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Report on key issues from the review of national tracking services

October 2013

Task Force on Tracking Services

Social Security Sub-committee

Groupe Consultatif Actuariel Européen

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1. Management summary

After the European Commission's White Paper on Pensions¹ interest is growing in EU pension tracking services. But what has been achieved already in this area in the various EU member states? What can the European Commission and other EU countries learn from the steps that have been taken at a national level in some countries? How does this connect to an EU tracking service for pensions?

This report describes the set up and operation of pension tracking services ("tracking services") in four EU-countries: Denmark, Finland, Sweden and the Netherlands. These countries have different pension systems, but also differ in the set up of their national tracking service. The tracking services of these countries cover more than 90% of the average retirement benefits of their citizens.

1.1 National tracking services in the EU

In most countries no legislation was introduced in order to make the tracking services possible, but where legislation has been used, supervision has also been introduced. The costs of setting up a national tracking service can be split into two major categories: initial costs and annual costs for maintaining the tracking service. The initial costs vary, with a maximum of € 10 million, and the annual costs are up to a maximum of € 3.5 million. It is important to state that these costs cannot be compared easily between different countries, because they depend, among other things, on the tooling available within the national tracking services. These numbers also do not include the costs that the different pension institutions incur or have incurred in the past.

Countries that have not set up a national tracking service can learn from other EU countries. But before setting up a national tracking service countries should consider what goal they want to achieve with pension information and what means will help them to reach this goal.

The use of the social security number in the country or another unique identifier is necessary to be able to personalize the information towards the citizen involved. A successful implementation of a national tracking service starts with sufficient data sources. When the data sources that can be connected have insufficient coverage of the citizens in a country, this will lead to disappointment of the citizens whose data are not connected. When setting up a tracking service a choice has to be made on how to make the data available to the public. One possibility is to set up a database (or use an existing one) where all the data are available. Another possibility is to use a service bus² which brings the data instantly available to the citizen when he or she is logged in to the system, which can also work very well.

The need for an existing or newly developed central login system is clear. A central login system is needed to make it easy for people to login but also to gain trust with the public.

¹ Published on 16 February 2011

² The term "service bus" is used in this report to describe any information system that delivers information between other information systems but does not store information itself.

At least one question remains unanswered. As you will read in this report the current national tracking services in Sweden and Finland differ from the systems used in Denmark and the Netherlands. A separate investigation should provide information about whether the existence of these different types of tracking services will make setting up an EU tracking services more complex. This investigation could be carried out by the consortium that is currently investigating the technical issues around the setting up of an EU tracking service.

1.2 The set up of an EU tracking service

An EU tracking service could be set up in different ways.

The most efficient way to deal with EU tracking services is to use the existing knowledge of the national tracking services. The EU tracking service can then be seen as a portal that offers the facility of combining the knowledge from different countries.

It seems reasonable that this portal should start with the utility to trace whether there are pension benefits for the consumer in the national tracking services connected to the portal. The portal would guide users to get more information from national services. Over time the portal could be extended to cover more information, based on consumer research.

An EU tracking service should start with a "coalition of the willing". If only a few countries were to participate at the start, that would make the setup a lot easier and probably less costly, as lessons could be learnt from the pilot countries before implementation in other countries.

1.3 Next steps for this Taskforce

The Groupe Consultatif's Taskforce on Tracking Services will continue to do further investigations about the possible setup of national tracking services in other EU-countries. The results of these further investigations will be published in 2014.

2. Definitions

Pension provider

A pension provider is an organization which is responsible for the execution of a pension arrangement. The pension provider can choose to delegate the administration of the pension arrangement to a pension institution.

Pension institution

A pension institution is defined as the institution that administers the pension arrangement and delivers the administered data to a national tracking service.

National tracking services

A national tracking service is defined as a system where a consumer can login via the internet and is able to view his or her pension data. These data can be the source data (such as insured periods, career periods, etc.) upon which the pension benefit will be based, or the pension benefit itself.

Tooling

When we talk about tooling in this report we refer to the possibilities of using the data provided in different scenarios. This could, for example, mean that the user of the tool can him or herself choose to look at different scenarios. An example of this would be postponement of the retirement age and being able to see the financial consequences of this choice.

3. General introduction

3.1 The Groupe Consultatif

The Groupe Consultatif Actuariel Européen (the “Groupe Consultatif”) was established in 1978 to represent actuarial associations in Europe. Its purpose is to provide advice and opinions to the various organizations of the EU on actuarial issues in European legislation and other market developments. The Groupe currently has 37 member associations in 35 European countries, representing about 20,000 actuaries. Advice and comments provided by the Groupe on behalf of the European actuarial profession are totally independent of industry interests.

3.2 Taskforce on Tracking Services for pensions

The Social Security Sub-committee of the Pensions Committee of the Groupe Consultatif Actuariel Européen was established in July 2012 with the aim of making a significant actuarial contribution in the public interest in the areas of demography, ageing, social security and social protection policy in the European Union.

Disclosure was mentioned earlier in the discussion around IORP 2 as an important issue. The European Commission will propose new EU legislation on disclosure for IORPs at the end of 2013 or in the beginning of 2014. It is not the actuary’s first task to say how to communicate, but an actuary is well educated to have an opinion about what information is relevant for different stakeholders and how the information is calculated. In recent years we have been able to build a relationship with different stakeholders in the pensions sector and on the above-mentioned subjects the Groupe wants to fulfill its role as an independent adviser and commentator.

In December 2012 the Taskforce on Tracking Services was established within the Social Security Sub-committee of the Groupe Consultatif.

Apart from the setting up of the Groupe’s Taskforce on Tracking Services in May 2013, DG Employment decided to grant the call for proposals for Tracking Services: “Support for the development of a tracking service for private pension entitlements”. A consortium of pension providers and institutions from Denmark, Finland and The Netherlands has been granted this project. The Groupe’s Taskforce and the consortium have been and will be in contact with each other in order to provide supplementary information and insights on tracking services. The duration of the consortium’s project is 21 months.

3.3 Motive for the Groupe studying tracking services

Through this report on tracking services the actuarial profession wants to emphasize the importance of communication regarding pensions and finance. As experts in the field of pensions and pension calculations the actuarial profession should fulfill its role by pointing out technical issues surrounding pensions and pension communication and providing possible solutions.

3.4 Goal of this Taskforce on Tracking Services

The goal of this Taskforce (TF) is to provide useful input for DG Employment and DG Internal Market³ in developing a pension tracking service for EU-citizens. With this report the actuarial profession wants to explain the complexity of the different aspects of national tracking services. This concerns both actuarial and non-actuarial issues. We have tried to establish this by using the good practices in four countries of the EU that have already implemented national Tracking Services: Denmark, Finland, Sweden and The Netherlands. Apart from this inventory of good practices we also want to propose:

- issues to address when setting up a national TS; and
- issues to address when setting up an EU TS.

3.5 Participating countries

In Denmark, Finland, Sweden and the Netherlands tracking services are already implemented on a national basis. The existing tracking services in these countries are not exactly the same. Through representatives of these countries within the Pensions Committee of the Groupe Consultatif we have been able to gather information about the tracking services in place in these countries.

3.6 Definition of tracking services (by the taskforce and by DG Employment)

In the grant of DG Employment regarding EU tracking services these are defined as a “search engine” to look whether pension benefits are available in the 2nd pillar in different countries. The current idea of a pension tracking service covers private and occupational pensions. The goal of a pension tracking service is for individuals to keep track of their pension entitlements with different schemes to which they were affiliated during their career.⁴

Information about the level of the benefits is not needed at this stage. In Denmark, Finland, Sweden and The Netherlands the levels of accrued benefits are nevertheless provided.

Although DG Employment focuses on private and occupational pensions, the taskforce’s scope for pension tracking services has been on all three pillars of the pension system. With a focus on all three pillars we have been able to deliver a more general view on issues around both national and EU-wide tracking services as a first product of our taskforce. The next step of the taskforce will be to expand the current scope of countries to other countries in the EU that have setup or are setting up a national tracking service and also to identify some of the obstacles in the way of other member states developing a tracking service.

³ DG Employment is the leading DG in this discussion

⁴ See annex II: Call for proposals on tracking services

4. Pension systems in the countries involved

Before we try to understand the setup and service provided by the current national tracking services for pensions in the countries covered by this report, it is important to understand the broad lines of the pension systems in each of these countries. Therefore we give a short description of the pension systems in Denmark, Finland, Sweden and the Netherlands. The goal of this description is not to give a full detailed description of these pension systems but a summary of their pension systems so as to better understand the choices these countries have made in the setup of their tracking services.

4.1 Short overview of pension systems

All countries have a three-pillar pension system. In all countries, the third pillar pensions are provided by private banks or (health, life or other) insurance companies. The roles of first and second pillar benefits differ from one country to another.

In Denmark, the first pillar consists of basic pension (around 9,000 €/year), means tested supplement (4,500 to 9,000 €/year) and ATP – a minor labour market supplementary pension. The second pillar covers more than 90 % on employees, tops up the first pillar and provides on average around 25 % of pension income (expected to rise to 40 %). The first pillar is governed by the Ministry of Social Affairs. There are around 30 pension institutions for the second pillar.

Finland's first pillar covers 100 % of employees and 95 % of pensions paid. The first pillar pension is mainly earnings-related, supplemented with a flat rate pension and a flat rate guarantee level. There are 30 pension providers for the first pillar pension in Finland, most of which are private companies. About 60 institutions offer second pillar pensions.

Also in Sweden, the first pillar pension is earnings-related and supplemented with a guarantee pension. The first pillar is covering almost 80 % and the second about 20 % of pensions paid. The Swedish Pensions Agency governs the first pillar. For the second pillar, there are 4 big and around 20 smaller institutions.

In the Netherlands, the first pillar is a flat rate (10,000 to 14,000 €/year) benefit and covers around 50 % of pensions paid. The second pillar covers about 91 % of the people and around 40 % of average pension income. The first pillar is governed by a statutory pension insurance company. There are hundreds of second pillar pension funds, governed by a little less than 20 institutions.

More extensive description about the pension systems in the studied countries can be found in the Annex III.

General

The graph below displays the number of pension institutions. This number of pension institutions is relevant for the number of connections that have to be made in implementing a national tracking service.

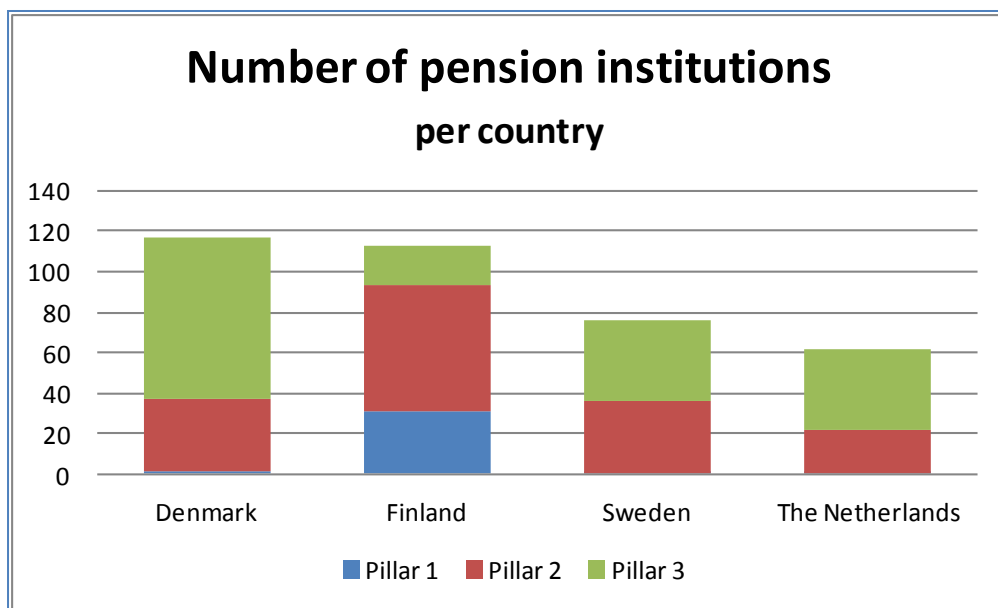


Figure 1: Number of pension institutions per pillar in each country.

In order to understand the set up of tracking services it is also important to know approximately what part of retirement income for an individual is provided by each pillar. This is displayed in the graph below.

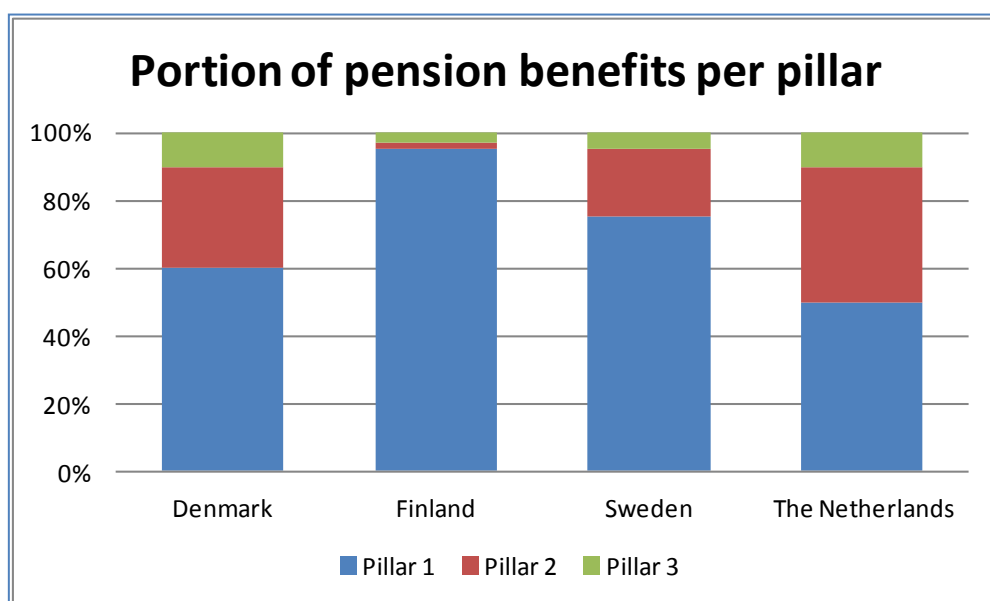


Figure 2: Pension benefits (on average) per pillar in each country.

4.2 Pension information provision

Personal pension information

Individual information is provided, for example, through annual statements. Only in Finland is prescribed individual information provision in place for pillar 1. This has a lot to do with the regulatory prescription that a consumer is asked to check his or her pension data once every three years. In Denmark, Sweden and the Netherlands there are no legally binding standards to provide an individual benefit statement for pillar 1. In pillars 2 and 3 all countries have legal rules in place for individual annual benefit statements.

These benefit statements are provided on paper and sometimes this information is also accessible through a personal internet environment, depending on the pension provider.

Personal information can also be provided on request or, in case of life events such as leaving a company (information about the accrued benefits), retiring (information about the benefit payments), getting married, having children, etc. In all countries pension providers in all pillars provide information on request for participants.

In the Netherlands the personal benefit statement (Uniform Pensioen Overzicht) is set up by the pensions industry (2nd pillar). Both the provision of this information and the way it is displayed for participants is mandatory, which makes it easier to compare pension benefits of different pension providers.

General pension information

General information is provided by most of the pension providers in the countries that participated. Part of this general information is regulated (e.g. documents like pension regulations). These regulations focus on the fact that the information should be available and not on the format of the information. The general pension information is available in leaflets, on the internet or in mailings that are sent to groups of participants.

5. Tracking services in four EU-countries

First in this section the set up of tracking services in Denmark, Finland, Sweden and The Netherlands is described. We also describe differences in the approach in the different countries in setting up their tracking service and point out good practices. In all the national tracking services of the countries covered by this survey the retirement benefits for consumers are displayed. This means that the accrued and the projected pension benefits are displayed in the national tracking service.

5.1 Short description of current tracking services

Denmark

The Danish tracking service is called Pensionsinfo and can be approached on the internet via www.pensionsinfo.dk. Forsikring & Pension is the service provider for Pensionsinfo.

In 1999 ATP contacted a few other pension providers to set up Pensionsinfo. The problem at that time was that for some pension providers it was very difficult to reach certain groups of participants and by the use of Pensionsinfo it was hoped they could be reached more easily. In 2004 the remaining major pension companies and banks decided to join pensionsinfo.dk. It took three years to develop a new PensionsInfo.dk. In that time the involved companies had to agree on functionality, content and design of the site and documentation on common data format. In May 2007 the new website opened to the public. To get the large majority of the other pension providers to join took another three years. The last two companies are joining in 2013.

Finland

The Finnish tracking service is called Työeläke.fi and can be approached on the internet via www.tyoelake.fi. The Finnish Centre for Pensions is the service provider for Työeläke.fi.

One of the main ideas in setting up a tracking service for private sector employees and the self-employed was that the earlier a pension administration record is corrected, the easier it is. The main earnings-related (1st pillar) pension scheme was set up in the early 1960s and the tracking service was set up at that time. A pension record was sent to the insured every time he or she changed his or her employment and on request. At that time the pension benefit was calculated separately for each employment (like for 2nd pillar pensions) and the idea was to encourage people to check that the salaries (= the basis for pension accrual) from that employment were recorded correctly.

The idea of sending written pension records to the insured arose from the need to get the records checked by the insured as soon as possible. Earlier the pension provider was obliged to check the data at the request of the insured for the whole insured period (even if it meant 40 year old data). Now a part of this obligation has been handed over to the insured. If an insured asks for data older than 6 years to be corrected, then he or she has to come with indisputable evidence in order to get the data corrected.

In 2004 it was decided that public sector pensions should be added to Työeläke.fi. This was achieved in 2012.

The setup of the digitally accessible national tracking service Työeläke.fi for individuals was finished in 2003. With digital access to Työeläke.fi it is less costly to verify people's pensions.

The conversion of the existing paper pension records to electronic format and the implementation of a strong authentication mechanism took about a year. Since the Työeläke.fi web site also contains general (non-personalized) information about pensions, the building of a tracking service was only a part of a bigger project – the creation of a pension information portal in Finland. Authentication providers (the state issued electronic ID card and online bank credentials) were already in place, but it was necessary to build single sign-on functionality between the common Työeläke.fi service and the pension providers' own web sites.

Sweden

The Swedish tracking service is called Minpension and can be approached on the internet via www.minpension.se. The Swedish Pension Agency is the service provider for Minpension.

Minpension started in its latest form in December 2004.

By the end of the 1990s the Pension Agency realized that providing individual pension information solely about the 1st pillar gave only a partial picture of an individual's pension information. In the early years only information from the 1st pillar and part of the 2nd pillar was provided. In 2007 a decision was taken to add full support for the 2nd and 3rd pillar. Together with pension providers (and with some pressure by issuing legal enforcement and public pressure) the Pension Agency set up Minpension.

The Swedish TS works as follows: at first login consumers have to give permission for Minpension to gather the pension information. The Swedish TS is a database that is updated annually, monthly (depending on the service from the pension provider) or at the request of the individual. Within 1 minute the information is available to the consumer.

The Board of Trustees of Minpension is made up of 50% state representatives and 50% representatives from private pension providers.

The Netherlands

The Dutch tracking service is called Pensioenregister and can be approached on the internet via www.mijnpensioenoverzicht.nl. The Sociale Verzekeringsbank (SVB) is the service provider for Mijnpensioenoverzicht.

Mijnpensioenoverzicht started on 6 January 2011. In 2003 the idea of a national tracking service was proposed by Tilburg University. The pensions sector took note of the proposal but it was considered not to be feasible. In 2006 a new Pensions Act was being prepared. As from 1 January 2008 the Pensions Act introduced new requirements for pension information. At that time one of the new regulations laid down that by 1 January 2011 a tracking service should be provided to individual consumers for retirement benefits in the 1st and 2nd pillars.

The Dutch tracking service works with online connections to all pension providers, which are activated when a consumer logs in. A smart search makes it possible for only the providers that have information available about that particular consumer to be requested to provide information.

Therefore the consumer does not log in to a separate database. The information in Mijnpensioenoverzicht is updated annually.

One thing that was established was the definition of pension benefits, so as to be able to add pension benefits from different pension providers within and between pillars.

The SVB (1st pillar), and the pension funds and insurers (2nd pillar) have set up a joint foundation (Pensioenregister) with the objective of establishing a pensions tracking service. First of all, a working group drew up a business plan for this. On the basis of this plan, a steering group was set up to work to establish the technology (infrastructure and presentation layer) and the connections. Connections were needed for the 1st pillar and for over 400 pension funds and insurance companies in the 2nd pillar.

Creating a uniform definition of pension benefits took around 1½ years. The set up of mijnpensioenoverzicht.nl took three years. The process started with drawing up requirements for tendering for the technology. This took around three months. This was issued first because Pensioenregister wanted the interface for the participants to be clear as soon as possible so they would have the maximum amount of time to make the necessary technical arrangements on their side.

In total, development of the technology (including testing) took about two years. At the same time, two other program components were progressing: encouraging the participating providers to bring records on non-active participants from before 2008 up to standard and monitoring the participating providers on their internal milestones.

5.2 What benefits are provided for in the national tracking service?

In Sweden and Denmark all three pension pillars are included in the national tracking services. For these countries almost all institutions provide information to the national tracking service. In the Netherlands pillar 1 and 2 are fully included. In Finland pillar 1 is provided in the national tracking service. For The Netherlands (1st and 2nd pillar) and Finland (1st pillar) all institutions are connected to the national tracking service.

Although not all three pillars are included in the tracking services of Finland and The Netherlands, more than 90% (on average) of the individuals' pension benefits is included in the national tracking service. This is displayed in Figure 3 below, which is an extension of Figure 2.

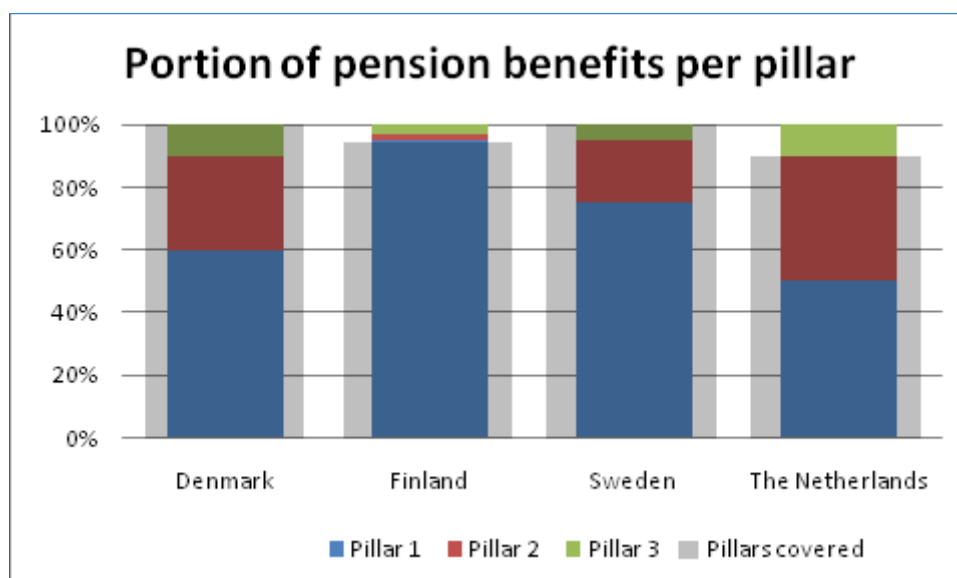


Figure 3: Pension benefits per pillar and pillars covered in the national tracking service.

5.3 How do the national tracking services operate?

In the Netherlands and Denmark the tracking service operates with a search engine where the data appears as you look at it, but when you logoff the data is no longer available and therefore not stored in a central database. In Sweden, the information is collected from various databases and stored permanently in a secondary database. In Finland, the information is used straight from a central database that also supports operative information systems of pension providers. Why have the different countries chosen for this setup?

Denmark	We wanted to give the visitors “Up to date” data every time they used the site. A database with all data would require a lot from the pension providers when they update their data. The chosen solution was also an advantage in relation to personal data legislation, because data only appears and “exists” for the visitor when they visit the site.
Finland	A central database for personal pension information was already available.
Sweden	Mainly for the reason not to be dependent on a functional on-line contact with all pension providers at any log-in. But actually it is a mixed solution. For the first pillar the information is not stored in MinPension’s database, the information is collected from the Pensions Agency at each login.
The Netherlands	Ownership of a database brings – due to privacy regulations – a lot of obligations. Not storing the data yourself and as a result of this using a service bus was therefore preferred.

5.4 Tooling within the tracking service

In Denmark and the Netherlands at the moment there is no tooling available within the tracking service to calculate different scenarios. In Finland and Sweden some tooling is available within the national tracking service. In Denmark tooling based on these data is provided for pension products by banks. In the Netherlands tooling will be provided in the next few years.

5.5 Which consumers have access to the local tracking service?

Every citizen with accrued pension benefits has access to the national tracking service, which provides information about the available pension pillars. In all the countries except for the Netherlands people that live abroad⁵ also have access to the national tracking service. In the Netherlands this is not yet possible, but is under construction. All immigrants have access to the national tracking service if they have a social security number from the country in which they live.

5.6 The frequency of refreshing information

In the Netherlands, Finland and Sweden the information in the national tracking service is refreshed at least on an annual basis. In Denmark and Finland the information is instantly refreshed as soon as changes are administered at the pension providers. In Sweden information can be refreshed on request by the consumer.

5.7 Who is supervising the national TS?

The Netherlands is the only country that has set regulations about the national TS in the Pensions Act. In Denmark, Finland and Sweden there is no legislation in place that prescribes that there should be a national TS.

In Denmark, Sweden and The Netherlands the Board of Trustees of the national tracking service oversees whether the information is complete and correct. In Finland the pension providers and pension institution are the owners of the data and because of that they supervise www.tyoelake.fi. Apart from this in the Netherlands the Authority of Financial Markets (a.o. supervising pension information) has a legal duty to supervise the Pensioenregister.

5.8 What is the current status of the national tracking service?

The two tables below display: the number of visitors to the national tracking service in each country and the number of unique visitors.

The number of visitors has risen in Denmark and Sweden in the last three years. In the Netherlands Mijnpensioenoverzicht.nl only started in 2011. In 2013 a decrease of the number of (unique) visitors has been observed.

⁵ In Finland a national authentication token (Finnish ID card or Finnish online banking credentials) is required. In Denmark the users need to have the national digital ID (NemID) to use PensionsInfo. In The Netherlands the national authentication DigID is used. In Sweden consumers use the authentication method provided by banks.

Visitors	2010	2011	2012
Denmark	1,840,295	2,164,606	3,312,689
Finland	555,998	580,043	620,039
Sweden	2,950,000	3,060,000	4,280,000
The Netherlands ⁶		3,000,000	2,200,000

Table 1: annual number of visitors to the national tracking service for each country

Unique visitors	2010	2011	2012
Denmark	512,218	742,426	1,132,488
Finland ⁷	---	---	---
Sweden	607,894	583,443	749,132
The Netherlands ⁸		1,500,000	1,100,000

Table 2: annual number of unique visitors to the national tracking service for each country

Additional remarks about the number of visitors:

Denmark

In 2012 Pensionsinfo had 1.1 million (unique) visitors and 3.3 million total visits. Denmark has a population of 5.6 million and 4.3 million are over the age of 20. Pensionsinfo has published information on visitors

Finland

The pension providers offer the same pension record also on their own web sites. In 2012, 149,850 pension records were shown in private sector online services. About 62,000 of them were shown in other services than Työeläke.fi. Many more were shown in the portal for public sector employees.

In Finland, there are many ways of getting personal pension information. Of the 620,039 visitors to the Työeläke.fi service in 2012, about 130,000 people logged on to Työeläke.fi and about 88,000 of them checked their pension record. About 93,000 pension records were shown in another portal for public sector employees. Yet another 62,000 pension records were shown in other services. Thus, the total number of pension records shown online was about 243,000. About 150,000 of them were shown in private sector online services.

About 2 million people in the private sector accrued pension in 2012 and about 800,000 have deferred pension benefits. The number of visitors to Työeläke.fi is expected to rise, because from this year on the pension record on paper (2013) is sent only every 3rd year whereas it earlier was sent every year. Those working in the public sector have been given access to a public sector pension portal in 2012 and 2013 (about 800,000 people are working in the public sector).

Sweden

Minpension has more than 1.7 million registered users and about 50% of these users made at least one visit to the site during 2012. On a normal day Minpension gets about 1,000 new users and there are about 12.000 unique visitors.

⁶ No data is available in 2010, because Mijnpensioenoverzicht.nl in The Netherlands started as from 2011.

⁷ Data about unique visitors are not available for Finland.

⁸ These numbers are not available for mijnpensioenoverzicht.nl so the taskforce made the assumption that on average people visit mijnpensioenoverzicht.nl twice a year.

The Netherlands

Because the Mijnpensioenoverzicht.nl started in 2011 visiting numbers are only provided for 2011 and 2012. In 2011, 20,400 people contacted the helpdesk (in 2012: 16,500).

5.9 Promotional activities

In all four countries pension providers, insurance companies, banks and public authorities recommend people to use the national tracking service

In Sweden and the Netherlands commercial (radio, tv, internet) campaigns are being used. In all four countries pension providers link from their website to the national tracking service.

Sweden also uses the Orange Envelope to draw the public's attention to their pension accrual.

In Denmark there hasn't been much promotion but almost all pension providers have links to PensionsInfo from their own web site. Many journalists mention PensionsInfo in articles on pensions and PensionsInfo has been mentioned a few times on prime time television. This has had a huge effect.

The promotion of the Finnish tracking service has been on a very low level in recent years. This is mainly due to the fact that the public sector pensions were incorporated to the pension record last year, but there is still some information lacking from the service. Thus, the promotional efforts have been deferred.

5.10 Costs for setting up the tracking services

The costs for setting up the national tracking service and the current annual costs are:

Country	Financers	Initial setup costs	Annual costs
Denmark	PensionsInfo is a private organization and all the pension providers contribute to the financing of the site. The costs are allocated based on the number of times they have delivered data to PensionsInfo. The maximum cost for a pension provider is 15% of the total cost. The state doesn't pay any of the annual cost. There is no minimum cost.	€ 3.5 million	€ 1.5 million
Finland	The costs are covered by pension providers. When a person views her pension record, her own pension provider is charged for the transaction.	> € 1 million ⁹	€ 0.5 – 0.8 million
Sweden	Pension Agency (50%)	€ 1.1 million ¹⁰	€ 3.0 million

⁹ The tracking service was built as a part of a bigger pension information portal. The costs of the tracking service part have not been calculated separately.

¹⁰ As MinPension started on a small scale the initial setup costs were not that large, around €700,000. But as the service has continued to develop there has been continuous investment which amounts on average to €400,000 per year.

	Pension providers (50%)		
The Netherlands	Pension providers in 2 nd pillar. The SVB (pension provider for the 1 st pillar) maintains the Dutch tracking service	€ 10 million ¹¹	€ 2.3 million

IMPORTANT: The above mentioned costs are displayed to give a general view on costs for the organization of the national tracking service. These costs cannot easily be compared between countries because they depend on the cost of consultancy and the presence of existing pension administrations (which both vary per country). Also in the above figures only the costs for the tracking service provider are taken into account. The costs incurred by individual pension providers have not been taken into account.

5.11 What benefits are covered by the national tracking services?

In all countries accrued and projected retirement benefits are available. In the Netherlands survivor benefits are also available. In Finland information about the estimated disability pension is also provided. In Denmark both survivor benefits, disability pension and critical disease benefits are also provided.

Pension benefits within the tracking service from different pension pillars are most of the time comparable and can be added together, because calculation rules apply (formally or informally).

5.12 Information about risks and purchasing power

At the moment for defined benefit (DB) arrangements very little information is provided about the risks and purchasing power of benefits. For defined contribution (DC) arrangements (especially in Denmark and Sweden) real returns are used to calculate projected benefits. By using real returns purchasing power is taken into account implicitly. In the Netherlands a discussion is currently taking place about providing information on purchasing power for participants.

Although currently none of the tracking services provide information about risks, more and more attention is being given towards tooling about this subject.

5.13 The use of actuarial techniques

Currently actuarial techniques are only being used in the conversion of pension capital into annuities at retirement age. When introducing tooling into the national tracking services actuarial techniques will be needed, for example, to calculate early or post retirement benefits. These techniques will be needed to be able to compare and add retirement benefits together¹².

¹¹ Mijnpensioenoverzicht.nl was developed in 2 phases: the 1st phase costs amounted to about € 8 million and the 2nd phase to about € 2 million.

¹² In PensionsInfo the pension providers calculate and deliver early and post retirement benefits (from 60 to 67 years) as a standard.

5.14 Future developments in national tracking services

In all four countries in this survey ongoing discussions are taking place about the provision of more comprehensive pension information. Improving pension information is a continuous search to find out what (general or personal) information suits best for the consumer's situation.

A distinction can be made between developments in the data that is provided and developments in tooling to calculate different scenarios.

Data

To give a full picture of one's pension benefits it is important to have all three pension pillars involved in a national tracking service. In Denmark and Sweden this has been accomplished and in these two countries the last remaining pension providers are connecting to the tracking service in 2013.

In the Netherlands 3rd pillar pensions are currently not covered by the tracking service. In Finland a discussion has started whether 2nd and 3rd pillar pensions should be included in the tracking service.

Tooling

As mentioned earlier, information about the risks in pensions is becoming more and more important. In Sweden and the Netherlands the provision of risk information for participants is under discussion. This will be an important supplement to the current national tracking services.

In the Finnish and Swedish tracking services tooling is available for consumers. In Denmark Pensionsinfo only provides the data but there is little tooling. Third parties like some pension providers provide tooling to calculate different scenarios. The consumer is able to send his or her data to these tools. In the Netherlands no tooling for consumers is currently available. A discussion about tooling within or outside Mijnpensioenoverzicht.nl is currently taking place as part of a renewal of the pension information guidelines in the Pensions Act.

6. Lessons learned

By examining the setup of tracking services in Denmark, Finland, Sweden and the Netherlands some lessons can be learned: success factors and possible pitfalls. These lessons learned can help other countries in (further) developing their own tracking services, but are of course dependent on the specific situation in each country. Both the success factors and the possible pitfalls are listed below in no particular order.

6.1 Success factors

1. Privacy: secure data transport through the internet to make sure that the data can only be accessed by the intended consumer.
2. Raising interest about pensions: the introduction of a pension tracking service has generated a lot of visits to the website and interest in pensions in each country.
3. Defining data format: if data from different users has to be combined, these data have to be able to be added together and comparable. Therefore the setup of the tracking service in Denmark and the Netherlands very much relied on the ability to create a data format that all pension providers were prepared to accept.
4. Complete overview: the added value of a national tracking service is that all retirement benefits are combined and the consumer has a reasonably complete view of his or her retirement benefits. This varies of course between the countries and depends on the coverage of the pension providers who are affiliated to the tracking service.
5. Net pension benefits: because benefits add up to a reasonably large proportion of individuals' pension income, both gross and net amounts are being given.
6. A unique identifier: the social security number is used in each country as a unique identifier.
7. Working together: it is important to establish good personal relations with top and middle management within the pension institutes.
8. Other use: in some countries governments are interested in the success of the tracking service and look at the possible use of such a system for purposes other than pension information.
9. Start small: to start a national tracking service it is important to start with a small setup. Basic functions serve the purpose and are easier to realize. A large number of functions and more detailed information is not something for a first release.
10. Specific for the Netherlands:
 - a. because the technical interface was disclosed at an early stage, software suppliers started developing an application for the pension providers. From a technical point of view, therefore, the program ultimately had to accommodate a few types of interface rather than hundreds.
 - b. an extranet for the participants, in which they included and updated their own deadlines for sub-phases within their internal projects. These were strictly monitored by the foundation.

6.2 Possible pitfalls

1. Realistic steps: beware of starting with too high ambitions. This can lead to long-lasting and complicated processes that are very difficult to handle and to finalize.
2. As with every project: try to minimize adding functionality during the course of the project (scope creep).
3. Decrease complexity: try to make the tracking service as simple as possible. Complexity in functionality will lead to a decrease of visitors.
4. Priorities: apart from developing a tracking service, pension providers often also have other priorities during the development. This can lead to conflicts of priority.
5. Specific for Finland: In recent years, the biggest organizations have withdrawn from the centralized service and prefer to offer pension tracking information on their own websites. Since building web applications has become so commonplace, both big private pension companies and public institutions feel that they can offer better service to their members by building the applications themselves. What used to be a success factor has become something of a pitfall.

6.3 Social security number, login code and internet access.

In every country in the survey almost every citizen has access to the internet and a digital login system is available to access government-related services. The use of the social security number as a unique identifier is also very important to combine the information from different pension providers.

6.4 Technical issues in the setup of national tracking services

In setting up their national tracking services each country has encountered technical issues. These technical issues vary between countries and are listed below.

Denmark

Safety of data was an important issue. How could the transport of data through the internet be made secure? We decided on SSL encryption via web-services through a VPN connection for most companies. Some banks use a closed network.

It is also very important that the same data format is used by all companies. We developed a new data format for PensionsInfo.

Finland

The tracking service needed to be integrated with the websites of all pension institutions (single sign-on for users). A centralized authentication service was built, with ready-made example integrations to Java and Microsoft .Net applications.

The technical standards concerning the transfer of a user's identity from one website to another were quite immature in 2002. Solutions had to be built based on draft specifications. Nowadays there are much better standards and ready-made components and libraries that may be utilized. Also, the use of digital certificates (to secure the server-to-server communication channels between

organisations) was problematic in the beginning due to the lack of experience and well defined processes.

Sweden

An important issue was to decide which solution to use for secure transport of information through the internet. From the start secure FTP (FTPS) was used for file transfer, but more recently they have switched to secure web services, SSEK, which is a Swedish standard for the insurance industry. Another important issue was to find a standard for how the information of each pension agreement should be represented in an XML-format. They started with an internal standard but then switched to a standard that was already used by brokers and insurance companies when they exchanged information.

The Netherlands

Surprisingly, perhaps, there were hardly any technical issues. Open source applications were selected, and the website meets all the requirements for accessibility.

The foundation did not want to be a repository for data. Therefore, all the data have to be available on call at the connected 1st and 2nd pillar organizations. In terms of response time, searching more than 400 databases online was considered too risky. For this reason, a central index register was chosen, which only records which citizen is registered with which pension fund or insurer. This allows data to be collected much faster.

Despite the fact that the system should theoretically be able to cope with 1500 concurrent users according to the technical specifications, the results of a stress test fell far short of this number. This proved to be not a hardware issue but an issue buried deep in the software, which could only be solved by highly specialized technical staff at the package suppliers.

The only major problem since the start of Mijnpensioenoverzicht.nl on 6 January 2011 concerned the safety certificates used by Mijnpensioenoverzicht.nl. The organization that issued them turned out to have been hacked, so all the certificates had to be replaced. The website was taken offline for security reasons until the new certificates had been installed. That took about two weeks.

7. EU tracking services

7.1 Setting up national tracking services

The Groupe Consultatif believes that fully functional national tracking services are a necessary foundation before setting up an EU tracking service. The national tracking services can be set up at different levels, for example:

The basic level of a national tracking service is a tool to provide information about *at what institutions* within the country a citizen has accrued retirement benefits. When setting up a tracking service to provide information about the *level of the accrued retirement benefits* at the different institutions it is necessary that this information is available at all the different institutions. Apart from this it is important that the provided benefits are comparable and can be added together so that the citizen can see a consolidated picture of his or her accrued benefits.

Even more information about the *level of all pension benefits* (accrued and projected retirement benefits, spousal pension, illness, etc) can be provided within the national tracking service.

7.2 What to address when setting up a national Tracking Service?

Countries that haven't set up a national tracking service can learn from other EU countries. But before setting up a national tracking service countries should consider what goal they want to achieve with pension information and what means will help them to reach this goal.

A national tracking service could be the right solution to achieve this. The following lessons should be considered before setting up a national tracking service.

First of all the use of the social security number in the country or another unique identifier is necessary to be able to personalize the information for each citizen. Digital literacy in a country is very important to be successful in providing the information towards a significant proportion of the citizens in the country. If digital literacy is relatively low, one should consider trying to reach the pension information goal in another way than via a national tracking service.

Successful implementation of a national tracking service starts with sufficient data sources. When the data sources that can be connected have insufficient coverage of the citizens in a country this will lead to disappointment among the citizens whose data are not connected. This does not only mean that enough citizens are connected to the tracking service, but also that the benefits shown give a reasonably complete picture of the pension situation of the individual citizen. For example, the implementation of a tracking service in Finland considers only pillar 1, because of the high level of coverage of the 1st pillar pensions in Finland for retirement benefits. In other countries a multi-pillar approach was needed in order to give a reasonably good picture of pension benefits at retirement age. Wrong choices in this could lead to bad publicity and therefore to an unsuccessful implementation of the tracking service.

When setting up a tracking service a choice has to be made as to how to make the data available to the public. One possibility is to set up a database (or use an existing database) where all the data are available. This is the system that is used, for different reasons, in Sweden and Finland. On the other hand, examples from Denmark and the Netherlands show that using a service bus where the data are

only instantly available to the citizen when he or she is logged in to the engine can also work very well. The service bus has, for example, the advantage that no new database has to be set up. On the other hand, this at least requires the pension parameters to be defined so as to be able to combine the pension benefits.

There is a clear need for authentication (a way for the users to prove their identity) and authorization (governing the access to data) mechanism. This mechanism should be both easy to use and secure. In all studied countries, a central login system is used for authentication and authorization. In all countries, this system is not limited to the pension, but the citizens may use the same login system to log on to various services provided by the public or the private sector.

Using a central login system makes sense, since in all studied countries there is a single social security number that can be used to identify the users. The tracking service may collect information from pension providers based on this social security number. If no such common identifier is available, other ways of authentication and authorization could be used. Some ideas are presented in paragraph 7.3.

What kind of tooling should be used to inform people about their data? On the basis of the experiences of the countries in our study we have learned to start with basic high level information. After this is set and working sufficiently, with research one can find out what the needs are for more information in the country. For example, in The Netherlands the basic information was in annual gross amounts, but shortly after the start of mijnpensioenoverzicht.nl people wanted to see net monthly amounts. So this was the first improvement after the setup of mijnpensioenoverzicht.nl.

Another issue around the setup of a national tracking service is the number of pension institutions that administer the pension plans in the country involved. If there are a large number of pension institutions it makes it more difficult to set up a national tracking service than with a small number of pension institutions. In the latter case it is easier to agree on how to provide the information for the national tracking service.

7.3 Lessons to be learnt for an EU tracking service

As stated before, an EU tracking service for pension benefits can only be started when national tracking services for pension benefits exist in a reasonable number of countries. If this is the case, a number of lessons should be considered when setting up an EU tracking service.

As with all projects, first of all there should be a business case that should describe what the goal of an EU tracking service is, what problems are going to be solved by introducing it and what are the benefits of such a tracking service. One of the questions that have to be answered is about what an EU tracking service should be able to provide – only tracing where you have accrued any pension benefits, or also providing details of the relevant benefits? And within this all kinds of benefits can be included: accrued retirement benefits, future (forecast) retirement benefits, survivors' benefits, benefits on ill-health, etc.

When it has been agreed that setting up an EU tracking service is the logical step forward and details of pension benefits are going to be provided, these pension benefits from different pension providers in different countries have to be connected to each other. This can be dealt with in multiple ways. If

the use of the existing national social security numbers is unique throughout the EU, this can be used as a unique identifier. Although we haven't investigated this, it sounds reasonable social security identifiers from all EU member states are not unique between countries. A way forward could be to attach a country identifier to the national social security identifier. Introducing a new unique identifier for all EU citizens is another way to deal with this. It sounds reasonable that, when a new identifier is introduced, this should not only be used for pension benefits but also for other purposes.

On the other hand, not all cross-border online services require the use of a single, common user identifier. One can, for instance, link together and combine information from one's various social media profiles. It doesn't matter that a user has a different identifier on GMail, Twitter and Facebook – she can nevertheless combine her contact information from all those domains to e.g. her mobile phone's contact information app. In much the same way, a user could combine her pension information from various pension providers into a single view.¹³ The techniques required are already available, but they are not yet widespread in governmental or financial online services. It would be worthwhile to investigate the levels of security and ease-of-use the users would prefer in a pension tracking service.

If a person knows or is given tools to find out his or her own personal identifier in different countries (or even in different pension providers' systems), these identifiers may be linked together, by user's consent, in the tracking service. The tracking service itself could use yet another login system and another identifier – perhaps even the e-mail address of the user since e-mail addresses are guaranteed to be unique worldwide.

It is important to realize that a European tracking service (EUTS) could be totally agnostic about the user's real identity. A user could be known as Donald Duck in the tracking service. He would still need to prove his real identity to different data providers (pension providers or institutions, national tracking services) in order to be able to collect information to his EUTS account, but EUTS would contain only numeric, anonymous, information. A strong authentication mechanism could be used in EUTS to ensure that Mickey Mouse may not see the contents of Donald Duck's account. To combine pension benefits, a uniform definition of benefits is desirable. This is needed in order to be able to compare and consolidate the information that is being given by the various pension providers.

When looking at their pension benefits most consumers want to have a picture of the net pension benefits after taxes. Tax regimes differ between every country in the EU. Therefore when one wants to combine net pension benefits one has to take into account these tax regimes.

Special tax regulations apply to pension benefits accrued in one country and being paid out in another country. Also these tax rules differ by country in the EU and have to be taken into account when consolidating an individual's pension benefits.

The diversity of pension systems throughout the EU complicates the comparability of pension benefits. For example, the guarantees provided in one country are different for another country. Also pension benefits differ in the way they are protected against inflation.

¹³ And much broader: one could combine her financial information from banks, insurance companies, pension funds, etc.

There are a few things that apply to the setup of national tracking services as well as to an EU tracking service. These are:

- The data format to combine data has to be aligned when one chooses to make the pension benefits visible to the consumer.
- Data transport through the internet has to be secure to make sure that consumers can trust the tracking service. This is one of the key success factors.
- The tracking service should be an “opt-in” service. No-one should be forced to use the service and more importantly, because of privacy issues it should not be possible for the service to make queries about people who haven’t explicitly given their permission for these queries. (Giving a permission by registering in the service and agreeing its terms should be made very easy.)

7.4 Thoughts about an EU-wide tracking services setup

First of all we have to keep in mind that it cannot be expected that 100% of the population in all member states will have access to the internet in the near future. Consideration therefore needs to be given as to how to provide tracking information in a less satisfactory and less flexible way, probably through paper statements, for those who cannot use the internet, either because they do not have ready access or because they don't have the necessary skills.

When setting up an EU tracking service one could choose to do this in different ways.

One way would be to set up an EU tracking service like the existing national tracking services that have been investigated in this report. This means that a separate system should be set up to look up the information from the different pension providers in the different countries. This seems to be a reasonable inefficient way of setting up an EU tracking service because it would mean that all the work that has been done by a national tracking service should be done again. Many new connections would have to be made in addition to existing ones. Therefore a much more efficient way to deal with an EU tracking service would be for it to use the existing knowledge of the national tracking services. The EU tracking service can then be seen as a portal that offers the utility to combine the knowledge from different countries. It will be very difficult to combine data, if the data format is very different. It might be possible if we have a data converter for every national tracking site that converts data to the data format that’s used in the EU tracking service.

It seems reasonable that this portal should start with the utility to trace whether there are pension benefits for the consumer and where the consumer can get more information. The first step could be simply a list of the national tracking services linked to it, with the possibility and instructions for the user to retrieve her information. The second step would allow the user to combine information from these sources into a consolidated view. Over time the portal could be extended to add more information, based on consumer research.

It is also not necessary to wait to start with an EU tracking service only when all countries are able to participate. On the contrary: an EU tracking service should start with a "coalition of the willing". If only a few countries participate at the start, that would make the setup a lot easier and probably less

costly for one can learn over time. Possible errors in the set up of an EU tracking service could therefore be adjusted more easily.

One question, however, remains unanswered. As we have seen in this report, the current national tracking services in Sweden and Finland differ from the systems used in Denmark and The Netherlands. A separate investigation should provide information about whether the existence of these different types of tracking services would make the setup of EU tracking services more complex. This investigation could be carried out by the consortium that is currently investigating the technical issues around a setup of an EU tracking service.

7.5 Next steps for this Taskforce

The Groupe Consultatif's Taskforce on Tracking Services will continue to carry out further investigations about possible setups of national tracking services in other EU-countries. The results of these investigations will be published in 2014.

Annex I: Representatives that have contributed to this report

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Annex II: Call for proposals

“Support for the development of a tracking service for private pension entitlements”

Chapter 1.3 Objectives of this call and foreseen results

The purpose of this call for proposals is to support private pension stakeholders from several Member States in developing a tracking service for supplementary pension rights. Freedom of movement requires that people who move across borders do not lose their pension entitlements. To facilitate mobility, insurance and employment periods that contribute towards entitlement to pensions based on legislation in different Member States are aggregated under Regulation (EC) No 883/2004.

Together with the principle that benefits are paid out in other countries falling within the scope of the Regulation, this ensures that a person who has worked in more than one Member State does not lose out when it comes to their pension entitlements based on the Member States' legislation. However, occupational pensions do not have a similar arrangement, which means that people who move between jobs (including within Member States, if this involves changing occupational pension schemes) may lose out on their occupational pension entitlements. With employees being more mobile often with short periods of mobility and with an increasing reliance on private pension provision for achieving adequate retirement incomes, it becomes more important to move towards a better protection of occupational pension rights of people who change jobs and move across borders.

One challenge people face is to keep track of pension entitlements with different schemes to which they were affiliated during their career. This would be important both for individuals who need to know where they stand in terms of accumulating adequate pension entitlements and for pension providers who need to keep track of their members as they move and change address over very long periods. Responses to the 2010 Green Paper on Pensions supported the idea of building a European tracking service for pension rights.

Under this call, one grant shall be awarded to a partnership of supplementary pension providers (or their associations) willing to cooperate on the development of such a tracking service. The project funded under this call should build on existing experience and be designed in such a way that it could eventually result in an open system that can cover schemes across Europe. The focus of the project should be on identifying technical requirements and proposing and testing solutions that comply with the relevant legal requirements. A close integration with information on pension entitlements based on legislation should also be envisaged.

Annex III: Description of the pension systems in Denmark, Finland, Sweden and The Netherlands

Denmark

Denmark has a three-pillar pension system.

First Pillar: State pension and ATP

First pillar pensions are covered by state old age pension (Folkepension) and ATP. The state pension is a lifelong basic income (partly means tested) for persons aged 65 and over. The ATP is a minor Labour Market Supplementary Pension Scheme almost all Danes have. ATP is a DC scheme.

To be entitled to state pension you have to be a Danish citizen and have to live in Denmark for at least 3 years after the age of 15. If you're not a Danish citizen you can be entitled to state pension if you have lived 10 years or more in Denmark after the age of 15. To be entitled to full state pension you have to live in Denmark for 40 years from the age of 15 to 65. If you're not entitled to a full pension you will get "fraction pension" depending on how many years you have lived in Denmark. (If you have lived in Denmark for 27 years you are entitled to 27/40 of the full pension.)

The state pension consists of a basic pension and a supplement pension. The basic pension benefit is around € 9,000 per person and is not means tested. The supplement pension is around € 9,500 per person for people who are single and € 4,500 per person for people who are married or living together. The supplement pension is means tested. (All numbers are based on an annual basis.)

The age of retirement will gradually be raised to 67 in 2022, and will every 5 years be linked to rises in life expectancy starting from 2030.

Second Pillar

In addition to the state pension benefits a person may receive an occupational pension from his employer. More than 90% of the employees accrue pension benefits in the second pillar on top of the state pension. The pension benefits in occupational pensions are being provided by 9 life insurance companies (single employer) and 28 pension funds (multi employer). Almost all occupational pension plans are DC plans (funded) but there is still a minor group of civil servants who have DB (PAYG) pension plans.

The contribution to occupational pension plans is normally shared by employers (2/3) and employees (1/3) and the size of the contribution ranges from 5% to 20% of the salary. At most pension plans the contribution is around 12% of the salary. Until the end of the 80's 2/3 of the employees did not have an occupational pension plan – typically blue- and white-collar workers within the private sector. From the beginning of the 90's this group got an occupational pension plan but it will approach maturity around 2040.

The income from occupational pensions is for current retirees around 25% of total retirement income, but there is a huge difference depending on the retiree's former employment. For future retirees the number will rise to approximately 40%.

The benefit package for a occupational pension plan normally consists of:

- Old age pension (lifelong annuities, phased withdraw, lump sums)
- Disability benefit
- Survivors' benefit
- Critical disease

The delayed taxation system applies to supplementary pensions (pillar 2 and 3), entailing that entitlements are tax-free and that the pension in payment is taxable.

Third pillar

Third pillar pensions are private pension provisions in addition to state pension and occupational pension and are benefits provided by a life insurance company or banks.

Finland

Finland has a three-pillar pension system. Due to the comprehensive coverage and the absence of a pension ceiling (neither income nor pension) in the First Pillar, the significance of supplementary occupational (Second Pillar) and individual (Third Pillar) pension insurance is small.

First Pillar

The pension scheme is a defined benefit earnings related scheme, which is supplemented by a residence based, flat rate pension scheme and a guaranteed minimum level. The earnings related pension scheme combines, in a unique way, (1) a compulsory legislative basis, (2) similar benefits for all, (3) partial funding and (4) private organisation of the pension provision. It is a mix, fulfilling the functions of first and second pillar pensions within the same scheme and it provides income related protection for old age, disability and survivors.

The earnings-related pension scheme covers all private and public sector employees (in gainful employment), the self employed and also recipients of earnings related social security benefits. The universal residence based state funded flat rate pension scheme is providing pensions only to those whose earnings related pension is low or zero. This flat rate pension ranges from € 7,560 in 2013 for a single and € 6,706 for a married or cohabiting person with no earnings related pension to € 0 if the earnings related pension is at least € 15,628 for single and € 13,919 for married or cohabiting persons. In addition the first pillar includes a state funded guaranteed minimum level of € 8,866, if the earnings-related and flat rate benefits together are less then this level.

The overall pension income for pensioners was on average 74 % of the income of the employed population in 2009. In 2010 the overall pension expenditure was 22,587 million Euros. Of this sum 84% was paid from the first pillar earnings related pension scheme and 11% from the flat rate pension scheme and the rest, 5% was paid from second and third pillar pension schemes. The average old age pension from the first pillar was € 16,656 in 2011, while the share of the earnings-related pension was € 15,072.

There are 30 pension providers in the earnings related pension scheme: 7 Pension Insurance Companies in the private sector, 6 industry-wide pension funds, 14 company pension funds, 2 special institutions (farmers, seafarers) and 1 public sector institution (civil servants for state and local government). The flat rate pension and the guarantee level are provided by the Social Insurance Institution.

The earnings related pension scheme is a mix of prefunding and PAYG, based on pension contributions from both employers and employees. The contribution is 23-29% of the salary of which employee's share is 5.5 percentage points. The contribution of the self employed is the average of the contribution for employees in the private sector - around 23% of a predetermined wage for the self employed.

Second Pillar

In addition to the first pillar pension benefit a person may receive an occupational benefit from his employer(s). Because the first pillar earnings-related pension fulfills the function of both first and second pillar pensions, second pillar pension benefits are not very common. Compared to the premium income from all three pillars, second pillar premium income is only 2%. Compared to pensions paid the share is also 2%.

The old second pillar contracts are of lifelong defined benefit type, topping up first pillar pensions to a certain level. Nowadays the contracts include also defined contribution and fixed term annuity type benefits.

There are 62 pension providers in Finland: 13 life insurance companies, 2 industry wide pension funds and 47 company pension funds.

Third Pillar

Third pillar pensions are private pension provisions in addition to first and second pillar pension benefits and are benefits provided by life insurance companies or banks.

Sweden

Sweden has a three-pillar pension system: Public pension, occupational pension and private pension.

First Pillar:

The first pillar pensions are administered by Pensionsmyndigheten (Swedish Pensions Agency). The benefits from first pillar pensions in Sweden are:

- Garantipension: The government ensures that a lifelong basic income is provided to persons aged 65 and over. This pension is not means tested. When there is no or a low income related pension then the Garantipension provides a basic pension. The maximum amount is about € 11,000 gross. (All numbers are based on an annual basis.) In order to receive a full pension citizens have to reside in Sweden for 40 years.
- Inkomstpension (Notional Defined Contribution, NDC) and Premiepension (also DC, funded) are income related pension. Both pensions can be withdrawn from age 61, with no upper

limit. The contribution rate is 16% (Inkomstpension) and 2.5% (Premiepension) of earned income up to a ceiling.

Every citizen who pays taxes is covered by first pillar pensions in Sweden and the pay-out is a lifelong annuity. The benefits from first pillar cover on average around 50% of the salary at age 65.

Second Pillar

These employer pension plans are typically DC (funded) with often DB (partly funded) on top for pensioners with high income. The amount of DB is decreasing and instead DC is increasing.

For the DC-plans the contribution rate is on average around 4.5% of the salary up to a ceiling. The income level is on average around 15 % of the salary for pensioners with average or low wages, substantially higher if you had a higher wage.

The pension plans have been negotiated by employers and labor unions in the four major sectors of the labor market.

Third pillar

Third pillar pensions are private pension provisions and are benefits provided by an insurance company or bank. Income level is – of course according to premiums paid – on average around 5% of the salary.

The Netherlands

The Netherlands has a three-pillar pension system. The two main pillars are the General Old Age Pension (AOW, first pillar pension) and the supplementary pension (second pillar pension).

First Pillar: AOW

The government ensures that a lifelong basic flat-rate income (not means-tested) is provided to persons aged 65 and over. The AOW is provided by the SVB (Sociale VerzekeringsBank) and provides benefits from the retirement age for everyone who has been living in The Netherlands. The development of the amount of both the minimum wage and the AOW can be linked pursuant to the development of the wages in the collective labour agreements. A full gross AOW amounts to around € 10,000 (2013) per person for people who are married or living together and around € 14,000 (2013) for people who are single. (All numbers are based on an annual basis.)

The AOW accrual is related to (the duration of) being a resident: as long as one is a resident in the Netherlands or at any rate pays contributions for AOW in the Netherlands, rights to AOW are being accrued. People who go to live outside the Netherlands may buy in any missing AOW years or take out voluntary additional insurance after having left the Netherlands.

Everyone who pays Dutch wage tax and/or income tax and hasn't reached his or her AOW retirement age pays the AOW contribution. The AOW is financed by a pay-as-you-go system; the contribution paid is used immediately to pay out AOW benefits. The contribution is withheld from the wages of

employed people or from the benefits of those on welfare. A self-employed person pays the contribution through an assessment imposed on his or her income by the tax authorities.

From 2013, the AOW retirement age will gradually be raised to 66 in 2018 and 67 in 2021, and will subsequently be linked to rises in life expectancy.

Second Pillar

In addition to the state pension benefit a person may receive an occupational pension benefit from his employer(s). More than 91% of employees accrue a supplementary pension in the second pillar on top of the AOW. Occupational pension benefits are provided by 400 pension funds and around 57,000 insurance contracts. In total 21 pension institutions service these contracts and deliver this information to the Dutch pension tracking service.

The self-employed and non-employed do not accrue occupational pension benefits. Although the government is not primarily responsible for supplementary pensions, its aim is for everybody to be able to accrue a supplementary pension. Together with the AOW the supplementary pension should be sufficient to keep the standard of living at a reasonable level in retirement. With this in mind, occupational pensions should be financed on the basis of capital funding and the invested pension capital must be placed outside the company. There is also a prohibition on surrender of pension contracts (subject to exceptions) and there should be a periodic payment (and not a lump sum) at retirement age.

The delayed taxation system (EET) applies to supplementary pensions, meaning that entitlements are tax-free and that the pension in payment is taxable. Currently, employees may save tax-free for their pensions up to the actuarial value of an annual accrual of 2.25 per cent of their pensionable salary.

Third pillar

Third pillar pensions are private pension provision in addition to AOW and supplementary pension benefits and are benefits provided by an insurance company or bank.