

# SDX: Next generation of financial market infrastructure built on DLT

Introduction to SIX Digital Exchange AG

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# Agenda

1. Introduction: From FMI to DMI
2. SDX Digital Asset Platform and Service Offering
3. Considerations and Lessons learned
4. Q&A

# 1. Introduction: From FMI to DMI

# SIX Digital Exchange sets the standard for digital assets, embedded in the existing financial market infrastructure environment

Since it was founded in 2018, **SIX Digital Exchange (SDX) is an integral part of SIX Group**, the infrastructure operator of the Swiss and Spanish financial centers which is owned by 120 Swiss banks<sup>1</sup>.

In addition to market access, **SDX offers issuing, trading and custody of digital assets** based on innovative distributed ledger technology (DLT). The company operates the digital market infrastructure for digital assets with 120+ employees under a full FINMA license in the form of an **integrated central securities depository and stock exchange**<sup>1</sup>.

SIX Group's high security and reputational standards are a key element in the issuance, exchange and custody of high-quality assets within a regulated framework.

## Our core pillars



### Fully regulated

SDX as the fully regulated source of trust.



Token

### Digital assets – Tokenized cash

The market where all value is listed, exchanged and stored.



### Full value chain

From issuance, via transfer and settlement to custody.



### B2B model

Purely focused on business clients on a permissioned chain.

1) As of March 2022

2) <https://www.finma.ch/en/news/2021/09/finma-issues-first-ever-approval-for-a-stock-exchange-and-a-central-securities-depository-for-the-trading-of-tokens/>

# 2. SDX Digital Asset Platform and Service Offering







# We have built a fully integrated stock exchange and CSD - ready to compete in international key markets




**Trading System** same as SSX<sup>1</sup> is using today, integrated to DLT<sup>2</sup> at **matching point**.




**Centralized orderbook** **connected** with distributed ledger technology to enable integrated trading



**New market model** that supports integrated trading and atomic settlement based on well know price finding mechanism



**Market surveillance** based on SMARTs, the system that SER<sup>3</sup> and SSX<sup>1</sup> is using today




**Market Data publication** fully integrated in existing SIX Exfeed



The first **regulated CSD** to distribute holdings of assets based on DLT where the members hold the assets under their private key




The first company in the world integrating **tokenized CHF** backed by deposits at SNB<sup>4</sup> to enable DvP<sup>5</sup> exchange of tokens




Fully tokenized **DvP settlement** on the CSD<sup>6</sup> layer



Fully integrated in the **connectivity layer** of SIX to enable quick onboarding of existing clients

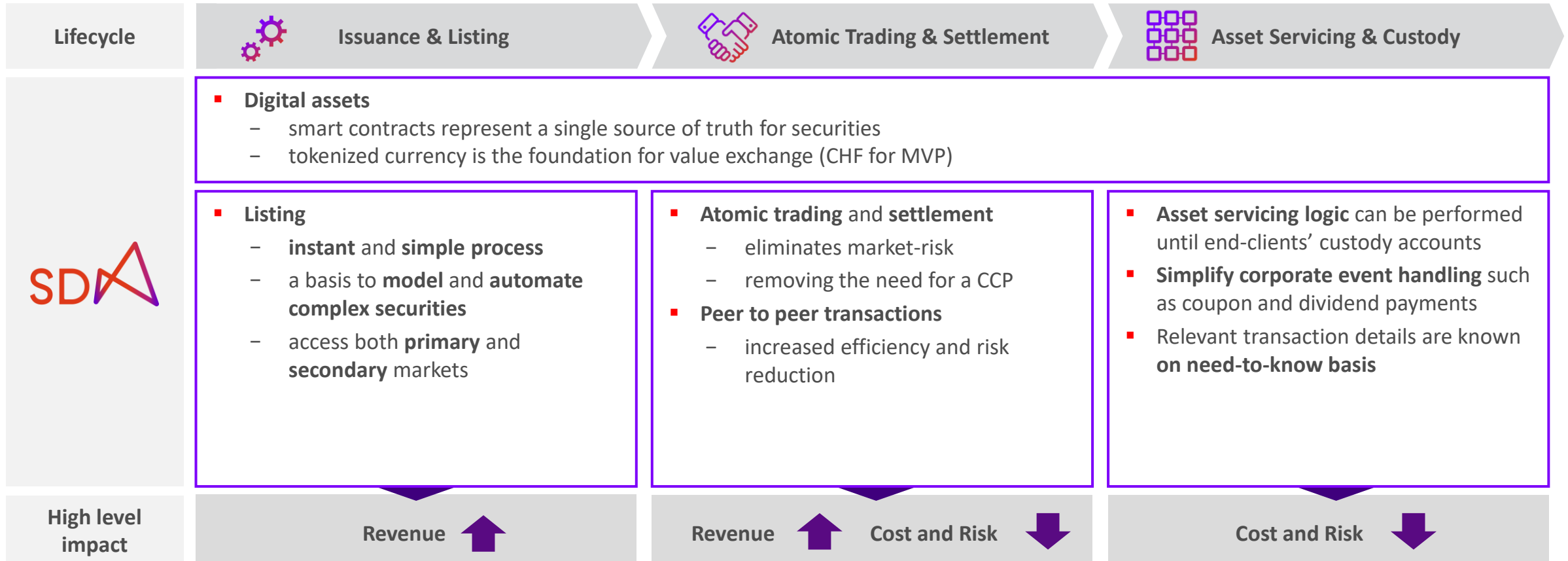


First proof of **automated asset servicing** based on smart assets for bonds and equities



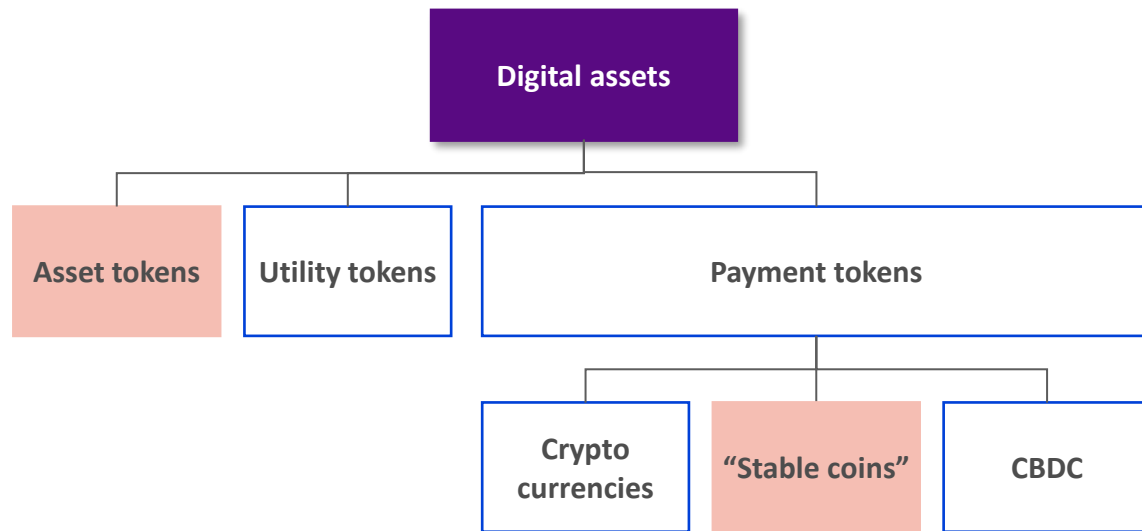
1 SIX Swiss Exchange  
 2 Distributed Ledger Technology  
 3 SIX Exchange Regulation  
 4 Swiss National Bank  
 5 Delivery-vs-Payment  
 6 Central Securities Depository

# SDX as known and trusted partner to build a Digital Asset Ecosystem and explore new opportunities



# SDX's initial offering focuses on securities tokens settled and custodied on a private, decentralized infrastructure

## SDX initial offering includes digital bonds and equities



Examples:

Digital Bonds/Equities



TaelPay



Bitcoin



SDX TCHF<sup>1</sup>



Project Helvetia



## Comment

- **Digital assets** are investable stores of value that can be traded on digital platforms
- **Digital tokens** include security tokens and utility tokens
  - **Security tokens** represent the ownership of assets such as equity, debt, real-estate, commodities or exotic asset classes (e.g., collectables, patents, IP)
  - **Utility tokens** represent future access to a company's product or service
- **Digital currencies** include cryptocurrencies and fiat tokens
  - **CBDC's** are backed or issued by a government (as issued by central bank) – increasing number of central banks involved with CBDC research and development
  - **Crypto currencies** are independent digital currency with no underlying asset and no central regulating body (value established through supply and demand) – representing majority share of all digital assets today

1) Tokenized commercial bank money



# Collaborating with BIS Innovation Hub and Central Banks to lay the foundation for settling tokenized assets in wholesale CBDC



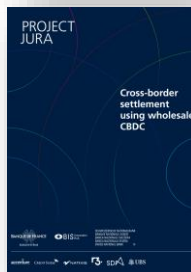
## Helvetia Phase I (completed in December 2021)

- Issuing a wholesale CBDC onto a distributed digital asset platform;
- and linking the digital asset platform to the existing wholesale payment system (SIC)
- The initiative demonstrated the feasibility and legal robustness of both alternatives



## Helvetia Phase II (completed in January 2022)

- Integration of wholesale CBDC (wCBDC) in core banking systems
- Settlement of interbank, cross-border and monetary policy transaction using wCBDC
- Legal assessment of solution design and considerations on alternative settlement options

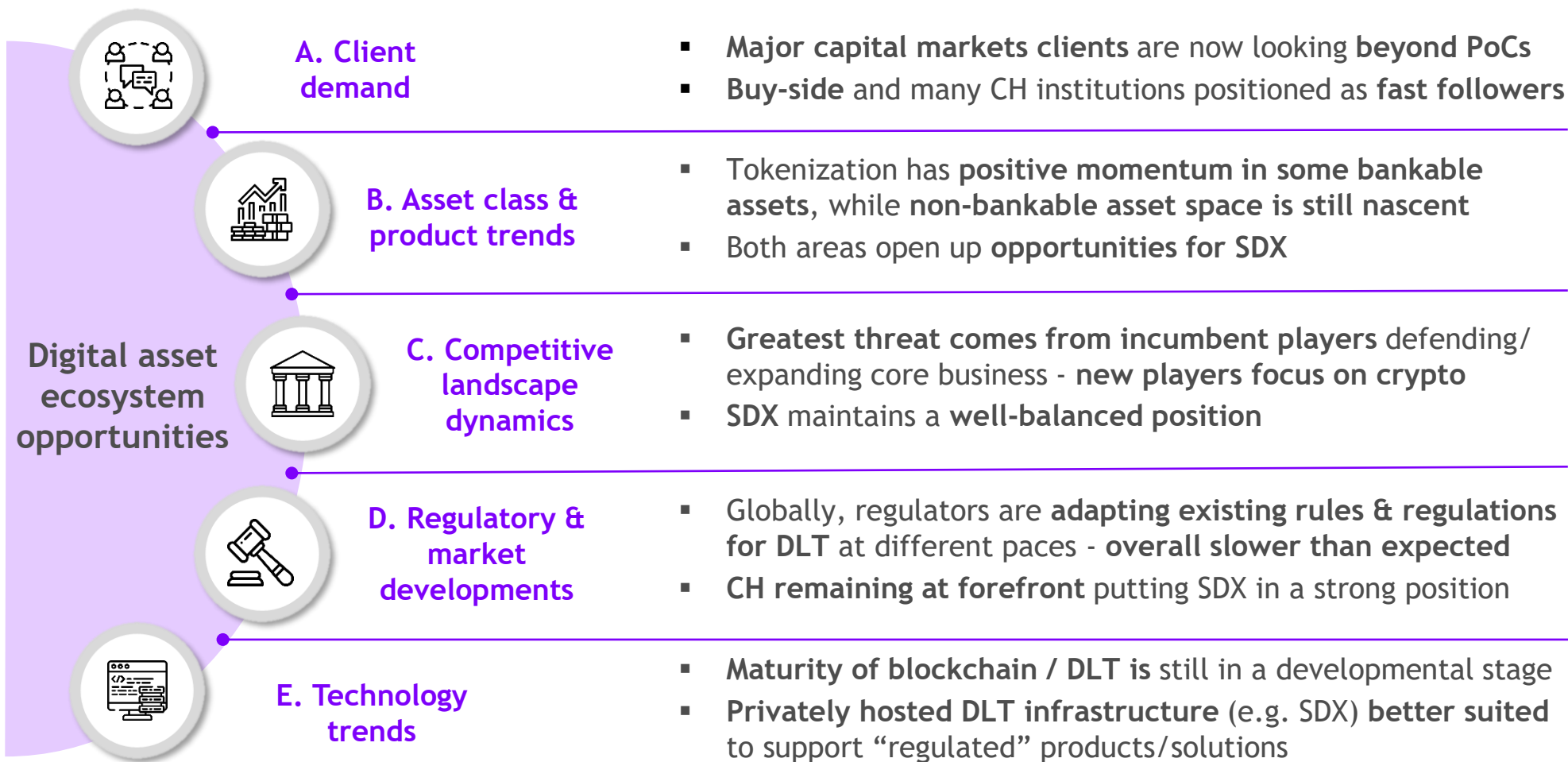


## Jura (completed in December 2021)

- Settlement of cross-border and cross-currency transactions in wCBDC on a single multilateral platform
- Emphasis on governance, including controls for central banks, when issuing wCBDC on a platform that is owned and operated by a third-party

# 3. Considerations and Lessons learned

# New Opportunities: Adapting the evolving developments in the digital asset industry (incl. challenges)



Market dynamic re-confirm SDX's early mover positioning & investment to build the next generation financial market ecosystem

# 9 Key Lessons learned during the Project life cycle

## Freedom to innovate

*Group took decision early in the project life cycle to foster innovation by providing SDX larger degree of independence, decision making & flexibility*

## Aligned communication strategy to delivery methodology

*While the project was setup to be delivered in an agile way, the project targeted and communicated a fixed timeline as of day 1*

## Consider staffing constraints when establishing the project org

*Quick ramp-up of the organization led to unclarities around roles and responsibilities  
Experienced substantial resource and knowledge gap at the beginning of the project*

## Learn to «fail fast» even faster

*In order to succeed in an emerging space such as the Digital Asset / Crypto space, it is crucial to have the flexibility in place to constantly adapt the approach*

## Strengthen SIX Spirit and drive group-wide change

*Through interactions with the wider group, the project cont. demonstrated the agile mindset, esp. in rapidly devising, and evaluating leaner processes and technology approaches  
We strove to create a culture that nurtured an entrepreneurial mindset across the organization to ensure our ability to be nimble and agile*

## Setup flexible org to retain ability to deliver despite uncertainties

*Usage of SAFe resulted in high administrative overhead and reduced reaction time  
Global pandemic led to mandated remote work causing silos and slow down effective communication*

## Balance between degree of innovation and client / stakeholder risk appetite

*Coming from a traditional and established corporation naturally implies more boundaries and a lower risk appetite*

## Strong commitment is key for success

*Group showed strong commitment from the beginning to keep the grand vision and ambition alive and to drive innovation in the context of the Swiss Financial environment*

## Keep focus on MVP when navigating nascent markets

*Initial market sentiment and uncertainty in the market resulted in the need to re-focus the scope  
Limited client readiness resulted in challenges to distill clear USP and get early client commitment*

# Questions and Answers



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