Summary of ISO 20022 adoption in Japanese market
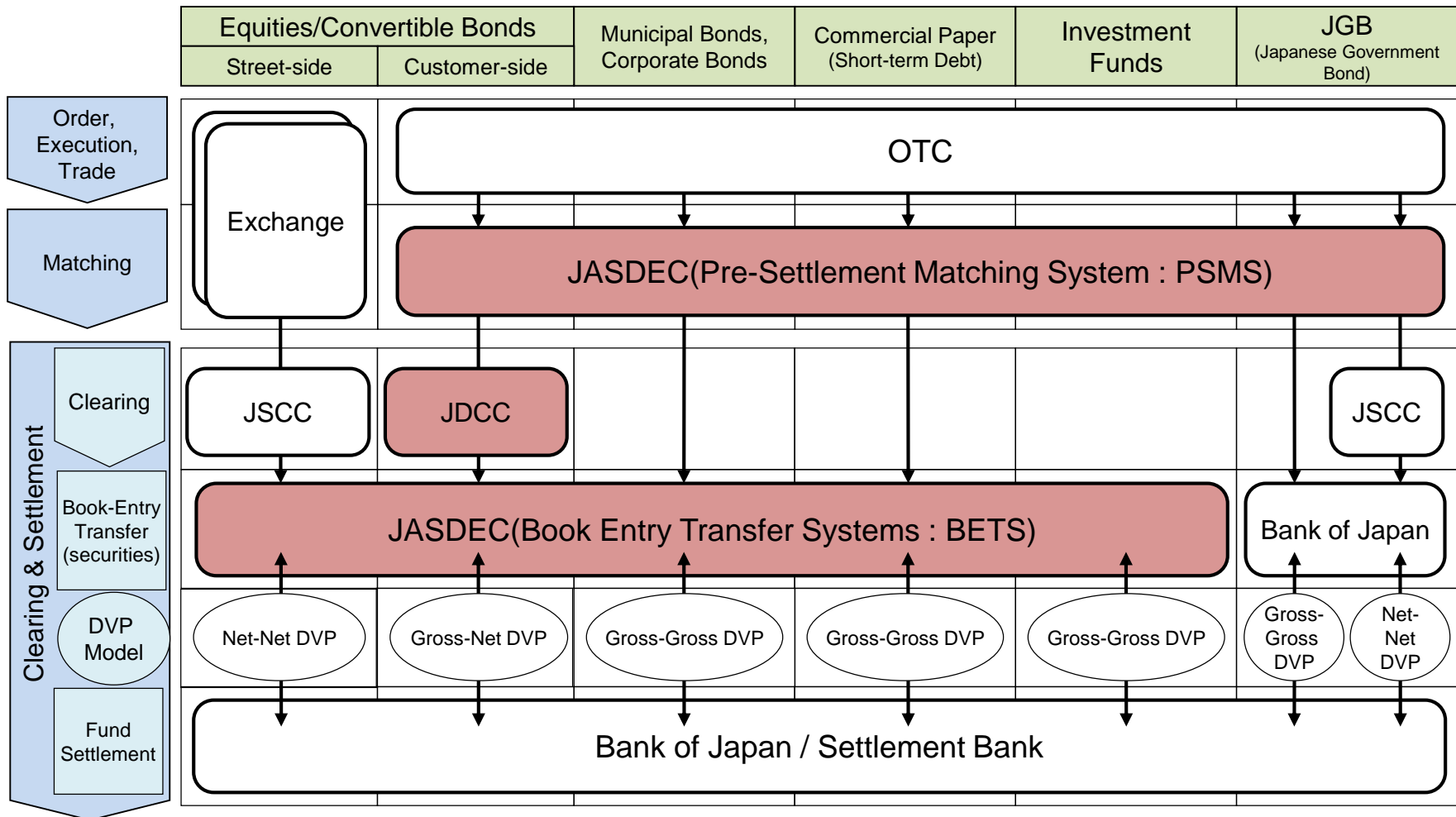
Japan Securities Depository Center, Inc.

Role of JASDEC in Japanese market

◆ All securities including stock certificates are dematerialized

	Equities/Convertible Bonds		Municipal Bonds, Corporate Bonds	Commercial Paper (Short-term Debt)	Investment Funds	JGB (Japanese Government Bond)	
	Street-side	Customer-side					
Order, Execution, Trade	Exchange	OTC					
Matching		JASDEC(Pre-Settlement Matching System : PSMS)					
Clearing	JSCC	JDCC				JSCC	
Book-Entry Transfer (securities)	JASDEC(Book Entry Transfer Systems : BETS)					Bank of Japan	
DVP Model	Net-Net DVP	Gross-Net DVP	Gross-Gross DVP	Gross-Gross DVP	Gross-Gross DVP	Gross-Gross DVP	Net-Net DVP
Fund Settlement	Bank of Japan / Settlement Bank						

(Left margin label: Clearing & Settlement)

JSCC : Japan Securities Clearing Corporation (Subsidiary of Japan Exchange Group)
JDCC : JASDEC DVP Clearing Corporation (Subsidiary of JASDEC)

Timeline of ISO 2002 adoption in Japan

JASDEC

1989: Initiatives to reduce settlement risk and enforce STP triggered by G30 rec.
2000: FSA reported to "Establish a consistent collation system and standardize message formats is also important for facilitation of settlement of cross-border transactions"
2001:CPSS/IOSCO "Recommendations for Securities Settlement Systems"
2012: FMI Principle 22 "An FMI should use, or at a minimum accommodate, relevant internationally accepted communication procedures and standards in order to facilitate efficient payment, clearing, settlement, and recording. "

		～2000	2001～2010	2011～2017	2018～
ISO/SWIFT		● **1999** : ISO 15022 est.	● **2004** : ISO 20022 est.	● **2011** : ISO 20022 Securities domain est.	● **2018.4** : ISO 20022 migration study(SWIFT)
JP	**Payments**			● **2011.11** : **JBA adopts 20022 to Zengin Net** [Like to Like]	● 2018.12 : Further XML enhancement in new Zengin system (ZEDI)
	Securites			● **2015.10** : **BOJ adopts 20022 to new BOJNet** [Big Bang] ● **2014.1** : **JASDEC adopts 20022** [Set migration period till end of 2018]	● **2018.5** : **JSCC adopts 20022** *JGB OTC settlement [Big Bang] ● **2018.12** : **JASDEC end of migration period**

JASDEC, JSCC in Securities domain, BOJ, JBA in Payments domain have adopted ISO 20022

Comparison of ISO 20022 adoption method

	MIs	Adoption method
Big Bang	**BOJ JSCC**	Adopted ISO 20022 at once with system replacement
Co-existence (1)	**JASDEC**	Set migration deadline and encourage ISO 20022 adoption
Co-existence (1)	**JBA**	Adopted ISO 20022 as an optional use (migration deadline not set)

Big Bang: Prop/15022 → 20022

Co-existence period: 4-5years considering system maintenance period

Co-existence (1) JASDEC: Prop/15022 → 20022 / Prop/15022 → 20022

Co-existence (1) JBA: Prop/15022 / 20022 → 20022

ISO 20022 adoption in JASDEC (1)

- ◆ **Align with international standardization and enhance efficiency/accessibility using XML**
- ◆ **By adopting and migrating to ISO 20022, we aimed to mitigate the costs of cross-border trades**

2007～2010
- ◆ **Technical study**
- ◆ **Join SEG ET to engage initial development**

2011～2014
- ◆ **With support of ISITC JP, submitted 12 CRs to align with JP market practice**
- ◆ **Test phase**

2015～2018
- ◆ **Migration phase**
- ◆ **Set internal SR policy to minimize maintenance cost**

- ◆ **Number of ISO 20022 messages : Payments[3], S&R[24], Post Trade Matching[4]**

ISO 20022 adoption in JASDEC (2)

◆ **Together with SWIFT, conducted gap analysis and mapping between ISO 15022/20022**
◆ **Participated in Evaluation Team (ET) for the following four fields related to the JASDEC operation and participate in new message development work**

Business Domains	Other Evaluation Team	
Settlement & Reconciliation (S&R)	ISITC、ECSDA、CSDs、T2S、SMWG、SWIFT	・For JASDEC's BET and PSMS ・Reverse Engineering from ISO 15022 ・Draft message released in Dec 2009
Modification and Counterparty Response	DTCC、Euroclear、Clearstream、SWIFT	・For PSMS modification operation ・Registered to ISO in April 2012
Post-trade Matching	Omgeo、Euroclear、SWIFT、Anbima、FPL	・For PSMS Trade Matching operation ・Registered to ISO in Oct 2011 (5 msgs used in JASDEC)
Total Portfolio Valuation (TPV)	ISITC	・Messages for Total Portfolio Valuation, which in JASDEC used as NAV data and Foreign Investment Account Data ・Registered to ISO in Oct 2011

ISO 20022 adoption in JASDEC (3)

- ◆ **While conducting ISO study, consider application of ISO 20022 to JASDEC system**
- ◆ **In the early stages of examination, 20022 was targeted for Pre Settlement Matching System (PSMS), but later extended to Book-Entry Transfer System(BETS) as well**

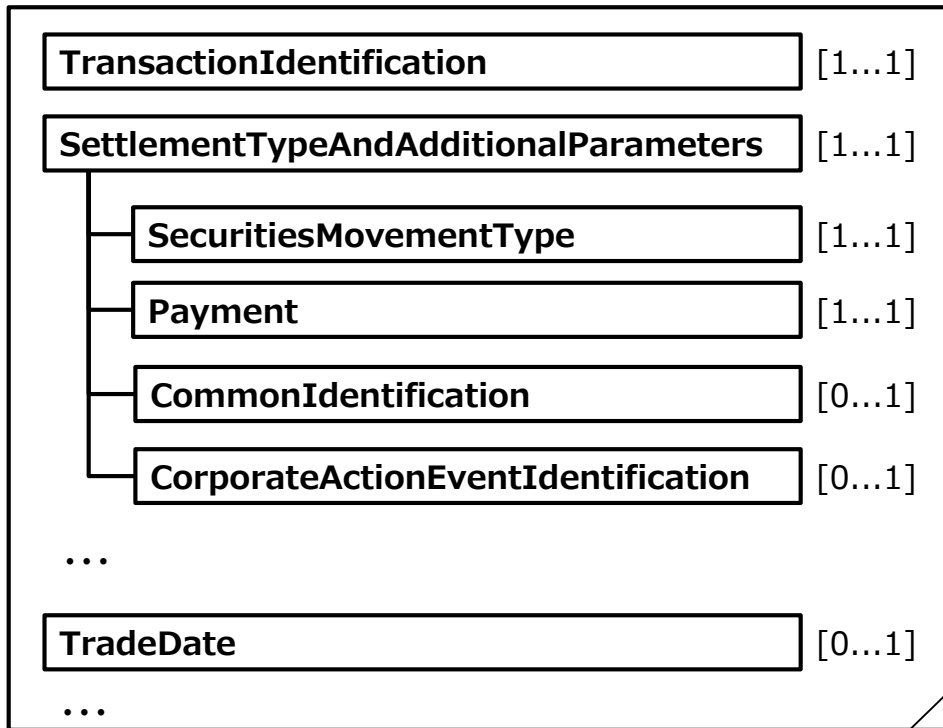| Schedule	Outline	
2009.11〜 2010.12	In order to examine cross-divisional transactions including the settlement matching system and each transfer system, JASDEC established "ISO 20022 Subcommittee" and carry out cross-sectional item mapping	Mapping for Post Trade Matching was done in PSMS subcommittee
2012.3	System Specification Documents for Users v.1 released	
〜2013.6	System development phase	
2013.7〜10	Testing with user phase	Concurrent with JASDEC's system replacement
2013.11〜 12	System migration rehearsal	
2014.1	System c/o	

ISO 20022 schema defined in JASDEC
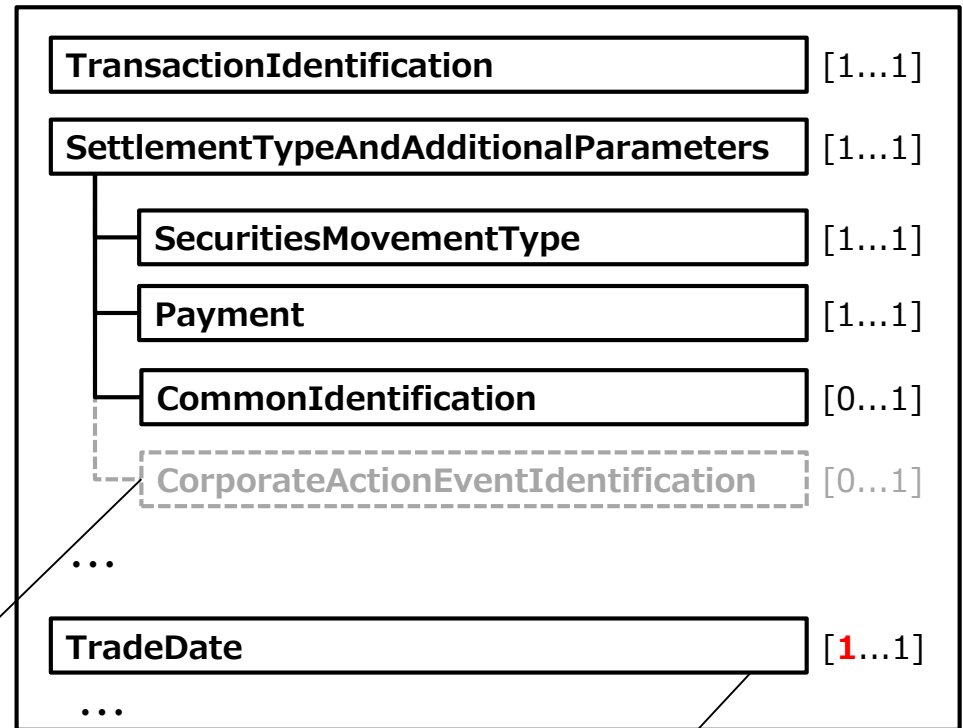
JASDEC

- ◆ **JASDEC schema : "ISO Mandatory" + "Elements used in JASDEC"**
- ◆ **In case of SR, JASDEC only updates its message only if it has impact to JASDEC schema**

ISO schema (sese.023)

TransactionIdentification	[1...1]
SettlementTypeAndAdditionalParameters	[1...1]
SecuritiesMovementType	[1...1]
Payment	[1...1]
CommonIdentification	[0...1]
CorporateActionEventIdentification	[0...1]

...

TradeDate	[0...1]

...

JASDEC schema (sese.023（Settlement Instruction）)

TransactionIdentification	[1...1]
SettlementTypeAndAdditionalParameters	[1...1]
SecuritiesMovementType	[1...1]
Payment	[1...1]
CommonIdentification	[0...1]
CorporateActionEventIdentification	[0...1]

...

TradeDate	[**1**...1]

...

ISO Optional and not defined in JASDEC. If set, it will be treated as an error.

ISO Optional but mandatory in JASDEC.

CRs regarding ISO 20022 adoption

◆ **In case of S&R where ISO15022 and ISO20022 coexist, CRs need to be submitted to ISO15022 or ISO20022**

#	Year of Submission	Overview	Justification
1	2008 (SR2010)	Addition of QFI info field	Needed for the affirmation of cancellation/modification for already matched instruction
2	2008 (SR2010)	Addition of Related Parties Field in Receiving Agent	Allowed to use ISIN and local code
3	2008 (SR2010)	Addition of Market Type Code "VARI"	Allowed to use ISIN and local code (Accepted as single ISO 20022 CR)
4	2009 (SR2010)	Modification of Consumption Tax Definition	For JASDEC's DVP Settlement Services for NETDs
5	2009 (SR2010)	Able to set two Settlement date	For JASDEC's DVP Settlement Services for NETDs
6	2009 (SR2010)	Addition of "INVE" (fund code) and "DEAG/REAG" (delivering/receiving settlement agent) to MT530/sese.03	Reason code in case of unmatched in accrued interest amount

NETD: Non-exchange transaction deliveries

JASDEC's ISO 20022 migration progress

2014.1.4
JASDEC adopted ISO 20022

2015.10.13
BOJ adopted ISO 20022

（JASDEC user=100）

About 50%+ after BOJ's ISO 20022 adoption

ISO 20022 migration in JASDEC will complete in 22nd October

100%

98%

88%

76%

29%

28%

18%

| Jan-14 | FY2014 | FY2015 | FY2016 | FY2017 | Jul-18 | Oct-18 |

ISO 20022 Assessment in JASDEC
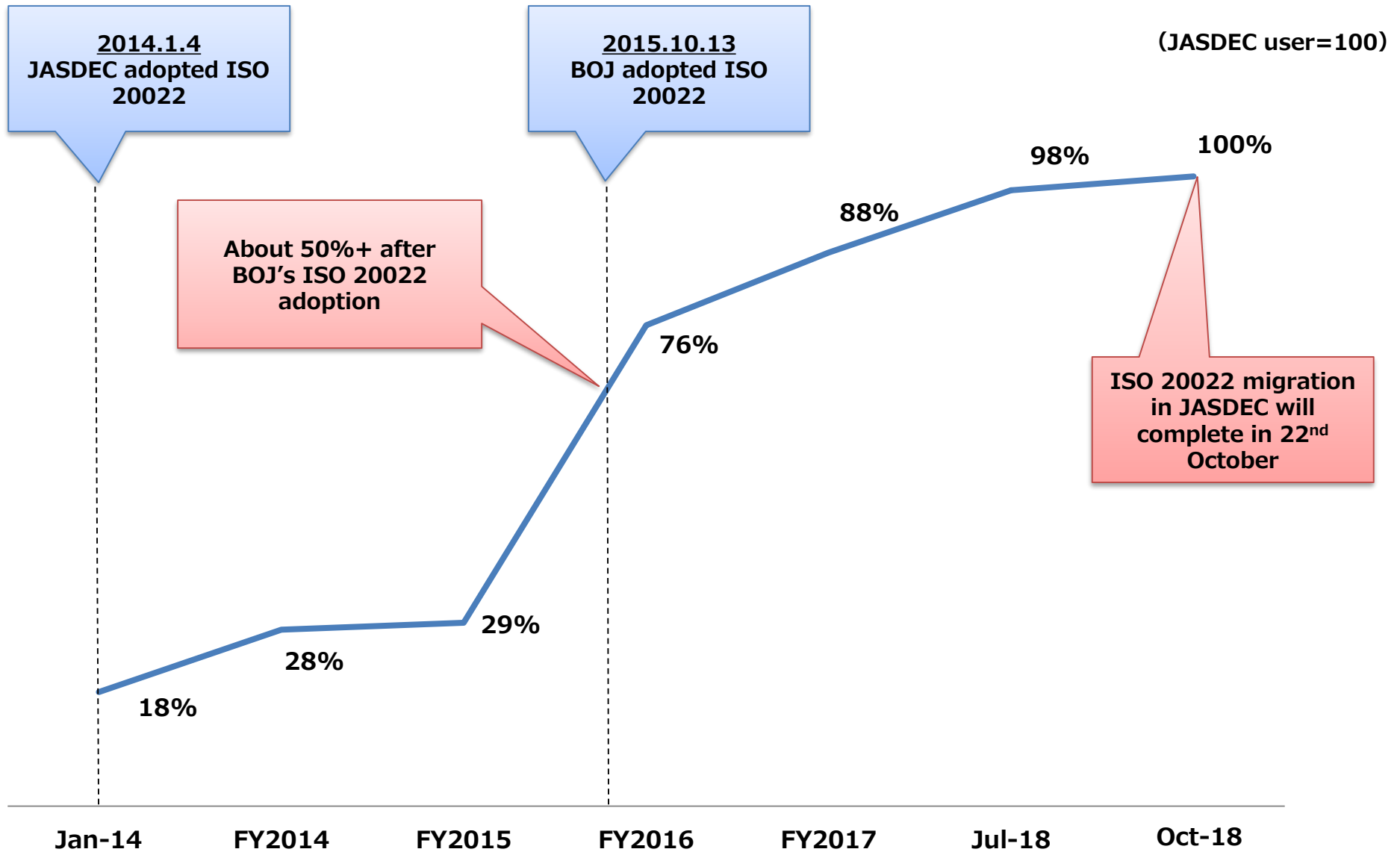
- **System and its operation complies with the international standards**
- **Further focus point will be to resolve the coexistence of 15022 and 20022**

Element	JASDEC	Domestic Player	Global Player	Assessment
International Standardization	○	-	-	Archived alignment with ISO standards
Maintainability using XML	○	○	○	-System development and test efficiency has improved -JASDEC will adopt SR changes only if it has impacts to JASDEC's defined messages/components
Migration/Termination of legacy system	○	○	○	Making steady progress (will complete migration as sheduled)
STP for the entire settlement chain	△	-	×	-Unify 20022 for the entire settlement chain 【Global ×】 -Coexistence w/ 15022 is not cost effective 【Global ×】

Domestic Player : PSMS participant who aim to operate domestic transaction (Domestic brokers, banks, etc.)

Global Player : PSMS participant who aim to operate cross-border transaction (Global custodians, broker/dealers, etc.)
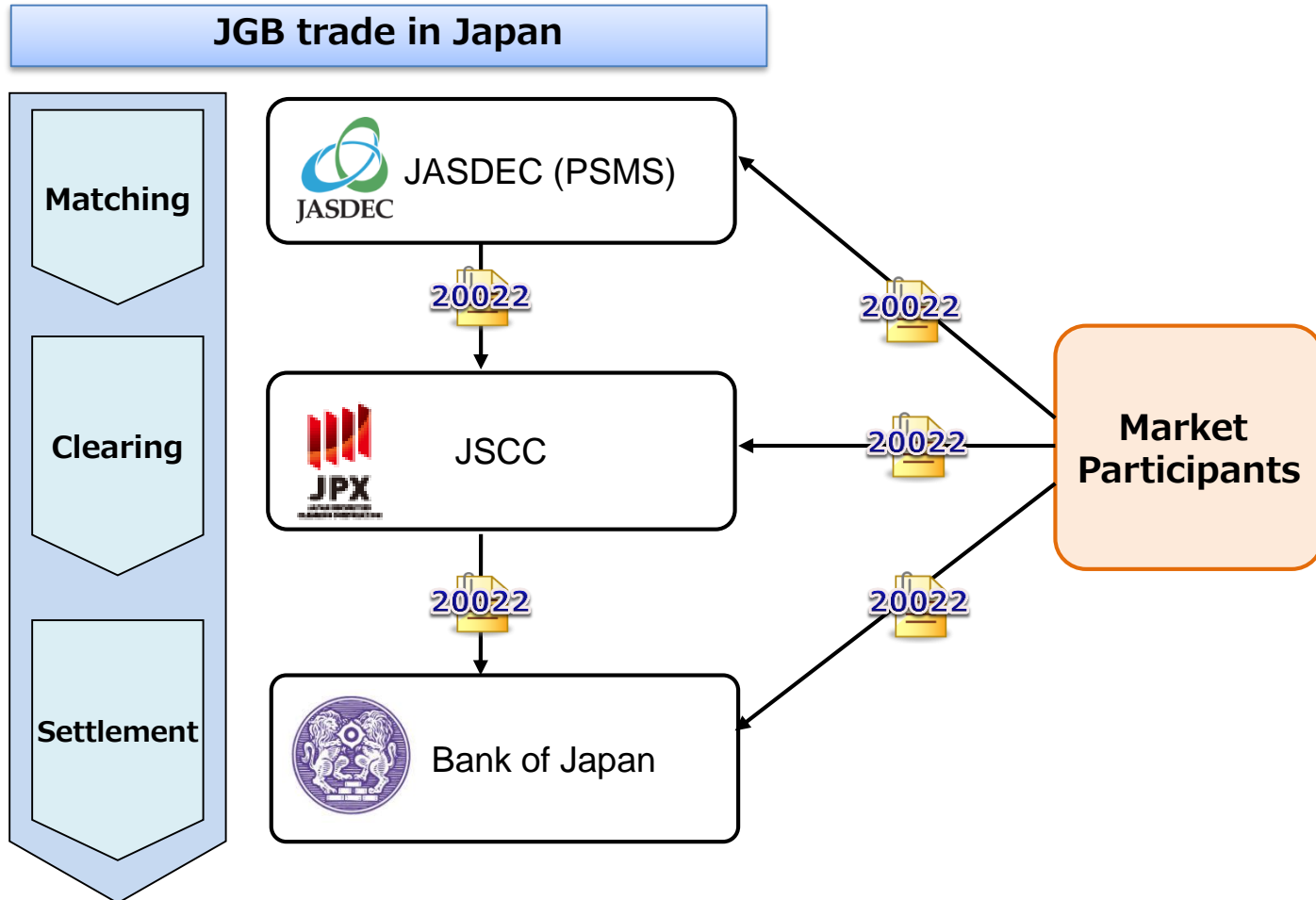
○ : Achieved the initial goal / Obtain the expected benefit

△ : Neither Agree Nor Disagree

× : Did not achieved the initial goal / Problem observed

- : Not subject to evaluate

Key success in JGB market

- **From May 2018, domestic JGB settlement has moved to T+1 cycle**
- **The effect of ISO 20022/XML adoption was demonstrated where the comprehensive operational tests have progressed smoothly and without any delay**
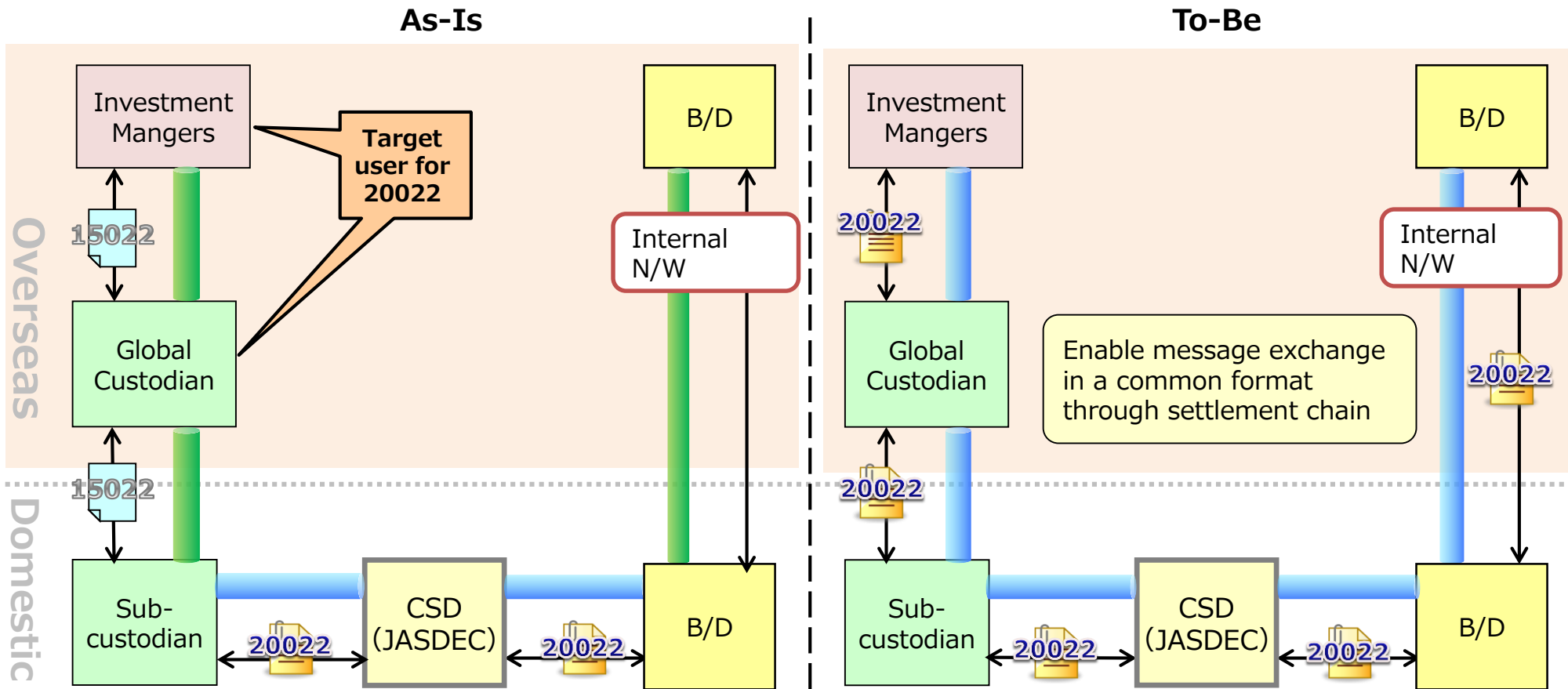
JGB trade in Japan

Matching	JASDEC (PSMS)	
Clearing	JSCC	Market Participants
Settlement	Bank of Japan	

20022
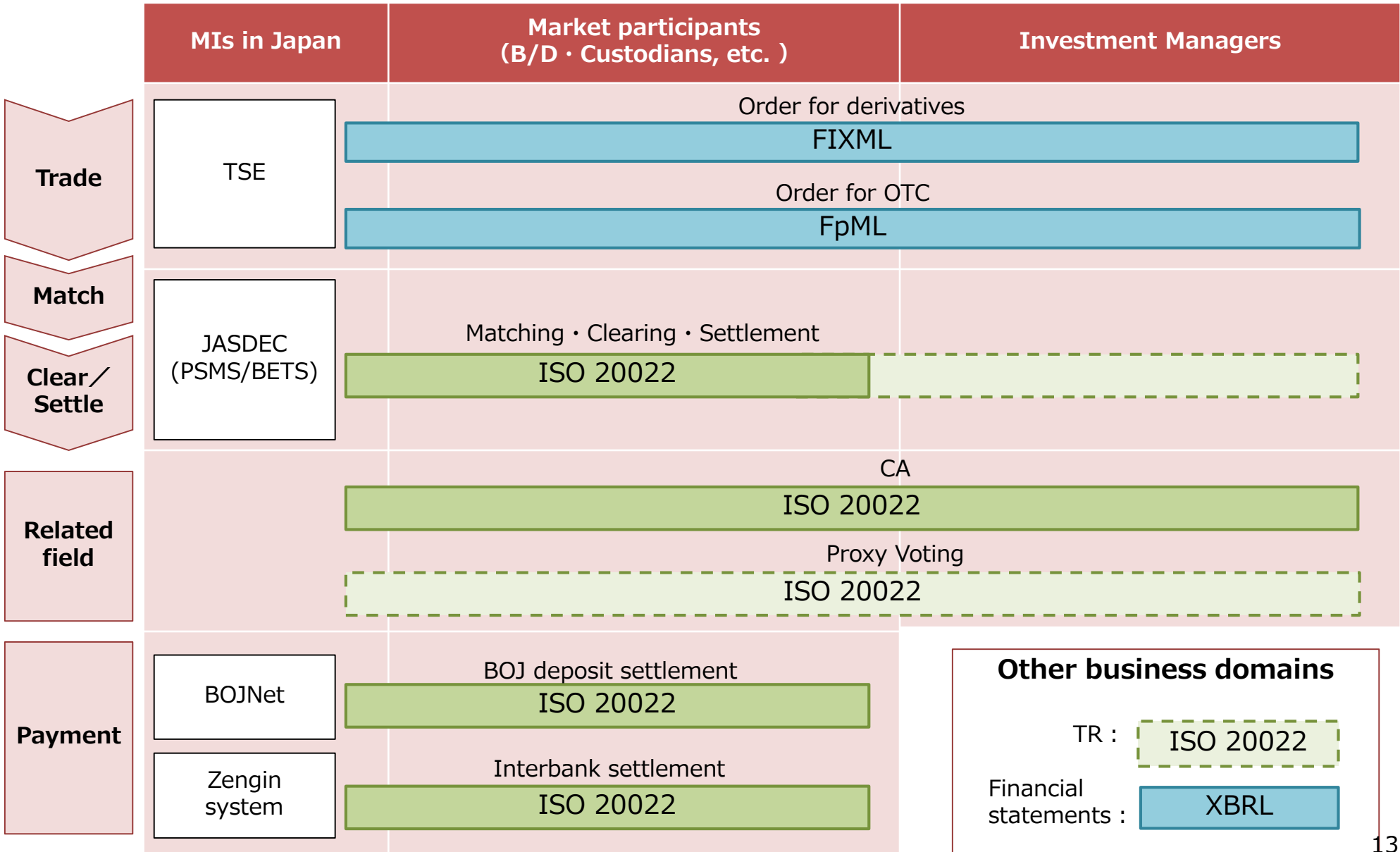
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To-Be in ISO 20022 Securities domain

JASDEC

◆ **All entities engaging in ISO 20022 will contribute further STP**

◆ **Although ISO 15022 is still dominant among overseas institutional investors and global custodians∗, we hope for early 20022 migration in the settlement chain**

As-Is

Investment Mangers	B/D

Target user for 20022

15022

Internal N/W

Overseas

Global Custodian

Domestic

15022

| Sub-custodian | 20022 | CSD (JASDEC) | 20022 | B/D |

To-Be

Investment Mangers	B/D

20022

Internal N/W

Global Custodian

Enable message exchange in a common format through settlement chain

20022

20022

| Sub-custodian | 20022 | CSD (JASDEC) | 20022 | B/D |

* In recent years, transactions of HFs/PBs are growing, which results that corresponds to the problem is about 1/4 of the total of non-resident transactions

How could we extend ISO 20022／XML?

JASDEC

MIs in Japan	Market participants （B/D・Custodians, etc.）	Investment Managers

Trade

TSE

Order for derivatives
FIXML

Order for OTC
FpML

Match

Clear／Settle

JASDEC
(PSMS/BETS)

Matching・Clearing・Settlement
ISO 20022

Related field

CA
ISO 20022

Proxy Voting
ISO 20022

Payment

BOJNet

BOJ deposit settlement
ISO 20022

Zengin system

Interbank settlement
ISO 20022

Other business domains

TR： ISO 20022

Financial statements： XBRL

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