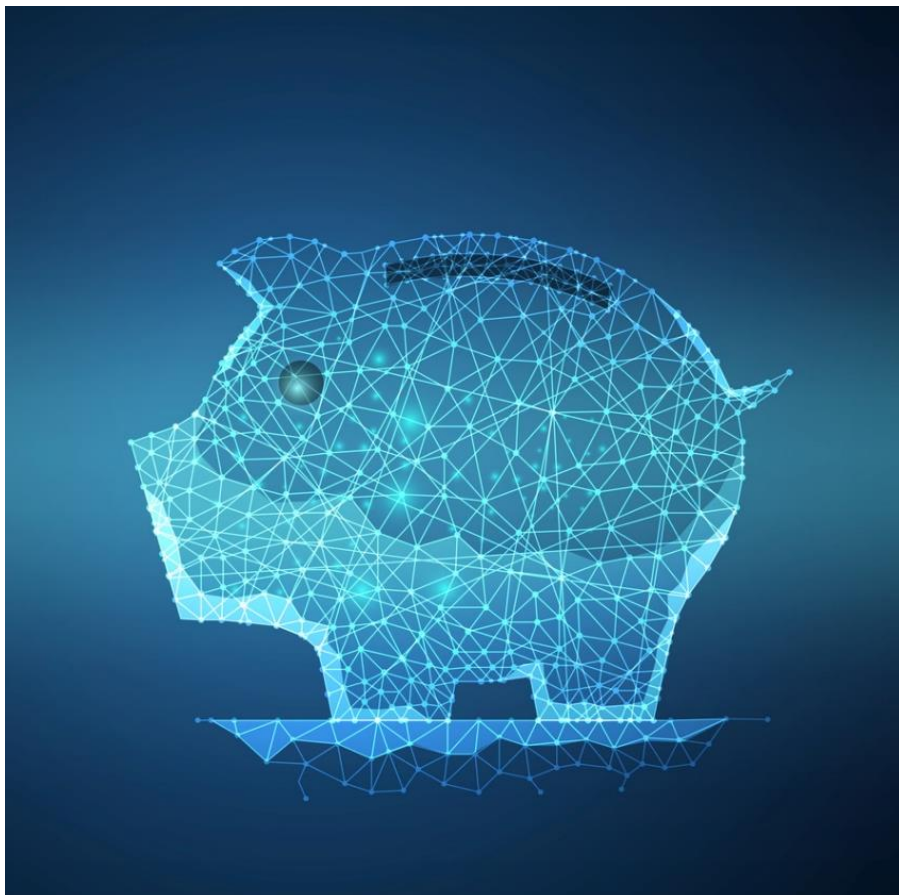


SFTI - working group 'Open Pension'

'Open Pension'

Position Paper



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About SFTI

Swiss Fintech Innovations (SFTI) is an independent association of Swiss financial institutions committed to drive collaboration and digital innovations in the financial services industry. For more information about *Swiss FinTech Innovations*, please refer to <http://www.sfti.ch>.

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1. Introduction

1.1 Open finance/Open pension

Open finance promotes the sharing of and access to financial data between financial institutions and trusted third-party providers (TPP) via secure, standardized interfaces.

Open finance gives consumers more control and insight into their financial data, drives innovation, improves financial services and enhances the customer experience.

Open pension is the part of open finance that focuses on pension data. Open pension puts the individual at the center and facilitates the secure and standardized exchange of personal pension information with a TPP at the individual's request.

1.2 The SFTI open pension working group

The SFTI open pension working group aims to make open pension work in Switzerland – starting with the second pillar¹.

With this working group, SFTI repositioned the topic of “open pension” in a holistic and solution-neutral way. The previous findings of SFTI's “Pension Cockpit” and “OpenPK” working groups are combined and included.

1.3 The open pension SFTI position paper

In December 2023, the Federal Council instructed the Federal Department of Home Affairs (FDHA) to examine how digital access to retirement provision data can be appropriately promoted¹. The SFTI open pension position paper contributes to this endeavor.

Specifically, SFTI and its open pension working group have set themselves the goal of supporting the Federal Social Insurance Office (FSIO) and the State Secretariat for International Finance (SIF) with this position paper, which outlines strategic options for opening the second pillar. Representatives of FSIO and SIF have been informed about this project.

In addition to contributing to the examination, open pension is also important for realizing the open finance goals set out in the Federal Council's Digital Finance 2022+ action plan².

Before the strategic options were defined and the position paper was written, a public survey (the “Open Pension Survey”) was conducted to gain insights³. The survey aimed to create a common understanding of the current perspectives, concerns, thoughts and open questions of various interest groups within the pension landscape regarding the potential digital opening of insured individuals' data in the second pillar. The insights from this survey are available online⁴ and were fundamental for the conclusions drawn in the position paper.

1.4 Target audience

- FDF (Federal Department of Finance)
- SIF (State Secretariat for International Finance)
- Federal Department of Home Affairs (FDHA)
- Experts with a good understanding of open finance topics

¹ <https://swissfintechinnovations.ch/projects/open-pension/>

² <https://www.sif.admin.ch/sif/en/home/finanzmarktpolitik/digitalisation-financial-sector/digital-finance-areas-action.html>

³ <https://swissfintechinnovations.ch/call-for-participation-sfti-open-pension-survey-and-working-group/>

⁴ <https://swissfintechinnovations.ch/wp-content/uploads/2023/11/SFTI-Open-Pension-Survey-Results.pdf>

1.5 Scope

This position paper aims to outline strategic options for open pension, with a focus on the second pillar. It also considers important dependencies on the first and third pillars to ensure that the vision of open pension provision can be effectively realized across all three pillars.

1.6 Out of scope

- **Definition and analysis of strategic options for the first and third pillars:** It is apparent that the substantial added value of a PTS only materializes if all three pillars can be covered. Nevertheless, **the focus of the position paper is on the second pillar.** This focus is justified by the crucial role of the second pillar for pension provision and the complex situation with many interest groups involved. In addition, the first pillar is already being worked on in parallel by the FSIO (e.g., in the MOSAR⁵ project and as a prototype in the Digital Individual Benefit Statement (“DIBS”) /*e-rentes*⁶; and partly in the new federal legislation on information systems in social insurance “BISS”⁷). The third pillar, in our view, is best addressed through private initiatives such as the SFTI Common API working group⁸, where the existing XS2A API specification for an account access interface could be easily extended to also access 3a data.
- **Technical analysis** (e.g., technical implementation concepts)
- **Financial analysis** (e.g., implementation costs)
- **Legal and regulatory analysis** (e.g., outlining legal/regulatory frameworks)

⁵ MOdernisation des Services offerts aux AssuRés de l'AVS; a project by the FSIO that provides standard interfaces for the online retrieval of the statement of the individual first pillar account.

⁶ <https://e-rentes.hesge.ch/de>

⁷ <https://www.bsv.admin.ch/bsv/de/home/publikationen-und-service/medieninformationen/nsb-anzeigeseite.msg-id-99445.html>

⁸ <https://swissfintechinnovations.ch/projects/common-api/>

2. Current situation

2.1 The Swiss worry about their retirement

The Swiss pension system, comprising three pillars, is intended to ensure financial security for retirees and serves as the foundation of retirement planning, offering a comprehensive approach to pension provision. However, despite its past praise, the system is now facing challenges, with retirement emerging as a significant concern of Swiss citizens, consistently ranking among the top three worries according to Credit Suisse's annual *Sorgenbarometer* in the past five years (from 2019 to 2023⁹). There is increasing apprehension regarding the long-term financial viability of the first pillar (AHV): The demographic shift resulting from Switzerland's aging population, along with a shrinking workforce supporting a growing number of retirees, emphasizes the urgent need for reforms within the first pillar. Similarly, uncertainties surround the second pillar's occupational pension, as demonstrated by the current discussions concerning the reform of the Occupational Pensions Act (BVG).

This has led to fears that despite contributions made to the first and second pillars, the payouts may not be sufficient for living expenses. However, individuals often lack clarity on their expected monthly pension due to the complexity of the calculation, fragmented data across pillars and limited understanding of the pension system.

These characteristics are not unique to Switzerland but are observed across many countries in Europe. The European Commission has highlighted similar challenges facing European public pension systems¹⁰:

- Ensuring financial sustainability while providing adequate retirement income
- Improving understanding and increasing participation in occupational pensions are considered essential by the European Insurance and Occupational Pensions Authority (EIOPA).

2.2 A pension tracking system is an important part of the solution

According to EIOPA, a pension tracking system (PTS) has considerable potential to address these challenges. By furnishing simple and understandable information to the average citizen about their aggregated pension, a PTS allows people to make informed decisions about how to improve their pension situation. While access to a PTS may not inherently lead to sound financial planning, its absence poses a significant barrier to citizens' ability to navigate their pension provisions effectively.

2.2.1 Description

A pension tracking system (PTS), as defined by EIOPA, is essentially a platform designed to offer comprehensive, unbiased information tailored to individuals. It gathers and aggregates pension-related data from all three pillars of pension provision. This encompasses accrued entitlements and projected retirement income from various sources, presented in

⁹ 2023 <https://www.credit-suisse.com/sustainability/en/thought-leadership/worry-barometer.html>

2022 <https://www.credit-suisse.com/about-us-news/en/articles/media-releases/credit-suisse-sorgenbarometer-2022--grosse-rochade-bei-den-top-s-202211.html>

2021 https://www.gfsbern.ch/wp-content/uploads/2021/11/credit-suisse_sorgenbarometer2021_schlussbericht.pdf,

2020 <https://www.credit-suisse.com/media/assets/corporate/docs/about-us/responsibility/worry-barometer/schlussbericht-credit-suisse-sorgenbarometer-2020.pdf>

2019 <https://www.credit-suisse.com/about-us-news/en/articles/media-releases/2019-credit-suisse-worry-barometer--retirement-provision-remains-201912.html>

¹⁰ https://www.eiopa.europa.eu/system/files/2021-12/technical_advice_pension_tracking_systems_for_publicationfinal.pdf

a user-friendly manner through a front-end interface, commonly known as the pension dashboard (see Figure 1). The **pension dashboard** can be provided by various entities, including government agencies and private firms, and can – in the case of commercial dashboards (see 2.2.7) – also be integrated into existing platforms like insurance customer portals or online banking services. Meanwhile, the backend systems focus on gathering pension data from different providers to ensure comprehensive coverage. It's the backbone that needs to be established in order to transfer pension data between the pension providers and the pension dashboard. This highlights that the availability of access to pension data from data providers to the dashboard is a prerequisite for an operational pension tracking system.

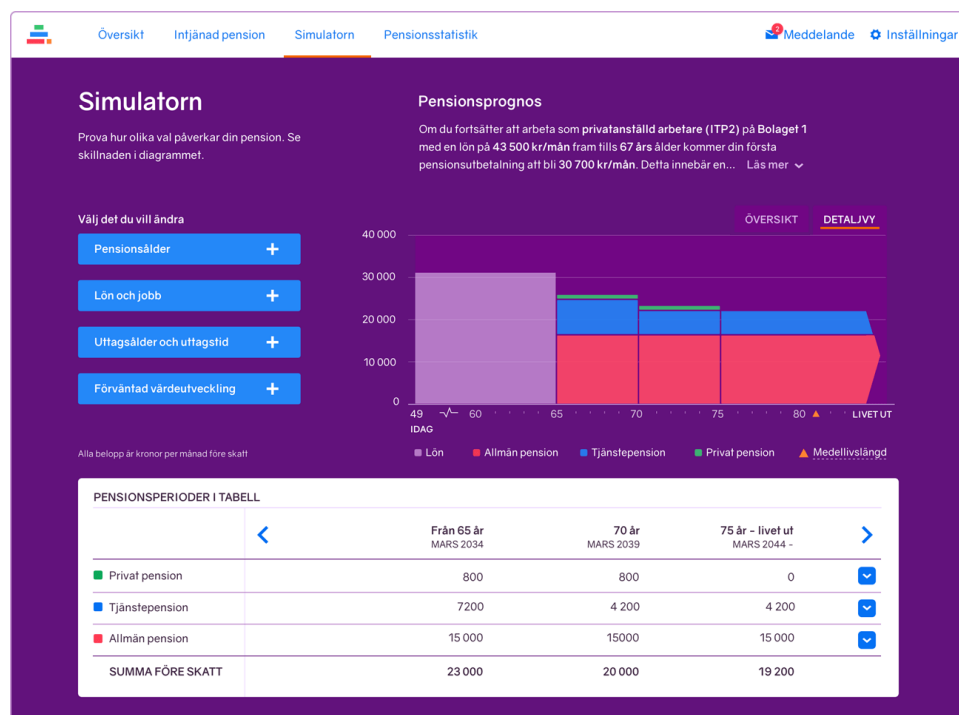


Figure 1: Screenshot of the Swedish Pension Dashboard “MinPension”¹¹

2.2.2 Scope of pension dashboard

2.2.2.1 Minimum scope of features for pension dashboards

The scope of a pension dashboard, which serves as the frontend of the PTS, is typically determined by its provider. However, EIOPA has outlined the minimum set of features that are most relevant for users and should likely be addressed in the initial release of a pension dashboard. This perspective has been validated by the Dutch pension dashboard experience¹². Features include:

- Access to pension data from at least one pension pillar
- Providing a default retirement date
- Projecting future retirement benefits or income
- Offering information on accrued entitlements from as many applicable sources as technically possible

¹¹ <https://www.minpension.se/>

¹² https://www.linkedin.com/posts/richard-smith-b15935_pensions-redux-snippet-insight-6-of-10-total-activity-7117025568042143744-zCUg?utm_source=share&utm_medium=member_desktop

2.2.2.2 Add-on features for a target view

Additional features (non-exhaustive) identified by EIOPA and SFTI open pension that could also be considered for implementation as part of a pension dashboard include:

- Access to pension data from all three pillars
- Simulations illustrating the impact of various retirement choices (e.g., early retirement)
- Projecting changes in life situations (divorce, part-time working, home ownership, etc.)
- Pension projections for households
- Financial and retirement educational content
- Projecting if contributions are made on a voluntary basis
- Linking to tax data and projecting savings

2.2.3 Availability

PTS are already prevalent across European countries. By 2021, more than half of the countries in the European Economic Area (EEA) and the European Free Trade Association (EFTA) provided a PTS to their citizens, encompassing data from at least one pension pillar, with some even including data from all three pillars¹³.

2.2.4 Governance

Existing PTS have emerged within various contexts, with some initially established by industry associations, while others were mandated by government entities. Consequently, different governance models have been adopted, which can generally be classified into three categories: public entities, public-private partnerships or private entities.

2.2.5 Legal framework

EIOPA considers national rules crucial for formalizing the public good nature of the PTS, but more importantly to ensure that the PTS covers the statutory and supplementary pensions that are available. While some PTS like those in Denmark and Sweden were established without specific national rules, more recent experiences in countries like Austria, Belgium, Israel, the Netherlands and the United Kingdom highlight their necessity. These national rules ensure consistent transmission of individual pension data to the PTS and address legal concerns such as GDPR compliance.¹⁴

2.2.6 Usage

In countries with an operative PTS, the pension dashboards are gaining significant traction among working-age adults, with usage rates reaching the high 30s in percentage points in numerous European countries. For instance, in Belgium, the pension dashboard mypension.be recorded 2.22 million unique visitors in 2022. Considering Belgium's core working-age population of slightly over 6 million, this translates to approximately 36% of the demographic actively engaging with the platform. This high level of utilization underscores the growing importance of PTS in empowering individuals to manage their retirement planning effectively¹⁵.

¹³ The PTS for at least one pillar are available in the following countries, according to EIOPA: Austria, Belgium, Cyprus, Czech Republic, Germany, Denmark, Estonia, Finland, France, Iceland, Italy, Lithuania, Latvia, Malta, Netherlands, Norway, Poland, Portugal, Sweden and Slovakia.

¹⁴ EIOPA provides a detailed list of the minimum scope of such national measures on pages 84–85.

¹⁵ Viewpoint Issue 1 2024: <https://issuu.com/plsa/docs/viewpoint-1-winter-2024-digital/8>

2.2.7 Commercial pension dashboards

The utilization of pension dashboards correlates directly with the ease of access provided to users. An example is Norway's PTS, which has been operational for over 15 years. Initially, access was limited to two channels: the central norskpensjon.no portal and the Norwegian government's state pension online service. However, since 2015, data retrieved from NorskPensjon has been made available to commercial apps through APIs.

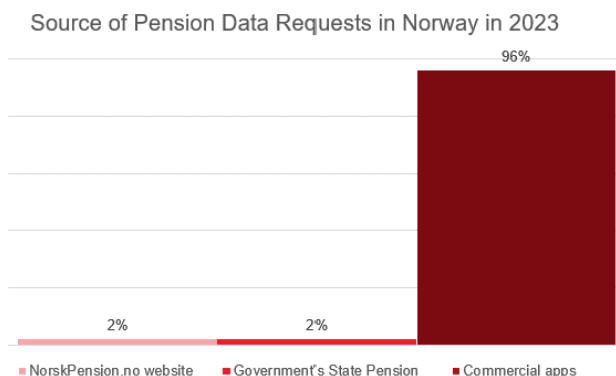


Figure 2: Source of Annual Pension Data Requests in Norway in 2023

In 2023, out of the roughly 39 million annual data requests, a substantial 96% were processed through commercial applications. Only 2% each stemmed from the [NorskPensjon.no](https://norskpensjon.no) website and the government's state pension service (see Figure 2).

This data underscores a critical insight: users prefer accessing pension dashboards through platforms or apps they already use, e.g., digital banking. This highlights the importance of seamless integration with familiar and trusted channels in driving user engagement and adoption rates¹⁶.

2.3 PTS in Switzerland

2.3.1 Why does Switzerland not yet have a PTS in place?

The widespread adoption of PTS across Europe demonstrates their significance, especially among working-age adults seeking to better prepare for their retirement. As Switzerland faces similar challenges and could benefit from a PTS, the question naturally arises: Why does Switzerland not yet have a PTS in place?

2.3.2 Digital access is a missing key enabler

A primary reason for the absence of a PTS is evident when examining Figure 3. The necessary infrastructure for individuals to share personal pension data securely and conveniently with third-party providers is lacking.

¹⁶ <https://www.dashboardideas.co.uk/international-precedents/europe/denmark/>

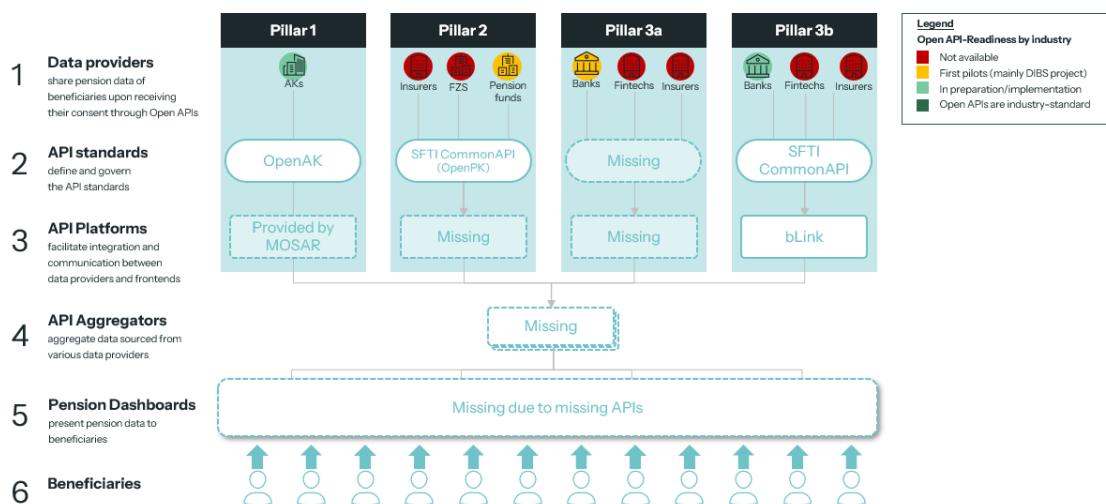


Figure 3: Overview of the Pension Landscape

The Innosuisse-funded project Digital Individual Benefit Statement (“DIBS”) has been developing a PTS prototype. This prototype includes a pension dashboard called *e-rentes*¹⁷ along with an integration layer. The project connected the first pillar via the OpenAK API (developed by the DIBS project/Globaz SA) and MOSAR (developed by FISO). The second pillar and the first pension funds were connected via the OpenPK API (SFTI OpenPK working group), and 3a data from a bank was integrated using the OpenPV API (DIBS project). The DIBS project was concluded in March 2024 and delivered very valuable insights and knowledge. Additionally, there are other initiatives and endeavors in Switzerland aimed at promoting open pension and access to pension data for third-party providers across all pillars (non-exhaustive list):

- **Pillar 1:**
 - The goal of the new federal legislation on information systems in social insurance (“BISS”¹⁸) is to enable easy and secure exchange of first pillar data by electronic means via a new digital information system and a corresponding legal basis for insured people, authorities and other stakeholders¹⁹. As of now, the legislation doesn’t address open APIs.
 - MOSAR (“MODernisation des Services offerts aux AssuRés de l’AVS”) is a project by the FSIO that provides standard interfaces for the online retrieval of the statement of the individual first pillar account.
- **Pillar 2:**
 - Various banks and insurance companies, as well as start-ups, such as Caveo and vlot, are providing digital pension services that rely on digitally accessible pension data. For example, vlot has developed a central platform that works with QR codes to share pension statement information²⁰.
 - Existing banking and insurance/pension platform providers like bLink, BVG Exchange, eBVG/EASX and EcoHub are also looking at the topic of open pension and analyzing what it would mean for them to be the future open pension platform of choice.

¹⁷ <https://e-rentes.hesge.ch/de>

¹⁸ <https://www.bsv.admin.ch/bsv/de/home/publikationen-und-service/medieninformationen/nsb-anzeigeseite.msg-id-99445.html>

¹⁹ <https://www.admin.ch/gov/de/start/dokumentation/medienmitteilungen.msg-id-99445.html>

²⁰ IVW Trendmonitor 04-23, <https://www.ivw.unisg.ch/en/future-value/trendmonitor/>

- The SFTI working group “Common API” has defined and manages an API standard for open pension²¹ (also known as “OpenPK”).
- **Pillar 3a:** The same SFTI working group “Common API” is considering the development of an API Standard to share 3a data of individuals. They assume that the existing XS2A API specification can easily be extended to also support 3a data.
- **Pillar 3b:**
 - The Swiss Bankers Association (SBA) and its member institutions intend to facilitate the introduction of initial multibanking offerings for natural persons by providing the necessary data interfaces (open APIs).²²
 - The OpenWealth Association, along with its members, has established and maintains an API standard that allows banks and financial intermediaries such as EAMs and family offices to integrate position and transaction data into their portfolio management systems in a standardized and secure manner.²³

2.3.3 Unaligned interests of the stakeholders are a challenge in the second pillar

As this paper explores pension data from the second pillar, it’s essential to examine why most second pillar institutions currently do not provide options for digital third-party access, even when individuals give their consent. The complexity of making digital pension data accessible results from the different interests of stakeholders from different sectors (as shown in Figure 4). Aligning the interests of the approximately 1,400 pension funds in Switzerland, which differ greatly in terms of their level of digital maturity and structure, along with other interest groups, is a complex challenge.

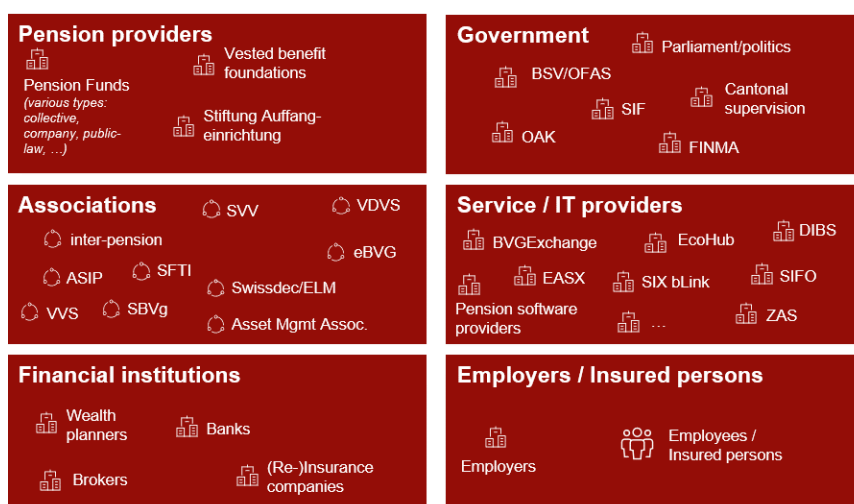


Figure 4: Stakeholders in the Swiss pension landscape (non-exhaustive)

2.3.4 Wide interest in digitally accessible pension data

However, the Federal Council’s commitment to promoting open finance, as articulated in a press release on December 16, 2022²⁴, signifies a shift towards facilitating the exchange of financial data through standardized and secure interfaces. The Federal Council instructed the Federal Department of Home Affairs (FDHA) to examine how digital access to retirement provision data can be appropriately promoted¹.

²¹ <https://github.com/swissfintechinnovations/ca-pension>

²² <https://www.swissbanking.ch/en/news-and-positions/news/multibanking-for-private-customers-swiss-banks-sign-memorandum-of-understanding>

²³ <https://openwealth.ch/>

²⁴ <https://www.admin.ch/gov/en/start/documentation/media-releases.msg-id-92275.html>

Additionally, independent pension advisors, banks, insurance companies and many fintechs are keen to gain digital access to their clients' digital pension data with clients' consent. This is exemplified by the participation of many stakeholders in the newly established SFTI working group "open pension". Another indication of interest is a recent press release from the Zurich Cantonal Bank that shows a large bank's perspective on a PTS and "open pension" as an open finance use-case, highlighting its potential benefits for the institution.²⁵

In 2023 the SFTI open pension working group conducted a public survey²⁶ to improve the understanding of stakeholders' current perspectives on digitally opening up second pillar data. With 92 participants from various stakeholder groups, including data providers and data users, the survey revealed significant consensus. Over 80% of participants anticipate relevant benefits for data users, individuals and data providers from digitally opening up second pillar data of the insured (see Figure 5).

For which actors do you see the benefits of digitally opening up 2nd pillar data of the insured?
[Matrix selection]

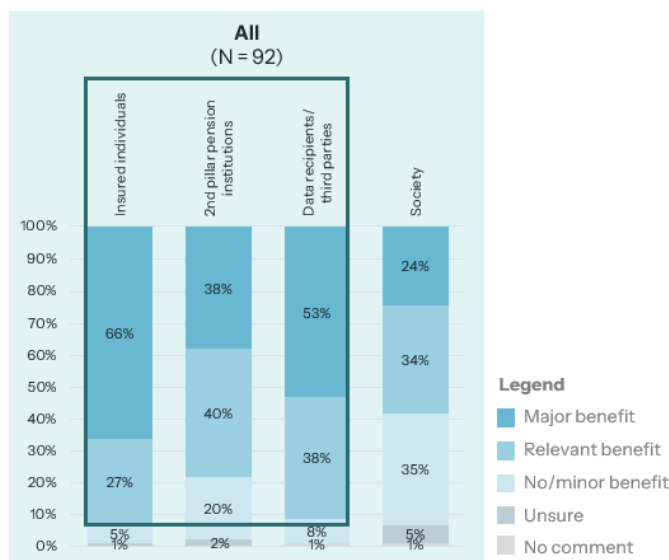


Figure 5: SFTI Open Pension Survey – Question 2.01 (p.13)

Although research outlining this demand has not been released, observations from European countries that have already implemented a pension dashboard indicate a substantial adoption rate, with usage rates reaching more than 30% of the working population. This statistic underscores the compelling potential for widespread adoption and utilization of such a system within Switzerland, highlighting the importance of addressing individual needs.

2.3.5 An opening mandated by a federal authority is indispensable

Given the current lack of accessible ("open") pension data, the primary question regarding making pension data more digitally accessible in the second pillar context arises. Generally, three approaches are under consideration:

- **Voluntary approach:** Opening of the second pillar pension data of insured individuals as an individual decision by the second pillar pension provider

²⁵ <https://www.zkb.ch/de/blog/themen/open-banking-vorsorge.html>

²⁶ <https://swissfintechinnovations.ch/wp-content/uploads/2023/11/SFTI-Open-Pension-Survey-Results.pdf>

- **Self-regulation approach:** Association-controlled opening of second pillar pension data
- **Regulatory approach:** Forced opening of second pillar pension data

2.3.5.1 Insights from the SFTI Open Pension Survey

In the context of the SFTI Open Pension Survey, participants were asked about their preferences of the presented approaches to access individuals' pension data (see Figure 6).

While a slight majority of all respondents across stakeholder groups favor a self-regulatory or voluntary opening approach for enabling trusted third parties to access individual data, a significant portion (38%) express a preference for regulatory intervention.

According to which approach should second-pillar pension institutions enable trusted third parties to access the individual data of the insured individuals, provided that they have given their consent? [Single selection]

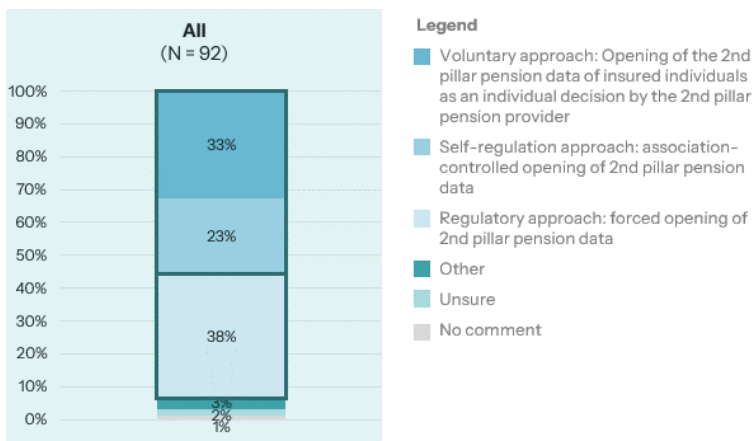


Figure 6: SFTI Open Pension Survey

Among the different approaches, 45% of the participants consider a regulatory approach to be the swiftest path to implementing digital access to pension data for secure third-party providers, anticipating realization within 3–5 years (see Figure 7).

How long do you anticipate it will take for the vast majority (> 90%) of 2nd pillar pension providers to make pension data digitally accessible to secure third-party providers with the consent of insured individuals?

[Matrix selection]

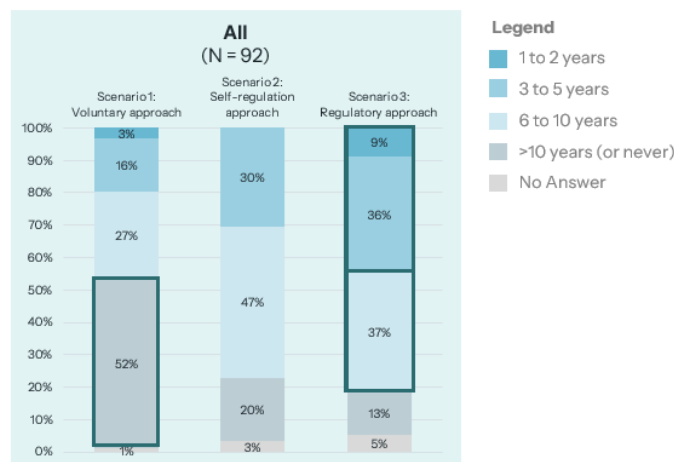


Figure 7: SFTI Open Pension Survey

Furthermore, approximately one-third of data providers would only grant digital access to personal data if mandated by regulation (see Figure 8).

Would you be open to granting trusted third parties digital access to the personal data of your insured individuals, given that the insured individuals give their consent for it? [Single selection]

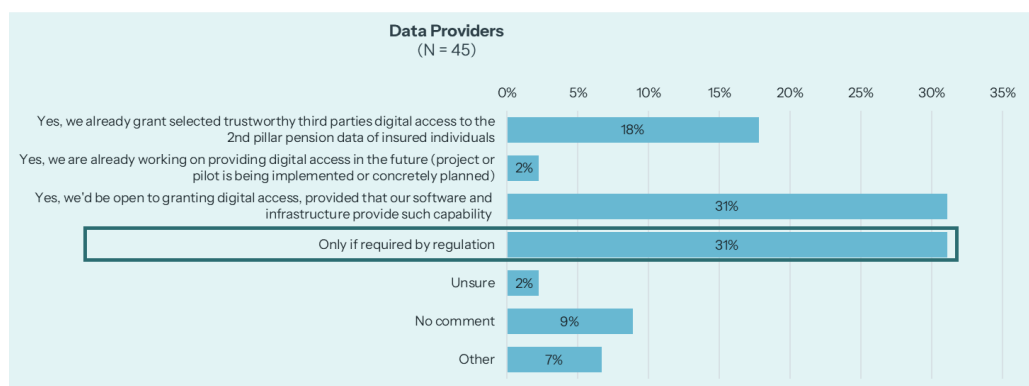


Figure 8: SFTI Open Pension Survey – Question 2.03 (p.18)

2.3.5.2 Insight from SFTI OpenPK

The former SFTI working group OpenPK²⁷ consisted of members from banks, insurance companies and second pillar software providers. Together, they analyzed the possible implementation of a pilot project for the use of an API standard defined by the working group (including consent mechanisms). Despite the high level of interest, the working group concluded at its workshop in December 2021 that a market-driven approach is not feasible, as the commitment to such an approach is limited. It was stated that an opening mandated by a federal authority is the only viable option for opening in the sense of “open pension”.

2.3.5.3 Summary of the insights

Despite a prevailing preference for voluntary or self-regulatory approaches by the survey participants, the inevitability of a mandate by a federal authority emerges as a central theme, considering the expected benefit of a faster time-to-market, the reluctance of a significant portion of pension funds to provide access to pension data and the insights learned from the SFTI OpenPK working group.

Consequently, the assumption underlying this paper going forward is that an opening mandated by a federal authority is indispensable for the successful implementation of a PTS in Switzerland, aligning further with the recommendations of EIOPA to introduce national measures.

2.4 Conclusion

Pension tracking systems (PTS) have proven to be an important and enabling element of addressing the effects of socio-economic changes on individuals’ pensions in Europe, suggesting their potential applicability in Switzerland as well. However, the implementation of a PTS requires the digital accessibility of individuals’ pension data by third parties, a requirement currently unmet in Switzerland. The Federal Council’s commitment to open finance signifies a promising shift towards facilitating the exchange of financial data. Making second pillar data more digitally accessible is a major challenge, as numerous stakeholders with different interests are involved. Therefore, an approach mandated by a federal authority is seen as crucial for the successful opening of the second pillar and enabling a PTS in Switzerland.

²⁷ <https://swissfintechinnovations.ch/projects/openpk/>

3. Strategic options for “open pension”

3.1 Introduction

In this chapter, we explore strategic options for the implementation of open pension for the second pillar.

We identify the key building blocks that are required to achieve the goals of open pension and assess five main options for implementing these building blocks. We also discuss the benefits and challenges of each option, as well as the implications for different stakeholders.

3.1.1 Open pension building blocks

Before delving into five major strategic options for open pension, it’s crucial to outline the foundational elements that constitute the open pension system.

These elements include an optional legal framework, the governance and the network of participants and platforms engaging with pension data (ecosystem). This framework is the result of our analysis, synthesizing inputs from Chapter 2 alongside various sources, including, but not limited to, EIOPA.

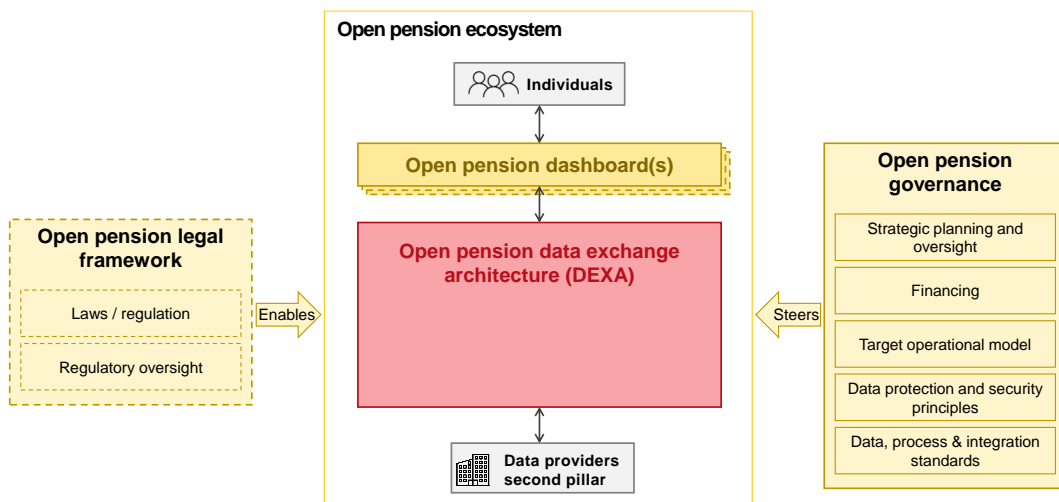


Figure 9: Open pension building blocks

The open pension building blocks are described in the appendix [6.3].

3.2 Strategic options overview

We identified five strategic options for the implementation of the ecosystem and its data exchange architecture. **The options can be clustered into two different types.**

Cluster one includes central platforms that serve as a hub for the connection and data flow between the parties involved. It should be noted that:

- personal pension data is never stored centrally on a centralized platform.
- all data is always encrypted during transmission.
- a centralized platform does not exclude competition-based solutions. A centralized platform serves as a data hub and ensures efficient integration. Such a platform could also build on existing platforms, e.g., in the insurance/banking environment. In addition, direct connections between ecosystem participants are also possible at any time with this approach if there are good reasons for doing so.

The second cluster is grounded in the principle of “self-sovereign data sharing”, where individuals take direct control of their pension data, managing and sharing it directly without the intermediation of a central platform. This method emphasizes personal autonomy and privacy.

| | Central Platform | | | Self-Sovereign Data Sharing | |
|--|--|---|--|--|---|
| Strategic option | A Federal data hub | B Open data hub with consent @ TPP | C Open data hub with consent @ source | D Self-sovereign data sharing with E-ID trust infra. | E Self-sovereign data sharing w/o central infra. |
| | A central, federal platform that serves as the primary access point for all pension-related data. The individual gives consent for data retrieval at the platform | A central platform for the exchange of pension data. The individual gives consent for data retrieval at the third-party provider (TPP) | Like option B, but the individual gives their consent at the source (e.g., pension fund) (analogous to “multibanking”) | Individuals proactively manage and share their pension data using a personal E-ID wallet app | Individuals proactively manage and share their pension data using a personal data media (e.g., QR code) |
| Dashboard provider(s) | Federal authority is the primary dashboard provider (TPPs: optional) | Third-party providers are the primary pension dashboard providers (federal authority: optional) | | | |
| Platform for data sharing (Integration, connectivity & security, directories and potentially aggregation of all three pillars) | Federal data hub as a dedicated central platform to integrate second pillar data providers | Central hub as a dedicated central platform to integrate second pillar data providers and assure security of participating dashboards/TPP | | Federal E-ID trust infrastructure as data exchange infrastructure. Second pillar data providers issue verifiable credentials, and dashboard providers act as verifiers | No central platform because information is shared directly between user and dashboard e.g., via scan of a pension statement QR code |
| | Build new or leverage existing platform, e.g., (in alphabetical order): bLink, BVG Exchange, DIBS, EASX, etc. | | | | |
| Consent flow for sharing pension data (B2C consent) | User gives consent to retrieve and share data directly at the federal data hub | User gives consent directly at the pension dashboard (@ TPP) | User starts consent flow at TPP dashboard but gives consent at data provider (@ source) | User gives consent by accepting data sharing request in own E-ID wallet app | User gives implicit consent at TPP dashboard by sharing/uploading own data |
| Login(s) required (B2C login) | 1–2 logins needed Federal data hub login (national/cantonal E-ID-based or new login) + TPP login (existing TPP or E-ID-based) | 1 login needed Dashboard login via existing TPP login (e.g., existing eBanking login) | 2 logins needed Dashboard login via existing TPP login, consent via data provider login (e.g., pension fund portal) | 1–2 logins needed Dashboard login via existing TPP login (or E-ID wallet app), data sharing via E-ID wallet app | 2 logins needed Dashboard login via existing TPP login, pension fund login for data download (QR code) |
| Governance organization | Public or Public-private partnership | Private or public-private partnership | | Public, private or public-private partnership (Note: no governance for infrastructure aspects needed) | |
| Legal framework | <p>“An opening approach that is mandated by a federal authority is deemed essential for the successful implementation of a PTS in Switzerland.” (See section 2.3.5 for detailed considerations)</p> <p>For option A: a mandate for the development and operation of the federal hub is required. For option D: the E-ID law is required.</p> | | | | |

Figure 10: Strategic options – Overview

3.2.1 Alternative strategic options currently not explored

In our strategic exploration of options to enhance the pension ecosystem, we've primarily focused on centralized platforms and self-sovereign data sharing approaches. Alternative options, including hybrid and peer-to-peer models, blockchain and decentralized autonomous organizations (DAOs), are discussed in the appendix [6.4].

3.3 Strategic option A: Federal data hub

3.3.1 Introduction

The strategic option "federal data hub" involves the establishment of a federal data hub, serving as a centralized platform that provides pension data and services for a **single federal pension dashboard**.

This approach mandates all second pillar data providers to interface with this federal platform.

Within the framework of strategic option A: Federal data hub, there is an extension possibility designed to enhance the functionality and accessibility of pension data for individuals: the "**TPP Data Sharing Extension**" introduces a mechanism for controlled and efficient sharing of pension data with trusted third parties (TPPs). With this extension, individuals grant consent for data sharing directly at the federal data hub.

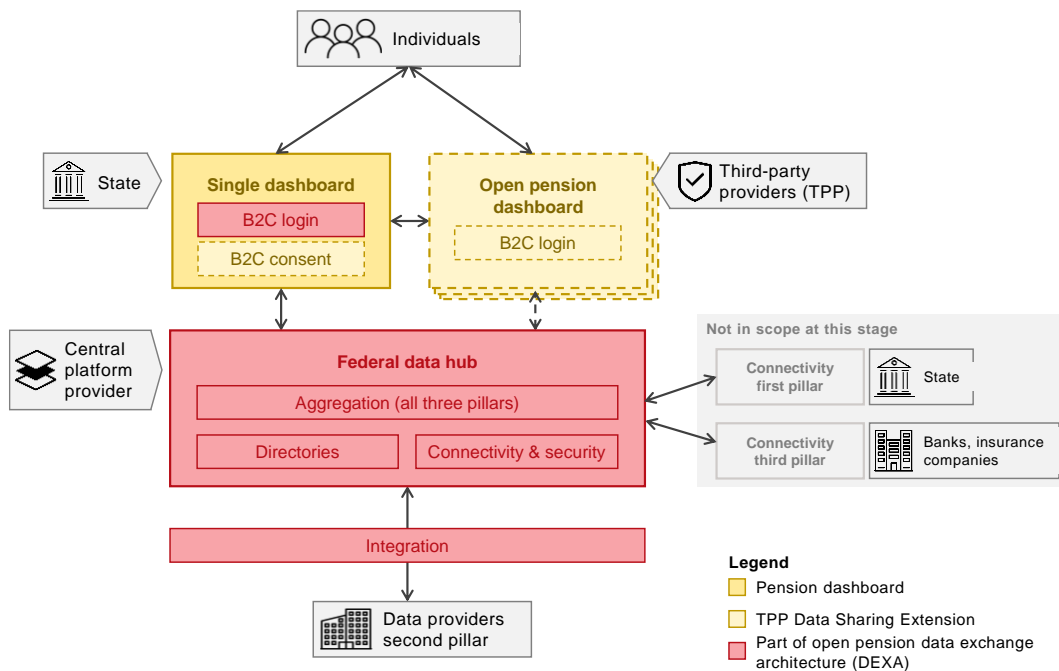


Figure 11: Federal data hub

3.3.2 Illustrative Consent Flow

The following user flow explores the journey individuals undertake to provide consent at the federal data hub if they want to share pension data with the single federal pension dashboard.

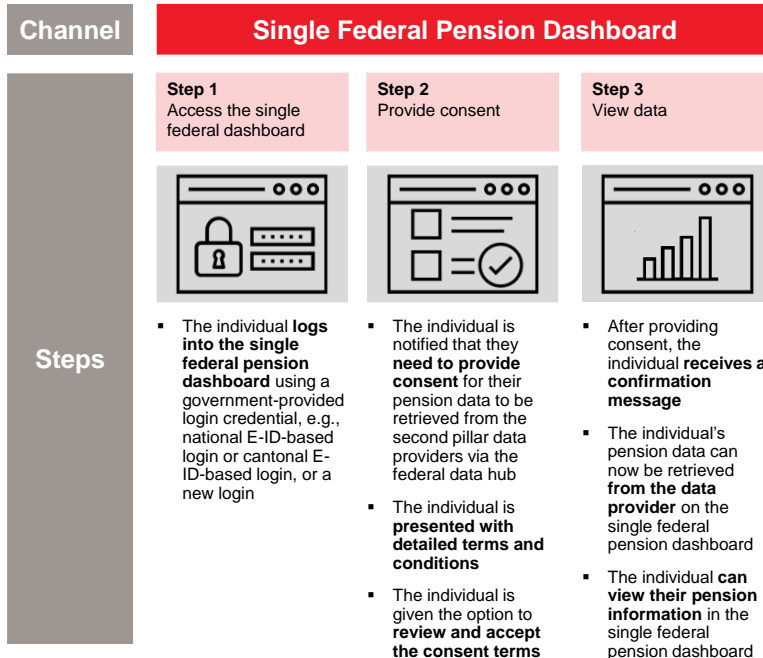


Figure 12: Federal data hub – Consent process for the single federal pension dashboard

The following user flow explores the journey individuals undertake to provide consent at the federal data hub if they want to share pension data with the pension dashboard of a TPP (“TPP Data Sharing Extension”).

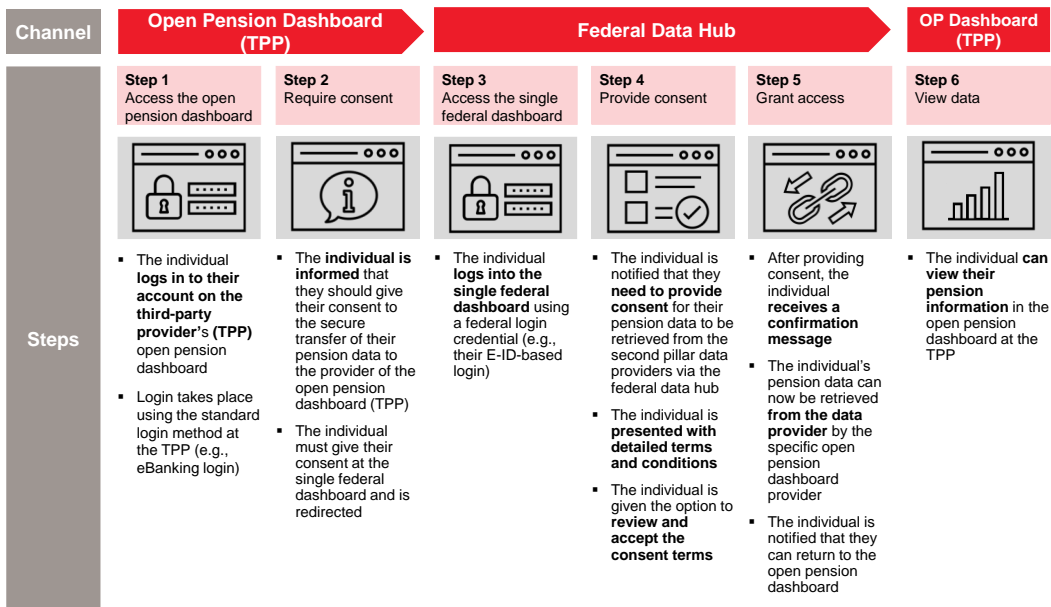


Figure 13: Federal data hub – Consent process for data sharing with the pension dashboard of a TPP (“TPP Data Sharing Extension”)

3.3.3 Description sheet

| Description | |
|---|--|
| Dashboard provider(s) | <ul style="list-style-type: none"> ▪ Federal authority as primary dashboard provider ▪ TPPs as optional dashboard providers if TPP data sharing extension is implemented |
| User journey (login, consent) | <ul style="list-style-type: none"> ▪ B2C registration/login: Federal login methods with potential use of future E-ID-based login ▪ With TPP Data Sharing Extension: The individual would be redirected to the federal data hub and login to give consent |
| Central platform implementation & operation | <p>For the implementation and operation of the federal data hub, two approaches are viable: the reuse of existing public platforms enriched with new capabilities (e.g., B2C login, consent), or the development of a new platform.</p> <p>Existing public platforms that could potentially be reused in this option include (in alphabetical order):</p> <ul style="list-style-type: none"> ▪ BVG Exchange ▪ DIBS ▪ Future platform: The new BISS/LSIAS Platform²⁸ ▪ Other? |
| Data provider integration | Each data provider must integrate with the federal data hub. |
| Governance organization | <p>In this option, the governance of the federal data hub is the responsibility of a federal authority or a public-private partnership.</p> <p>Either a new governance structure can be established or one of the following existing public structures (in alphabetical order) could potentially be reused. We assume that regardless of the choice, these structures would require redefinition to ensure they adequately represent all relevant stakeholders involved in the open pension ecosystem.</p> <ul style="list-style-type: none"> ▪ AIES (governs BVG Exchange today) ▪ Central Compensation Office (ZAS) ▪ Digital Public Services Switzerland (DPSS) ▪ eOperations.ch ▪ All services · ePortal (admin.ch) ▪ SECO Easygov ▪ Sicherheitsfonds BVG ▪ Other? |

²⁸ [Bundesrat will digitalen Datenaustausch in den Sozialversicherungen verbessern \(admin.ch\)](#)

| | |
|------------------------|---|
| Legal framework | <p>In this option, a mandate from the federal authorities (see 2.3.5) would include regulation. The following legal framework would have to be created (current assumption):</p> <ul style="list-style-type: none"> ▪ Legal mandate for the development, financing and operation of the federal hub ▪ Statutory definition of crucial governance aspects, encompassing principles regarding data ownership ▪ Statutory definition of data protection issues to guarantee that individual pension data is stored safely and is not readable by the federal authority ▪ Statutory mandate for second pillar data providers to connect and transmit pension data, incl. mandatory information that must be transmitted ▪ With TPP data sharing extension: legal definition of the requirements for providers (i.e., TPP) of a pension dashboard |
| Financing model | <p>In this option, the Swiss government would finance the central platform.</p> <p>Assumption: Each second pillar institution would have to finance its own integration into the platform.</p> |

3.3.4 Initial assessment

| Assessment | |
|--|---|
| Major benefits & opportunities | Major limitations & risks |
| <ul style="list-style-type: none"> ▪ High user trust by providing a federal platform ▪ National coverage and inclusivity: ensures universal access and uniformity, aiming to serve the entire population without discrimination ▪ Possible synergies with first pillar platform (also to be provided by a federal authority) ▪ With the “TPP data sharing extension”: fully consistent with the open finance goals of the Federal Council²⁹ ▪ Leveraging an existing public platform from the second pillar could lead to a faster implementation timeline ▪ Mapping a household view is relatively easy to achieve, as all persons can manage consents via the central consent | <ul style="list-style-type: none"> ▪ Low usage to be expected as long as there is no widely used E-ID based login ▪ Without the “TPP sharing extension”: limited open innovation and not leveraging existing traffic of private dashboards (e.g., e-banking), further limiting usage potential – see research section below ▪ The regulations required for the financing and operation of the hub represent a major project risk ▪ Bureaucratic complexity: implementation and updates may be slower due to governmental processes, potentially affecting responsiveness to technological advancements ▪ Limited flexibility: A federal model might offer less room for customization to meet specific needs of stakeholders |

²⁹ “Open Finance Objectives in Switzerland.”, December 16, 2022, The Federal Council. <https://www.news.admin.ch/newsd/message/attachments/74566.pdf>.

| | |
|---|--|
| management functionality in the federal data hub (using an E-ID) | |
| <p>Major open items/discussion points</p> <ul style="list-style-type: none"> ▪ E-ID dependency: could we use cantonal logins that are widely used (e.g., for access to tax services) as an interim solution? ▪ Governance with a public-private partnership (PPP) as a valid option? What might this look like? (Example: the association Swissdec is organized as a PPP). ▪ Possible synergies with the third pillar integration? Could existing market-driven mechanisms/platforms be integrated into this federal authority-driven model? ▪ Is a state platform more trustworthy than a private one? | |
| <p>Stakeholder viewpoints</p> <ul style="list-style-type: none"> ▪ “Most survey participants agree that data access shouldn’t be restricted to government bodies” [SV-001] | |
| <p>Relevant insights from research</p> <ul style="list-style-type: none"> ▪ Having multiple pension dashboards could potentially increase individuals’ access to pension data [RI-001] ▪ Trust is key. Therefore it is essential that the information is neutral, trustworthy and independent. [RI-002] ▪ A public-private partnership is considered the most advantageous governance structure. [RI-003] ▪ Digital ID as a key prerequisite: EIOPA underscores the importance of a digital ID as a fundamental prerequisite for authentication and identification of an individual in PTS. [RI-004] ▪ Announced roll-out of E-ID in 2026. [RI-005] | |

3.4 Strategic option B: Open data hub with consent @ TPP

3.4.1 Introduction

Option B introduces a centralized open platform (open data hub) that facilitates the secure exchange of pension data among organizations. In this option, consent for data sharing is given at the level of trusted third parties (TPPs), where individuals authorize the sharing of their data directly with these TPPs. Legal and contractual obligations between organizations ensure compliance with data protection regulations and security principles, streamlining the secure data exchange and integration process.

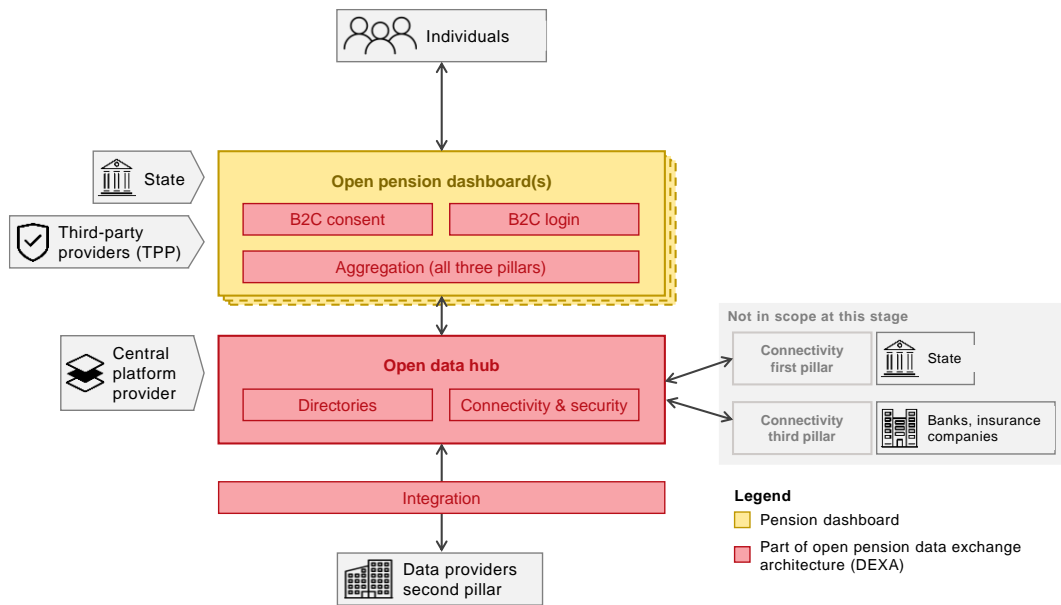


Figure 14: Open data hub with consent @ TPP

3.4.2 Illustrative Consent Flow

The following user flow explores the journey individuals undertake to provide consent at the TPP.

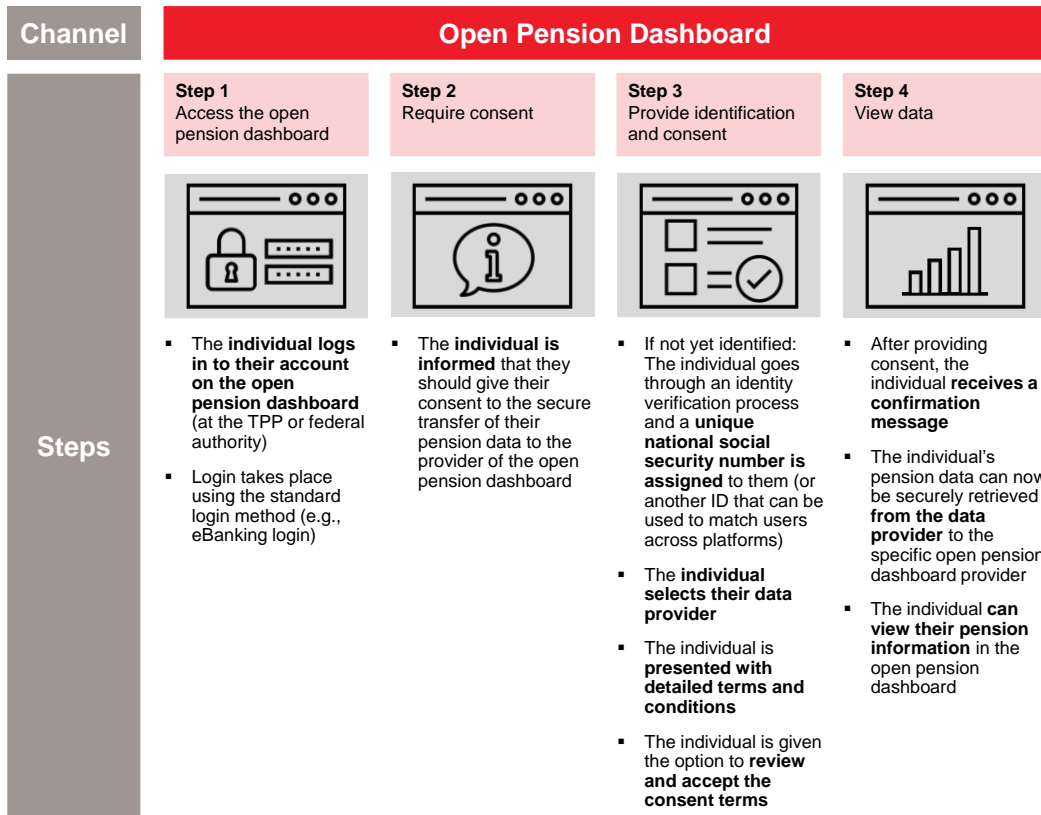


Figure 15: Open data hub with consent @ TPP – Consent process

3.4.3 Description sheet

| Description | |
|---|--|
| Dashboard provider(s) | Pension dashboards are implemented by the respective TPPs (e.g., bank, insurance company, startup) or a federal authority (which could be one of many dashboard providers). |
| User journey (login, consent) | <ul style="list-style-type: none"> ▪ The individual gives consent at the TPP within the dashboard (similar to a power of attorney) and thus the TPP is allowed to retrieve the pension information from the data providers through the central platform ▪ Registration/login and consent are provided by the respective TPPs – individuals can use their standard eBanking or insurance portal login <p><i>Note: While option A (federal data hub) centralizes consent for data sharing at the hub itself, option B theoretically allows for a similar central consent mechanism directly at the central platform. However, this approach is not favored as it would necessitate an additional login at the platform, significantly affecting usability.</i></p> |
| Central platform implementation & operation | <p>For the implementation and operation of the open data hub, two approaches are viable: the reuse of existing private or public platforms enriched with new capabilities, or the development of a new platform.</p> <p>Existing public or private platforms that could potentially be reused in this option include (in alphabetical order):</p> <ul style="list-style-type: none"> ▪ bLink ▪ BVG Exchange ▪ DIBS ▪ EASX ▪ EcoHub ▪ Other? |
| Data provider integration | Each data provider must integrate with the open pension hub through agreed common standards. |
| Governance | <p>In this option, the governance of the open pension hub is the responsibility of a private organization or a public-private partnership.</p> <p>The assumption is that a new governance organization must be defined, as there is no existing organization that represents all relevant stakeholders.</p> |
| Legal framework | <p>A mandate from the federal authorities (see 2.3.5) could include regulation. In this case, the following legal framework would have to be created (current assumption):</p> <ul style="list-style-type: none"> ▪ Statutory definition of crucial governance aspects, encompassing principles regarding data ownership and data protection ▪ Statutory mandate for second pillar data providers to connect and transmit pension data, incl. mandatory information that must be transmitted |

| | |
|------------------------|---|
| | <ul style="list-style-type: none"> ▪ Legal definition of the requirements for providers (i.e., TPP) of a pension dashboard ▪ Authorization of data providers to share data, with the condition that pension dashboard provider confirms having obtained consent from the individual (= no obligation to obtain consent at source) |
| Financing model | <p>Various models for the central platform financing are possible:</p> <ul style="list-style-type: none"> ▪ Central platform owner does all the financing ▪ Non-profit foundation, financed by the affiliated companies ▪ Joint funding through a PPP (partially by private sector, partially by federal authority) ▪ Mix of the above: e.g., initial funding by federal authority with cost assumption after ramp-up period by the private sector <p>Assumption: Each second pillar institution would have to finance its own integration into the platform.</p> |

3.4.4 Initial assessment

| Assessment | |
|---|--|
| Major benefits & opportunities | Major limitations & risks |
| <ul style="list-style-type: none"> ▪ Fosters innovation, competition and user friendliness of pension dashboards, because TPPs may provide own pension dashboards (without dependency on a federal dashboard and/or E-ID-based login) ▪ Potential for very high usability as the consent flow is directly integrated into the pension dashboard of the TPP ▪ Fully consistent with the open finance goals of the Federal Council³⁰ ▪ Leveraging an existing platform could lead to a faster implementation timeline ▪ Possible synergies with the third pillar (banks and insurance companies as 3a providers) if a platform is chosen that has already integrated insurance companies and/or banks ▪ Leveraging an existing platform, where many institutions are already integrated, could lead to a faster implementation | <ul style="list-style-type: none"> ▪ Strong trust in TPP required by the individual. Regulation/governance needs to ensure that TPPs are neutral and trustworthy in any case, and that the TPPs only use the provided access for the specified purpose. (Note: federal authorities could act as another neutral dashboard provider). ▪ Strict requirements need to be placed on the TPP, which could be a barrier to innovation. ▪ Need to find/establish a legally and technically viable way to match users across platform participants and industries (e.g., use E-ID, or find other ways like using ZAS UIP services for all participants, etc.) ▪ Implementing consent at the TPP level introduces a potential complexity in legal arrangements, necessitating contracts among all stakeholders to establish a network of mutual trust. This ensures |

³⁰ "Open Finance Objectives in Switzerland.", December 16, 2022, The Federal Council. <https://www.news.admin.ch/newsd/message/attachments/74566.pdf>.

| | |
|---|---|
| <p>timeline and possible synergies with third pillar platform</p> <ul style="list-style-type: none"> ▪ Room for innovation due to openness and broad participation and collaboration potential | <p>that data protection standards are uniformly maintained across the network</p> <ul style="list-style-type: none"> ▪ While option B simplifies the consent process for the user, data providers such as pension funds may still want to introduce mechanisms that allow users to withdraw their consent or adjust the scope of the consent they have previously given ▪ Mapping a household view could be more inconvenient if not all household members have an account with the TPP providing the dashboard |
| <p>Major open items/discussion points</p> <ul style="list-style-type: none"> ▪ How would the ID of individuals be securely matched across platform participants, especially as long as there is no national E-ID in place (e.g., social security number? Would that be legally OK for TPPs to, e.g., access ZAS UIP Services?) → also consider how other countries do the matching³¹. ▪ Governance with a public-private partnership as a valid option? What might this look like? (example: the association Swissdec is organized as a PPP). ▪ Would federal authorities also offer a pension dashboard in this case? ▪ What is the priority to cover household views? (i.e., integrate data from several individuals from the same household). Is it acceptable to require family members to have an account with the same TPP? | |
| <p>Stakeholder viewpoints</p> <ul style="list-style-type: none"> ▪ Most survey participants agree that data access should not be restricted to government bodies. [SV-001] ▪ Forming a new organization structured as a public-private partnership is the preferred vehicle for the development and maintenance of both standards and central IT infrastructure elements. [SV-002] | |
| <p>Relevant insights from research</p> <ul style="list-style-type: none"> ▪ Having multiple pension dashboards could potentially increase individuals' access to pension data. [RI-001] ▪ Trust is key. Therefore, it is essential that the information is neutral, trustworthy and independent. [RI-002] ▪ A public-private partnership is considered the most advantageous governance structure. [RI-003] ▪ Digital ID as a key prerequisite: EIOPA underscores the importance of a digital ID as a fundamental prerequisite for authentication and identification of an individual in PTS. [RI-004] ▪ Announced roll-out of E-ID in 2026. [RI-005] | |

³¹ Smith, Richard. "Pensions Dashboards in Europe." DashboardIdeas. <https://www.dashboardideas.co.uk/international-precedents/europe/#GeneralComment06>.

3.5 Strategic option C: Open data hub with consent @ source

3.5.1 Introduction

Option C, like option B, utilizes a centralized platform for the secure exchange of pension data among organizations. However, it stands out by implementing consent management at the level of data providers (e.g., pension funds). This approach is the same model currently applied by Swiss banks for multibanking use cases. Individuals access a pension dashboard at a TPP and the TPP then directs them to the data provider's client portal. There, individuals log in and authorize the sharing of their data with the specific third-party provider (TPP).

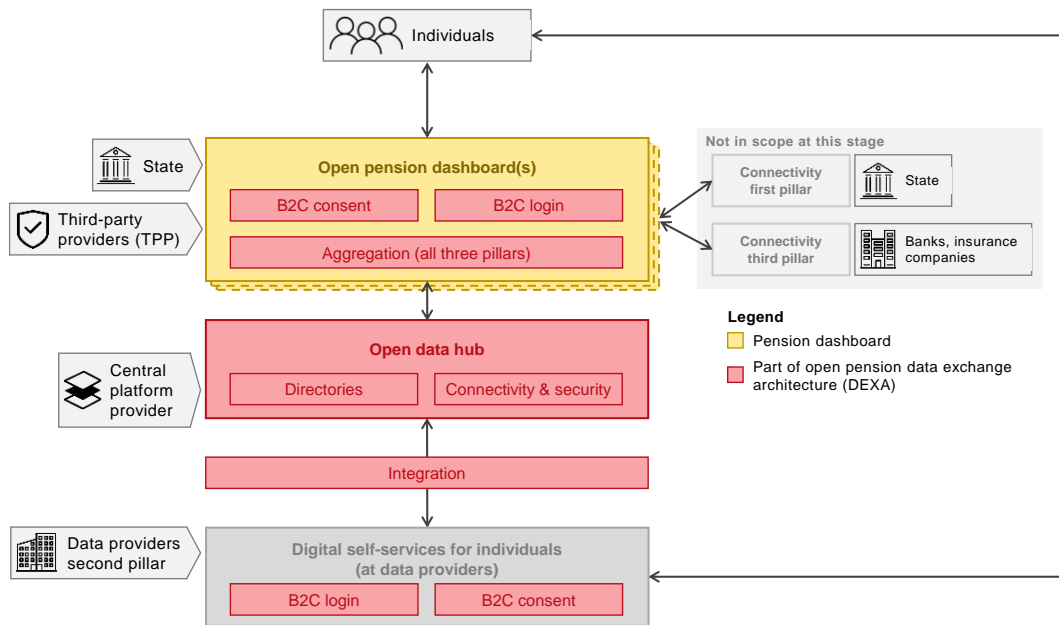


Figure 16: Open data hub with consent @ source

3.5.2 Illustrative consent flow

The following user flow explores the journey individuals undertake to provide consent at the TPP.

This consent flow should largely correspond to the secure consent flow for multibanking³². The idea is to reuse a proven method.

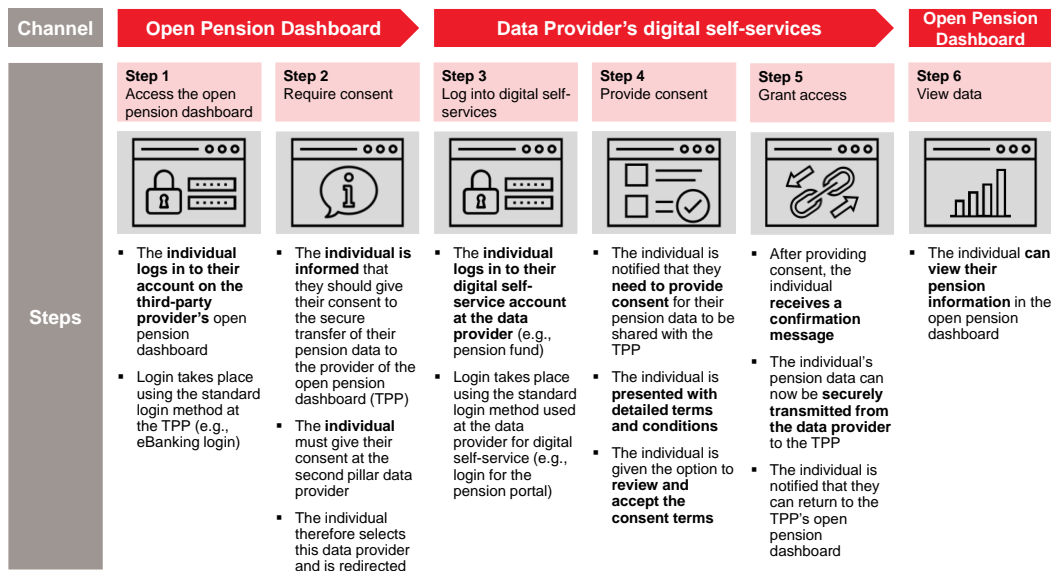


Figure 17: Open data hub with consent @ source – consent process

3.5.3 Description sheet

| | Description |
|---------------------------------|---|
| Dashboard provider(s) | Pension dashboards are implemented by the respective TPPs (e.g., bank, insurance company, startup) or a federal authority (which could be one of many dashboard providers) |
| User journey (login, consent) | <ul style="list-style-type: none"> Registration and login for the pension dashboard are provided by the respective TPPs – individuals can use their standard eBanking or insurance portal login The individual provides consent at the second pillar data providers (consent@source) with the respective login method used by the data provider (e.g., login used for pension portal) |
| Central platform implementation | <p>For the implementation of the open data hub, two approaches are viable: the reuse of existing private or public platforms enriched with new capabilities, or the development of a new platform.</p> <p>Existing public or private platforms that could potentially be reused in this option include (in alphabetical order):</p> <ul style="list-style-type: none"> bLink BVG Exchange DIBS EASX |

³² "Consent Management 2.0: bLink Docs." bLink Docs RSS, November 10, 2023. <https://docs.blink-six-group.com/api-reference/authentication/consent-management/consent-management-2>.

| | |
|----------------------------------|---|
| | <ul style="list-style-type: none"> ▪ EcoHub ▪ ... |
| Data provider integration | <p>Each data provider must integrate with the open pension hub through agreed common standards.</p> <p>In addition to this integration, data providers must provide new functionality as part of their digital self-services for individuals:</p> <ul style="list-style-type: none"> ▪ Consent frontend (SSO with B2C login) ▪ Consent management frontend (incl. consent revocation possibility) |
| Governance organization | <p>The governance of the open pension hub is the responsibility of a private organization or a public-private partnership.</p> <p>The assumption is that a new governance organization must be defined, as there is no existing organization that represents all relevant stakeholders.</p> |
| Legal framework | <p>A mandate from the federal authorities (see 2.3.5) could include regulation. In this case, the following legal framework would have to be created (current assumption):</p> <ul style="list-style-type: none"> ▪ Statutory definition of crucial governance aspects, encompassing principles regarding data ownership and data protection ▪ Statutory mandate for second pillar data providers to connect and transmit pension data, incl. mandatory information that must be transmitted ▪ Legal definition of the requirements for providers (i.e., TPP) of a pension dashboard |
| Financing model | <p>Various models for the central platform financing are possible:</p> <ul style="list-style-type: none"> ▪ Central platform owner does all the financing ▪ Non-profit foundation, financed by the affiliated companies ▪ Joint funding through PPP (partially by private sector, partially by federal authority) ▪ Mix of the above <p>Assumption: Each second pillar institution would have to finance its own integration into the platform and the newly implemented digital-services for consent.</p> |

3.5.4 Initial assessment

| Assessment | |
|--|--|
| Major benefits & opportunities | Major limitations & risks |
| <ul style="list-style-type: none"> ▪ Fosters innovation, competition and user friendliness of pension dashboards, because TPPs may provide own pension dashboards (without dependency | <ul style="list-style-type: none"> ▪ Establishing a system for source-based consent management requires extensive coordination, investments and enhanced digital competences among pension providers. <i>Note: With the</i> |

| | |
|---|---|
| <p>on a federal dashboard and/or E-ID-based login)</p> <ul style="list-style-type: none"> ▪ May increase end-user control of data access (relative to option B) ▪ Similarity to multibanking potentially increases understanding of the model ▪ Eliminates the need for a unique identifier across different systems (“matching”). Linking is facilitated through parallel logins at both the data provider and TPP during the consent flow ▪ Leveraging an existing platform and proven standards (OAuth2, etc.), could lead to a faster implementation timeline and possible synergies with third pillar platform ▪ Possible synergies with the third pillar (banks and insurance companies as 3a providers) if a platform is chosen that has already integrated insurance companies and/or banks and possible synergies with third pillar platform ▪ Fully consistent with the open finance goals of the Federal Council³³ ▪ Room for innovation due to openness and broad participation and collaboration potential ▪ Mapping a household view is relatively easy to implement, as every person who would give their consent would have to go through the consent@source process. ▪ Enhancing usability could be achievable with the future establishment of an E-ID. If banks accept E-ID-based logins, it might allow for consolidating two separate login processes (dashboard login, consent@source) into a single one. | <p><i>greater spread of new cloud-based SaaS offerings for pension fund administration, consent management would no longer have to be implemented for each pension fund, but could be solved centrally in SaaS, which would lead to reduced costs.</i></p> <ul style="list-style-type: none"> ▪ Usability: Individuals may find the consent flow with multiple logins across providers less intuitive, possibly detracting from the overall user experience ▪ Usability: While integrating a household view feature is technically straightforward, its usability could be challenging ▪ As pension dashboards at TPPs gain popularity and user traffic as well as serve an increasing number of use cases, data providers could have diminished motivation to further develop their own client portals. This could impact the quality of interactions between individuals and their pension providers |
| <p>Major open items/discussion points</p> <ul style="list-style-type: none"> ▪ Governance with a public-private partnership as a valid option? What might this look like? (Example: the association Swissdec is organized as a PPP). ▪ Would federal authorities also offer a pension dashboard in this case? | |

³³ “Open Finance Objectives in Switzerland.”, December 16, 2022, The Federal Council. <https://www.news.admin.ch/news/message/attachments/74566.pdf>.

Stakeholder viewpoints

- Most survey participants agree that data access should not be restricted to government bodies. [\[SV-001\]](#)
- Forming a new organization structured as a public-private partnership is the preferred vehicle for the development and maintenance of both standards and central IT infrastructure elements. [\[SV-002\]](#)

Relevant insights from research

- Having multiple pension dashboards could potentially increase individuals' access to pension data. [\[RI-001\]](#)
- A public-private partnership is considered the most advantageous governance structure. [\[RI-003\]](#)
- 80% availability of digital self-services by data providers [\[RI-006\]](#)
- Approximately 1 in 2 individuals have no access to digital self-services offered by their pension fund. [\[RI-007\]](#)

3.6 Strategic option D: Self-sovereign data sharing with E-ID trust infrastructure

3.6.1 Introduction

Strategic option D represents an innovative approach to pension data exchange. This model empowers individuals by giving them control over their pension data using digital identity technologies. Pension statement data, along with identification data (“E-ID”), is encapsulated within verifiable credentials (VCs) which are stored in the digital SSI wallet. By leveraging the new Swiss E-ID trust infrastructure (SSI) and personal digital SSI wallets, individuals can securely store, manage and share their pension information (“VC: Pension statement”) directly with authorized entities (TPPs).

This approach emphasizes personal data sovereignty, ensuring that individuals have full control over who accesses their information and for what purpose. The central federal E-ID trust infrastructure³⁴ serves as a secure and standardized platform for data exchange.

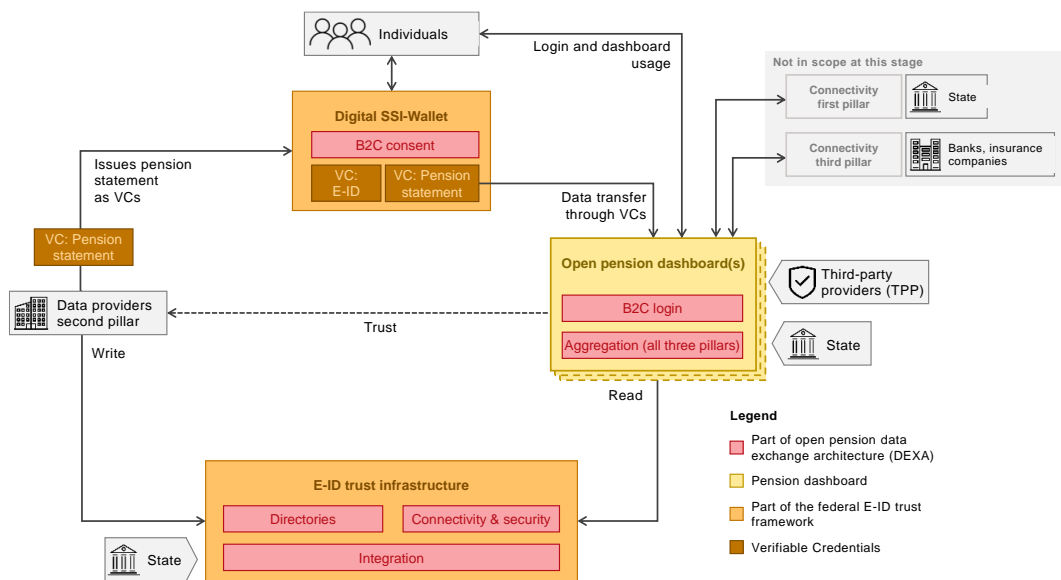


Figure 18: Self-sovereign data sharing with E-ID trust infrastructure

³⁴ “Welcome to the Public Sandbox Trust Infrastructure.” GitHub. Accessed February 15, 2024. <https://github.com/e-id-admin/public-sandbox-trustinfrastructure?tab=readme-ov-file#readme>.

3.6.2 Illustrative consent flow

The illustration demonstrates how individuals acquire their pension statement as a verifiable credential and share it with third-party providers (TPPs) within an SSI infrastructure. The prerequisite for this use-case is that individuals have a digital SSI wallet on their smartphone.

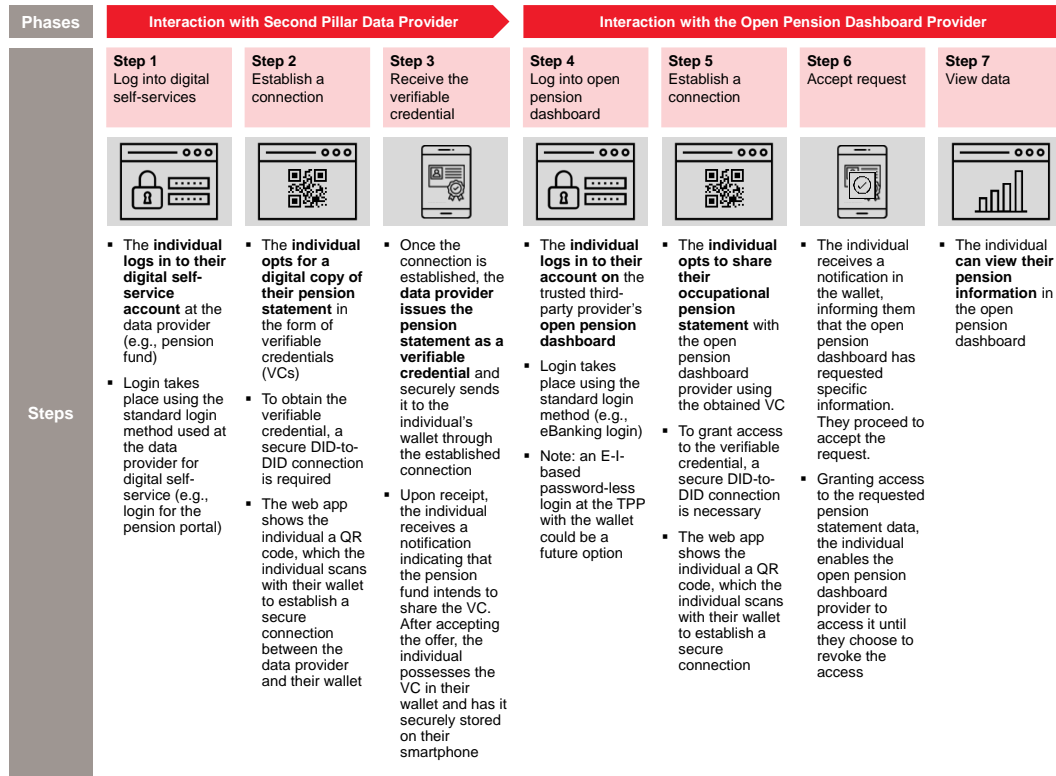


Figure 19: Self-sovereign data sharing with E-ID trust infrastructure – Consent flow

3.6.3 Description sheet

| Description | |
|---|---|
| Dashboard provider(s) | Pension dashboards are implemented by the respective TPPs (e.g., bank, insurance company, startup) and/or a federal authority (which could be one of many dashboard providers) |
| User journey (login, consent) | <ul style="list-style-type: none"> ▪ Registration and login for the pension dashboard are provided by the respective TPPs – individuals can use their standard eBanking or insurance portal login ▪ Using an E-ID wallet, individuals can share their pension data securely with authorized parties (sharing of verified credentials) ▪ Data is always only shared directly between the individual and the data user (e.g., TPP/federal authorities) |
| Central platform implementation & operation | The E-ID trust infrastructure is being built and operated by federal authorities for E-ID and can be reused for open pension without the need for further changes/investments. |
| Data provider integration | Data providers must integrate with the E-ID trust infrastructure via the predefined standard. |
| Governance organization | <p>In this option, governance is the responsibility of a public, a private or a public-private partnership organization.</p> <p>The assumption is that a new governance organization must be defined, as there is no existing organization that represents all relevant stakeholders.</p> <p><i>Note: With this option, the central infrastructure governance is already covered by the E-ID trust infrastructure governance, which is not part of open pension.</i></p> |
| Legal framework | <p>A mandate from the federal authorities (see 2.3.5) could include regulation. In this case, the following legal framework would have to be created (current assumption):</p> <ul style="list-style-type: none"> ▪ Statutory definition of crucial governance aspects, encompassing principles regarding data ownership and data protection ▪ Statutory mandate for second pillar data providers to connect and transmit pension data, incl. mandatory information that must be transmitted ▪ Legal definition of the requirements for providers (i.e., TPP) of a pension dashboard |
| Financing model | <p>The central infrastructure is available “for free” (already financed by a federal authority).</p> <p>Assumption: Each second pillar institution would have to finance its own integration into the platform.</p> |

3.6.4 Initial assessment

| Assessment | |
|--|--|
| Major benefits & opportunities | Major limitations & risks |
| <ul style="list-style-type: none"> ▪ High user trust by using a government-managed platform ▪ Self-sovereign model enhances privacy and user trust ▪ E-ID trust infrastructure can be fully reused without additional infrastructure investment needs and without additional operations costs ▪ Assumed low complexity and low costs for data provider integration ▪ Depending on the E-ID wallet success and population coverage, data sharing could be very intuitive and simple ▪ If the first and third pillar data providers could also exchange data via the E-ID trust infrastructure: in this case, a high level of user-friendliness and consistency across all pillars could easily be achieved with this option ▪ Market-driven approach for opening pension data is possible in this option ▪ Mapping a household view is relatively simple and straightforward with the E-ID trust infrastructure (each person would establish a secure connection to the TPP using the wallet) | <ul style="list-style-type: none"> ▪ Strong dependency on E-ID infrastructure roadmap ▪ Strong dependency on usability and usage (population coverage) of E-ID wallets ▪ Accessing more complex simulation and “write” services at the data provider through interfaces might be difficult to implement. The feasibility and ease of offering such services through this infrastructure remain uncertain ▪ Regularly updating the data is a greater challenge compared to options A to C and makes updating more tedious for users ▪ Governance is split between central infrastructure and other standards which could increase system complexity ▪ Not all open finance goals of the Federal Council³⁵ can be achieved (e.g., real-time data access, write access) ▪ Limited flexibility: A federal, very standardized infrastructure model (E-ID trust infrastructure) might offer less room for customization to meet specific needs of stakeholders ▪ Reuse of existing integration platforms not possible, i.e., all second pillar data providers would have to be newly integrated, which could be a lengthy process |
| Major open items/discussion points <ul style="list-style-type: none"> ▪ It is currently unclear/open whether and how more complex remote simulation services and “write” access (e.g., for voluntary purchases or other potential future open pension services) could be offered through this infrastructure. This is dependent on the E-ID trust infrastructure specification and future extensions, which are not yet defined. ▪ Are data providers from the first and third pillars also going to share data via the E-ID trust infrastructure? In this case, better usability and more consistency across all pillars could be achieved. | |

³⁵ “Open Finance Objectives in Switzerland.”, December 16, 2022, The Federal Council. <https://www.news.admin.ch/newsd/message/attachments/74566.pdf>.

Stakeholder viewpoints

- 39% of survey participants mentioned SSI/E-ID as a potential method for technical access. [\[SV-003\]](#)
- Three out of every five participants in the SFTI Open Pension Survey consider automatic regular data updates, online simulation of pension data and the ability to make various adjustments to pension provisions crucial features. [\[SV-004\]](#)

Relevant insights from research

- EIOPA highlights SSI as a potential “future technological enabler of Pension Tracking Systems”. [\[RI-008\]](#)
- Announced roll-out of E-ID in 2026. [\[RI-005\]](#)
- Lack of available information on the use of SSI in the PTS context. [\[RI-009\]](#)

3.7 Strategic option E: Self-sovereign data sharing without central infrastructure (e.g., QR code)

3.7.1 Introduction

Strategic option E offers a decentralized method for pension data management by embedding a reduced standardized set of pension data directly within QR codes as a data transfer media. This approach grants individuals full autonomy over their pension data, enabling immediate data transfer without relying on a centralized infrastructure.

The QR code, containing the pension data, can be printed on the individual's pension statement, or generated for digital display following a login to a pension portal. When the QR code is shared (scanned by the TPP), it provides access to the embedded pension data.

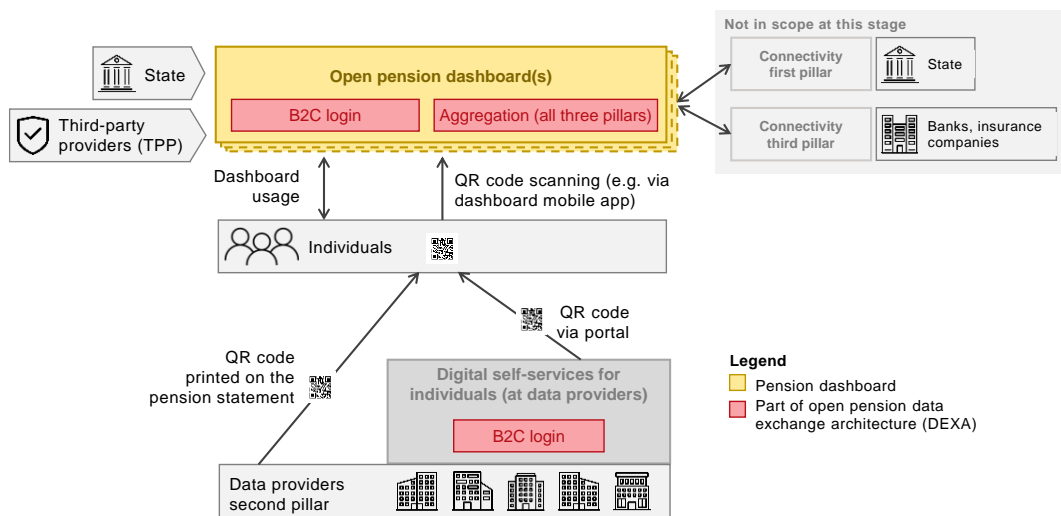


Figure 20: Self-sovereign data sharing with central infrastructure (e.g., E-ID wallet/SSI)

3.7.2 Consent flow

In option E, the consent process is implicitly granted when the individual hands over the QR code with the pension data to the pension dashboard provider.

3.7.3 Description sheet

| Description | |
|---|--|
| Dashboard provider(s) | Pension dashboards are implemented by the respective TPPs (e.g., bank, insurance company, startup) or a federal authority (which could be one of many dashboard providers) |
| User journey (login, consent) | <ul style="list-style-type: none"> ▪ The QR code (embedding the pension data) is either printed on the pension statement or can be displayed in the pension portal of the second pillar data provider ▪ Consent for data access is given implicitly by handing over (letting the TPP scan) the QR code |
| Central platform implementation & operation | (none required) |
| Data provider integration | Data providers must implement and provide the standardized QR code |
| Governance organization | <p>In this option, governance is the responsibility of a public, a private or a public-private partnership organization.</p> <p>The assumption is that a new governance organization must be defined, as there is no existing organization that represents all relevant stakeholders.</p> |
| Legal framework | <p>A mandate from the federal authorities (see 2.3.5) could include regulation. In this case, the following legal framework would have to be created (current assumption):</p> <ul style="list-style-type: none"> ▪ Statutory definition of crucial governance aspects, encompassing principles regarding data ownership and data protection ▪ Statutory mandate for second pillar data providers to connect and transmit pension data, incl. mandatory information that must be transmitted |
| Financing model | Assumption: Implementation efforts are very limited and would be financed jointly by pension software providers (implementing the QR code standard) and second pillar data providers. |

3.7.4 Initial assessment

| Assessment | |
|--|--|
| Major benefits & opportunities | Major limitations & risks |
| <ul style="list-style-type: none"> ▪ No central infrastructure required: fast time-to-market, low-cost option ▪ Paper-based QR code: High usability for individuals (i.e., no login needed at the pension portal to retrieve the code) ▪ Self-sovereign model enhances privacy and individual trust ▪ Opportunity: May be a “bridge approach” until option D becomes available | <ul style="list-style-type: none"> ▪ Usability issue: Many people do not have a login with the data provider and do not read/access the pension information, which makes providing the QR code a challenge (Note: more and more second pillar institutions are no longer sending out pension statements) ▪ Data and functionality limitations: reduced set of data and limited functional- |

| | |
|---|--|
| <ul style="list-style-type: none"> ▪ Mapping a household view is relatively simple and straightforward with the QR code. Each person would submit their own QR code for data exchange | <p>ity for further extensions and innovations, e.g., online simulation services (compared to APIs)</p> <ul style="list-style-type: none"> ▪ Regularly updating the data is a greater challenge compared to options A to C and makes updating more tedious for users ▪ Not all open finance goals of the Federal Council³⁶ can be achieved (e.g., real-time data access, write access) ▪ Security concerns: QR codes in option E directly encapsulate sensitive data, and there may be a lack of user awareness. If these QR codes are scanned by a non-trustworthy application, it could lead to data being compromised. |
| <p>Major open items/discussion points</p> <ul style="list-style-type: none"> ▪ Usability in the case of a digital QR code: how to reach the 50% (*) of individuals that do not have a login at the data provider? ▪ Data and functionality limitations: is the limitation acceptable to still provide enough individual value? How can more complex cases be covered (e.g., an individual having several pension plans, etc.)? | |
| <p>Stakeholder viewpoints</p> <ul style="list-style-type: none"> ▪ Three out of every five participants in the SFTI Open Pension Survey consider automatic regular data updates, online simulation of pension data and the ability to make various adjustments to pension provisions crucial features. [SV-004] ▪ When asked about their preferred methods for securely and practically accessing second pillar data of insured individuals, 2% of survey participants mentioned QR codes as a potential method for technical access. [SV-005] | |
| <p>Relevant insights from research</p> <ul style="list-style-type: none"> ▪ 80% availability of digital self-services by data providers [RI-006] ▪ Approximately 1 in 2 individuals have no access to digital self-services offered by their pension fund. [RI-007] ▪ Lack of available information on the usage of QR codes in the PTS context. [RI-010] | |

³⁶ "Open Finance Objectives in Switzerland.", December 16, 2022, The Federal Council. <https://www.news.admin.ch/newsd/message/attachments/74566.pdf>.

4. Strategic options comparison

4.1 Introduction

In this chapter, we define a set of criteria that we use to compare the five strategic options. We will highlight the pros and cons of each option and provide an evaluation summary.

4.2 Evaluation criteria

For the comparison of the different strategic options, we have identified eight main criteria that we consider relevant.

- **Alignment with Federal Council's open finance objectives:** This dimension evaluates how well each strategic option corresponds with the national open finance objectives set by the Federal Council³⁷. The Federal Department of Finance aims to strengthen “i) the ability of individuals to freely use their financial data, including to benefit from new services, and ii) the innovative capacity and competitiveness of the Swiss economy and the financial center.”
- **Usability and adoption potential for individuals:** This criterion fully focuses on the end-user perspective. “Usability” refers to the extent to which the system is user-friendly and satisfying for individuals to use. This criterion evaluates the system’s usability and the likelihood of widespread adoption among individuals. It considers the simplicity of login and consent processes, the overall potential for a good user experience and the availability of key end-user functionalities.
- **Privacy and data protection:** Evaluates the effectiveness of each option in protecting personal data and ensuring data privacy.
- **Inclusive governance reflecting key stakeholders:** Looks at how each option accommodates the interests and input of all stakeholders, including government entities, private organizations and individuals, ensuring fair representation and decision-making.
- **Project risks (tech, legal, etc.):** Evaluates potential implementation challenges each option might face, such as system integration complexities or legal challenges.
- **Launch and operating cost:** Considers the financial aspects of each option by evaluating the initial investment required to launch and the ongoing costs needed to maintain the system.
- **Time-to-market:** Assesses the time from the start of the implementation project to the point where all entitled individuals in Switzerland could use the system (if they wanted to).
- **Flexibility/Future-proofing:** This criterion assesses the system’s ability to adapt and evolve over time. It considers how easily the open pension system can be customized to meet individual needs and how well it can accommodate future technological, regulatory or market changes. A future-proof system is designed to allow for updates and modifications without significant overhauls.

³⁷ “Open Finance Objectives in Switzerland.”, December 16, 2022, The Federal Council. <https://www.news.admin.ch/news/message/attachments/74566.pdf>.

4.3 Comparison

The following figure shows the comparison of the five options based on the defined criteria.

| | Central Platform | | | Self-Sovereign Data Sharing | |
|---|--|---|---|--|---|
| Strategic option | A federal data hub (1) with TPP sharing extension (2) without it | B Open data hub with consent @ TPP | C Open data hub with consent @ source | D Self-sovereign data sharing with E-ID trust infra. | E Self-sovereign data sharing w/o central infra. |
| Alignment with federal council's open finance objectives | <p><input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Fully consistent with TPP sharing extension</p> <p><input type="checkbox"/> <input type="checkbox"/> No open interfaces</p> | <p><input checked="" type="checkbox"/> Fully consistent but stronger risk controls could be innovation barrier</p> | <p><input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Fully consistent</p> | <p><input type="checkbox"/> Some requirements are not foreseen by Swiss E-ID trust infra., e.g., real-time/simulation and write access</p> | <p><input type="checkbox"/> Not all requirements supported, incl. real-time/simul. and write access; data limitations</p> |
| Usability and adoption potential for individuals | <p><input checked="" type="checkbox"/> With TPP sharing extension & E-ID (but 2 logins)</p> <p><input type="checkbox"/> Lower adoption and usage (than with TPP innov.)</p> | <p><input checked="" type="checkbox"/> <input checked="" type="checkbox"/> 1 login, simple consent mechanism (household view requires 2 logins)</p> | <p><input checked="" type="checkbox"/> 2 logins required, more complex consent flow; flow known to (some) users from multibanking</p> | <p><input type="checkbox"/> 2 logins required; simulation and write functions limited; more tedious to renew than with options A-C</p> | <p><input type="checkbox"/> 2 logins required, QR code tedious to renew; data limitations; simul. and write funct. limited or n/a</p> |
| Privacy and data protection | <p><input type="checkbox"/> Good data protection with central consent at federal hub</p> <p><input checked="" type="checkbox"/> No sharing with TPP (→ less risk of fraud)</p> | <p><input type="checkbox"/> Very TPP-centric; strongly dependent on strict legal framework and risk control mechanisms</p> | <p><input checked="" type="checkbox"/> Based on "open banking" principles/standard; strong user control with consent at data provider; highest security</p> | <p><input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Highest privacy & security (user self-sovereignty)</p> | <p><input type="checkbox"/> User-controlled, but no central security/fraud detection mech. possible</p> |
| Inclusive governance reflecting key stakeholders | <p><input checked="" type="checkbox"/> Possible with PPP</p> | <p><input checked="" type="checkbox"/> Possible with PPP</p> | <p><input checked="" type="checkbox"/> Possible with PPP</p> | <p><input type="checkbox"/> Possible with PPP, however not for central E-ID trust infrastructure (separate governance)</p> | <p><input checked="" type="checkbox"/> Possible with PPP</p> |
| Project risks (tech, legal, etc.) | <p><input type="checkbox"/> <input type="checkbox"/> High E-ID dependency, federal authority project; requires regulation for hub operations and financing</p> | <p><input type="checkbox"/> More complex legal/contractual framework; "matching needed" (or E-ID)</p> | <p><input type="checkbox"/> Implementation of consent flows at all data providers; but existing implementation experience (multibanking)</p> | <p><input type="checkbox"/> <input type="checkbox"/> High dependency on E-ID infra and its capabilities</p> | <p><input checked="" type="checkbox"/> Low complexity</p> |
| Launch and operating cost | <p><input type="checkbox"/> Federal authority project; central platform costs; some potential for reuse of existing platforms</p> | <p><input type="checkbox"/> Higher legal costs; central platform costs; some potential for reuse of existing platforms</p> | <p><input type="checkbox"/> Possibly higher costs at data providers; central platform costs; high reuse potential of multibanking infra</p> | <p><input checked="" type="checkbox"/> Reuse of central E-ID trust infrastructure; low integration complexity (assumption)</p> | <p><input checked="" type="checkbox"/> <input checked="" type="checkbox"/> No central infra; small changes at data providers</p> |
| Time-to-market (access possible for all entitled individuals) | <p><input type="checkbox"/> E-ID + 3-5 years (→ no control over timeline due to E-ID dependency)</p> | <p><input type="checkbox"/> Possible in approx. 5 years with good public-private cooperation</p> | <p><input type="checkbox"/> Possible in approx. 5 years with good public-private cooperation</p> | <p><input type="checkbox"/> E-ID + 3-5 years (→ no control over timeline due to E-ID dependency)</p> | <p><input checked="" type="checkbox"/> Possible in 3-5 years</p> |
| Flexibility/future-proofing (customization, future changes) | <p><input type="checkbox"/> Federal infrastructure</p> | <p><input type="checkbox"/> <input checked="" type="checkbox"/> Depending on the chosen technical platform: reuse of legacy tech or a new modern tech base/platform</p> | <p><input type="checkbox"/> <input checked="" type="checkbox"/> Depending on the chosen technical platform: reuse of legacy tech or a new modern tech base/platform</p> | <p><input type="checkbox"/> Federal infrastructure</p> | <p><input type="checkbox"/> Old-style data transfer, stuck with one technology</p> |

Figure 21: Options comparison

4.4 Comparison summary

In this chapter, we present the overall rating (SFTI assessment) for each option.

| | Central Platform | | | Self-Sovereign Data Sharing | |
|---|---|---|--|--|--|
| Strategic option | A federal data hub (1) with TPP sharing extension (2) without it | B Open data hub with consent @ TPP | C Open data hub with consent @ source | D Self-sovereign data sharing with E-ID trust infra. | E Self-sovereign data sharing w/o central infra. |
| Overall rating (SFTI assessment) | <input type="checkbox"/> (1) With the TPP extension: good compromise between a federal mandate and openness for innovation; strong E-ID dependency <input type="checkbox"/> (2) Without TPP extension: not achieving the open finance objectives | <input checked="" type="checkbox"/> Well balanced option that promises high usability and adoption potential. However, some project risks because of complex trust setup (contracts, etc.) and the need for ID matching | <input checked="" type="checkbox"/> Builds on proven methods from multi-banking. Allows for direct control of data access by the individual. However, complex implementation for the second pillar with its fragmented stakeholder landscape | <input type="checkbox"/> Offers excellent data and privacy protection but very high dependency on E-ID infra and its capabilities. Likely to only partially fulfil the Federal Council's OF objectives | <input type="checkbox"/> "Quick and pragmatic" but not fully consistent with the OF strategy of the federal council; could work as a bridge approach |
| What if the E-ID were already in place? | <input type="checkbox"/> (1) Same overall rating as critical project risks remain (incl. regulation requirements for hub operations/financing) | <input checked="" type="checkbox"/> Same overall rating but slightly lower project risks (matching might be easier with E-ID) | <input checked="" type="checkbox"/> Same overall rating due to low E-ID dependency; usability improvements possible if TPP accepts E-ID-based login | <input type="checkbox"/> Lower project risks but same overall rating because of still limited functionality | n/a Makes no sense if the E-ID trust infra is already implemented → option D |
| <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">SFTI favored options for the next steps</div> | | | | | |

Figure 22: Options comparison summary

- **Option A (Federal data hub):** option A is available in two variants, with (1) or without (2) the extension of TPP data sharing. The comparison clearly shows that option A only performs well if TPP sharing is authorized. This option variant A-(1) is a good compromise between a public infrastructure and openness for innovation. There is a strong dependency on the E-ID and its success. In a hypothetical scenario where the E-ID is already in place, option A is less favorable due to the regulations required to finance and operate the hub, which represent a major project risk.
- **Option B (Open data hub with consent @ TPP):** This option is a very balanced option. It promises a high usability and adoption potential. However, there are relevant risks, particularly with regard to privacy protection and legal aspects. In addition, with this option we need to find a legally and technically feasible way to match users across platform participants and sectors. An existing E-ID might simplify this process.
- **Option C (Open data hub with consent @ source):** option C builds on proven methods from open banking/multibanking. Compared to B, the strengths of option C lie in the direct control of data access by the individual. Due to the fragmented stakeholder landscape and the more complex implementation requirements (consent implementation at the data providers), option C is associated with considerable challenges and probably higher costs for the pension providers. The existence of an E-ID-based login could lead to a significant improvement in usability if TPPs and data providers both accept such a login.
- **Option D (Self-sovereign data Sharing with E-ID trust infrastructure):** Although option D offers excellent data protection and privacy protection, the uncertainties surrounding user acceptance and market launch are considerable. In addition, this option is likely to fulfil the Federal Council's open finance objectives only partially. Obviously, the strongest possible dependency on the E-ID and its success is a critical aspect of

option D. In a hypothetical scenario where E-ID is already implemented, option D is still slightly less favorable than options B and C, as the central platform and its real-time direct connections via standardized APIs offer greater potential in terms of usability and service functions.

Note: If the E-ID trust infrastructure were to be set up in parallel with a central open pension platform (options A, B, C), we assume that data exchange via the E-ID trust infrastructure should not be ruled out for some pension data sharing use cases. Option D could therefore complement the chosen strategic option at a later stage.

- **Option E (Self-sovereign data sharing without central infrastructure):** Although the fast and pragmatic approach of option E is tempting, the lack of consistency with the Federal Council's strategy, the lower usability rating and the use of inflexible technologies have a negative impact on the evaluation.

The final analysis does not show a very clear frontrunner among the options. However, looking at both the scenario with and without an existing E-ID, B and C are favorable in both scenarios.

SFTI recommendation: Based on the results of this analysis, we are in favor of options B and C for the next steps and advocate a concentrated effort to further develop these options.

5. Proposed next steps

5.1 Proposed next steps for the second pillar

In chapter 2 we concluded that “an opening approach that is mandated by a federal authority is deemed essential for the successful implementation of a PTS in Switzerland.” (See section 2.3.5. for detailed considerations).

Based on this important conclusion, **it is crucial for federal authorities to endorse the opening of the second pillar, signaling a firm commitment to this initiative.**

Following the endorsement of the initiative, the lead should be taken by entities such as the FSIO/SIF to help establish a governance model that encourages public-private collaboration.

Despite our call for state interaction, we remain optimistic that with sufficient collaboration across sectors and parties, a strategy rooted in **self-regulation may be achievable.** This approach underscores the belief that when all relevant actors unite, the need for regulation can be minimized, fostering a more adaptable and cooperative environment.

A clear roadmap with strict but realistic milestones is important to drive progress and ensure that all stakeholders actively contribute. As part of the roadmap, preferred strategic options B and C should be further analyzed and validated through proof-of-concepts (which should focus heavily on end-user experience).

“The perfect is the enemy of the good”: In addition to establishing an inclusive governance and an agreed roadmap, we need to take an agile approach to implementation that prioritizes the creation of a foundational, functional platform. Early collaboration with willing, innovative second pillar data providers to build minimum viable products (MVPs) can provide practical learning opportunities and avoid the pitfalls of an overly rigid waterfall development process.

5.2 Next steps for the other pillars

Even though this position paper focuses on the second pillar, we must not forget that the primary value for the individual is created by taking a comprehensive view of all three pillars as part of a PTS.

There are several initiatives that address the opening of the other pillars, see chapter 2.3.2 for details.

With regard to the first pillar, the next step should be to ensure that the new law on the social information platform (BISS³⁸) also provides for an opening for TPPs. This point will be included in the consultation process by SFTI and others. In addition, the MOSAR³⁹ project (of the FSIO) should be continued as a first step towards the provision of standardized online interfaces.

At the same time, **the opening of the third pillar**, in our view, is best addressed through private initiatives such as the SFTI Common API working group⁴⁰, where the existing XS2A API specification for an account access interface could be easily extended to also access 3a data.

In addition, these initiatives should be regularly aligned with the newly created governance and roadmap for the second pillar to ensure a coherent and user-centered PTS.

³⁸ <https://www.bsv.admin.ch/bsv/de/home/publikationen-und-service/medieninformationen/nsb-anzeigeseite.msg-id-99445.html>

³⁹ MOdernisation des Services offerts aux Assurés de l'AVS; a project by the FSIO that provides standard interfaces for the online retrieval of the statement of the individual first pillar account.

⁴⁰ <https://swissfintechinnovations.ch/projects/common-api/>

6. Appendix

6.1 Glossary

| Term (in alphabetical order) | Definition |
|---------------------------------|--|
| AEIS | Substitute Occupational Benefit Institution, see https://aeis.ch/ for more details |
| AHV | The AHV, short for the German “Alters- und Hinterlassenenversicherung” and translated as “Old Age and Survivors’ Insurance” in English, is a mandatory state pension program in Switzerland. This social security scheme is designed to offer a foundational income for retirees and forms the first pillar of retirement provision in Switzerland. |
| Consent (management) | In the context of open finance, consent management refers to the process of obtaining and managing individuals’ consent to share their financial data with third-party providers (TPPs). |
| E-ID | A federally recognized electronic proof of identification (E-ID) enables Swiss residents to prove their identity online by means of digital proof. Such an E-ID would be digitally issued by the government or a government-appointed public agency. The individual stores the E-ID on a smartphone and can access and manage the E-ID via an SSI wallet, which is an app that also runs on the smartphone. For details about the planned Swiss E-ID, see https://www.eid.admin.ch/en |
| E-ID-based login | The E-ID acts as a form of digital identification rather than a direct login method. Utilizing the E-ID, login credentials can be established, for instance, within an E-ID SSI wallet. This wallet can then be called an “E-ID-based login” and facilitates password-less authentication. |
| Individual | In the context of open pension, the term “individual” refers to a person who benefits from a pension scheme, regardless of their pension cover or planning stage. This term emphasizes the user-centered approach of the system. |
| Multibanking | According to the Swiss Banking Association ⁴¹ , multibanking refers to a group of functionalities that enable bank customers to manage multiple bank accounts through a single platform. Multibanking thus uses the possibilities of open finance to efficiently merge the data of different institutions. The multibanking functionalities are embedded in the digital channels of banks and third-party providers. |
| Open finance/open Pension | Open finance promotes the sharing of and access to financial data between institutions and third-party providers via secure, standardized APIs. |

⁴¹ “Memorandum of Understanding Multibanking.” May 9, 2023. Swiss Bankers Association. https://www.swiss-banking.ch/_Resources/Persistent/a/d/f/d/adfdc06e6140d11f01e3970713fc585c041b86dd/Retail_Multibanking_MoU_EN.pdf.

| | |
|--|--|
| | <p>Open finance gives consumers more control and insight into their financial data, drives innovation, improves financial services and enhances the customer experience by enabling more personalized products and better service delivery.</p> <p>Open pension is the part of open finance that focuses on pension data. Open pension puts the individual at the center and facilitates the secure and standardized exchange of personal pension information at the individual's request.</p> |
| Pension data of insured people (individuals) | Refers to the collection of an individual's pension-related data currently held by data providers such as pension funds. This dataset may contain a variety of information, including pension statement data on retirement assets and risk benefits as well as key values and basic assumptions/parameters of the pension scheme and pension fund rules applied. The data elements included in a released data set may vary from use case to use case. |
| Pension tracking system (PTS) | <p>A pension tracking system (PTS) is a system designed to aggregate and display an individual's pension information from various sources, including state, occupational and private pensions.</p> <p>The main goals of a PTS for individuals are:</p> <ul style="list-style-type: none"> ▪ Get a comprehensive overview of pension entitlements, ideally over all three pillars, in one place ▪ Forecast pension income and gain an understanding of whether it will be sufficient ▪ Promote commitment to private pension provision |
| Public-private partnership (PPP) | A cooperative arrangement between one or more public sector entities and private sector companies, typically aimed at financing, designing, implementing and operating services or infrastructure that were traditionally provided by the public sector. The primary goal of traditional PPPs is to leverage the efficiency, expertise and capital of the private sector to deliver public services more effectively. However, in the context of our open pension initiative, the objective extends beyond efficiency to foster broad stakeholder representation. Given this broader aim, the term "federated partnership" might be more appropriate, emphasizing the collaborative effort among a diverse group of stakeholders, including government entities, private firms, academia and other relevant parties, to co-create and manage the open pension ecosystem. |
| Self-sovereign identity (SSI) | SSI is the underlying technical concept that supports the state-run trust infrastructure facilitating E-ID. The system comprises three roles: issuers, who issue verifiable credentials; holders, who securely store them in digital wallets; and verifiers, who request and verify their authenticity. |
| Third-party provider (TPP) | External entities authorized to access or manage certain pension information on behalf of individuals, within the framework of open pension. |

| | |
|-----------------------|--|
| Verifiable credential | In the context of SSI, a verifiable credential is a digitally signed piece of data that contains information about an individual, such as identity attributes, qualifications or certifications, issued by a trusted entity. These credentials are cryptographically secured, ensuring their authenticity and integrity, and can be stored by individuals in digital wallets. Verifiable credentials enable individuals to selectively share their information with verifiers. |
|-----------------------|--|

6.2 Stakeholder views and research references

6.2.1 Stakeholder viewpoints

| Reference # | Viewpoint | Source |
|-------------|--|--|
| SV-001 | Most survey participants agree that data access should not be restricted to government bodies , with only 10% in favor. But there is less consensus on whether access should be exclusive to regulated financial services providers (41% preference) or open to any organization meeting security requirements (34% favor). | "Survey Results.", December 21, 2023. SFTI & Acrea: p. 22. https://swissfintechinnovations.ch/wp-content/uploads/2023/11/SFTI-Open-Pension-Survey-Results.pdf . |
| SV-002 | Forming a new organization structured as a public-private partnership is the preferred vehicle for the development and maintenance of both standards and central IT infrastructure elements. | "Survey Results.", December 21, 2023. SFTI & Acrea: p. 26. https://swissfintechinnovations.ch/wp-content/uploads/2023/11/SFTI-Open-Pension-Survey-Results.pdf . |
| SV-003 | When asked about their preferred methods for securely and practically accessing second pillar data of insured individuals, 39% of survey participants mentioned SSI/E-ID as a potential method for technical access. | "Survey Results.", December 21, 2023. SFTI & Acrea: p. 29. https://swissfintechinnovations.ch/wp-content/uploads/2023/11/SFTI-Open-Pension-Survey-Results.pdf . |
| SV-004 | Three out of every five participants in the SFTI Open Pension Survey consider automatic regular data updates, online simulation of pension data and the ability to make various adjustments to pension provisions crucial features. | "Survey Results.", December 21, 2023. SFTI & Acrea: p. 10. https://swissfintechinnovations.ch/wp-content/uploads/2023/11/SFTI-Open-Pension-Survey-Results.pdf . |
| SV-005 | When asked about their preferred methods for securely and practically accessing second pillar data of insured individuals, 2% of survey participants mentioned QR codes as a potential method for technical access. | "Survey Results.", December 21, 2023. SFTI & Acrea: p. 29. https://swissfintechinnovations.ch/wp-content/uploads/2023/11/SFTI-Open-Pension-Survey-Results.pdf . |

6.2.2 Research insights

| Reference # | Insight | Source |
|-------------|--|---|
| RI-001 | <p>Having multiple pension dashboards could potentially increase individuals' access to pension data: A UK-based expert in pension dashboards, Richard Smith, has highlighted significant advantages of employing a multiple dashboard approach as opposed to a single dashboard system, based on findings from research conducted on the Norwegian pension tracking system. Initially, Norway had only one national dashboard. However, the introduction of data sharing capabilities through APIs enabled TPPs to use pension data within commonly used platforms like e-banking and pension applications. This resulted in a notable shift in data usage patterns. In 2023, the Norwegian system witnessed 32 million data requests via commercial apps, a stark comparison to the fewer than one million requests made through the central NorskPensjon.no portal and a similar number through the government's state pension online service.</p> | <p>Smith, Richard. "Five Reasons why Commercial Pensions Dashboards Have Strong Cross-party Support." Corporate Advisor, (2024). Accessed February 14, 2024. https://corporate-adviser.com/richard-smith-five-a-reasons-why-commercial-pensions-dashboards-have-strong-cross-party-support/.</p> |
| RI-002 | <p>"Trust is key. The PTS is a place where people are invited to see their personal information on their pension entitlements. Therefore it is essential that the information is neutral, trustworthy and independent. Individuals need to perceive that the information comes from an official source, i.e., that there is no selling or marketing objective behind it and that their data will be treated confidentially and that they can decide with whom to share."</p> | <p>"Technical Advice on the Development of Pension Tracking Systems.", December 1, 2021. EIOPA: p. 21. https://www.eiopa.europa.eu/system/files/2021-12/technical_advice_pension_tracking_systems_for_publicationfinal.pdf.</p> |
| RI-003 | <p>A public-private partnership is considered the most advantageous governance structure, compared to private and public governance: According to the European Insurance and Occupational Pensions Authority (EIOPA), a pension tracking system (PTS) possess the characteristics of a public good. Given these attributes, EIOPA dismisses the possibility of adopting a commercial governance model. Instead, it suggests two potential governance structures for a PTS: a public entity or a public-private partnership (PPP). EIOPA favors a PPP due to its ability to leverage resources, expertise and innovation from both</p> | <p>"Technical Advice on the Development of Pension Tracking Systems.", December 1, 2021. EIOPA: p. 81-82. https://www.eiopa.europa.eu/system/files/2021-12/technical_advice_pension_tracking_systems_for_publicationfinal.pdf.</p> |

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| | the public and private sectors, providing additional advantages compared to a purely public governance model. | |
| RI-004 | Digital ID as a key prerequisite: EIOPA underscores the importance of a digital ID as a fundamental prerequisite for authentication and identification of an individual in PTS. This requirement is also highly relevant to this strategic option, as the existence of a digital Swiss ID, e.g., E-ID, could enable login to the single federal pension dashboard without the need for an additional registration of the individual. This approach has the potential to reduce the barrier to accessing the dashboard. | "Technical Advice on the Development of Pension Tracking Systems.", December 1, 2021. EIOPA: p. 59. https://www.eiopa.europa.eu/system/files/2021-12/technical_advice_pension_tracking_systems_for_publicationfinal.pdf . |
| RI-005 | Announced roll-out of E-ID in 2026: The Federal Council intends to introduce the E-ID and the underlying trust infrastructure by 2026, though potential political and technological obstacles may influence this timeline. | "E-ID: Federal Council Adopts Dispatch." November 22, 2023: The Federal Council. https://www.admin.ch/gov/en/start/documentation/media-releases.msg-id-98758.html . |
| RI-006 | 80% availability of digital self-services by data providers: According to the findings of the SFTI Open Pension Survey, it has been observed that nearly 80% of pension providers offer a login for individuals to a digital self-service platform. Furthermore, an additional 9% are in the process of planning to implement such a feature within the next three years. Notably, a mere 7% of the participating second pillar institutions explicitly stated the absence of any existing individual login functionality, with no plans for its implementation in the foreseeable future. | "Survey Results.", December 21, 2023. SFTI & Acrea: p. 32. https://swissfintechinnovations.ch/wp-content/uploads/2023/11/SFTI-Open-Pension-Survey-Results.pdf . |
| RI-007 | About 1 in 2 individuals have no access to digital self-services offered by their pension fund: Based on Acrea's experience, it is estimated that at least 50% of all individuals do not currently possess an active login at a pension portal hosted by the data provider (e.g., because they have never registered). | Research by Acrea |
| RI-008 | Digital ID as a key prerequisite: EIOPA highlights SSI as a potential "future technological enabler of pension tracking systems" ⁴² ; however, it refrains from providing detailed insights. This gap may be attributed to the timing of the paper, which coincided with the introduction of the eIDAS revision merely six months earlier. | "Technical Advice on the Development of Pension Tracking Systems.", December 1, 2021. EIOPA: p. 59. https://www.eiopa.europa.eu/system/files/2021-12/technical_advice_pension_tracking_systems_for_publicationfinal.pdf . |

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| RI-009 | Lack of available information on the use of SSI in the PTS context: Currently, no information regarding the planned utilization of SSI as a foundational principle for pension tracking systems or pension dashboards has been identified. This lack may originate from the fact that numerous EU countries are still in the process of implementing their digital identity on SSI. | Research by Acrea |
| RI-010 | Lack of available information on the usage of QR code in the PTS context | Research by Acrea |

6.3 Description of building blocks

6.3.1.1 Open pension legal framework

| Building block: Legal framework | |
|--|---|
| Description | A set of laws and regulations specifically designed to enable the open pension ecosystem. |
| Contribution | Acts as a foundational enabler and safeguard, creating a trusted environment for pension data sharing and processing. |
| Possible providers | Federal authority |
| Important basic assumptions (valid for all strategic options) | - |

6.3.1.2 Open pension governance

| Building block: Governance | |
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| Description | A governance that manages strategic planning, oversight, financing, target operating model, data protection, security principles and data, process and integration standards within the open pension ecosystem. |
| Contribution | Ensures that the open pension implementation and ongoing management is strategically aligned, financially sustainable and operationally efficient while adhering to stringent data protection and security standards. |
| Possible providers | A new or existing private or public organization, or a public-private partnership could be responsible for the governance of open pension. The responsible organization governs the open pension ecosystem. |
| Important basic assumptions (valid for all strategic options) | - |

strategic options)

6.3.1.3 Open pension dashboard(s)

| Building block: Dashboard(s) | |
|---|--|
| Description | A user-friendly interface that allows individuals (and households) to view and understand their pension provision, across pillars. Access via limited power of attorney may also be provided to trusted advisors, such as financial advisors or accountants. |
| Contribution | Enhances transparency and individual empowerment, enabling better-informed decisions. |
| Possible providers | Depending on the strategic option, the open pension dashboard(s) could be provisioned by public organizations, as well as private entities, such as banks, insurance companies and fintechs. |
| Important basic assumptions (valid for all strategic options) | This position paper concentrates on the second pillar for several reasons ⁴³ . Nevertheless, it's crucial to acknowledge that the core value of the open pension dashboard lies in its ability to provide comprehensive transparency across all three pillars. Therefore, it inherently encompasses all three pillars and must always be considered holistically. |

6.3.1.4 Open pension data exchange architecture (DEXA)

| Building block: Data exchange architecture | |
|--|---|
| Description | <p>The underlying architecture and features that support the secure and efficient exchange of pension data across various platforms and entities.</p> <p>The main features of the architecture are:</p> <ul style="list-style-type: none">▪ Aggregation (all three pillars): This feature aggregates pension data from all three pillars into a unified data set▪ Directories: Serve as a central registry or index that lists all participating data providers, facilitating the identification and connection between different systems▪ B2C login: Business-to-consumer login mechanisms provide secure, user-friendly access for individuals to log into pension dashboards▪ B2C consent: This feature manages the process through which individuals grant or revoke permission for third-party providers (TPPs) or a federal authority to access and use an individual's pension data, ensuring compliance with data protection laws and respecting user privacy. |

⁴³ SFTI Open Pension Kick-Off Presentation, November 14, 2023. SFTI Open Pension working group: p. 10. https://swissfintechinnovations.ch/wp-content/uploads/2023/11/20231114_SFTI_OpenPension-working-group-kickoff.pdf.

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| | <p>As an extension, B2C consent could include not only consent to access the data of a single individual, but also to access pension data of other people in the same household (e.g., married couples).</p> <ul style="list-style-type: none"> ▪ Connectivity and security: Encompasses the technical infrastructure and protocols that enable the safe transmission and access of pension data across various entities, incorporating encryption and other cybersecurity measures to protect against unauthorized access and data breaches |
| Contribution | Facilitates secure and seamless data flow within the pension ecosystem, enhancing service integration and user experience. |
| Possible providers | Implementation could be undertaken by various existing or new organizations, including platform providers. |
| Important basic assumptions (valid for all strategic options) | <ul style="list-style-type: none"> ▪ Personal pension data is never stored centrally on a central platform. A centralized platform always acts primarily as a hub and not as a data storage facility. In addition, this assumption includes the requirement that all data is always encrypted during transmission. This approach is in line with EIOPA recommendations and prioritizes the security and protection of individual data and ensures that pension information remains protected at all stages of processing and transmission within the open pension ecosystem. ▪ In some countries⁴⁴, there is a central directory that can be accessed to locate a particular person's pension fund. We assume that this is not absolutely necessary for implementation. In our consent flow descriptions, the individual has to choose their pension fund manually in the pension dashboard. Should such a register nevertheless be available as an online service in the future, it makes sense to use it. |

6.4 Description of alternative strategic options

- We consider **hybrid and peer-to-peer models** as a potential extension of option C that allows for peer-to-peer (P2P) connections outside of a central platform, e.g., a bank or insurance company directly connecting to a pension fund. P2P would require less central infrastructure. Centrally, only a directory would have to be managed, which allows the establishment of a P2P connection between the data providers and the pension dashboard.
Hybrid models aim to leverage the strengths of both centralized connection and security management, alongside the flexibility inherent in P2P interactions. While our analysis does not specifically consider the hybrid and P2P approaches, it's important to note that we do not explicitly disallow P2P connections.
- **“Blockchain”:** In our position paper, we focus on strategic implementation options at the business architecture level rather than on specific technologies. Blockchain is recognized for its potential to improve security and transparency. A future scenario could be to manage all pension accounts on a blockchain. However, such a radical scenario is considered impractical due to the extensive changes required for the pension system. So, while blockchain could be relevant for strategies such as option D (data sharing with an E-ID trust infrastructure), our paper does not go into the technical details of implementation.

⁴⁴ Netherlands, Denmark, Norway - Source: Smith, Richard. "Pensions Dashboards in Europe." DashboardIdeas. <https://www.dashboardideas.co.uk/international-precedents/europe/#GeneralComment06>.

- **Decentralized autonomous organizations (DAOs)** are a new form of governance. DAOs typically leverage blockchain technology to manage operations and data in a transparent, secure manner without centralized control. While DAOs offer possibilities for increased trust and transparency, their current level of maturity, regulatory acceptance and integration with traditional financial and pension systems would pose too many challenges for consideration in the pension context.