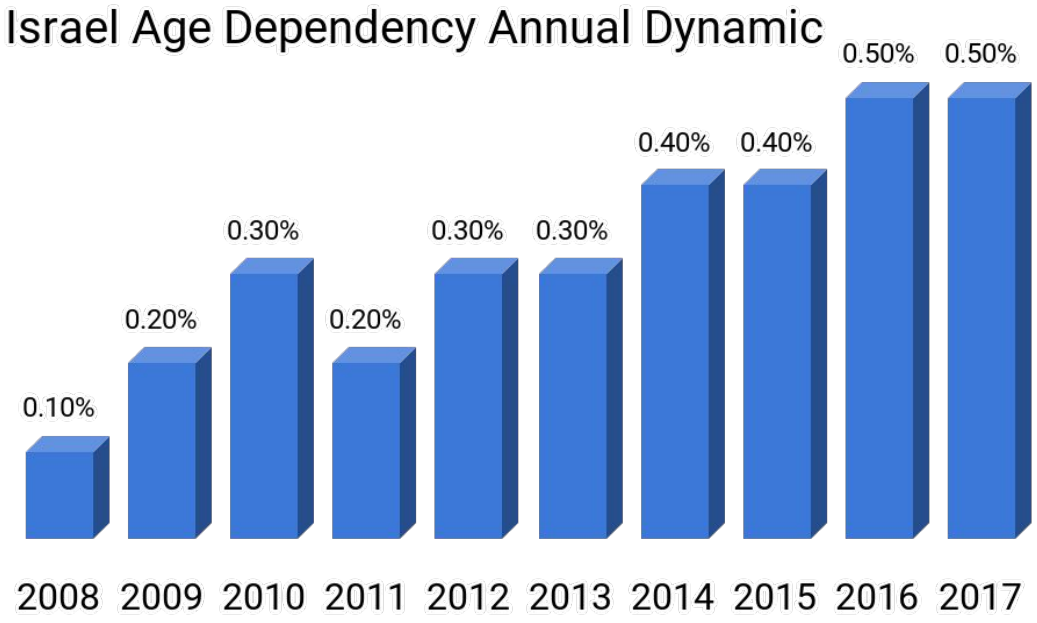
Right below, we see a general chart, that shows annual age dependency dynamic in the whole world, which allows us to compare the world trend with specific aforementioned countries' tendencies and to see, how these countries perform against the world background.

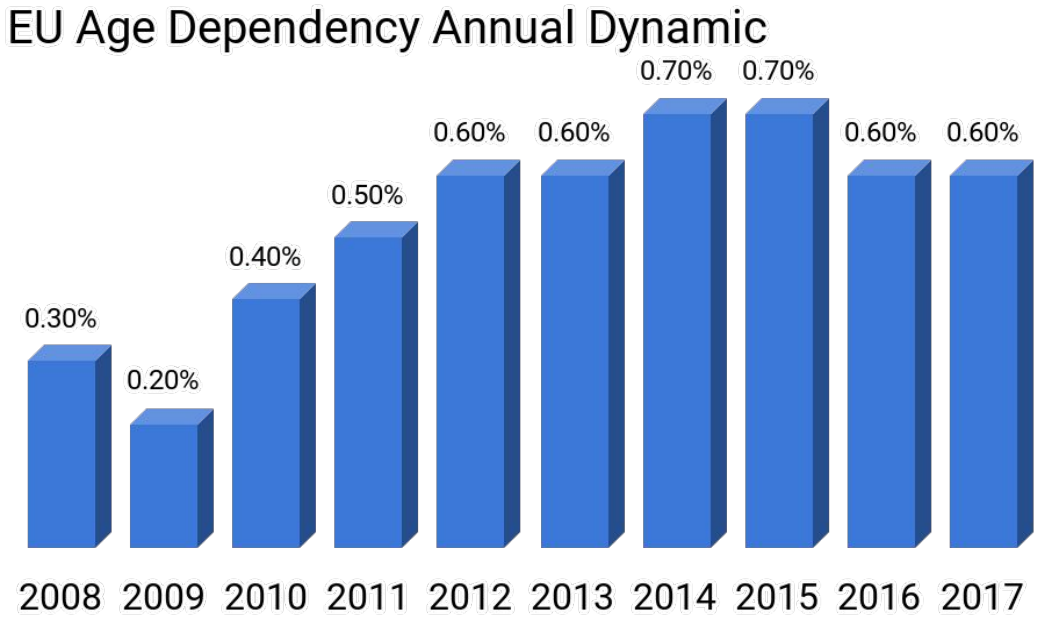
On the figure below we may see, that the trend is positive. There is a stable annual growth in age dependency throughout all researched period (2007-2017), with indicators of 0.10%-0.40%. The biggest indicator is 0,40%, which is seen in 2016. However, right in the next year, the growth slowed down a little - for 0.10% becomes 0.30%.

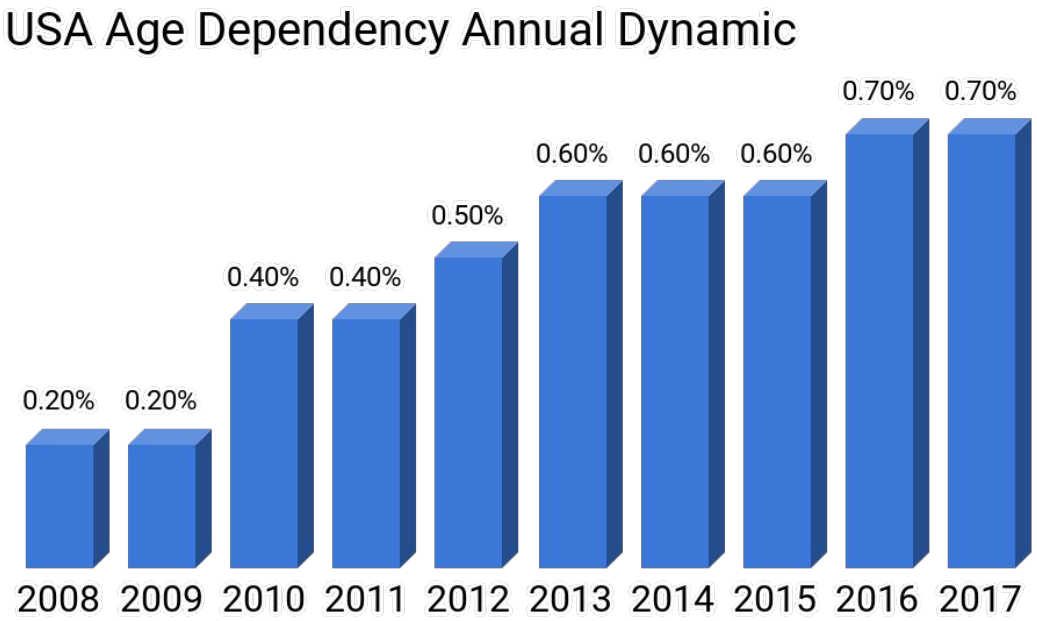


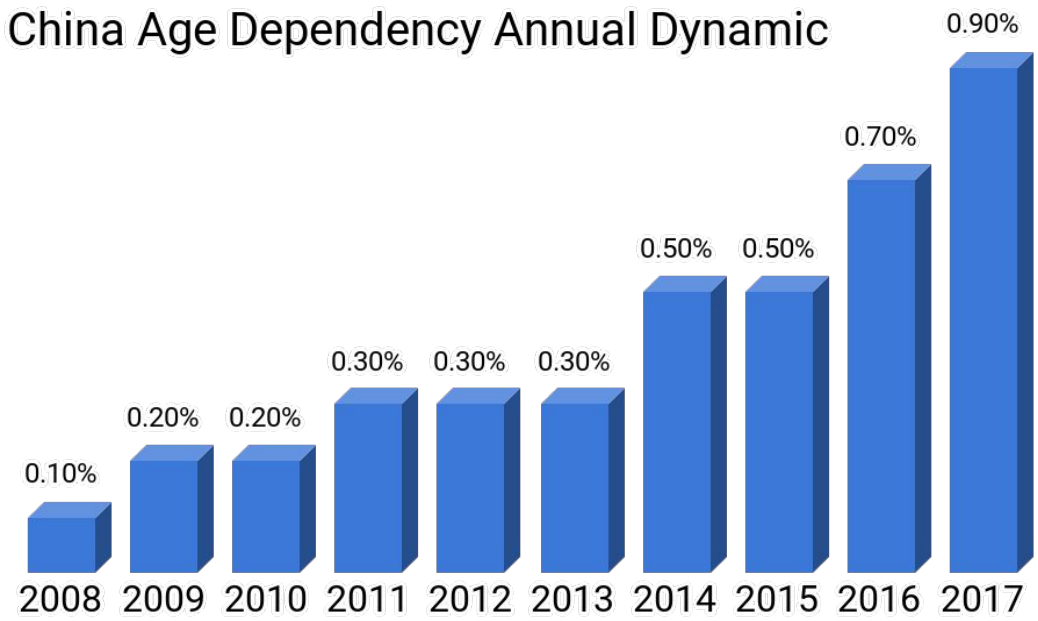
Source: World Bank Data

Israel, EU, USA and China
Age Dependency Annual Dynamic (%, 2008-2017)





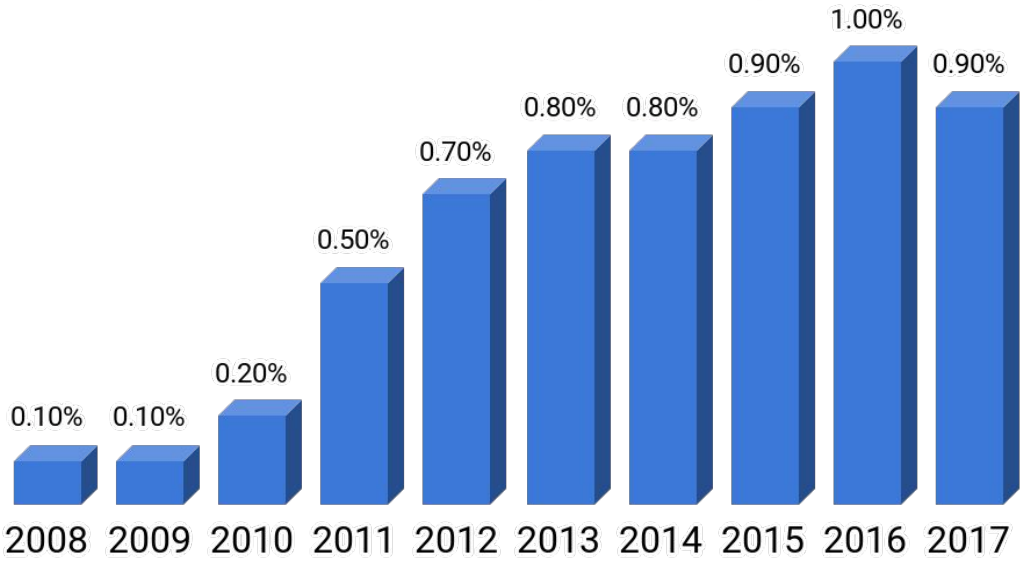




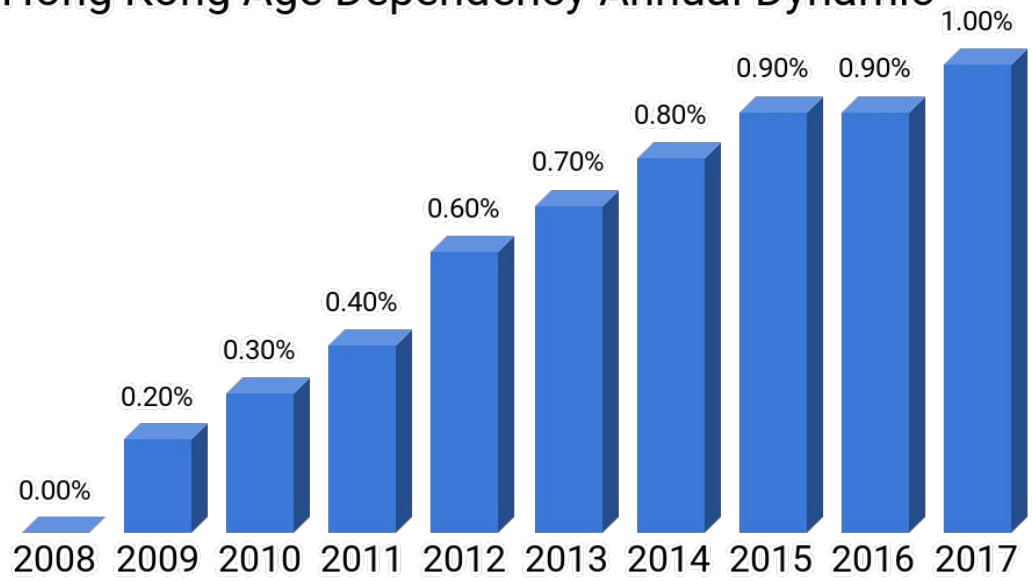
Source: World Bank Data

Singapore, Hong Kong, Japan, and South Korea Age Dependency Annual Dynamic (%, 2008-2017)

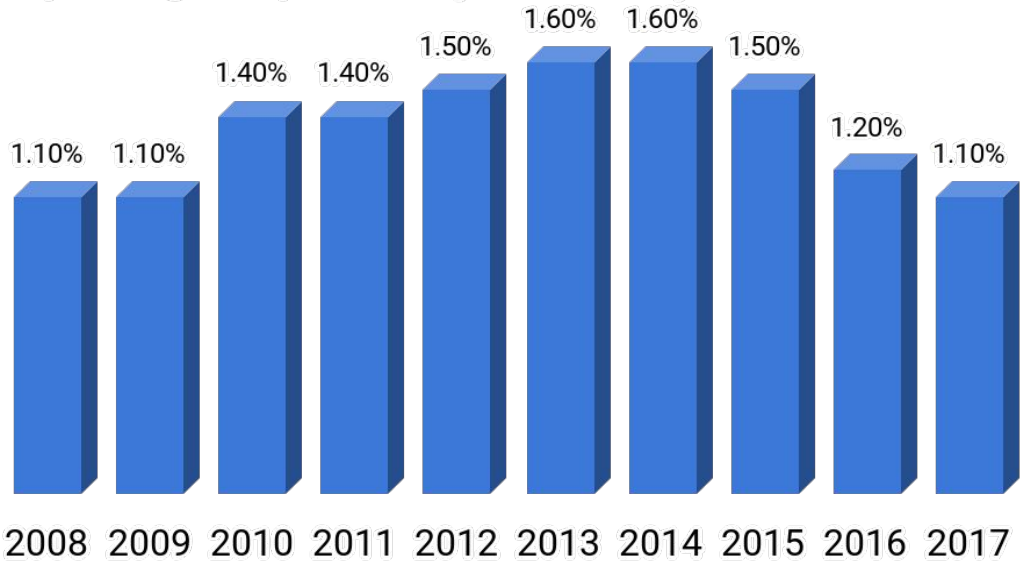
Singapore Age Dependency Annual Dynamic



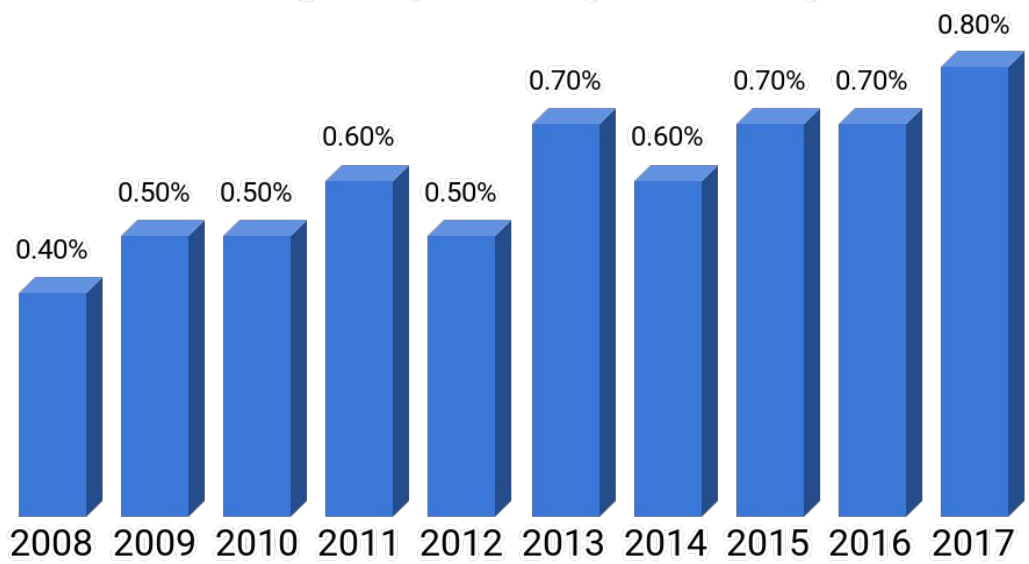
Hong Kong Age Dependency Annual Dynamic



Japan Age Dependency Annual Dynamic

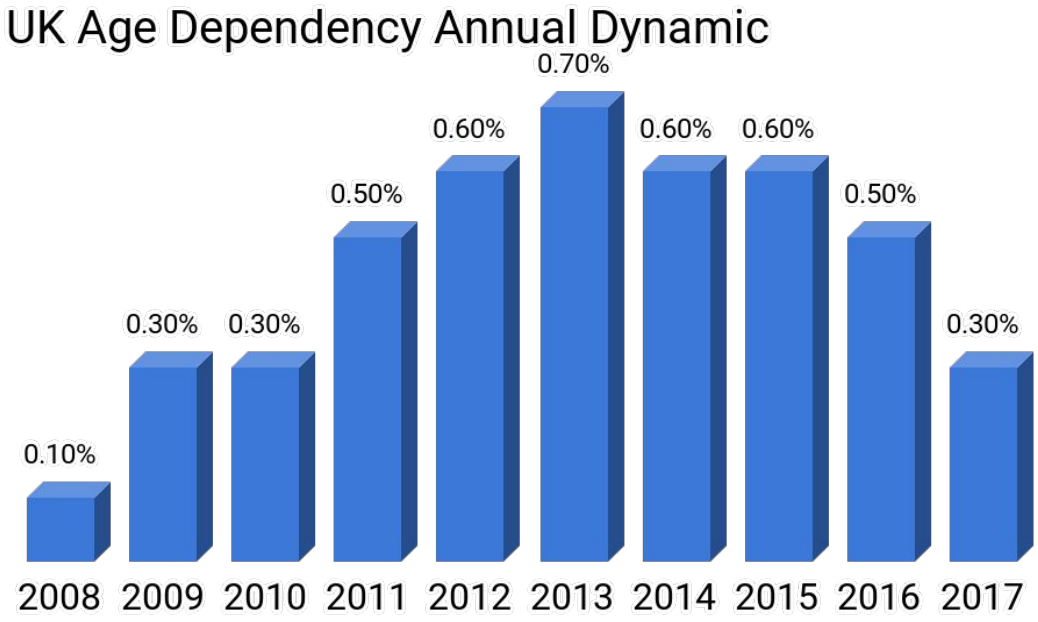


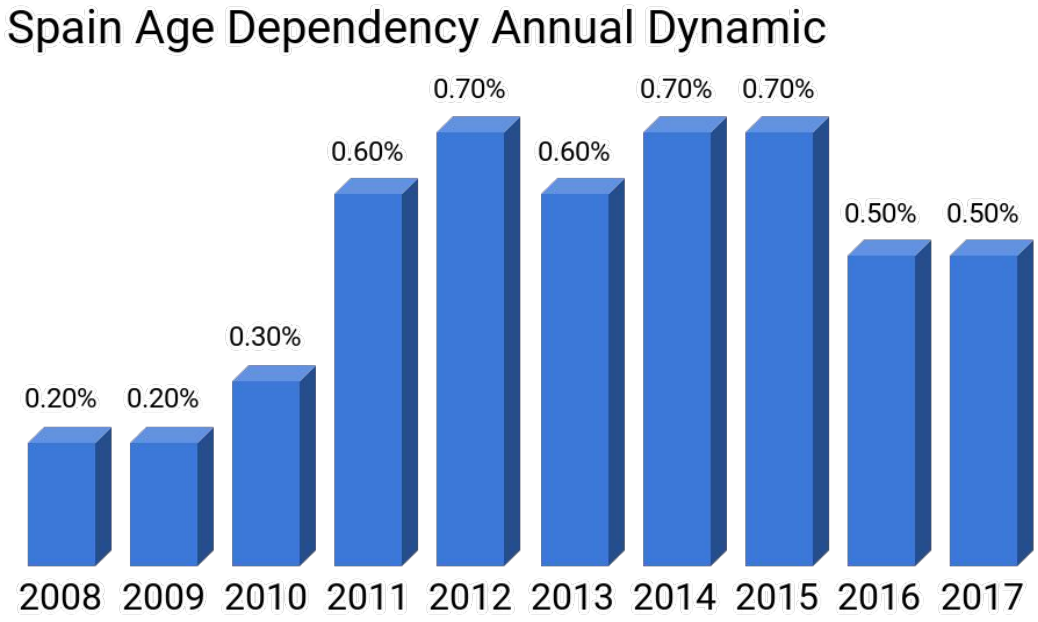
South Korea Age Dependency Annual Dynamic

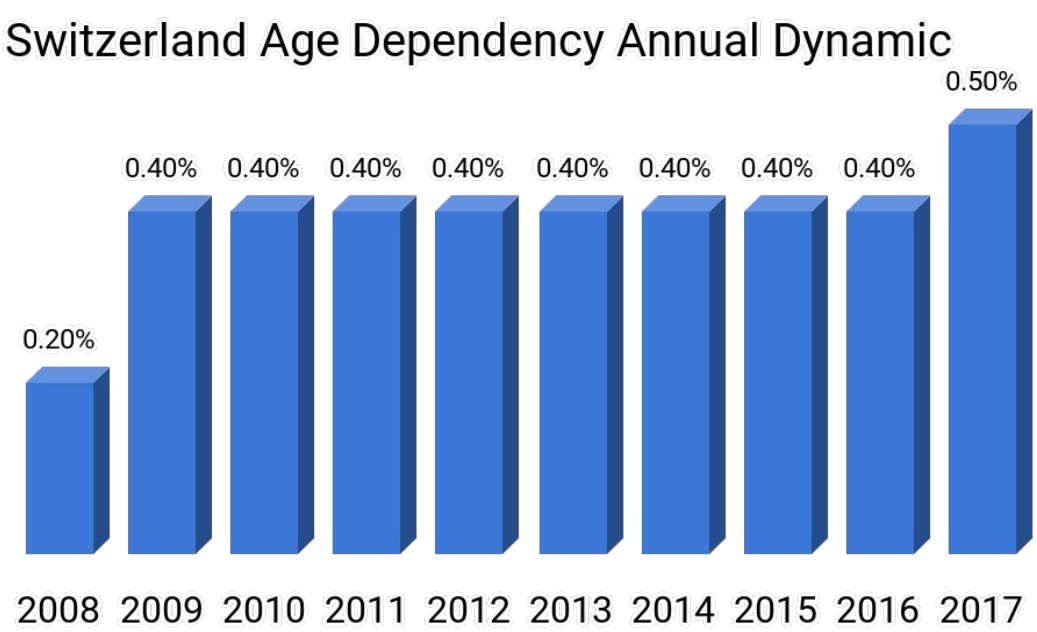


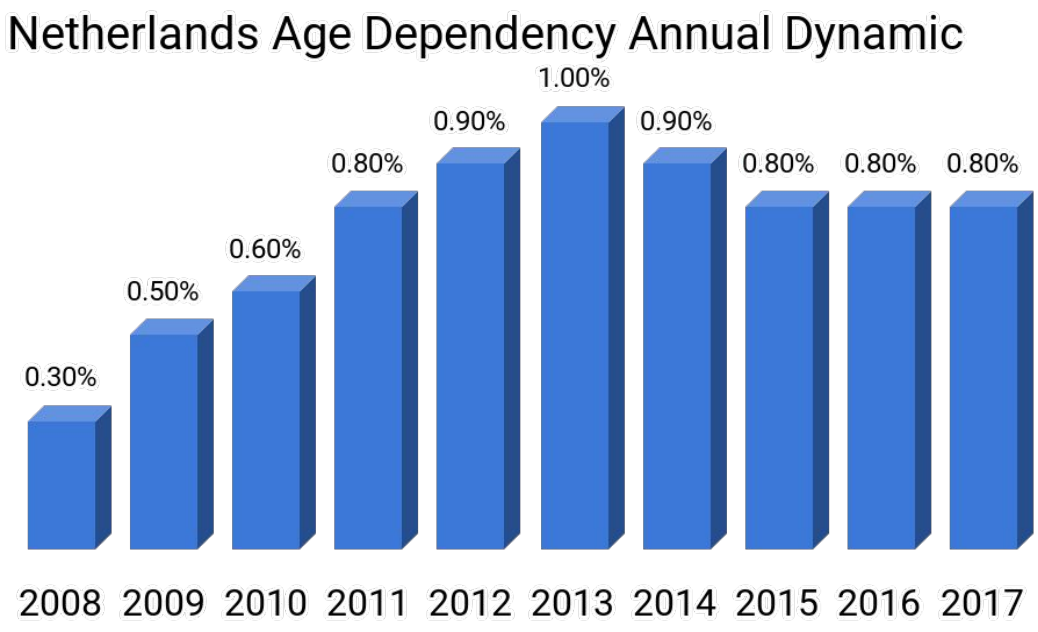
Source: World Bank Data

UK, Spain, Switzerland and Netherlands
Age Dependency Annual Dynamic (%, 2008-2017)



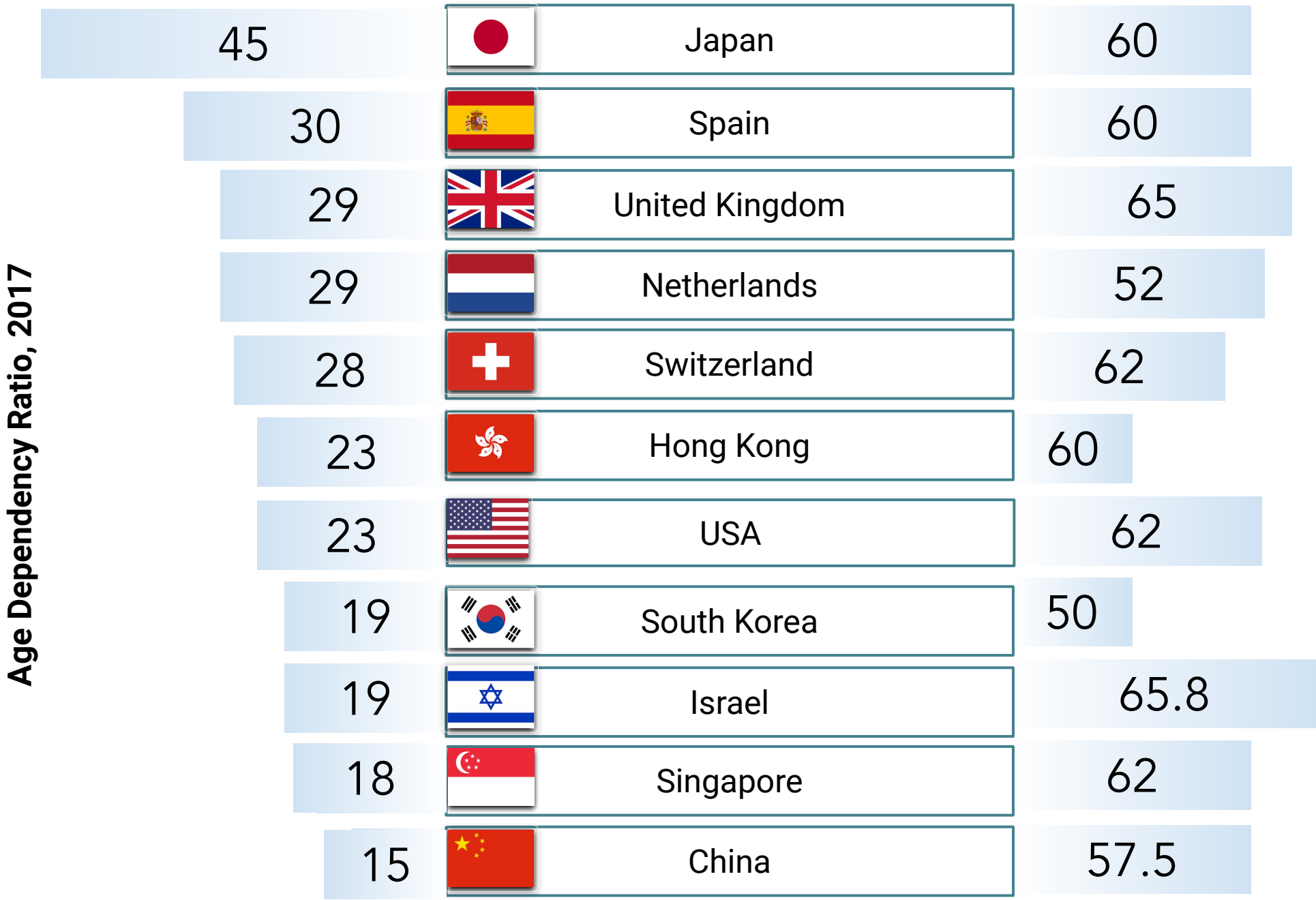






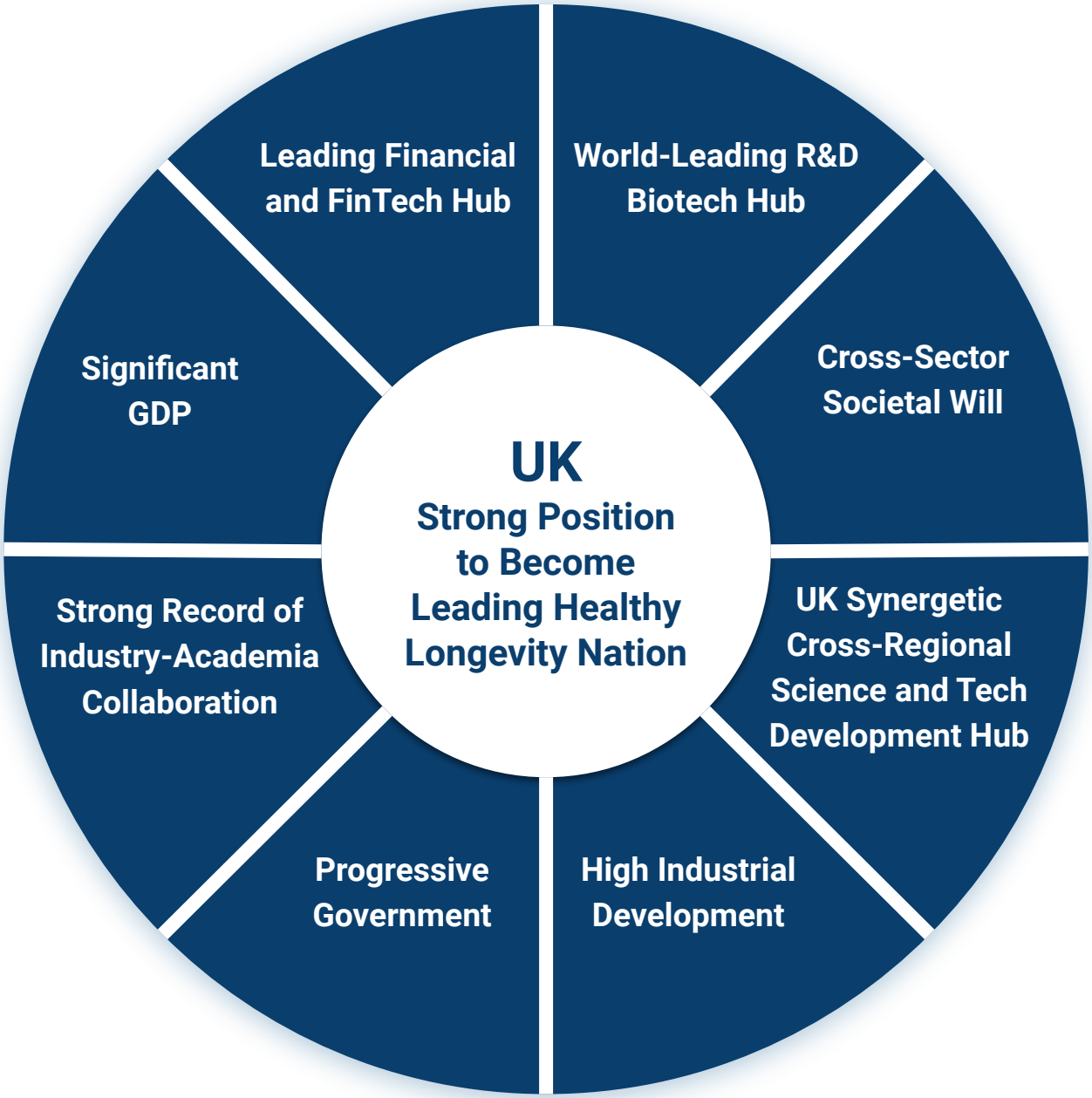
Source: World Bank Data

Age Dependency Ratio and Early Retirement Age



Source: Age dependency ratio - Data

UK in Leading Position to Become International Leader of Healthy Longevity



The UK is very well positioned to become a leader in Healthy Longevity, and was ranked #1 by this report's proprietary analysis for a number of reasons including its strong reputation as a BioTech R&D and FInancial Hub, a strong history of industry-academia partnerships focusing on scientific and technological synergies, and its commitment of 300 million pounds to its Ageing Population Industrial Strategy Grand Challenge. The nation has all necessary compounds in place to leverage and channel its existing strengths into an efficient government-led campaign to make the promotion of Healthy Longevity and financial reform to neutralize the economic burden of an Ageing Population a key priority of its national strategic agenda.

Analytical and Methodological Issues Faced During the Production of this Report: Gaps in Global and Regional Data

World Health Organization (WHO)

There are substantial gaps in relevant data on quantitative measures of Healthy Longevity like Health-Adjusted Life Expectancy (HALE) from leading sources of data such as the World Health Organization (WHO). The **most recent** HALE data from the WHO is from **2016**, with large gaps of missing for certain years (e.g., being limited to the years 2000, 2005, 2010, 2015 and 2016).

Lack of HALE estimation for some countries

Another major problem is a lack of HALE estimation for some countries entirely, and the lack of regional sources that could have provided this data. For example, Hong Kong has a complete absence of this data. Considering that the country has one of the biggest life expectancies and one one of the most advanced healthcare systems in the world, this is particularly unfortunate. As a consequence, Hong Kong was not able to be featured in our HALE analyses and our ranking of countries by order of their Healthy Longevity.

Budget Data

The third major implication is a reluctance for certain countries to disclose the budget data related to their Longevity projects and initiatives, or to disclose that data in an easily accessible way. This complicated our efforts to include comprehensive budget data in our proprietary analytics.

Q3 2019: Longevity Development Plans Global Landscape Overview Second Edition, and New Cross-Sector Longevity in UK Special Case Study

National Longevity Development Plans Global Landscape Overview **Second Edition**

- A greater number of countries in its analysis.
- A wider variety of metrics (including a precise formulation for sub-metrics, metric categorization and metric weighting).
- Detailed project and initiative budget data analysis.
- Upgraded overall breadth and depth of the proprietary analysis for ranking the strength, relevance and proactiveness of Government Longevity initiatives.

Longevity in UK Cross-Sector Comparative Analysis Special Case Study

- Enhanced comparative analysis of the UK Longevity sphere across many domains including Government initiatives, Longevity industry developments, science, academia, etc.
- Advanced analysis to determine precisely how the UK is positioned within the broader global Longevity sphere across many relevant sectors and domains.

AGING ANALYTICS AGENCY

Link to the Report: https://www.aginganalytics.com/longevity-development-plans

E-mail: info@aginganalytics.com | **Website: www.aginganalytics.com**