SAFE Project Report

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Purpose: SAFE Project Vision & High-Level Architecture
Visibility: Public
Date: May 2024
Version: 1.0

Abstract

The SAFE (Safe Archive For Everyone) project unveils an innovative digital archiving platform where tens of thousands of small and large companies offer archiving services. Its vision is to set up an archiving service for personal use or business clients in a SaaS model that is as straightforward as creating a website.

The SAFE project by Axiologic Research aims to create a European, potentially global, decentralised archiving system using OpenDSU technologies (www.opendsu.org). These technologies offer immediate-use tools for digital archiving. A significant hurdle for the commercial success of SAFE is its legal recognition. In most countries, the legal and financial demands of implementing electronic archiving are beyond many companies' reach. This limitation narrows the market to a few entities. SAFE's innovation lies in its secure and private use of DLTs, offering affordable decentralised solutions for small businesses like SMEs. It simplifies the organisation of digital archives, eliminating the need for complex bureaucratic procedures and special insurance, making digital archiving as straightforward as managing physical documents.

The only constraints must involve a minimum set of guidelines for data archiving or using certain cloud providers that offer data persistence and security certifications. Still, the blockchain nodes that establish digital archiving domains should have as few requirements as possible, such as using up-to-date and certified software. It's difficult to understand why digital archiving faces stricter legal conditions than companies or individuals' self-archiving practices. Using nationally and European-recognized digital signatures, maintaining reasonable backups, and leveraging distributed ledgers for time-stamping data logically provides a higher level of security, even compared to physical document archiving, which can be lost or destroyed due to natural disasters or accidents.

OpenDSU High-Level Presentation

The SAFE project introduces a groundbreaking distributed system where tens of thousands of small and large companies provide digital archiving services. The vision is to make instantiating an archiving service, whether for personal use or clients in a SaaS model, as simple as setting up a website.

OpenDSU [ODSU] introduces the concept of a DSU (Data Sharing Unit), a storage and information-sharing container designed with essential security and privacy features. OpenDSU allows DSUs to be anchored (or notarised) in various DLT (Distributed Ledger Technology) systems.

It offers varying levels of protection based on blockchain technologies. This versatility supports using a wide range of ledgers, from centralised databases to permissionless blockchains, where entities are fully responsible for data preservation. Information stored on the blockchain is minimised to data hashes, with the primary storage intended to be off-chain.

The off-chain storage system can include replication or not. As a content-addressable database, the off-chain system within OpenDSU is similar to technologies like IPFS. However, in some use cases, centralised storage solutions are more user-friendly and easier to maintain for enterprise systems.

From the beginning, it's important to note that OpenDSU is an open-source technology that has matured through several European research projects. It offers robust data archiving and sharing support using the most advanced cryptographic methods and aligns with emerging standards like W3C DIDs [W3CDID]. Additionally, to enable secure data sharing, OpenDSU introduces data notarization in blockchains, allowing an unlimited number of blockchains to coexist while remaining blockchain-agnostic. It also aims to standardise off-chain data storage with the same level of security as on-chain data. OpenDSU further introduces several innovations to ensure data validation, such as Self-Validating Data [RFC036].

SAFE Overview

The SAFE project proposes a groundbreaking platform where thousands of small and large companies provide digital archiving services. The vision is to make instantiating an archiving service, whether for personal use or as a service in a SaaS model, as simple as setting up a website.

SAFE brings significant innovations in digital archiving, impacting operations, commerce, society, and technology. Operationally, it enhances data storage and retrieval efficiencies by minimising reliance on centralised, vulnerable systems. Commercially, it democratises access to advanced archiving technologies, lowering financial and compliance barriers and opening the market to SMEs. Socially and from a public interest perspective, SAFE strengthens data control, addressing the demand for digital sovereignty. Economically, it fosters growth in the digital archiving sector, creating opportunities for service providers, technology developers, and consultants specialising in DLT. Technically, OpenDSU technology illustrates the adaptability of DLT beyond cryptocurrencies, proving its ability to handle real-world data management and security challenges.

The use case focuses on the digital archiving industry, leveraging DLT to transform the security, accessibility, and efficiency of storing and retrieving digital records globally. By emphasising data privacy and security, SAFE reinforces Europe's leadership in global digital standards, illustrating the commitment to protecting citizens' rights and promoting the European way of life. It significantly aligns with EU policy priorities, fostering an inclusive economy, bolstering Europe's global standing, embedding European values in digital innovation, and strengthening democracy. SAFE democratises technology, providing secure digital archiving solutions that support economic growth. It improves transparency and trust in digital processes, contributing to democracy. SAFE embodies the EU's ambition to use technology for prosperity, democratic participation, and preserving European values in the digital age, marking it as a crucial initiative in Europe's digital transformation journey.

Current stage (May 2024)

The SAFE project by Axiologic Research extends its collaboration with the pharmaceutical industry to develop a Digital Trust Ecosystem (DTE) alongside the PharmaLedger Association (pharmaledger.org). This initiative has showcased its potential through practical applications in digital archiving and data sharing, though its scope remains limited. This partnership has confirmed the viability of SAFE's approach, highlighting its potential to transform digital archiving across various industries. SAFE aims to establish an open, industry-neutral platform to expand our research impact to other sectors and standardise the OpenDSU approach. While examining legislative changes, the emphasis is on using PharmaLedger's successful use cases to promote an environment where digital and physical archiving solutions are equally viable. The project envisions an easy-to-use, secure, and compliant system that simplifies digital archiving, making it accessible and beneficial across all sectors.

The current TRL level is 5. Axiologic Research has paused further development of SAFE until legislation becomes more accommodating. Our market analysis suggests that the digitisation of archives and electronic signatures is structured more to protect the interests of early entrants or powerful lobbies rather than to encourage widespread adoption, primarily due to legal representation that, in the name of security or cryptography, creates barriers against genuine innovation. Axiologic Research is on hold with the SAFE project, closely watching the legislative developments in Europe, hoping for changes that will support the broad-scale deployment of digital archiving solutions as accessible as their physical counterparts. The SAFE solution, powered by OpenDSU, aims to provide an easy, plug-and-play system that can be deployed on legally compliant clouds or private servers. It will feature straightforward, automatic encrypted data backup in the cloud, enabling individuals and companies of any size to affordably manage their digital archives with fewer bureaucratic and legal hurdles than physical archiving.

Current Status

Begin by stating that the project seeks European or private funding but also requires legislative changes. Support and lobbying efforts are needed to ensure successful implementation. The technical aspect is straightforward due to the technologies available in OpenDSU.

The SAFE project, developed by Axiologic Research, expands its collaboration with the pharmaceutical industry through a Digital Trust Ecosystem (DTE) with the PharmaLedger Association (pharmaledger.org). This initiative has proven its potential in practical applications of digital archiving and data sharing, albeit on a limited scale. This partnership has validated SAFE's approach, underscoring its transformative potential for digital archiving across industries. SAFE aims to establish an open, industry-neutral platform that broadens our research impact and standardises the OpenDSU approach across various sectors. Legislative changes are being considered, focusing on the most promising use cases to promote an environment where digital and physical archiving solutions are equally viable. The project envisions an intuitive, secure, and compliant system that simplifies digital archiving, making it accessible and beneficial across all sectors.

Currently, the TRL level is 5. Axiologic Research has paused further development of SAFE until legislation becomes more accommodating. Our market analysis indicates that the digitisation of archives and electronic signatures is structured to protect early entrants' or influential lobbies' interests rather than promote widespread adoption. Legal frameworks, purportedly prioritising security or cryptography, create barriers against genuine innovation. Axiologic Research monitors European legislative developments, hoping for changes supporting the large-scale deployment of digital archiving solutions as accessible as their physical counterparts.

The SAFE solution, powered by OpenDSU, aims to offer a simple plug-and-play system that can be deployed on legally compliant clouds or private servers. It will feature seamless, automated encrypted data backup in the cloud, allowing individuals and businesses to manage their digital archives affordably, with fewer bureaucratic and legal hurdles than physical archiving.

SAFE Ecosystem

The following diagram illustrates the SAFE ecosystem's critical entities, illustrating their interactions and roles. The central focus of the ecosystem is the decentralised digital archiving platform powered by SAFE, which facilitates secure and efficient data storage and management. The entities include Enterprise Wallet Holders, Digital Wallet Holders, Data Markets & Exploration Drivers, Enterprise Archives, and Digital Archive Service Providers.
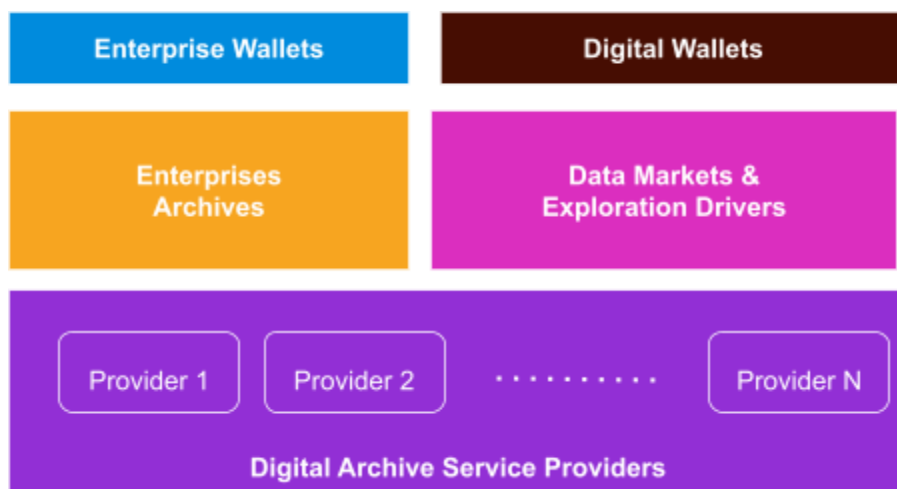

Diagram 1:   SAFE Ecosystem high-level overview

Enterprise Wallet Holders are employees and companies using enterprise wallets as UI for their digital archive. They leverage the SAFE platform to manage and archive business-related data securely. Enterprises use the platform to ensure data integrity, compliance, and efficient retrieval of business documents.

Digital Wallet Holders are home users, citizens, and individuals using digital wallets. They use the SAFE platform for personal data management and archiving. This group benefits from securely storing personal documents, such as identification papers, medical records, and other personal files, ensuring privacy and data protection.

Data Markets and Exploration Drivers consist of companies that use the SAFE platform to find methods for data exploitation, either through intermediaries or specific use cases. These entities drive innovation and value creation by developing new ways to analyse and utilise archived data under strict GDPR and commercial contracts.

Enterprise Archives involve businesses organising proprietary digital archives. Companies use the SAFE platform to manage their digital records, ensuring the long-term preservation, security, and accessibility of their business-critical information.

Digital Archive Service Providers support the ecosystem by offering archiving services to individuals, use cases, and smaller firms that prefer not to set up their SAFE nodes. These providers ensure that all users, regardless of size or technical capability, can benefit from secure and efficient digital archiving solutions.

Future steps

The SAFE project will prioritise securing funding and building a community of potential partners capable of influencing European legislation in digital archiving. This will enable us to address regulatory concerns and ensure our solution aligns with existing and emerging legal frameworks.

A crucial area of focus is navigating the regulatory landscape around data privacy and protection, especially concerning decentralised systems like ours, which utilise Distributed Ledger Technologies (DLTs), W3C DIDs, and W3C Verifiable Credentials. Understanding compliance requirements for digital archiving systems across different jurisdictions, particularly regarding GDPR and similar regulations, is essential for us to ensure the project's success.

Furthermore, we aim to clarify the legal recognition of digital records and electronic signatures stored in DLT frameworks, as this directly affects the adoption and practicality of our digital archiving solution. We're also paying close attention to any emerging regulations that could impact the use of OpenDSU. This novel approach, which enhances scalability and ease of use in creating global decentralised digital archives, may pose unique regulatory challenges.

By addressing these issues, we seek to create a secure, compliant, and accessible system that fosters confidence in digital archiving and accelerates its adoption across industries. Our efforts will include engaging with stakeholders, aligning our technology with evolving standards, and advocating for regulatory frameworks that accommodate and encourage innovation in digital archiving.

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Pitch: One Page Description. Conclusions.

The SAFE (Safe Archive For Everyone) project represents a groundbreaking initiative leveraging advanced technologies developed through European research projects. SAFE aims to revolutionise digital archiving, making it accessible, secure, and efficient in ways previously unattainable. Using cutting-edge Distributed Ledger Technologies (DLTs) and the OpenDSU framework, SAFE provides a decentralised platform that ensures data integrity, privacy, and compliance for various users.
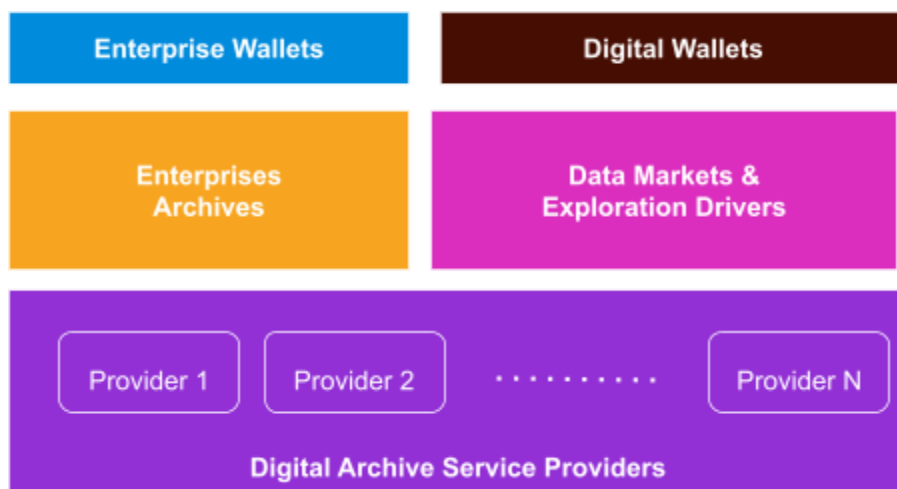

Diagram 2:   SAFE Ecosystem high-level overview

SAFE's ecosystem is designed to cater to a diverse range of participants, each playing a crucial role in its success:

Enterprise Wallet Holders, including employees and firms, use enterprise wallets to manage and securely archive business-related data. This ensures data integrity and compliance while facilitating efficient retrieval of essential documents.

Digital Wallet Holders, such as home users, citizens, and everyday individuals, utilise digital wallets to manage personal data. SAFE provides them with secure storage for personal documents, including identification papers and medical records, ensuring privacy and data protection.

Data Markets & Exploration Drivers consist of companies that exploit data through SAFE, either by intermediating or developing specific use cases. These participants drive innovation and value creation by discovering new ways to analyse and utilise archived data.

Enterprise Archives involve businesses organising their proprietary digital archives. Using SAFE, these companies can ensure the long-term preservation, security, and accessibility of their critical business information. Digital Archive Service Providers support the ecosystem by offering archiving services to individuals, specific use cases, and smaller firms. These providers enable users who may not want to set up their SAFE nodes to benefit from secure and efficient digital archiving solutions.

The SAFE project stands at the forefront of digital innovation, addressing the growing need for reliable and accessible digital archiving. By bringing diverse participants together and utilising state-of-the-art technologies, SAFE is set to redefine the digital archiving landscape, making it more straightforward, secure, and widely accessible. Paradoxically, a system like SAFE doesn't yet exist, but democratising digital archiving and making it widely used by companies and home users is essential for digital transformation.

References

[ODSU] OpenDSU Site: https://www.opendsu.org

[RFC036] Self validating Data
https://www.opendsu.org/pages/contributors/Self-Validating-Data-(RFC-036).html

[W3CDID] Decentralised Identifiers (DID) https://www.w3.org/TR/did-core/

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Annex 1: Business Plan

Executive Summary

Business Name	SAFE Security Solutions
Business Model	SAFE offers cutting-edge security technologies and services to protect individuals and organisations from digital and physical threats. Our portfolio includes cybersecurity software, surveillance systems, and personal safety applications.
Mission Statement	To empower our clients with state-of-the-art security solutions that ensure their safety, privacy, and peace of mind in an increasingly interconnected world
Vision Statement	To become a global leader in security solutions, continuously innovating to address emerging threats and challenges.
Target Market	Businesses of all sizes, governmental agencies, and security-conscious individuals.
Financial Goals	To achieve a revenue milestone of $50 million within the first five years while maintaining a steady growth rate and expanding our market reach globally.

Business Description

The SAFE project by Axiologic Research aims to create a European, potentially global, decentralised archiving system using OpenDSU technologies (www.opendsu.org). These technologies offer immediate-use tools for digital archiving. A significant hurdle for the commercial success of SAFE is its legal recognition, especially in Romania, where the legal and financial demands of implementing electronic archiving are beyond many companies' reach. This limitation narrows the market to a few entities. SAFE's innovation lies in its secure and private use of DLTs, offering affordable decentralised solutions for small businesses like SMEs. It simplifies the organisation of digital archives, eliminating the need for bureaucratic procedures and special insurance, making digital archiving as straightforward as managing physical documents.

The SAFE project extends its collaboration with the pharmaceutical industry to develop a Digital Trust Ecosystem (DTE) alongside the PharmaLedger Association (pharmaledger.org). This initiative has showcased its potential through practical applications in digital archiving and data sharing, though its scope remains limited. This partnership has confirmed the viability of SAFE's approach, highlighting its potential to transform digital archiving across various industries. SAFE aims to establish an open, industry-neutral platform to expand our research impact to other sectors and standardise the OpenDSU approach. While examining legislative changes, the emphasis is on using PharmaLedger's successful use cases to promote an environment where digital and physical archiving solutions are equally viable. The

project envisions an easy-to-use, secure, and compliant system that simplifies digital archiving, making it accessible and beneficial across all sectors.

OpenDSU introduces the concept of a DSU (Data Sharing Unit), which is envisioned as a storage and information-sharing container with crucial security and privacy features.

OpenDSU allows for the anchoring (or notarization) of DSUs in various DLT (Distributed Ledger Technology) systems, featuring different security characteristics regarding replication levels. This versatility allows centralised databases to be used as ledgers where entities fully assume data preservation responsibilities or permissionless DLTs like public blockchains. Information stored in the blockchain is minimised, retaining only hashes of the data, with the intention for storage to be off-chain. The off-chain storage system can either be without replication or with replication. Being a content-addressable database system, the off-chain system within OpenDSU can generally be likened to technologies such as IPFS. For enterprise systems, however, centralised storage solutions are more user-friendly and easier to maintain.

SAFE's decentralised nature, powered by OpenDSU technology, is a game-changer for achieving the digitalisation goals set forth by states and the European Union. Traditional technologies have fallen short in offering the security, flexibility, and accessibility of SAFE. With OpenDSU, SAFE introduces a paradigm where encrypted data can be accessed decentralised and granularly. This is facilitated through digital wallets, which are also built on OpenDSU, providing a seamless and secure environment for data management.

In an ever-expanding digital universe, SAFE aims to emerge as a beacon of innovation, embodying the next leap in data archiving and communication. Its decentralised digital data archiving system is central to SAFE, a breakthrough that promises to redefine how businesses interact and exchange data. This transformative approach underscores the potential for enhanced security and the ease with which data can be managed and shared in the digital age.

Applying decentralised archiving with SAFE transcends conventional security measures, offering unprecedented protection against cyber threats. This is crucial for businesses in an era of data breaches and cybersecurity risks. By facilitating a more secure and straightforward data exchange between firms, SAFE enables companies to protect their valuable information and engage in digital transactions more confidently and efficiently.

Moreover, the granular access to encrypted data championed by SAFE addresses a critical need for privacy and control over digital information. Businesses and individuals alike can dictate the terms of data access, ensuring that sensitive information remains confidential and is only shared under explicit consent. This aspect of SAFE is particularly relevant in meeting the stringent requirements of data protection regulations, offering a robust solution that aligns with global standards.

In essence, SAFE is a technological innovation and a strategic enabler for digital transformation. By leveraging the decentralised capabilities of OpenDSU, SAFE paves the way for more secure, efficient, and compliant data management practices. It is a testament to the potential of decentralised technologies in facilitating the digitalisation ambitions of businesses and governments alike, offering a pathway to digital operations that were previously deemed unattainable. As we move into a more interconnected digital world, SAFE is a cornerstone for secure and efficient data exchange, driving the digital agenda forward with unmatched security and flexibility.

The current TRL level is 5. Axiologic Research has paused further development of SAFE until legislation becomes more accommodating. Our market analysis suggests that the digitisation of archives and electronic signatures is structured more to protect the interests of early entrants or powerful lobbies rather than to encourage widespread adoption, primarily due to legal representation that, in the name of security or cryptography, creates barriers against genuine innovation. Axiologic Research is on hold with the SAFE project, closely watching the legislative developments in Europe, hoping for changes that will

support the broad-scale deployment of digital archiving solutions as accessible as their physical counterparts. The SAFE solution, powered by OpenDSU, aims to provide an easy, plug-and-play system that can be deployed on legally compliant clouds or private servers. It will feature straightforward, automatic encrypted data backup in the cloud, enabling individuals and companies of any size to affordably manage their digital archives with fewer bureaucratic and legal hurdles than physical archiving.

The SAFE brings important innovations in digital archiving with wide-ranging implications operationally, commercially, socially, and technically. Operationally, it enhances data storage and retrieval efficiencies, minimising reliance on centralised, vulnerable systems. Commercially, it democratises access to cutting-edge archiving technologies, opening the market to SMEs by lowering financial and compliance barriers. Socially and from a public interest perspective, SAFE strengthens data control, meeting the public's demand for digital sovereignty. Economically, it fosters growth in the digital archiving sector, generating opportunities for service providers, technology developers, and consultants specialising in DLT. Technically, the application of OpenDSU technology showcases the adaptability of DLT beyond cryptocurrencies, highlighting its capacity to address real-world data management and security challenges.

Market Analysis

In the swiftly evolving security industry landscape, a significant trend is the shift towards integrated solutions that promise comprehensive protection against various threats. Incorporating Artificial Intelligence (AI), the Internet of Things (IoT), and blockchain technologies is dramatically transforming the sector, setting new benchmarks for security measures. This evolution forms the backdrop against which SAFE positions itself, aiming to redefine security protocols with its innovative approach.

The target market for SAFE is diverse, reflecting the varied needs across different segments:
- **Small to Medium Businesses (SMBs)** are searching for affordable and scalable security solutions that can grow their business without compromising effectiveness.
- **Large Corporations** demand robust, multi-layered security systems capable of protecting against a spectrum of cyber and physical threats, underlining the need for comprehensive solutions.
- **Government agencies** prioritise the security and reliability of solutions that handle sensitive data and safeguard critical infrastructure, requiring top-tier security measures.
- **Individuals** increasingly seek easy-to-use, mobile-based applications that offer personal safety and data security, catering to the growing demand for personal security solutions.

Within this competitive landscape, SAFE distinguishes itself through a strategic blend of technology and innovation. Unlike the existing market players, which primarily focus on preventive security measures, SAFE leverages AI, blockchain, and predictive analytics to offer predictive security solutions. This puts SAFE ahead regarding technological advancement and aligns with the industry's move towards more integrated, forward-thinking security solutions.

SAFE's competitive edge is further sharpened by its decentralised archiving system, which offers a unique data security and management proposition. By providing granular, decentralised access to encrypted data through digital wallets built on OpenDSU, SAFE addresses a critical gap in the market for secure and efficient data exchange systems. This capability particularly appeals to SMBs, large

corporations, and governmental agencies, collectively forming a substantial portion of the target market, underscoring the vast potential for SAFE's adoption.

The security solutions market is competitive, but SAFE's innovative use of technology and its focus on predictive security measures sets it apart. As businesses and individuals alike seek more advanced, reliable, and user-friendly security solutions, SAFE is well-positioned to meet these demands, offering a new paradigm in security that resonates with the current trends and market needs.

Marketing and Sales Strategy

For SAFE, a cutting-edge security solution harnessing decentralised digital archiving, the path to market penetration and customer acquisition is through a meticulously crafted Marketing and Sales Strategy. Recognising the necessity for initial research grants to solidify its foundation, SAFE envisages a dynamic approach to market engagement and revenue generation. SAFE's marketing plan aims to elevate brand visibility and articulate its unique value proposition. To achieve this, SAFE will deploy a robust digital marketing strategy encompassing Search Engine Optimization (SEO), content marketing, and an active presence on social media platforms. These channels will serve not only to inform potential customers about SAFE's innovative solutions but also to engage with them on the pressing security challenges that SAFE addresses. Through thought leadership articles, whitepapers, and case studies, content marketing will highlight the technological innovations behind SAFE, its applications, and the benefits of decentralised data archiving. Social media campaigns will further amplify SAFE's message, engaging with industry stakeholders and the broader public to foster a community around digital security and privacy.

In addition to digital marketing efforts, SAFE recognises the value of direct engagement within the industry. Participation in key industry conferences and events will offer invaluable opportunities for networking, brand exposure, and direct dialogue with potential clients. Strategic partnerships with technology providers and other stakeholders in the security ecosystem will also be pursued to broaden SAFE's reach and enhance its product offerings through complementary technologies.

SAFE's sales strategy bifurcates to address the distinct needs of its target segments: businesses and government entities on the one hand and individual consumers on the other. For companies and governmental agencies, SAFE will employ a direct sales approach. This involves building and nurturing relationships through personalised engagement, demonstrating the specific value SAFE can deliver to these entities. By focusing on these organisations' critical security needs and regulatory requirements, SAFE will position itself as a vendor and a strategic partner in their operational success.

Conversely, SAFE will develop online sales channels for individual consumers to simplify the purchase and deployment of SAFE solutions. This approach recognises the growing consumer demand for easy-to-use, reliable security solutions that can be accessed and managed digitally. An intuitive online platform will facilitate the discovery, comparison, and acquisition of SAFE products, complemented by customer support and educational resources to ensure users can fully leverage the benefits SAFE offers.

Through this dual-faceted strategy, SAFE aims to penetrate the market effectively, catering to the specific needs of its diverse target audiences. By combining a solid online presence with strategic industry engagement and tailored sales approaches, SAFE is poised to impact the security industry significantly, safeguarding digital and physical assets in an increasingly interconnected world.

Financial Plan

The financial planning segment of our business plan for the SAFE project encapsulates our monetisation strategy, revenue mechanisms, and growth projections. At the outset, it's essential to acknowledge that the SAFE project, being at a pivotal stage of maturity, will necessitate periodic adjustments to this financial blueprint. Our current operational model leans heavily on consultancy services and crafting bespoke applications. Yet, as we navigate the evolving landscape of digital archiving solutions, we remain agile, ready to pivot and adopt innovative business models that promise scalability and sustainability.

Our initial capital allocation is for three critical areas: product development, marketing, and operational expenditures. These foundational investments are crucial for setting the stage for SAFE's market entry and future expansion. Product development, focusing on creating a robust and user-friendly digital archiving solution, requires significant resources, not only in terms of financial outlay but also in attracting the right talent and technology partnerships.

Marketing efforts aim to establish the SAFE brand as a synonym for security, reliability, and innovation in digital archiving. This involves a comprehensive strategy encompassing digital marketing, industry events, and partnerships with key industry players to amplify our market presence.

Operational expenses cover the day-to-day running of the project, including but not limited to office space, utilities, payroll, and other administrative costs. Keeping these expenses in check is paramount to maintaining a lean operation, especially in the early stages of the project.

Revenue for the SAFE project will stream from three primary sources: direct sales of the solution to end-users, subscription services offering ongoing support and updates, and strategic partnerships with industry stakeholders who share our vision of revolutionising digital archiving. These partnerships not only provide an additional revenue stream but also offer opportunities for collaborative innovation, further enhancing the value proposition of the SAFE solution.

Looking ahead, our financial projections over the first five years focus on balancing aggressive growth and sustainability. These projections include detailed revenue forecasts, cost of sales, operating expenses, and profitability analyses. A critical aspect of our financial planning is the break-even analysis, which will help us understand the path to economic viability and inform our pricing strategies to ensure competitiveness in the market.

In conclusion, the financial plan for the SAFE project is built on a foundation of prudent fiscal management, strategic investments in product development and marketing, and a flexible approach to revenue generation. As we move forward, our commitment to innovation, coupled with a keen eye on the evolving digital archiving landscape, will guide our financial strategy, ensuring the long-term success and sustainability of the SAFE project.

Conclusion

The SAFE project significantly aligns with EU Policy Priorities, enhancing an inclusive economy, bolstering Europe's global standing, embedding European values in digital innovation, and fostering democracy. It democratises technology for businesses, supporting economic growth by offering secure digital archiving solutions. By prioritising data privacy and security, SAFE reinforces Europe's leadership in setting global digital standards, illustrating the commitment to protecting citizens' rights and promoting the European way of life. Furthermore, it contributes to European democracy by improving transparency and

trust in digital processes. SAFE embodies the EU's ambition to use technology for societal prosperity, democratic participation, and maintaining Europe's values in the digital era, marking it as a key initiative in Europe's digital transformation journey.

DSU Explorer

The potential of utilising digital wallets to manage our data is transformative and expansive. Digital wallets, traditionally used for financial transactions, are evolving into secure vaults where individuals can store and manage a wide array of personal information, including identification documents, medical records, business data, and legal information. The SAFE project's current implementation of a UI prototype, available as open-source code, is a significant step toward releasing this potential. Accessible at https://github.com/OpenDSU/dsu-explorer, this prototype lays the groundwork for a comprehensive system where personal data management becomes streamlined and user-friendly.

Building on the prototype's foundation, a production-ready interface would incorporate adjustments to enhance user experience. The envisioned interface is akin to a sophisticated file explorer but with added functionalities tailored for managing Digital IDs (DIDs) and credentials and incorporating a plugin system for data visualisation. This system is designed to handle various data types—from medical and business data to legal information and credentials—with ease and security.

The simplicity of such an interface, resembling a familiar file explorer, is crucial. It lowers the barrier to entry for users, making the management of digital identities and personal data accessible to everyone, regardless of their technical expertise. The added layer for managing DIDs and credentials is a game-changer, offering users control over their digital identities and sharing sensitive data. This control is pivotal in today's digital age, where data privacy and security are of utmost concern.

Moreover, the plugin system for data visualisation underscores digital wallets' versatility and customisation potential. Users can tailor their experience according to their specific needs, whether for viewing medical data, analysing business information, or verifying legal documents. This level of customisation and control empowers users, placing them at the centre of their digital universe.

In conclusion, developing digital wallets for personal data management opens up new possibilities. By combining the security and privacy of digital IDs with the ease of use of a file explorer and the customisable nature of plugins for data visualisation, digital wallets can revolutionise how we store, manage, and share our data. With its open-source UI prototype and vision for a user-friendly interface, the SAFE project's approach is a pioneering step toward achieving this transformative potential.

In the images below, we present the wireframe and design concept of SAFE, aiming to illustrate the simplicity of the UX approach (based on the existing open-source prototype) while concealing the complexity of digital signatures, blockchain anchoring, etc., in the most user-friendly way

possible.

NAME	TYPE	LAST MODIFICATION	
🔒 My Medical Data	DSU	27-11-2023	⋮
📄 My Profile	File	29-10-2023	⋮
📄 My Credentials	File	12-05-2022	

My wallet > Code > Pages > **Explore**

SAFE

New File　New Folder　Upload File　Upload Folder　Create DSU　Receive DSU

View
Rename
Download
Delete

My wallet > Code > Pages > **Explore**   **SAFE**

| ⬚ New File | ⬚ New Folder | ⬚ Upload File | ⬚ Upload Folder | ✎ Create DSU | ⬇ Receive DSU |

NAME	TYPE	LAST MODIFICATION	
🔒 My Medical Data	DSU	27-11-2023	⋮
📄 My Profile		29-10-2023	⋮
📄 My Credentials		12-05-2022	

Create new file   ⤢ ✕

File Name

[   ]

Initial content for file

[   ]
[   ]

        Create File   **Cancel**

View
Rename
Download
Delete

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My wallet > Code > Pages > **Explore**   **SAFE**

| New File | New Folder | Upload File | Upload Folder | Create DSU | Receive DSU |

NAME	TYPE	LAST MODIFICATION	
🔒 My Medical Data	DSU	27-11-2023	⋮
📄 My Profile		29-10-2023	⋮
📄 My Credentials		12-05-2022	

Create new folder   ⤢ ✕

File Name

[   ]

[Create folder]   [Cancel]

View
Rename
Download
Delete

My wallet > Code > Pages > **Explore**   **SAFE**

| New File | New Folder | Upload File | Upload Folder | Create DSU | Receive DSU |

NAME	TYPE	LAST MODIFICATION	
🔒 My Medical Data	DSU	27-11-2023	⋮
📄 My Profile		29-10-2023	⋮
📄 My Credentials		12-05-2022	

Create DSU   ⤢ ✕

DSU with the seed has been successfully created!

[!Z9bWhv788IAC8C@cRM&uVHsqnUDFTuOoOE5a] 📋 Copy

[Finish]

View
Rename
Download
Delete