A trusted partner
for post-trade financial services

ECB OMG – December 5, 2019

CSDR Settlement Discipline is coming

The focus of this EU Regulation is:

Settlement Efficiency

This has been - and remains - one of Euroclear's long-standing priorities

We are continuously identifying and exploring ways to further improve it

And now we are also exploring how to support the buy-in process if trades should fail

Our approach towards settlement efficiency

Various tools to prevent settlement fails

- Settlement priority flags
- Optional settlement window
- Auto-borrow service
- Opportunity borrowing service
- Credit service
- EASYWAY with realtime reporting
- Taskize: inter-company workflow to resolve settlement fails faster

Securities lending in support of settlement efficiency

Drivers

Fail Curing

Collateral Conversion

Investment strategies (short selling, cheapest to deliver, ...)

Trends

Market volume driven

Need for high quality collateral (EMIR, Dodd Frank, Basel III)

Reduced leverage and limiting regulation

Euroclear Offering

Autoborrow

(Automatic Securities Lending and Borrowing)

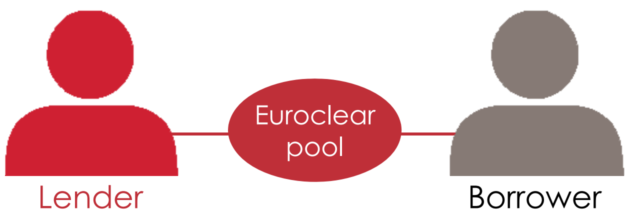
GC Access

(Strategic borrowing)

Securities lending solutions in more detail

Autoborrow - A convenient way to cover your failing deliveries and increase your settlement efficiency

Automatic fail-driven lending



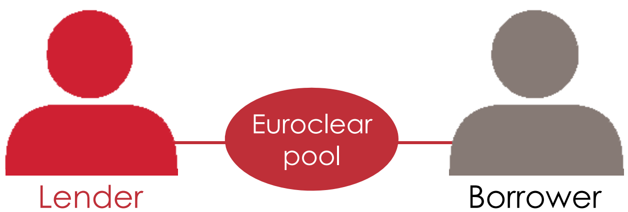
Increased efficiency, reduction of fails & anonymity

- Access to a €1.5 trillion lending pool
- Boost your settlement efficiency by up to 5%
- Completely automated - no additional workload for you
- Helps you to avoid CSDR-Settlement Discipline penalties and buy-ins
- Available in Euroclear Bank and in local markets (Euroclear France and Crest) and via your agents Citibank and BNP Paribas Securities Services throught our Open Inventory Sourcing service

Securities lending solutions in more detail

GC Access - Your access to high quality liquid assets

Strategic lending



Large pool, street lending fee levels & Anonymity

- Access to €500 billion high quality assets
- Entry to the PSPP securities of various European Central Banks
- You borrow from Euroclear Bank at street levels
- Collateralisation using TSL
- Limited number of collateral profiles
- We do all the rest!

GC Access

Loan Arrangement
- Review available securities
- Agree deal term with GC Access desk

Loan Collateralisation
- First delivered to Euroclear Bank
- Then onward delivered to the lender
- We insruct for you

Loan Settlement
- Automated settlement instructions
- Conditional on collateral settling

Loan Lifetime
- Daily mark-to-market
- Margin calls and substitutions
- Recalls and returns, income payments

CSDR Settlement Discipline

LEGAL FRAMEWORK

CSDR Regulation (EU) No 909/2014 CSD Regulation (23 July 2014)
Regulatory Technical Standards on settlement discipline (13 Sep'2018)
ESMA Q&A (27 Sep' & 12 Nov'2018, final version expected Q1'19) + Guidelines (TBC)

Measures to Prevent Fails

- **CSD Matching process**
  - Continuous matching
  - Mandatory fields
  - Cash tolerance
- **CSD Settlement process**
  - Real time, automated process
  - Partial settlement
  - Hold and release
  - Bilateral cancellation
  - Recycling
  - Linkage
  - Technical netting
- **Report manual interventions**

Measures to Address Fails

- **Cash penalties**
  - Imposed by CSDs and CCPs
- **Mandatory buy ins**
  - Initiated by trading parties / CCPs
  - Reporting by CSDs
- **Monitoring of fails**
  - Reporting to Regulators by CSDs
- **Suspension of CSD Participant**
  - In case of continued fails

ECSDA Framework: Market Practice (working document)

Cash Penalties
Scope

Criteria to be subject to penalties

- The place of settlement is a CSD in the E.E.A.
- Securities traded in an EU venue or cleared by an EU CCP - excluding shares for which the principal trading venue is located in a 3rd country
- Instruction is matched and has reached its intended settlement dated (ISD)
- Settlement status pending at the cut off of the relevant settlement window
- Penalties apply on instructions sent after settlement date
- Penalties apply on cancelled instructions

Scope of penalties is broad: market players should monitor reasons for fails in preparation of launch of CSDR settlement discipline

Cash Penalties
Scope

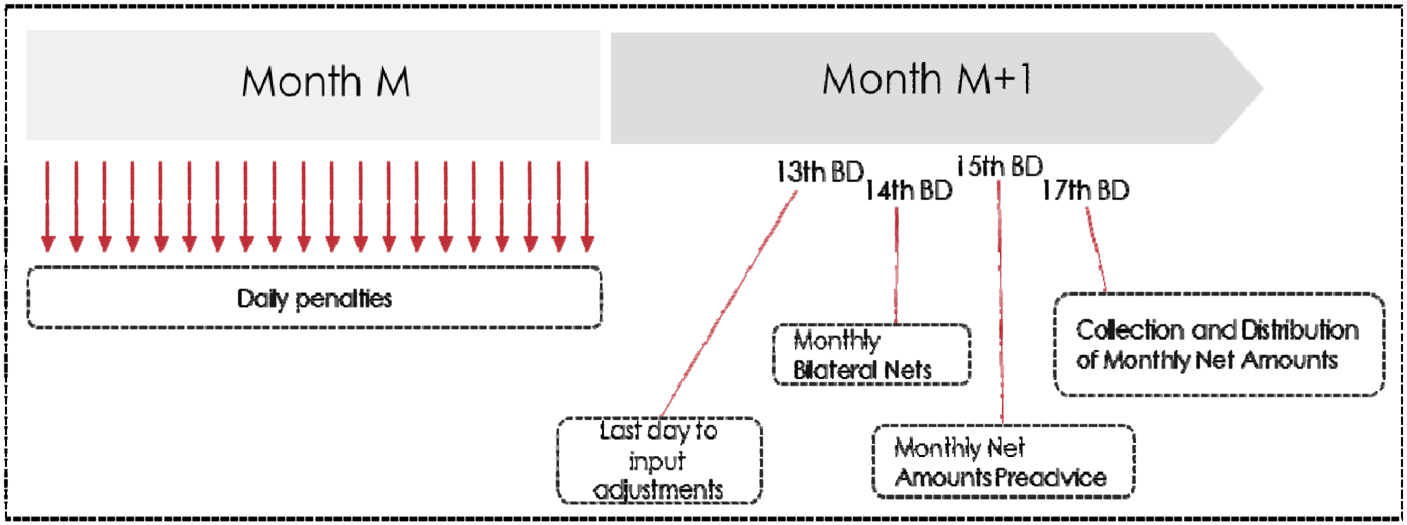
Our understanding instructions **not in the scope:**

- Corporate actions on stock, bond redemptions
- Where insolvency proceedings have been opened against the failing participant
- Instruction in an ISIN is suspended from settlement due to a reconciliation issue
- Fails relating to a technical event in the CSD that prevents settlement

Scope of penalties is broad: market players should monitor reasons for fails in preparation of launch of CSDR settlement discipline

(1) https://registers.esma.europa.eu/publication/searchRegister?core=esma_registers_firds
(2) Article 16 of Regulation (EU) No 236/2012: "Short Selling Regulation (SSR)" exempted instrument list:
https://registers.esma.europa.eu/publication/searchRegister?core=esma_registers_mifid_shsexs

Cash Penalties Process
Calculation, payment & reporting



Reporting

- Daily and Monthly Reporting
- Via Easyway, SWIFT, Managed File transfer (MFT), FileAct
- In ISO and CSV

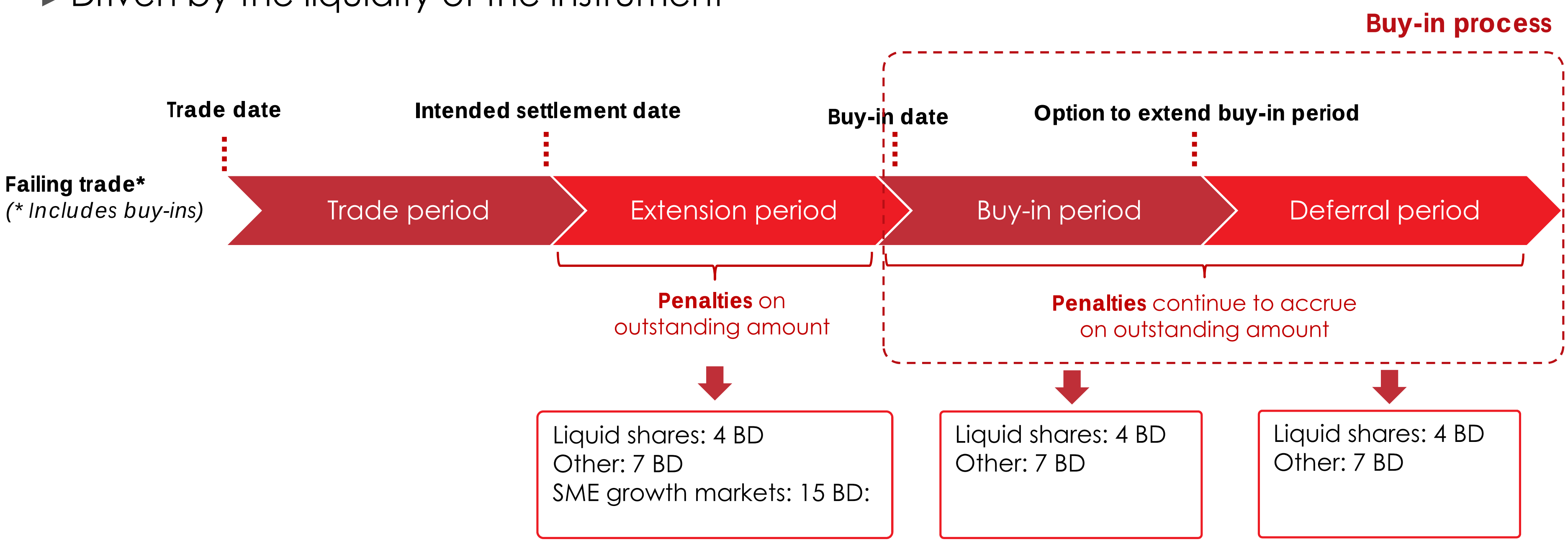
Payment process details working assumptions:

- Direct debit by the CSD
- In a limited number of currencies
- Redistribution before full collection

There are items still under industry discussion

Buy-ins
Scope

- **Mandatory** buy-in if seller fails to deliver the securities by the end of **extension period**
  - Except if:
    - Instrument no longer exists
    - Trading counterparty is subject to insolvency proceedings
    - Short-term repurchase transactions
- **CSDR Settlement periods**:
  - Driven by the liquidity of the instrument



Buy-ins
Impacts for CSD & CSD participants

Regulatory obligations

Buy-in process

Who is responsible to detect, initiate, follow-up and inform involved parties?

- CCP for transactions cleared by a CCP
- Receiving trading venue member for transactions not cleared by a CCP and executed on a trading venue
- Receiving trading party for transactions not cleared by a CCP and not executed on a trading venue

Buy-ins
Impacts for CSD & CSD participants

Regulatory obligations

Important information

(I)CSD **record keeps** the following non-transactional data:

- Buy-in initiated
- Number of securities bought in
- Price of securities bought in
- Cash compensation amount

(I)CSD cannot 'deduce' buy-in information from its system as:

- The buy-in transaction can settle in another CSD
- Cash compensation does not need to settle in a CSD

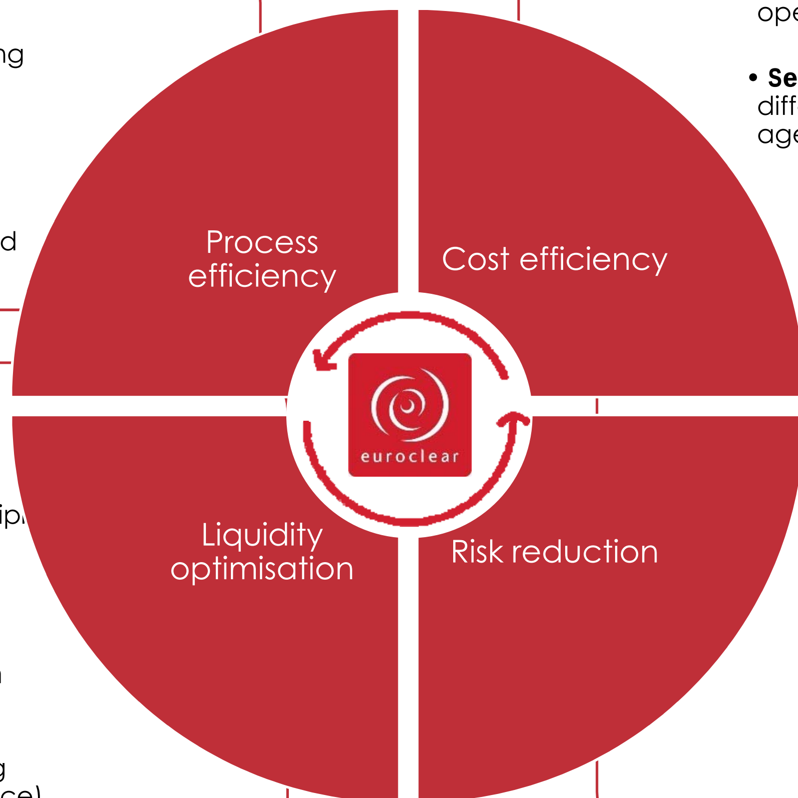
(I)CSD often has no contractual relationship with the ultimate buyer

Industry challenge = information will need to pass through the holding chain!

Buy-ins
Industry challenges

- Complex process risking further **fragmentation** across EU & create uncertainty for transactions crossing EU border
- Involved parties have no contractual relationship
- **Time-consuming** for all concerned parties

- **All involved parties:** new operational processes
- **Seller**: cost of the buy-in (price differential & premium buy-in agent)



- **Settlement chain** resulting in multip
buy-ins for same (illiquid) security
- **A-symmetrical** compensation
- **De-incentivizes liquidity provision**
- **Cost for the economy** (increased bid-offer, absence market making less liquid securities, impact issuance)

- New **operational** risks
- **Buy-side** who does not want cash compensation
- **Market makers** do not hold securities in inventory (balance sheet)
- **Legal disputes** on compensation price

How can we tackle the buy-in process more efficiently

TRADE PERIOD → EXTENSION PERIOD → BUY-IN PERIOD

CSD services

Proactive services ↓

Proactive services ↓

Store final buy-in information ↑

Taskize workflow management

CSD client / External provider

↓↑ ↓↑ ↓↑ ↓↑ ↓↑

Manual or automated

15 minute briefing with CSDR Settlement Discipline

Phil Slavin

COO and co-founder

Taskize is **inter-company** workflow

Open a ticket in one firm, and resolve it in another

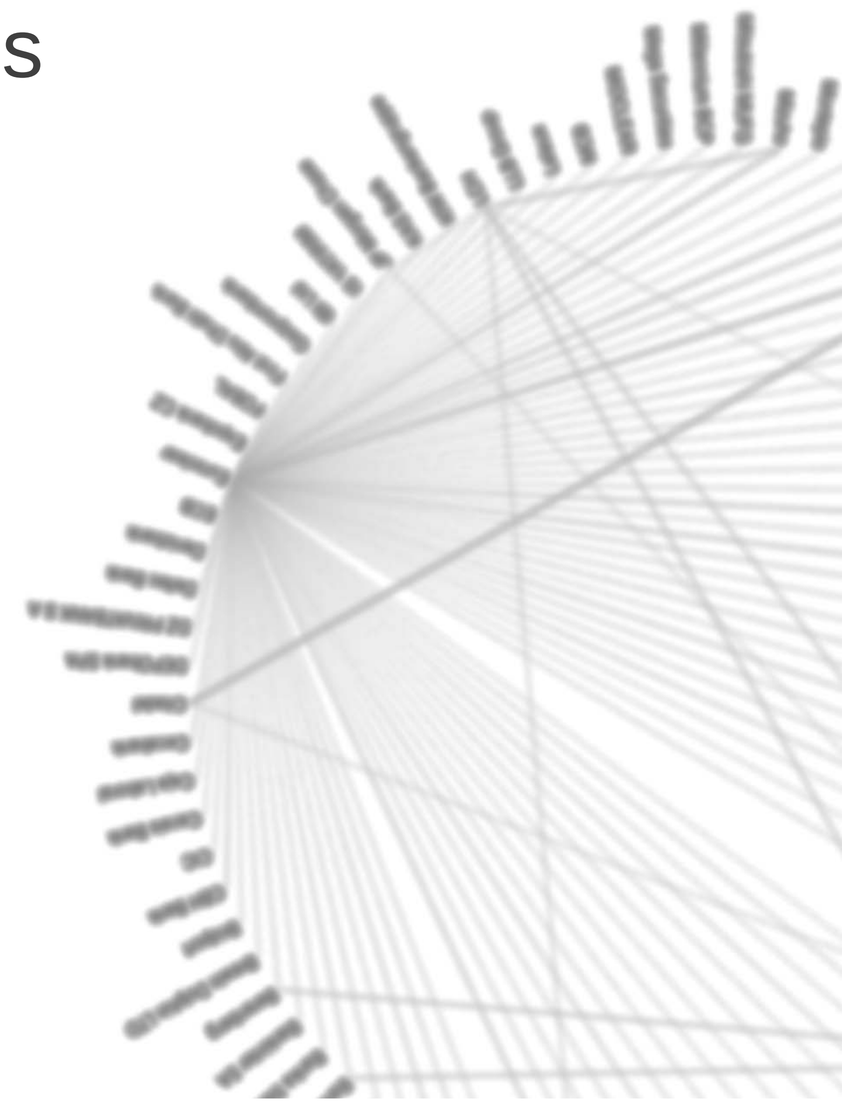
Taskize is **mature**

195 live clients in 50 countries

Growth in 19H2

Clients	16%
Users	32%
Activity	26%

Audited to SOC 2 type 2



Taskize is **collaborative**

Taskize is **required**

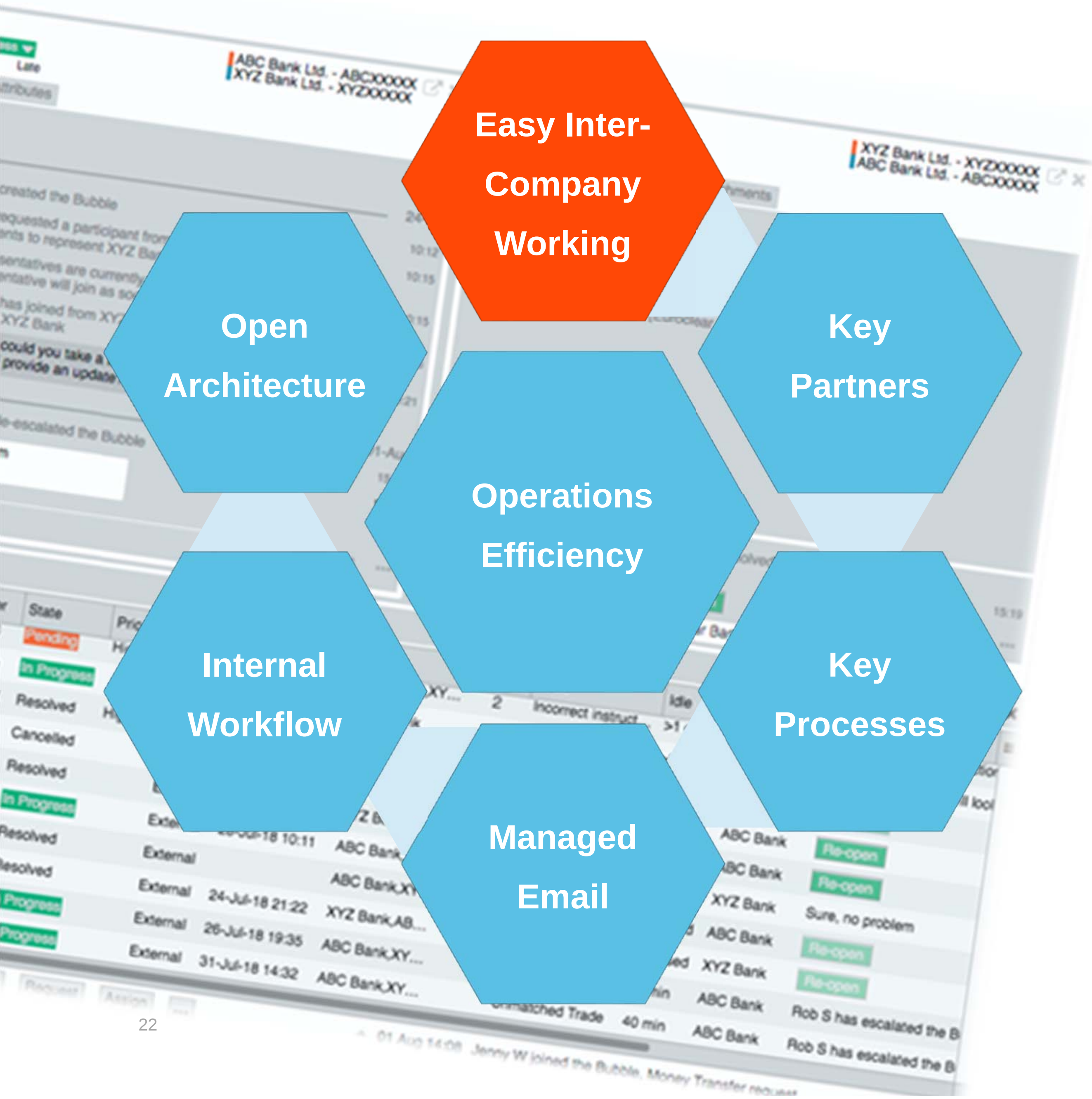
Video at Taskize on LinkedIn

CITADEL

"We've leveraged Taskize to give us the ability to manage our workflows with our suppliers."

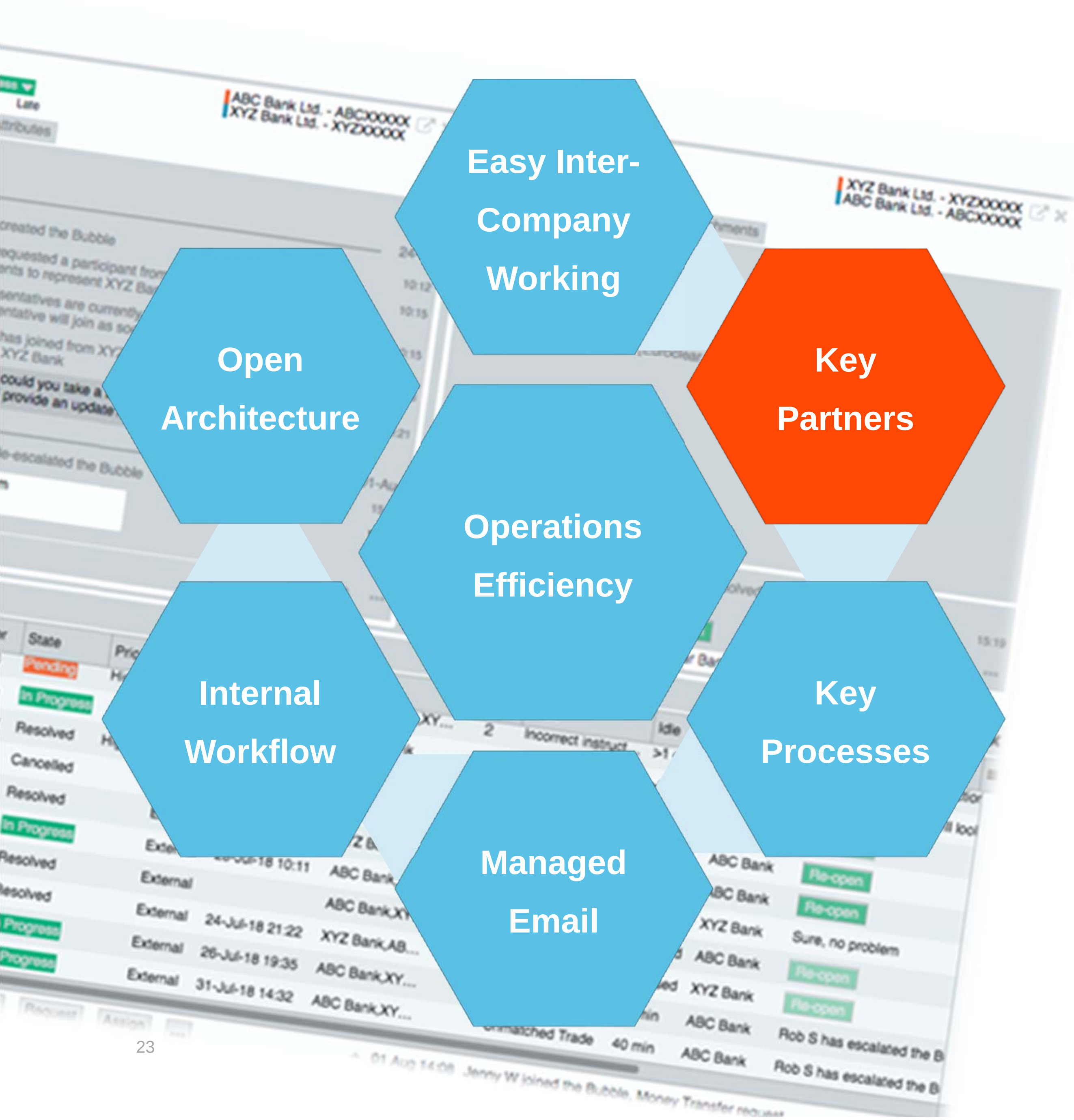
Steve Marx, US Head of Operations at FIA Expo 2019

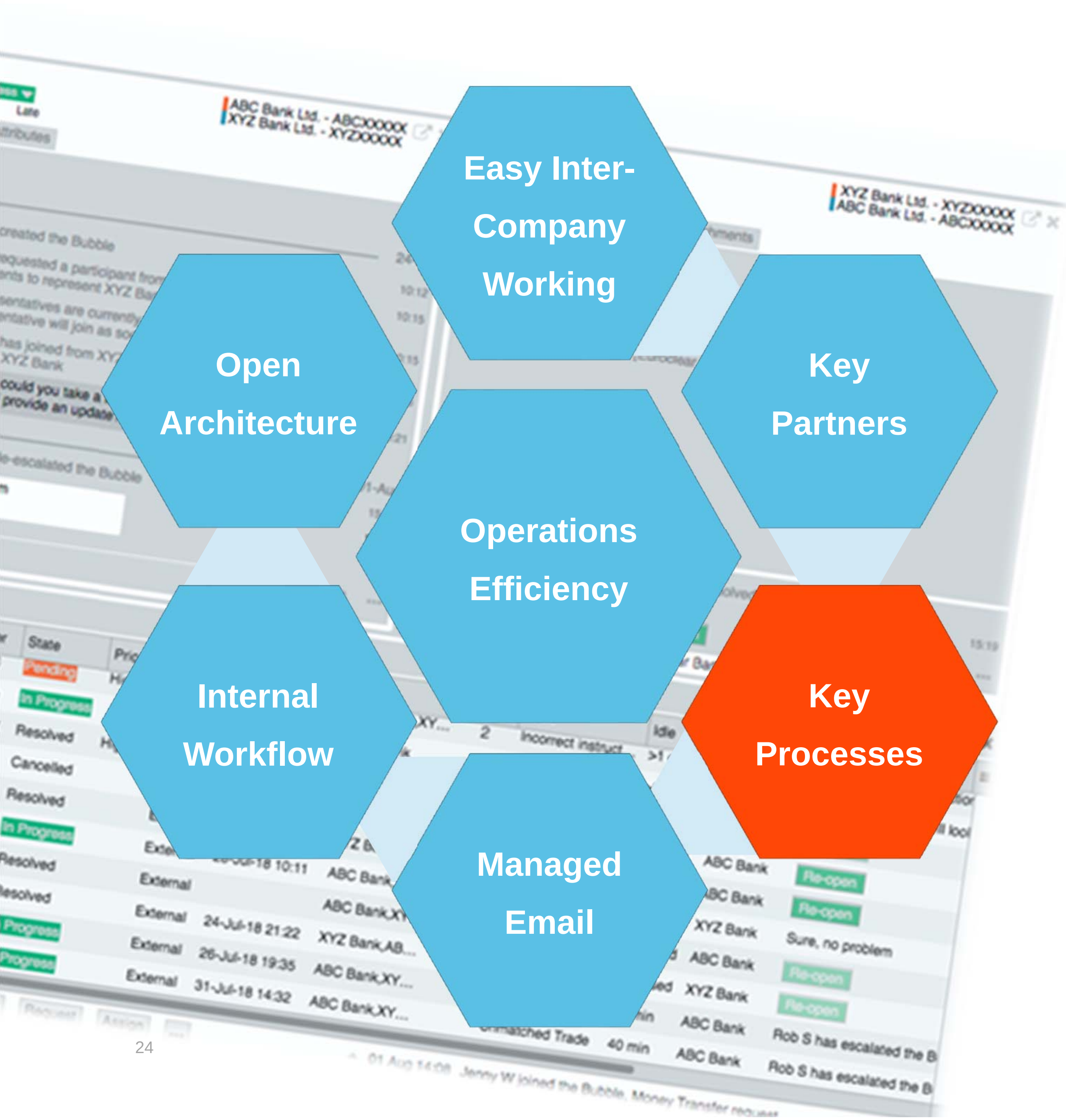
Taskize



Allocate work to counterparties easily

- ✓ Improve service levels
- ✓ Know what's happening
- ✓ Prevent data loss
- ✓ Reduce email
- ✓ Avoid phishing


Easy Inter-Company Working
Open Architecture
Key Partners
Operations Efficiency
Internal Workflow
Key Processes
Managed Email

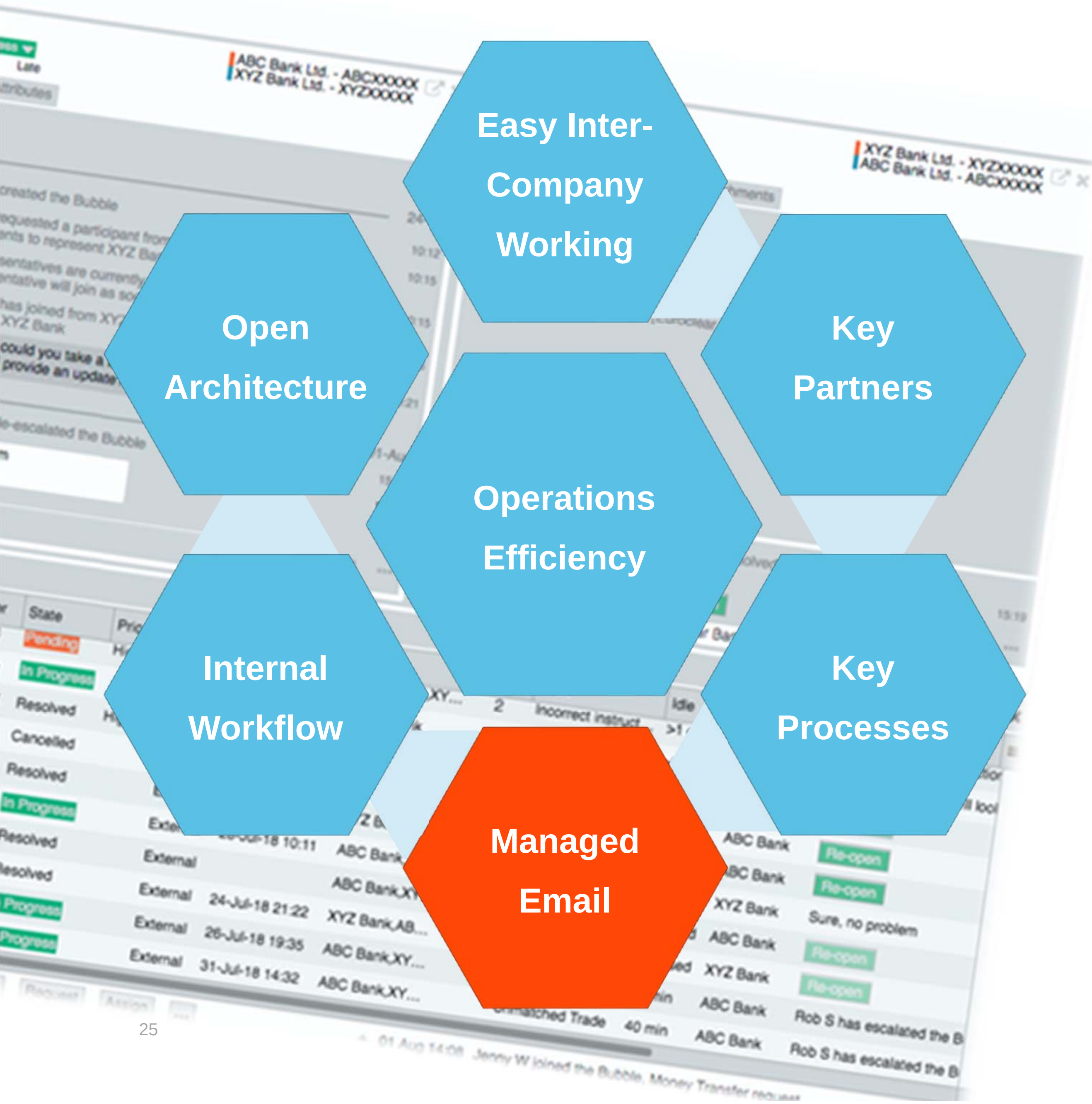


Key processes live for:

- ✓ Collateral queries
- ✓ Corporate actions
- ✓ Settlement breaks
- ✓ Tax enquiries
- ✓ Investigations
- ✓ Margin dispute / query
- ✓ Buy-side to outsourcer

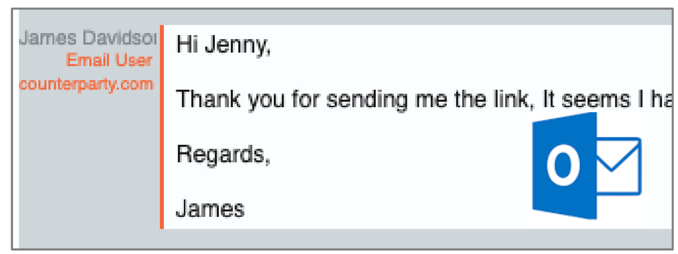
Early 2020

- ✓ **CSDR SDR collaboration flows**

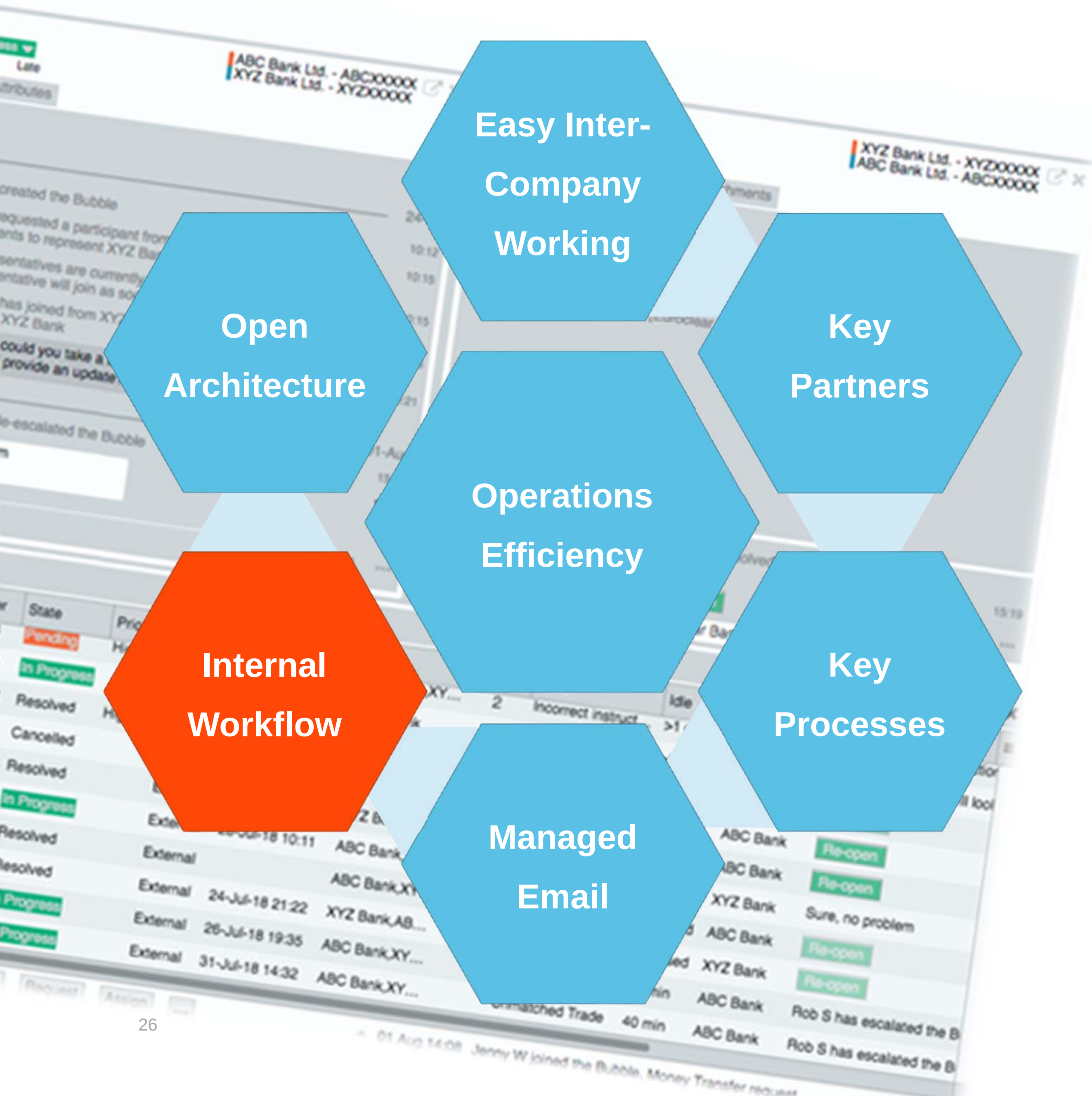


Email in Taskize

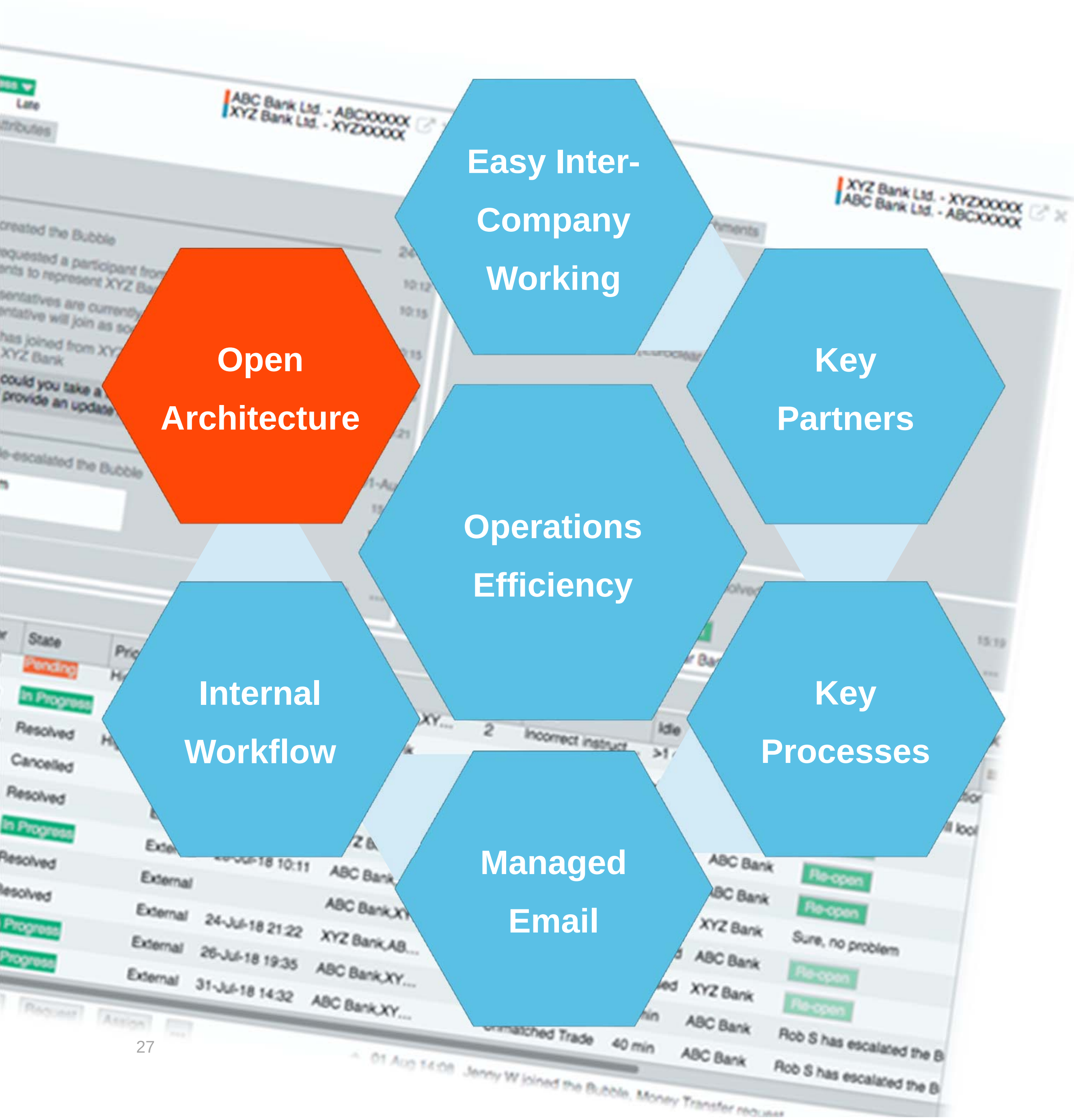
- ✓ Enables easy transition
- ✓ Support legacy users
- ✓ First phase live



For best results use Taskize end-to-end

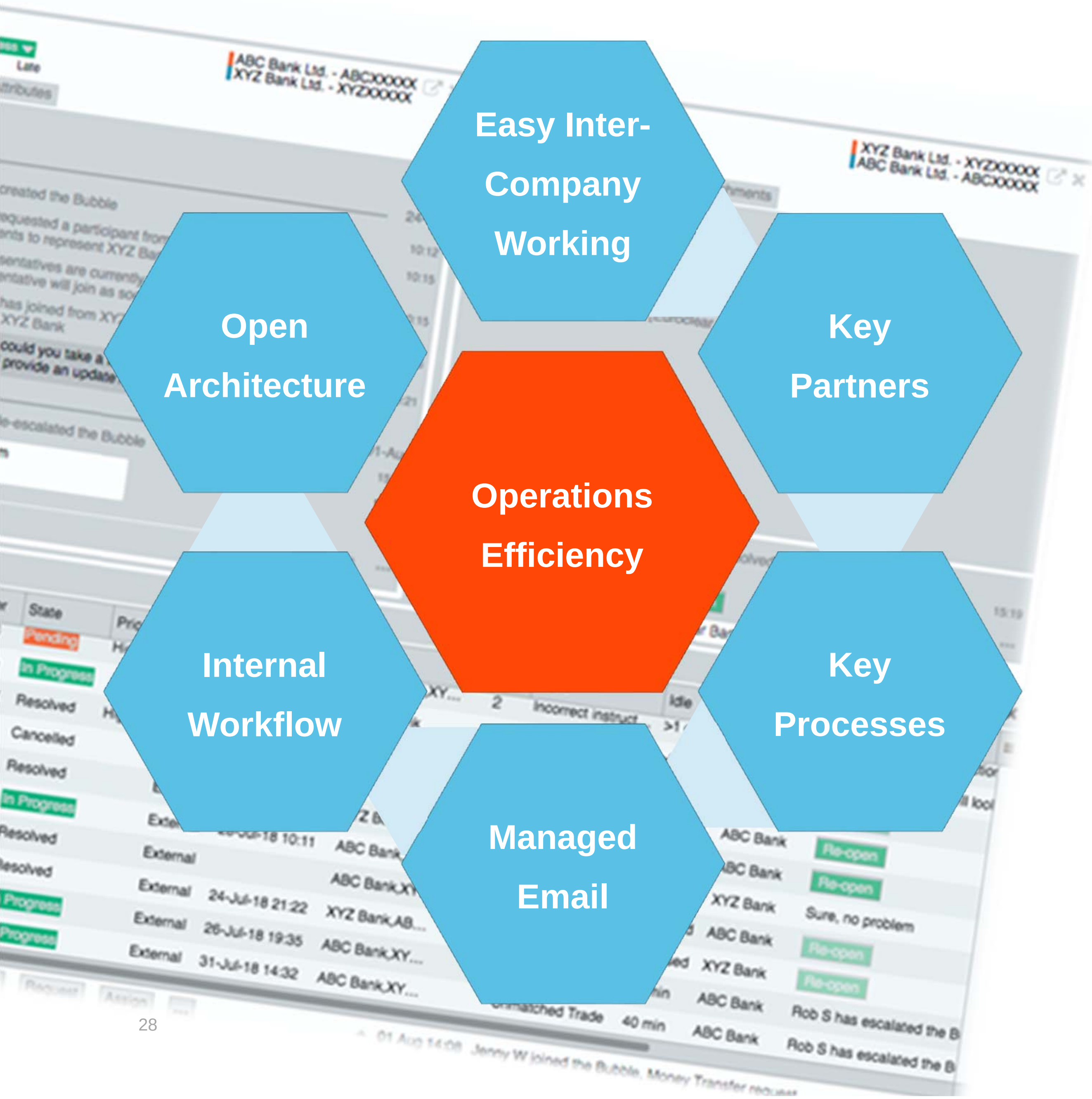


- “Tier 1” workflow for all institutions
- Smart directory to navigate your own organisation
- Reporting
- Fast onboarding

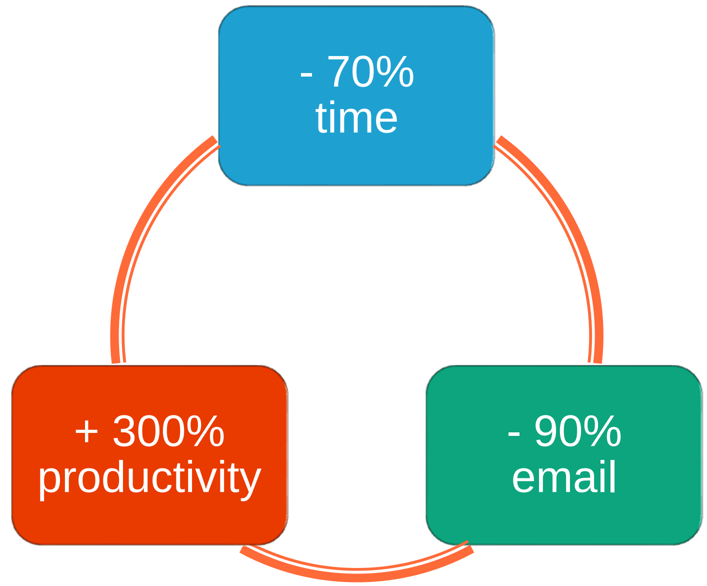


- ✓ Choice in connectivity
- ✓ Taskize Smart Button
- ✓ Taskize Work Alert
- ✓ Single Sign-On
- ✓ User provisioning

Taskize



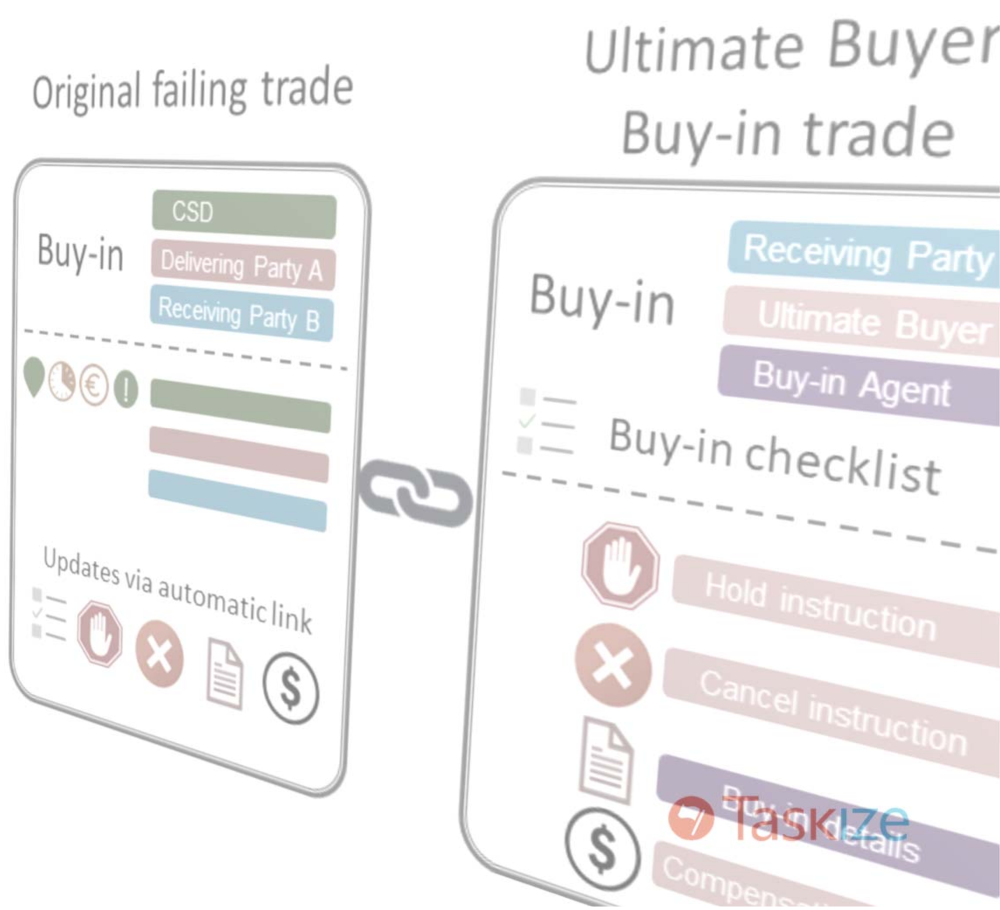
Efficiency in manual operations



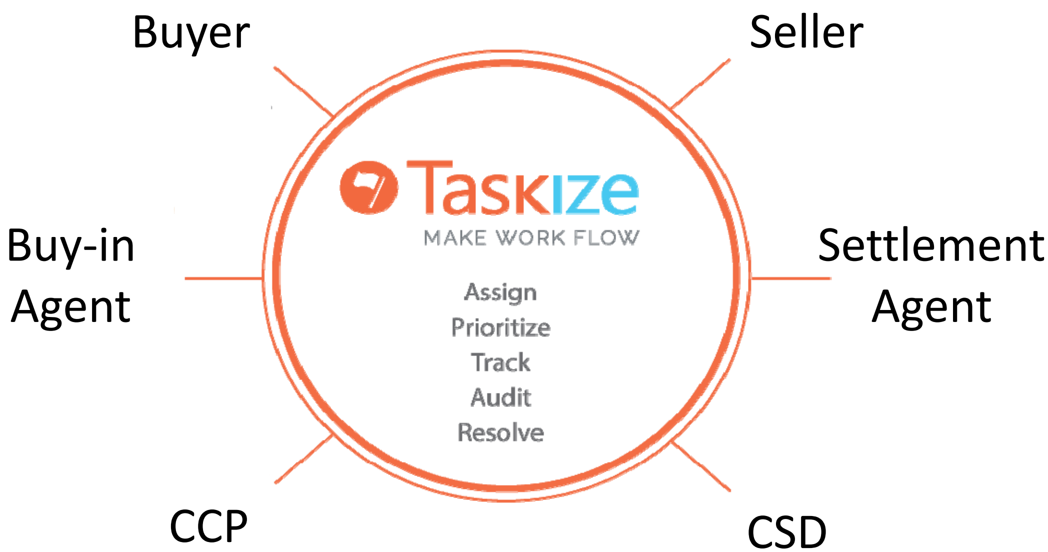
CSDR Settlement Discipline Regime

Euroclear clients can have Taskize CSDR free of charge

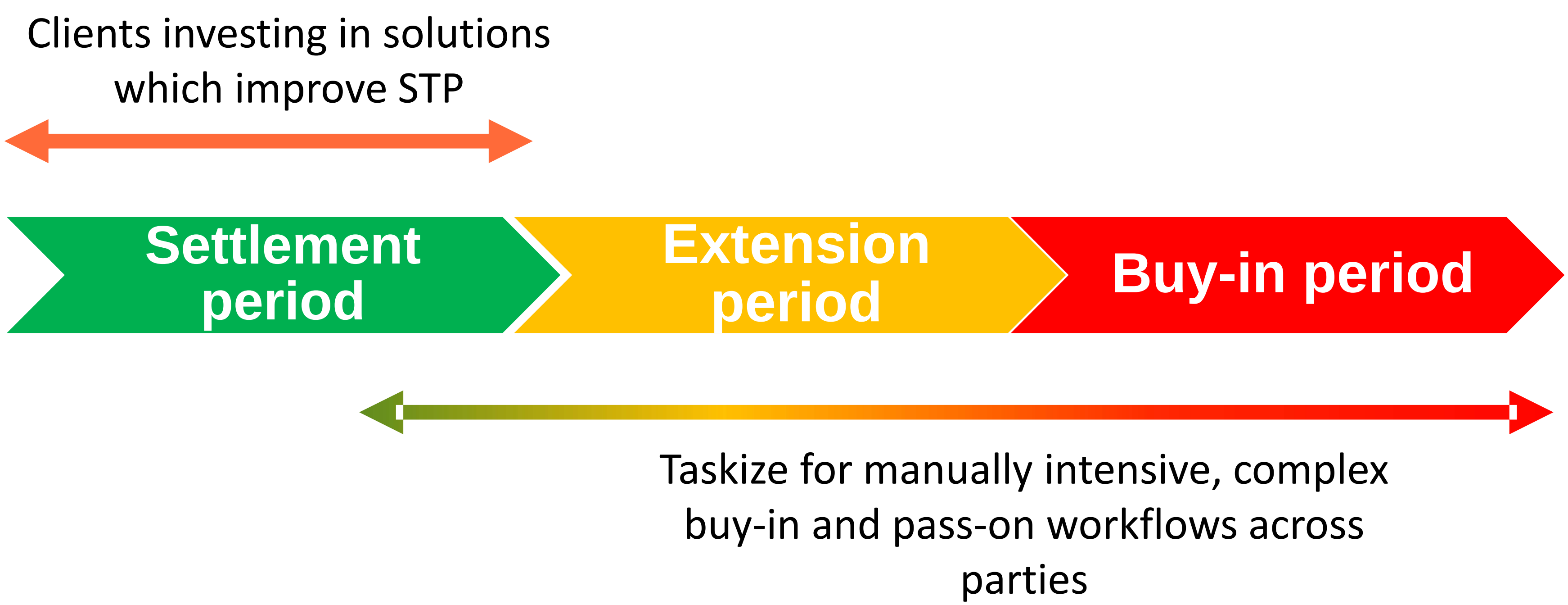
- New Settlement Discipline workflows
  - Buy-in process
  - Pass-through process
- Working with partners
- Ready by summer



CSDR Settlement Discipline
brings different parties together across the settlement lifecycle

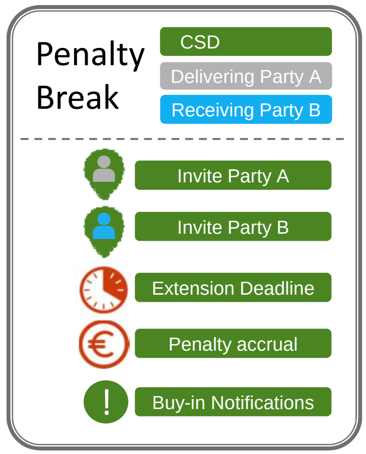


Key Settlement Periods



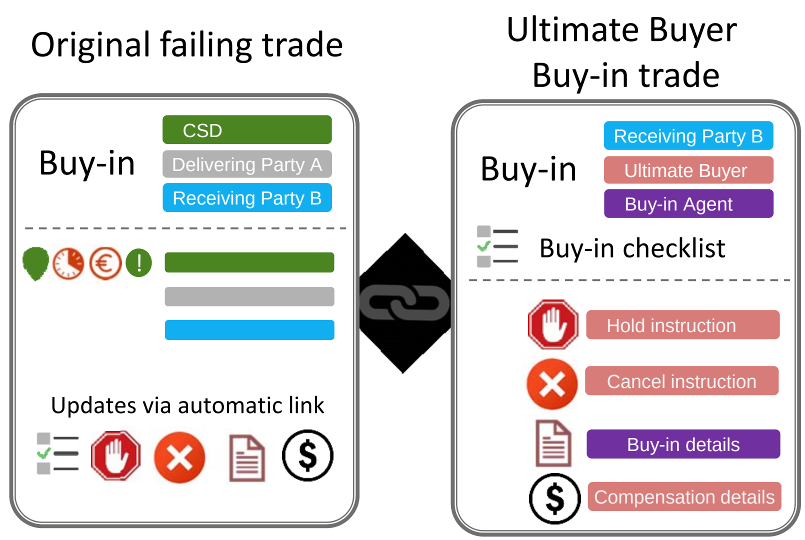
Taskize service during Extension period

Original failing trade



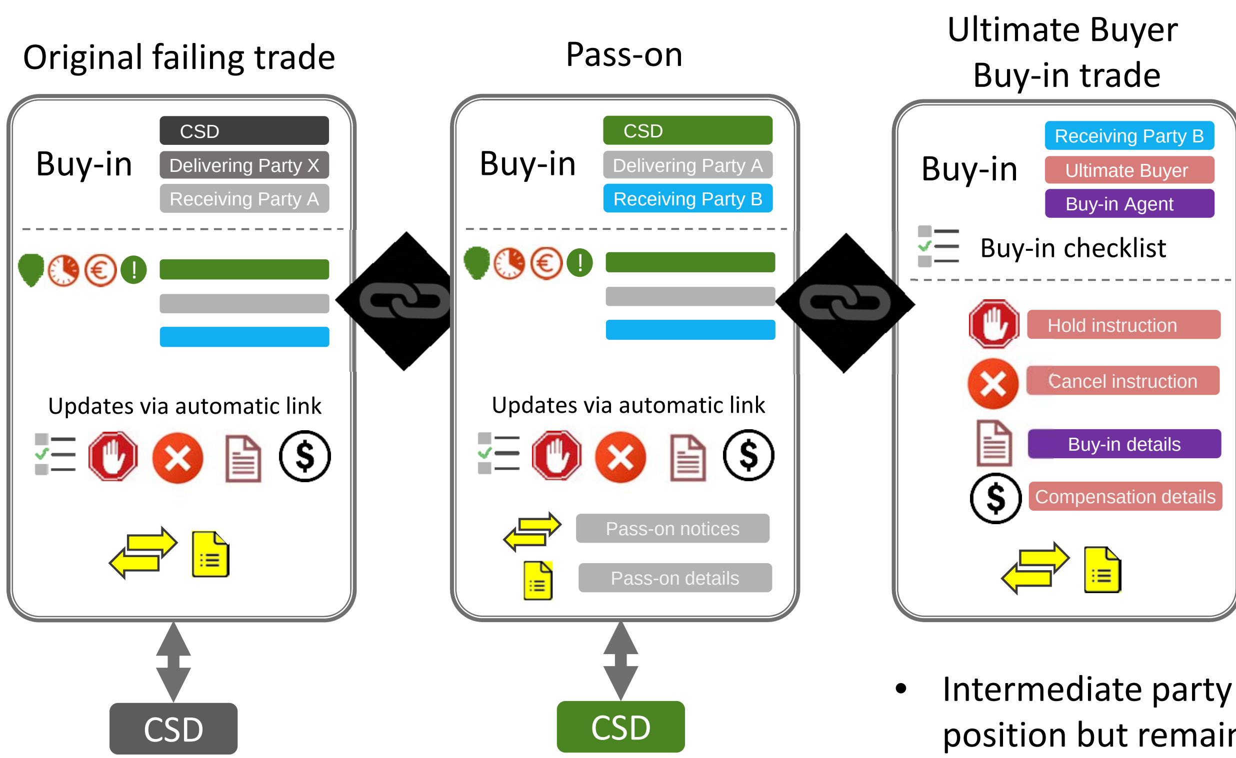
- CSD can create a bubble with specific penalty workflows
- CSD can use Smart Directory to invite both parties to resolve the issue
- CSD can enter daily penalty accruals and make buy-in notifications

Taskize during Buy-in period



- Receiving party informs ultimate buyer that buy-in is now required
- Buy-in bubble contains workflow, forms and checklists to ensure consistent buy-in process
- Buy-in instructions etc. automatically update the bubble for original failing trade
- All parties are kept informed of buy-in progress simultaneously

Taskize for Pass-ons



- Intermediate party identifies their ‘pass-on’ position but remains in the buy-in process
- Updates are shared with ‘adjacent’ parties
- Specific buy-in updates are passed automatically to the relevant CSD

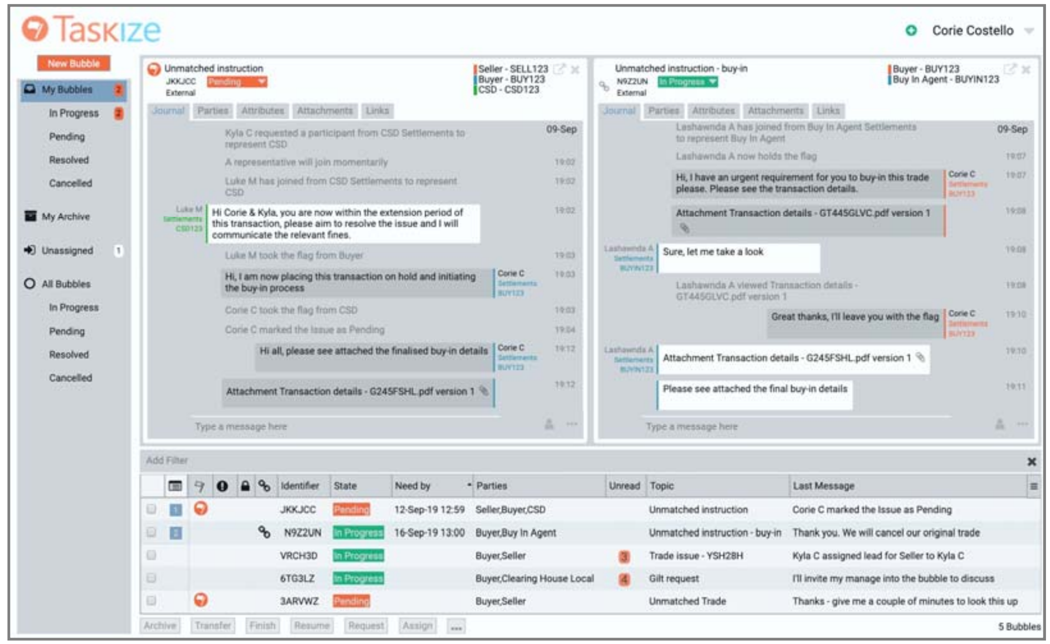
Taskize
MAKE WORK FLOW

Private - interactions kept segregated

Repeatable - via templates, forms, workflow and checklists

Automatic - key events propagated anonymously between bubbles

Audited - all events recorded giving end-to-end traceability



In consultation with our clients
Taskize will be ready in summer 2020

Taskize

Resolved

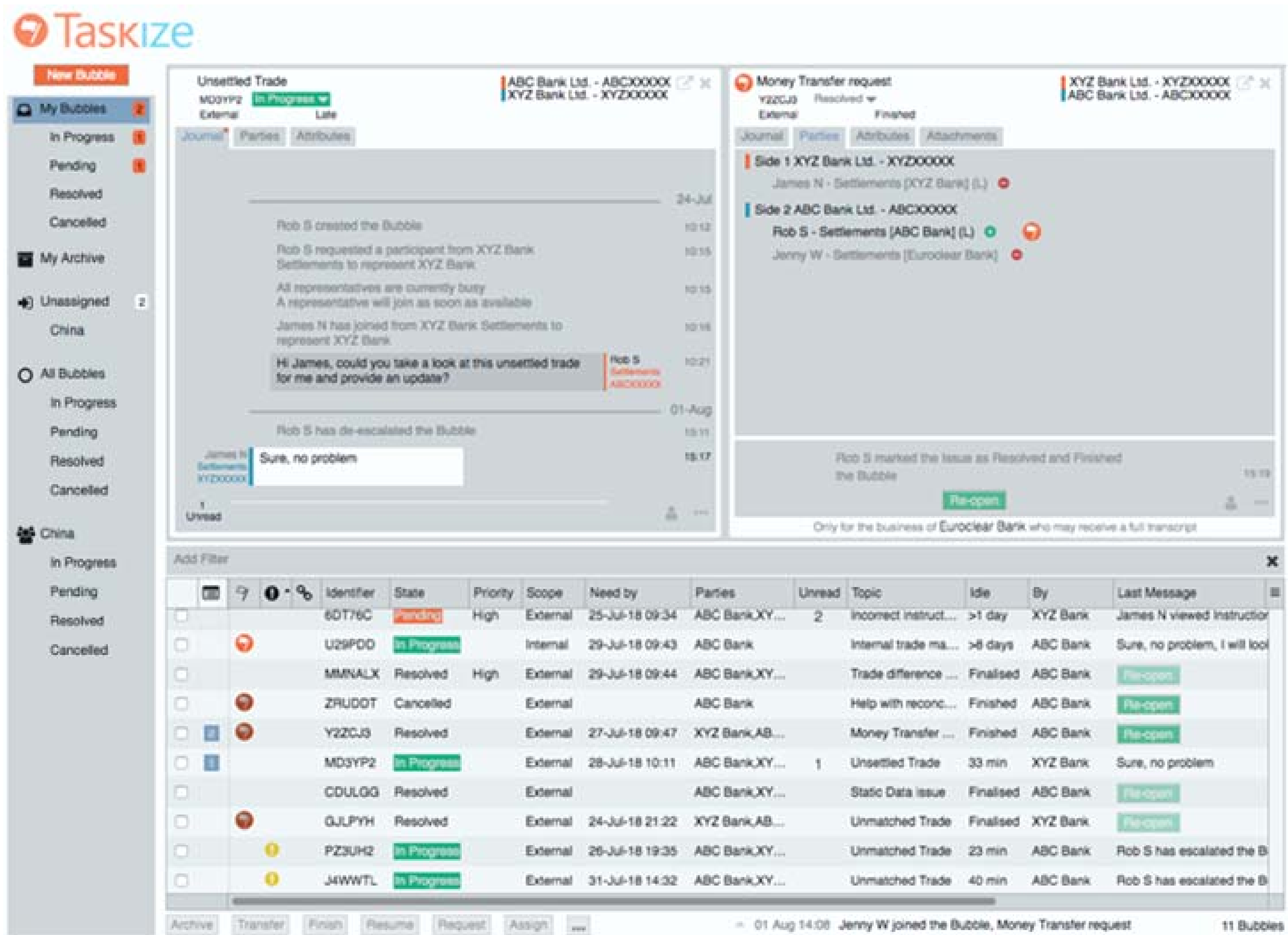
Taskize at a glance

Inter-company issue management

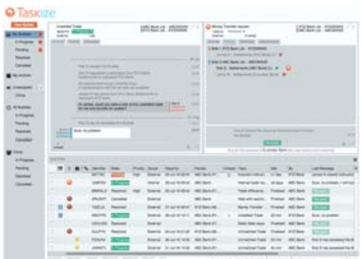
- Queued work
- Internal or External
- You + teams' work
- Responsible person flag
- Manager intervention
- Client tiering
- Due date and Escalation
- Multi-entity / region
- Virtual data room per-issue
- DLP and private notes
- Open REST API
- SSO and auto-provisioning
- Email integration
- Reporting

Certified to SOC 2 Type 2

99.99% uptime



Open architecture integrates services important to you

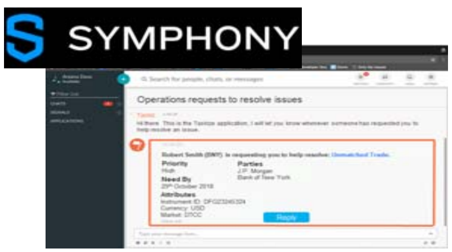


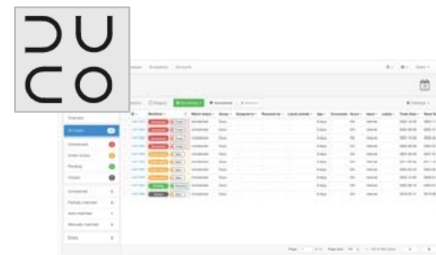
Email integration

Web GUI

REST API

Taskize Smart Button





Symphony integration

Taskize

Connecting problems to resolutions

Chrome extension

Microsoft Teams integration '20

Workflow Sync *started*

Slack Integration '20

3rd party workflow tools

- Proprietary
- Salesforce
- PEGA
- Outsourcing platforms
- …

Active Directory

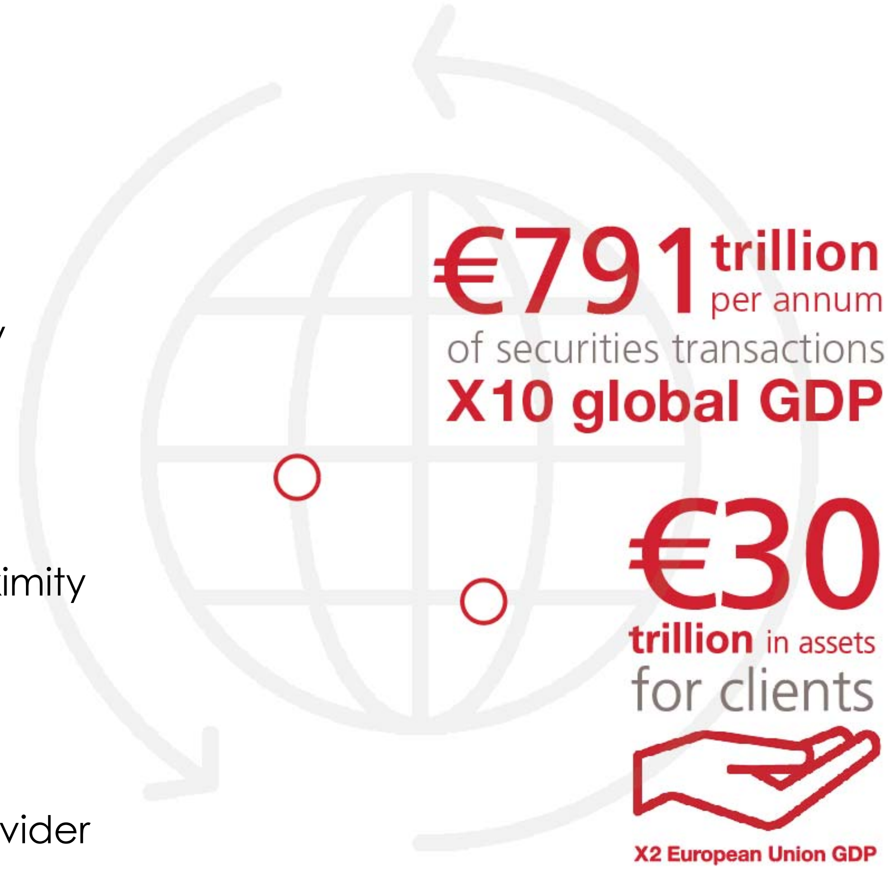
Taskize

Who we are?

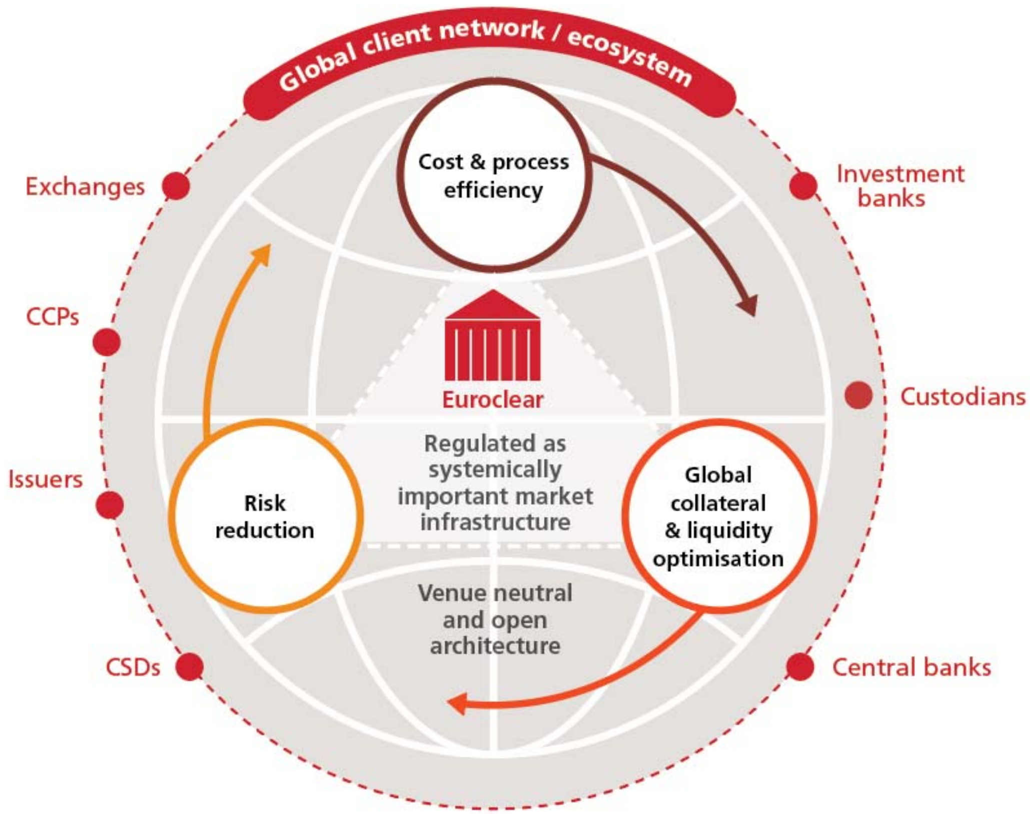
Euroclear group is the financial industry's trusted provider of post trade services.

Our expertise:

- domestic and cross border connectivity
- fast, efficient and low risk acceptance, issuance and distribution of securities
- ability to provide unrivalled market proximity to local users
- focus on client and investor safety
- position as the preferred settlement provider for the Euronext markets



Protecting your assets



1 ICSD / **6** CSD

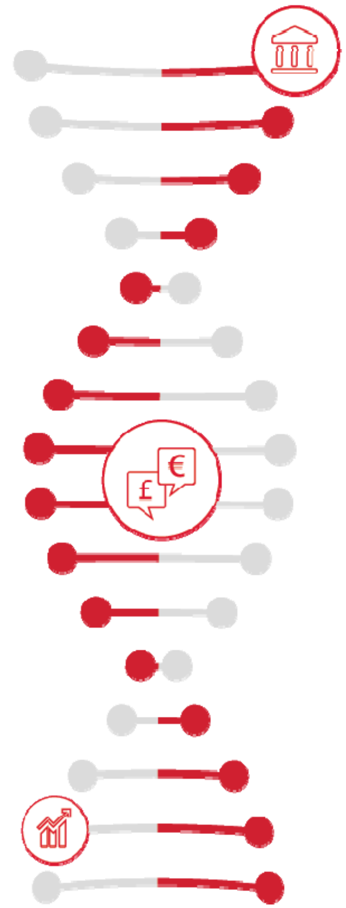
AA+
Fitch

AA
Standard & Poor's

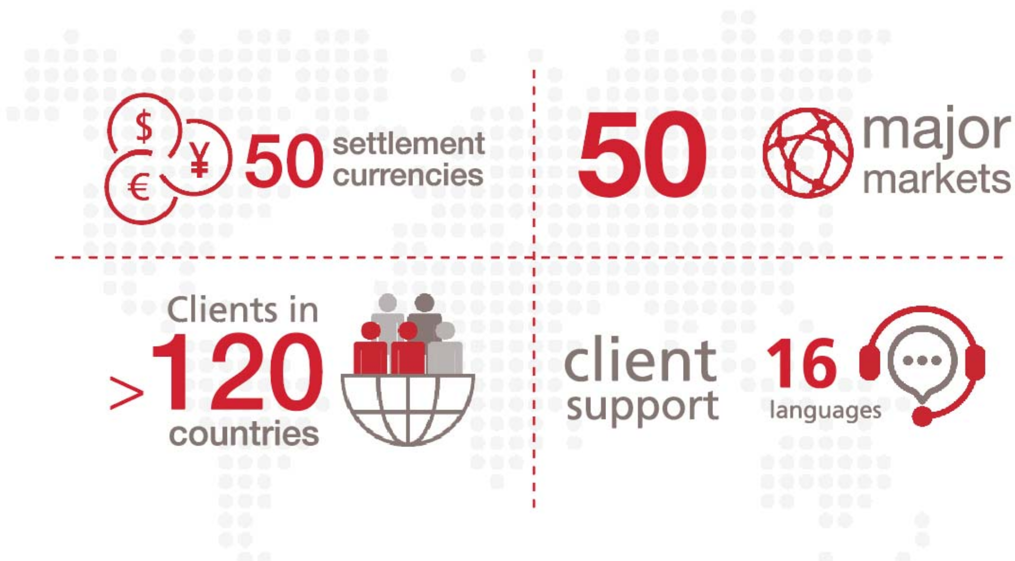
Why work with us?

A systemically important Financial Market Infrastructure

- We advocate an open marketplace
- We invest to support market stability
- We are focused on delivering solutions that reduce risk
- We encourage a high performing corporate culture
- We contribute to the safety efficiency of the financial markets
- We connect issuers and investors around the world
- We operate with a highly regulated framework
- We have robust risk management structure and a strong capital position
- We are highly rated by global rating agencies.
- We continue to invest in the future of our industry and our people

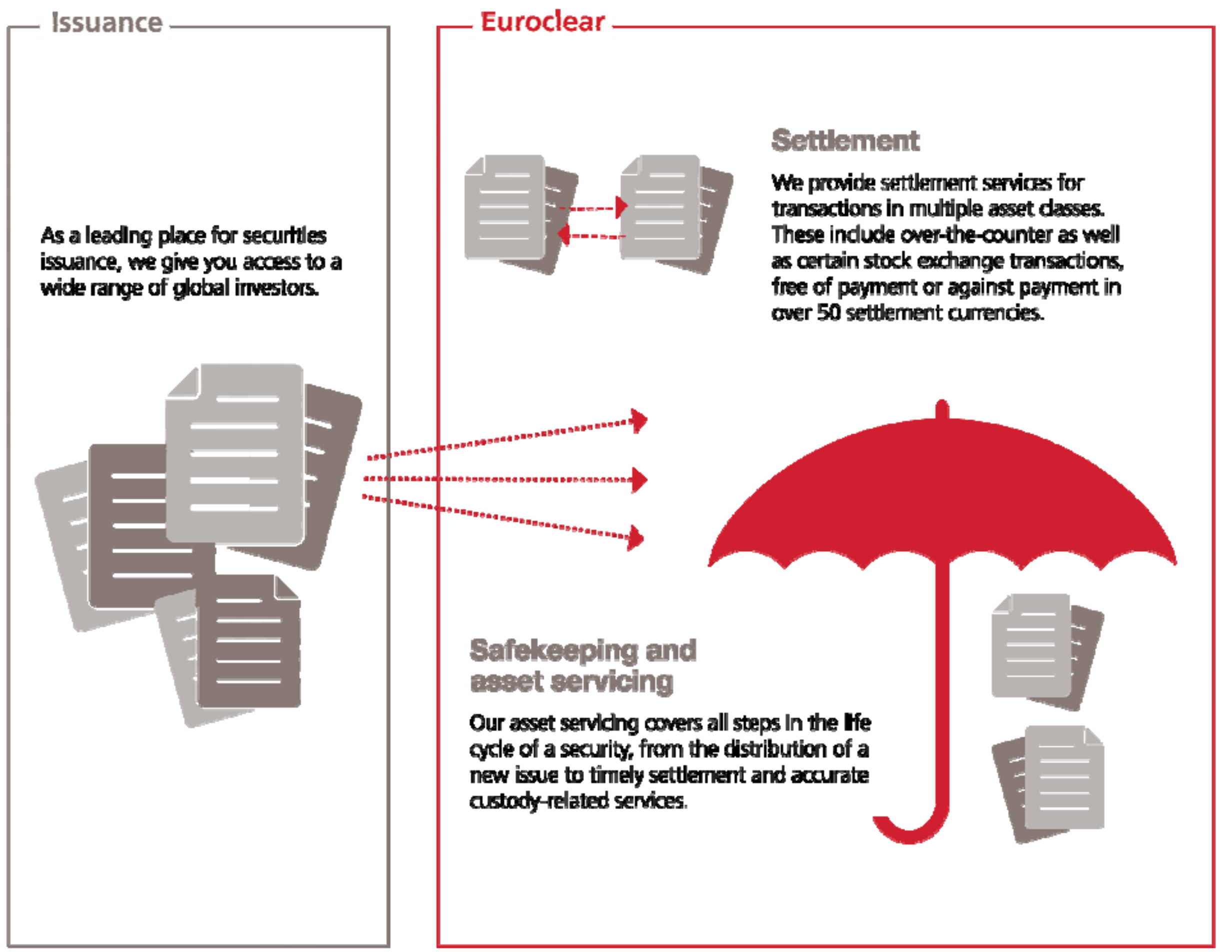


The **trusted** global partner for the financial industry



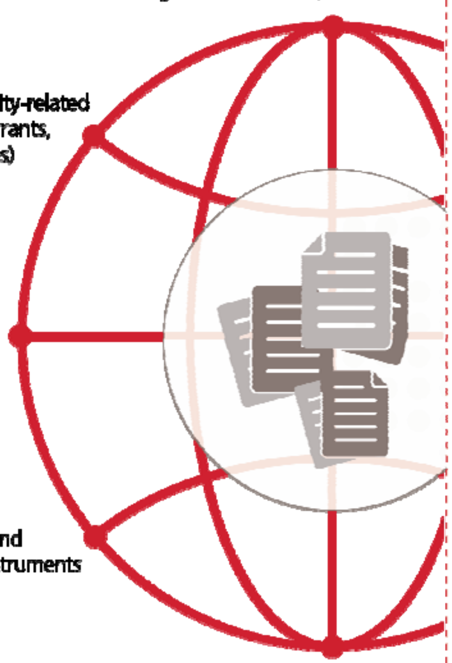
Expand your core network with us 1/2

Settlement and safekeeping of securities



Expand your core network with us 2/2

Multiple asset classes



Initiatives

T2S made easy

We offer flexible access to all markets that will settle through TARGET2-Securities (T2S). It is the European securities settlement engine which aims to offer centralised delivery-versus-payment (DvP) settlement in central bank funds across all European securities markets.

Single CSD

Our single CSD platform provides access to the ECB's TARGET2-Securities (T2S) ecosystem.

Euroclear FundsPlace

Our FundSettle International service supports both the buy- and sell sides of fund distribution, providing automated order routing, settlement and asset servicing.

€2 trillion funds under custody	**145,000** investment funds processed by Euroclear
11 million funds orders routed annually	**>1200** fund administrators

Growing your business 1/2

Euroclearability delivers real world, proven benefits

$3.8 billion

Potential GDP boost to real economies for 6 recently Eurocleared countries over 10 years

=

+1.0%

in the annual healthcare budget

or

+1.2%

increase in the annual education budget

(Source: white paper "Impact of Euroclearability" by PwC, 2019)

Growing your business

The Collateral Highway

Mobilise your collateral from where you keep it to where your counterparts take it, across borders, providers and time zones using our neutral and global, open-architecture infrastructure for collateral management.

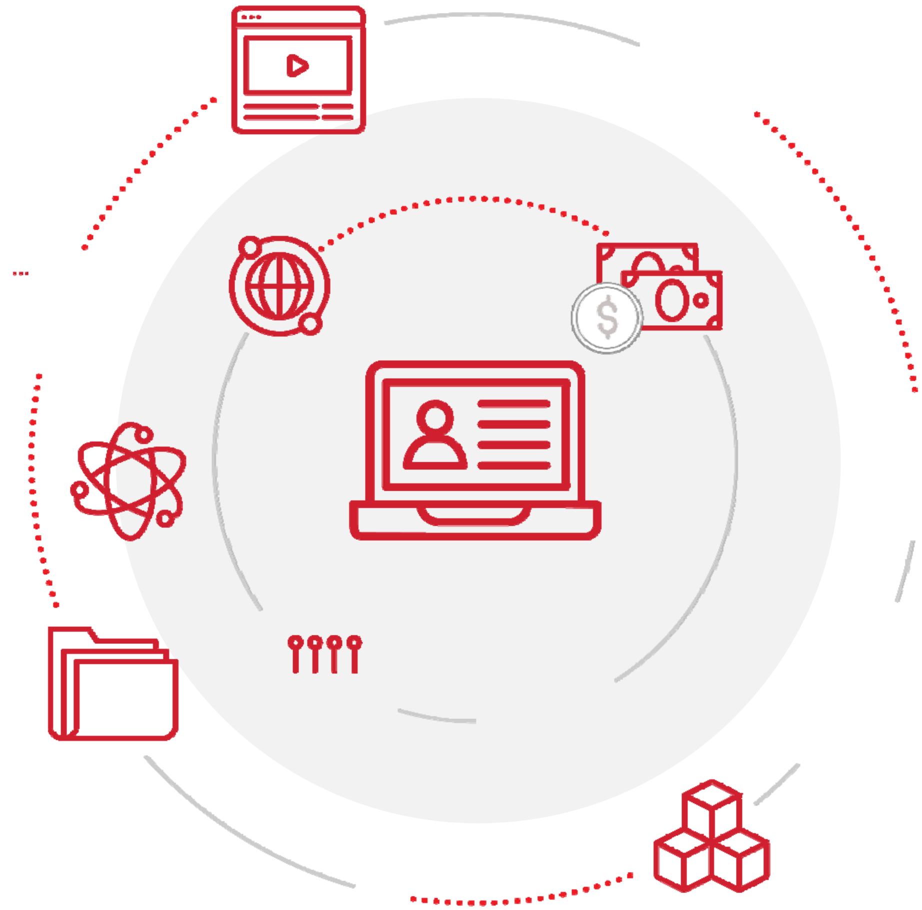
Innovative tools to make your processes safer and more efficient

EasyWay

A web-based interface that offers clients a clear overview of their activity with accurate, real-time data.

MyEuroclear

A website offering all service information, news and handy apps to help you with your day-to-day business with us.



Innovative ideas

Taskize

A web-based networking platform proven to increase operational productivity and control by enabling clients, colleagues, and counterparties to securely resolve queries efficiently across firms.

LiquidShare

A dynamic and innovative company improving SME's access to capital markets through blockchain.

Data solutions

Euroclear Information Solutions (EIS) leverages data to support you and bring greater efficiency to the functioning of our capital markets.

Corporate Responsibility

Our Corporate Responsibility (CR) mission is to conduct business in an ethical, responsible and sustainable way, while giving back to the wider community where possible. As a Financial Markets Infrastructure (FMI), we are committed to the stability and smooth running of the financial markets.

Environment

We strive to minimise our impact on the environment

- Baseline for waste management agreed
- **17.5%** carbon emissions reduction at the end of 2017

Community

We work closely with both our local and global communities to ensure a more equitable future

- Additional €1 million donated to 20 new local community projects across the group and three new Build Africa projects to celebrate our 50th anniversary
- **183** Junior Achievement volunteers impacting **5,691** students
- **100** local charities supported across the group

Workplace

Our people are critical to the success of our company

- **300** colleagues made use of our newly launched Euroclear Development Centre
- **400** colleagues changed function as a result of internal mobility possibilities
- We launched our first Vitality Day to promote health and well-being
- Published our first gender pay gap report in the UK and shared overall group view with all staff

Marketplace

Our risk-aware business practices, highest ethical standards and robust processing infrastructure, have played a key part in ensuring market stability during times of turbulence.

- SWIFT joined us and the CFA institute as structural partners in the Ethics & Trust in Finance prize (now in its 7th edition)
- Mandatory GDPR training for all staff
- Critical suppliers assessed on ESG topics

euroclear

Taskize