The state of identity & walt.id

Last year, we published a blog post on the state of the decentralized identity market and about our company. A brief annual recap with some insights, learnings and stats. This year, we decided to make this tradition and publish an annual letter to explain what is happening in the market and how this affects our company - walt.id.

Let's dive in.

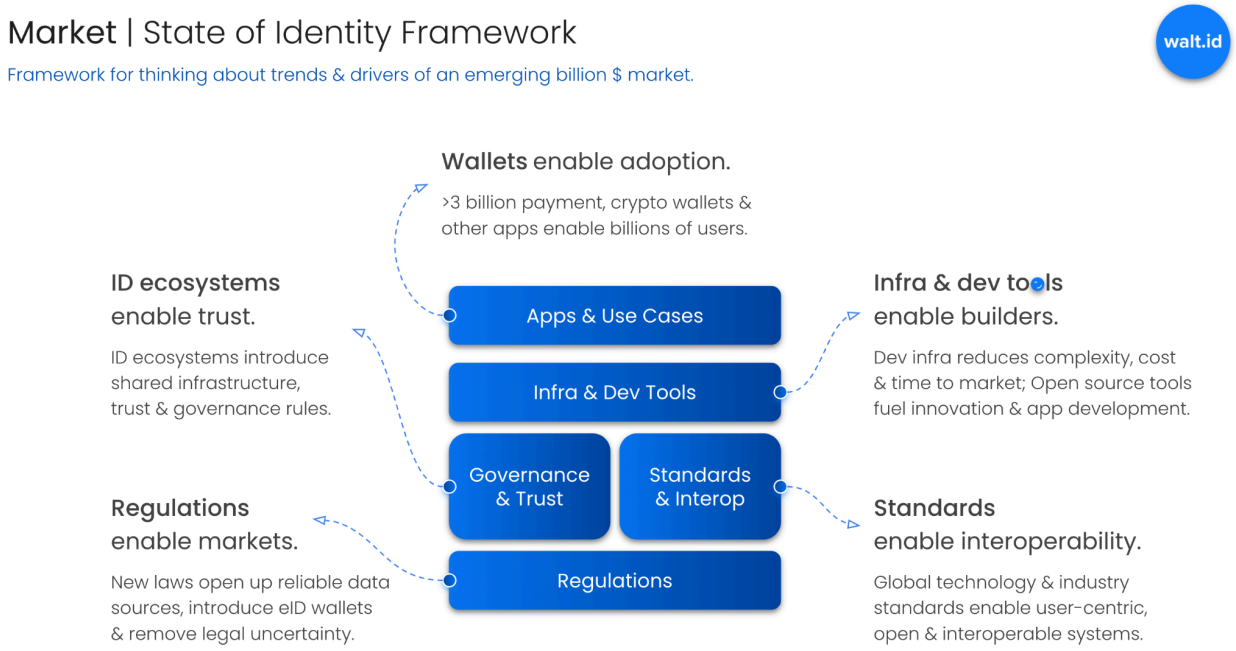
The state of identity

In last year's letter, we laid out a simple framework for thinking about (the development of) the decentralized identity market. Our framework looks at, what we believe to be, the most important pieces required for enabling the global adoption of decentralized identity and identity wallets. In other words, it describes what must happen in order to arrive at a world in which identity wallets are ubiquitous, used by billions of people, hundreds of thousands of companies and trillions of things to enable potentially any kind of digital or in-person interaction.

The five pillars of our framework correspond to the five main market trends and drivers:

- **Regulations** force the adoption of identity wallets and ensure a solid foundation that can be trusted not only from a technical, but also from a legal perspective. As such, regulations enable markets and the market for decentralized identity and identity wallets is no exception.
- **ID ecosystems** establish the rules of the game such as processes to ensure the integrity and trustworthiness of data. Typically, they also introduce a technical infrastructure for anchoring meta data. In a nutshell, ID ecosystems enable the trust that is required for different parties to accept identity credentials from various sources.
- **Standards** are what makes decentralized identity work in practice. The core idea behind decentralized identity is that data can freely flow from one entity (Issuer) to any wallet and can, then, be presented to and verified by any other entity (Verifier). Without standards there is no interoperability and without interoperability, we're doomed to relive the horrors of the past - data silos and walled gardens.
- **Infrastructure and dev tooling** are our home turf, the tools that businesses and governments need to build identity-enabled products and services for more seamless, secure, private and trusted digital interactions. In other words, infrastructure and dev tooling, particularly open source software, enables builders to build apps and use cases with decentralized identity technologies.

- **Applications,** particularly wallets, allow users to control and share their identity data. They are the user-friendly interfaces that enable people to use decentralized identity and, as such, enable broad adoption.



Time to look at some of the most important developments within each pillar of our framework.

Regulations enable markets

In 2024, the first regulation that forces the adoption of decentralized identity and identity wallets was published by the European Union. It is called “eIDAS2” and it introduces digital identity wallets for individuals and organizations in order to give them more control over identity data across all aspects of their life. As a result, the eIDAS2 regulation is expected to completely transform the digital landscape in Europe and it is already being copied around the world. You can read more in our eIDAS2 ebook.

But it is not only European regulators looking at the introduction of identity wallets: In the US, more than 10 states have already introduced mobile driving licenses and wallet apps. For example, Louisiana launched a digital ID in 2018, which is being used

by more than 66% of eligible adults. In California, nearly 600,000 residents installed the mobile ID app within the first few months of the program's launch. Similarly, we see a lot of movement from governments in the UK, the middle east, various Asian countries, Australia, New Zealand, South America and Africa.

Overall, there is a clear global trend towards the regulation of identity data and a push for digital identity wallets by lawmakers that will facilitate a global roll-out over the next five to ten years.

Identity ecosystems enable trust

Identity ecosystems are a core building block of decentralized identity. By combining technology (shared data registries) with governance frameworks (rules for establishing trust), they enable the shift away from today's centralized identity paradigm which created a world of data silos and with them some of the internet's biggest problems like privacy and compliance issues, user lock-in effects, rising fraud and identity theft.

In 2024, we witnessed one of the EU's ID ecosystems (the EU Blockchain Service Infrastructure, EBSI) mature, with several so-called "Large Scale Pilots" to demonstrate use cases across borders and industries. New consortia emerged in the private sector, like the Global Acceptance Network (GAN), as well as public and private partnerships in Europe, the US, the middle east and APAC. Moreover, large players in payment, banking and crypto are looking at (or have already started to work on) building their own ID ecosystems as a way to future-proof their business and create new products and services. Lastly, we saw the first consolidation of ID ecosystems when Dock merged with Cheqd.

While it is still early for ID ecosystems, there is also a lot of movement making us optimistic about an exciting multi-ecosystem future over the next two to five years.

Standards enable interoperability

Just a few years ago, the decentralized identity space looked very different. Every vendor was inventing their own (proprietary) technologies and they did so across the whole decentralized identity tech stack. This situation was born out of the need to fill a gap that had to be filled (there weren't any agreed upon standards and vendors had to implement something) and fueled by ideology as well as enthusiasm for

complex and potent technologies. As a result, solutions were factually centralized. There was no interoperability and without interoperability, the promise of decentralized identity, including the free movement of data, is simply not possible.

Today, the world looks different as global standard bodies (e.g. W3C, ISO, IETF, OIDF, DIF) and early implementors have been working hard on the development of open standards. For example, VCDM 2.0 and related specs reached CR stage and will soon be final, ISO/IEC 18013-7 rev1 got published featuring REST/OID4VP and ISO/IEC 18013-7 rev2 was proposed including W3C Digital Credentials API, OID4VP and OID4VCI new implementer's drafts were published and will be final in Q1 2025 and W3C Digital Credentials was proposed to mitigate issues of custom URL schemes in OID4VP and in the future OID4VCI (which will be supported by browser/platform vendors).

Moreover, regulators (e.g. EU, US, APAC) have been picking up these standards and are enforcing their adoption - such as OID4VC or ISO/IES 18013-5/-7. Finally, interoperability is demonstrated within a growing number of interop events and plug fests (e.g. EU Large Scale Pilots, eIDAS2 interop event series).

While we neither see, nor expect, convergence on a single standard (different technologies come with different advantages which should be utilized), there is a clear and inevitable trend towards the adoption of increasingly robust standards by vendors globally, which makes us optimistic about the future. Interoperability is becoming a reality and with it the promise of decentralized identity and a competitive landscape of vendors that rely on merit instead of lock-in effects.

Infrastructure & dev tooling enables builders

Developers are at the heart of every technological revolution. It follows that developer infrastructure and tooling are a force multiplier as they make building applications and use cases easier, faster and cheaper. This is particularly true for open source software like our Community Stack.

In 2024, usage of our open source stack grew by more than 30% month over month, indicating a strong expansion of the decentralized identity market as a whole. In line with this observation, we saw new players enter the market. Not only start ups, also incumbents from different digital identity verticals who are raising the stakes as

decentralized identity is becoming a clear priority for the future. We also saw the emergence of (and have worked with our customers on) new platforms that offer credential issuance, wallets and verification “as a Service” - either in a generic way or as refined solutions that are tailored to the needs of specific industries. As in the case of ID ecosystems, we saw consolidation in the market, such as by TBD winding down or Trinsic pivoting to an orchestration layer for identity acceptance.

Overall, developer infrastructure and tooling is becoming more robust, interoperable and the rising quality and quantity of open source solutions is really good news for builders, the market and global adoption. Today, building identity infrastructure and tooling in-house hardly ever makes sense. In other words, the foundation is ready, time for the next layer: applications.

Wallets enable adoption

The big platform owners launched ID wallets including Apple, Google, Samsung and Microsoft. In addition, ID wallets are being worked on or have even already been rolled out by large identity and technology companies as well as major players in banking and finance, crypto, telco, insurance or utility.

In last year’s letter, we noted that there were already roughly 3 billion payment wallets and that this number is expected to pass 5 billion by 2026. In 2024, we saw all major payment wallet providers rolling out ID wallet capabilities - followed by a number of behemoths with gigantic user bases.

Overall, we expect global adoption of identity wallets to proceed quickly and swiftly, thanks to the existing wallet infrastructure (and the learned user behaviour) for payments and, increasingly, crypto. We expect that most people in the world will own phones with identity wallets over the coming 2-3 years, while the utility of these wallets will grow as the market - particularly businesses - adopts decentralized identity (for credential issuances and verification).

The state of walt.id

In 2024, we grew our team and worked hard on our open source solution - The Community Stack - to ensure that it can serve a solid foundation, not only for our customers but also for a new enterprise-grade product, which we launched in October: The Enterprise Stack. Finally, we significantly grew traction, recurring revenue and the number of strategic distribution partnerships, but more on this later.

Importantly, we stayed true to our strategy. We understand that our strength lies in building infrastructure and developer tools, so we doubled down on our infrastructure products in order to abstract multiple ID ecosystems while ensuring regulatory and standard compliance for our users and customers. Instead of building our own apps (like wallets), we shipped SDKs that make it easy to build apps. Instead of launching our own SaaS solution, we launched the Enterprise Stack, which extends our open source solution with powerful capabilities that make it easy for anyone to build digital ID platforms and offer credentialing, wallets or verification "as a Service" to their own customers.

walt.id | We enable market trends and drivers

Time to dive deeper into different business areas: Product and technology, go-to-market and adoption as well as, most importantly, our people.

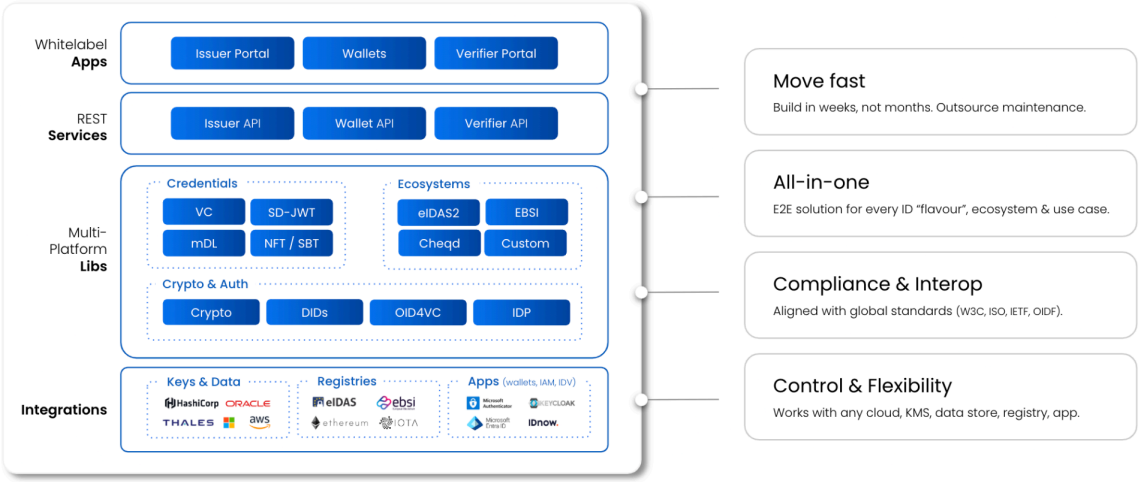
Product & Technology

In 2022, we launched more than five open source libraries enabling Self-Sovereign Identity (SSI), NFTs, wallets, zero-trust storage and an Identity Provider (IdP).

In 2023, we did a complete refactoring and launched The Community Stack which made our solutions more modular, performant, easier to use and brought them to new platforms. Also, we added support for +10 ID ecosystems and all major credential or token standards (e.g. W3C VC, SD-JWT VC, ISO/IEC 18013-5 mDL/mdocs, ERC-721), launched white-label apps (wallet, claim and verifier pages) and demonstrated interoperability with +25 vendors.

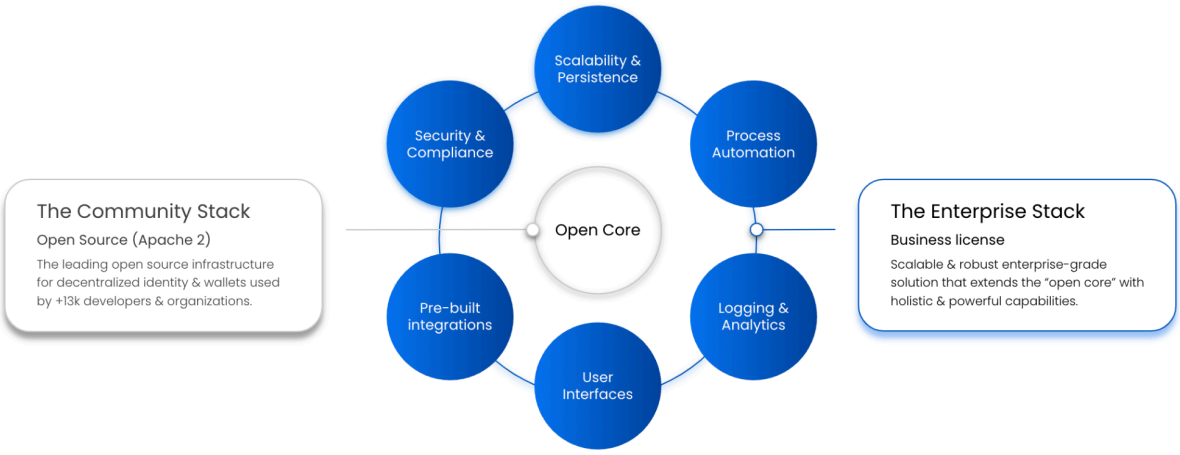
In 2024, we published 10 new releases of the Community Stack which added lots of new capabilities, included refactoring of existing libs and APIs, introduced new libs (e.g. policy lib, AuthNZ lib, permissions) and mobile SDKs (iOS, Android) and ensured continuous alignment with evolving standards. Also, we built integrations for third-party infrastructure, for example, major KMS vendors (e.g. Microsoft, AWS, Hashicorp, Oracle) to give our users full flexibility in choosing where and how they want to manage keys. We also improved our dev experience, docs and started to double down on enhancing code quality by improving our (e2e) testing framework, QA and release management. Finally, we demonstrated interoperability with numerous vendors, for example, in the context of customer projects (e.g. Microsoft Entra Verified ID) or within several of the EU's "Large Scale Pilots" for EBSI and eIDAS2.

Product Editions | The Community Stack

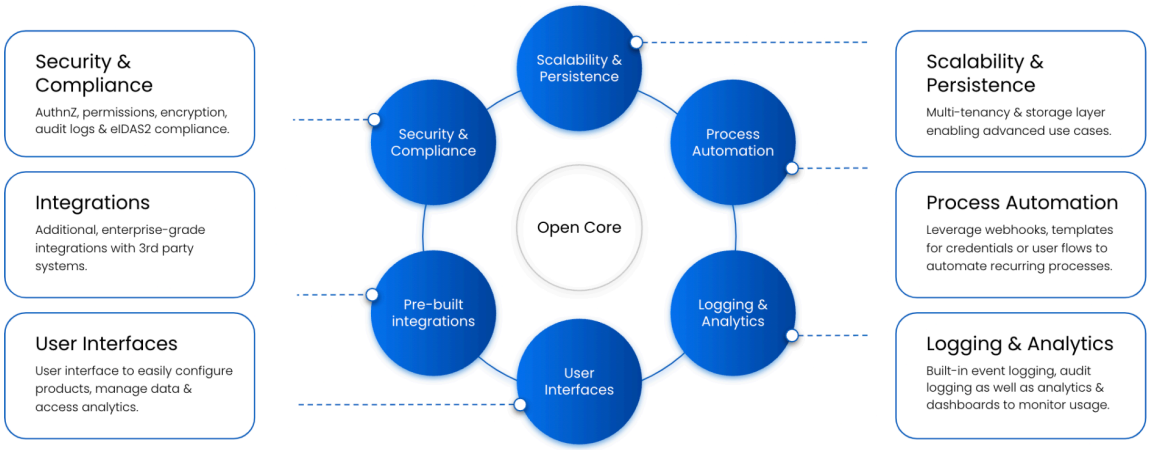


On top of this, we launched our new enterprise-grade product, the Enterprise Stack, which extends our "open core" (i.e. the Community Stack) with powerful capabilities for large organizations, businesses who are building SaaS platforms and resellers.

Product Editions | Community Stack & Enterprise Stack



Product Editions | The Enterprise Stack



Go-to-Market & Adoption

In 2022, the market was largely pilot driven and most of our traction came out of Europe.

In 2023, we saw interest in decentralized ID expand beyond Europe and started to work with customers in the Middle East, Asia and North America. We also worked with standardization bodies to help drive interoperability. We started to grow our community, our open source solutions were used by thousands of developers and we moved to production with our first customer.

In 2024:

- We grew adoption of our open source solution - The Community Stack - by 30% MoM on GitHub (unique clones) and 400% YoY on Docker (pulls), taking our user base to five digits and including start ups, governments and business giants like Oracle.
- We launched our enterprise-grade product - The Enterprise Stack - which is available via a license (and SLAs) and already used by selected clients who are building powerful apps and SaaS platforms on top of it. (2025 will be a year of big announcements!)
- We grew topline revenue but, more importantly, we introduced support contracts and went from zero to six-figure ARR from customers in Europe, the US, the middle east and Asia.
- We published 36 pieces of content, including blog posts, videos, two eBooks and were invited to speak at multiple podcasts and conferences.
- We established more than 10 global distribution partnerships with large technology companies, integrators, digital transformation and consulting businesses with whom we are tackling our biggest private and public sector projects.

People & Careers

We are lucky, in that we have been joined by really, really great people. As a remote company, we hire internationally and are now represented on four continents, yet united under the common vision of creating a digital world in which every interaction is effortless and worry-free. Importantly, we hire, live and are measured against our

company's values and what it means to be a *waltian*: We are pioneers and builders who thrive in an environment of transparency and autonomy. Read more here.

Thanks to our growing customer base and revenues, we were able to hire three amazing people in 2024: Ale joined us from Brazil and helped us to build up customer and developer success. Charalampos and Christos joined us from Greece. Christos is an architect and developer with a PhD in and a lot of love for cryptography and clean code. Charalampos quickly grew into his role as developer of our core infrastructure and became an internal champion for standards and interoperability.

We also kept up with our traditions and ceremonies. For example, we had two team retreats, which are basically two weeks of paid vacation with the team where we eat great food, explore and have a good time. The first team retreat was in Istanbul, where the west and east came together to form a beautiful city that is full of life and a really good breakfast.

In May 2024 ...




... we spend a week in Istanbul.

And booked a whole apartment building - incl. rooftop terrace

For our second team retreat, we flew everyone to our home base, Vienna, where we spent a lot of time at traditional Christmas markets and Austrian restaurants. It even snowed briefly on the last day.

In December 2024 ...




... we flew everyone to Vienna

for Christmas markets, snow and holiday mood.

Outside of our team retreats we continued our bi-weekly company-wide *demo sessions* (where devs show off their work) and monthly *company updates* (where each month's progress is laid out and discussed). We also added new ceremonies like post-mortems (dev process, release cycle), garbage days (where we clean up code) and holistic product reviews (from architecture and code to devX and docs).

We could not be more proud of our team and their accomplishments and we cannot wait to meet the people who will join us in 2025. You can find current jobs here.

Conclusion & way forward

Decentralized identity is here. Governments and businesses are building solutions across verticals and use cases via an increasingly sophisticated set of developer infrastructure and open source tooling like The Community Stack. An existing and fast-growing (payment) wallet infrastructure, already used by billions, will unlock global adoption of identity wallets within the next 2-3 years. Standards mature to make open, interoperable and user-centric systems possible. Identity ecosystems emerge and ensure trust based on shared technical infrastructure and governance frameworks. Regulations open up data supply and demand while ensuring privacy and security and legal certainty.

Get more insights **here** or start building **here**. If you have any questions, **reach out**.