



WORLD BANK GROUP
Finance, Competitiveness & Innovation

IV Fintech Forum Meeting – CEMLA

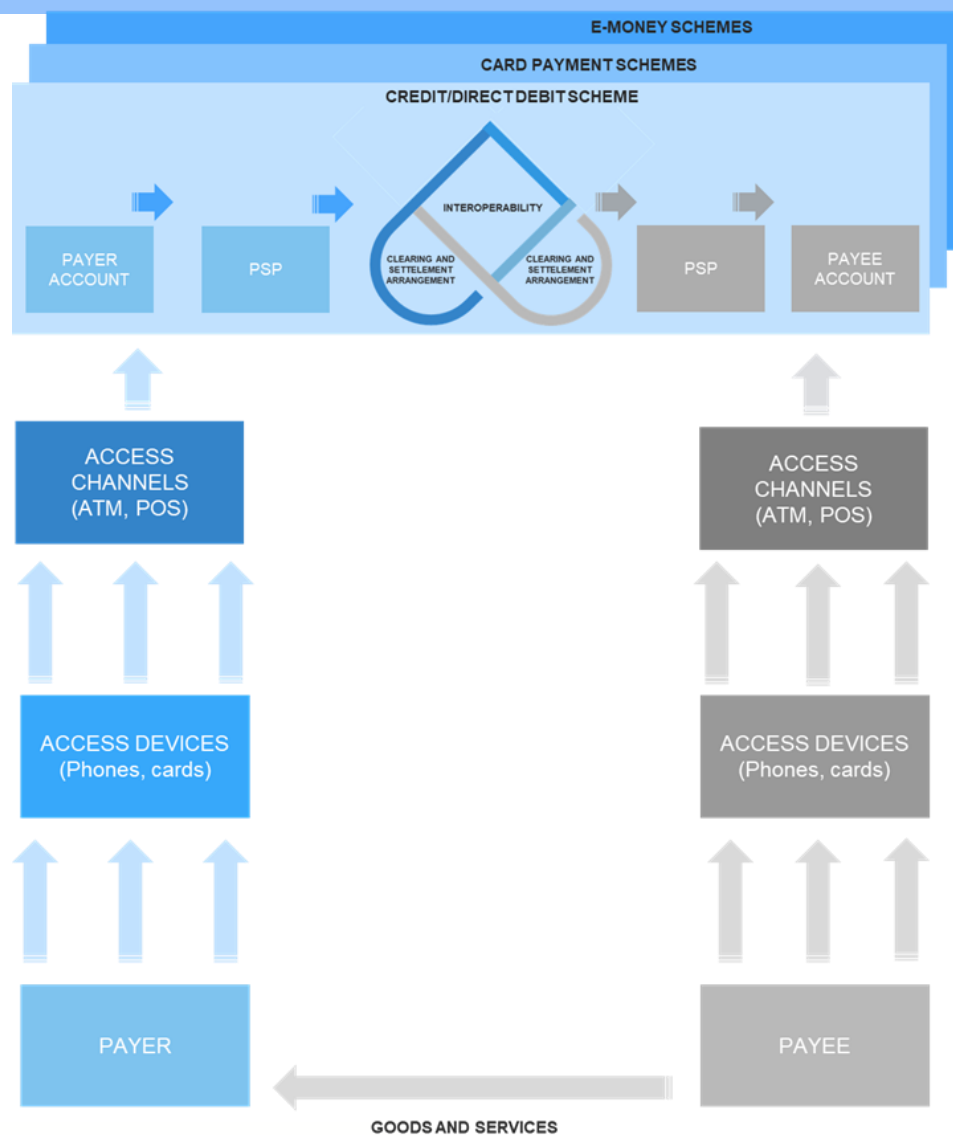
Interoperability and digital payments

Harish Natarajan
Lead, Payment Systems Development Group
March 2021

Interoperability and digital payments - overview

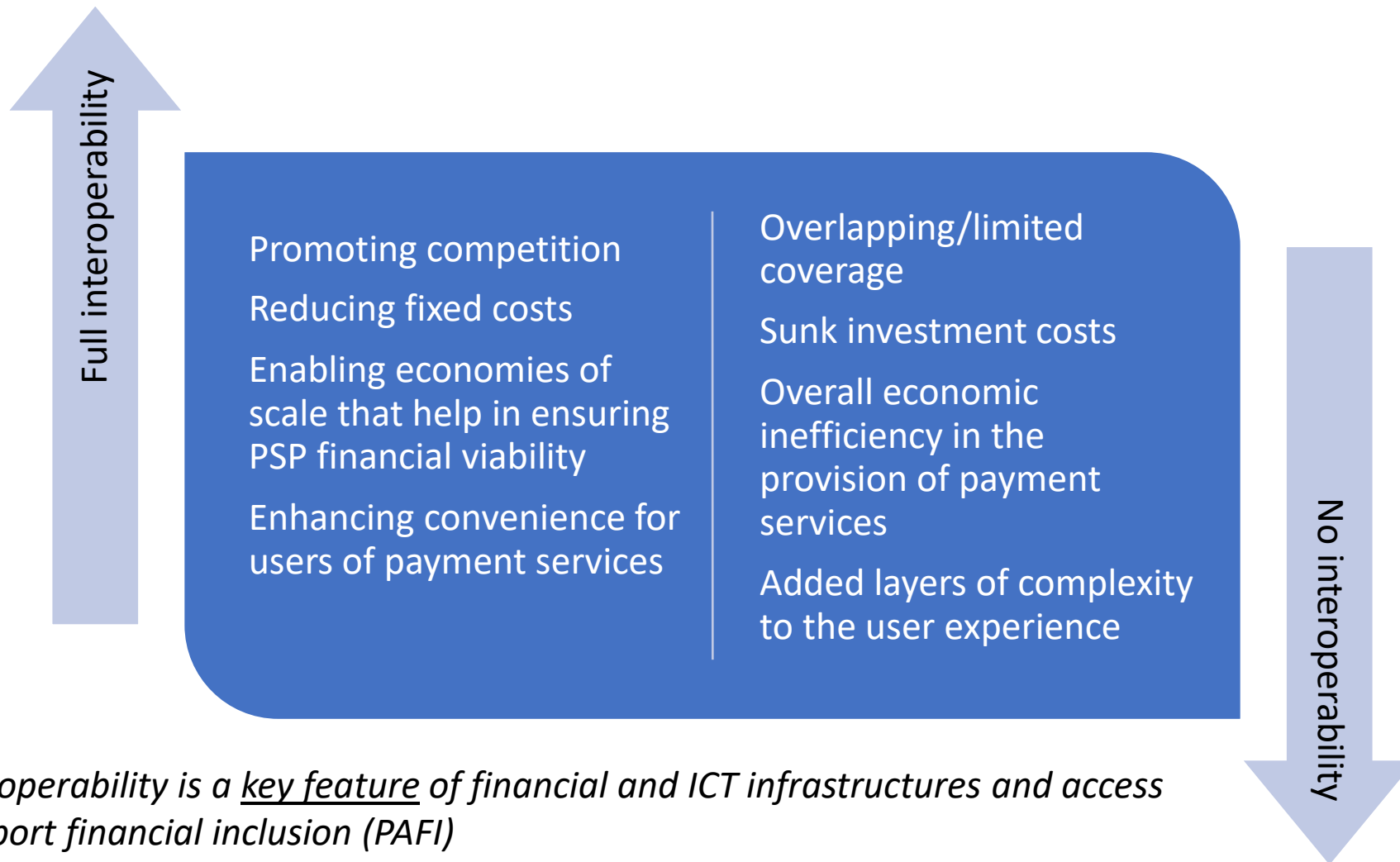
1. Interoperability – the “what” and “why”
2. Where do we stand on interoperability
3. The changing interoperability landscape
4. The cross-border payments perspective
5. Conclusions

What is payment system interoperability?

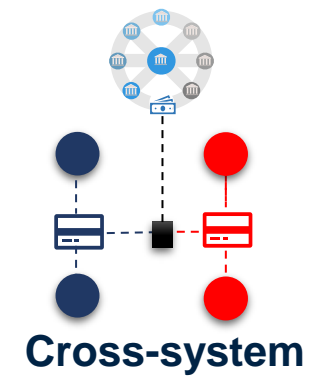
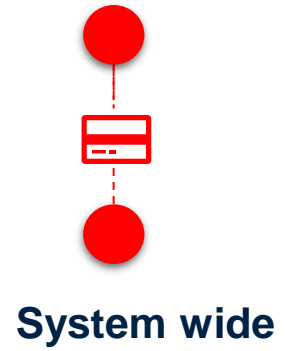
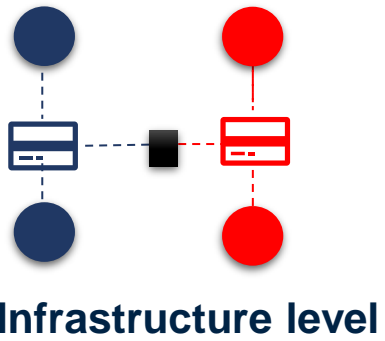


- Broadly speaking, interoperability is the technical or legal compatibility that enables a system or mechanism to be used in conjunction with other systems or mechanisms. *(BIS Glossary, updated Sept 2016)*
 - Payment system interoperability entails clearing and settlement arrangements AND business agreements and protocols (referred to as schemes).
- Interoperable payment systems enable the seamless interaction of two or more proprietary acceptance and processing platforms, and possibly even of different payment products. *(PAFI report, 2016)*
- the customers of one payment service provider can transact with customers of another payment service provider.

Why is payment system interoperability important?



Levels of interoperability



Where do we stand on interoperability around the world?

Card (access/acceptance) infrastructure is largely interoperable

	ATMs							
	Full interoperability		Good interoperability		Low interoperability		No interoperability	
	#	%	#	%	#	%	#	%
Global	72	65%	24	22%	9	8%	5	5%
High income	35	85%	4	10%	1	2%	1	2%
Upper middle income	19	58%	9	27%	3	9%	2	6%
Lower middle income	14	50%	10	36%	3	11%	1	4%
Low income	4	50%	1	13%	2	25%	1	13%

	POS							
	Full interoperability		Good interoperability		No interoperability		Low interoperability	
	#	%	#	%	#	%	#	%
Global	71	66%	26	24%	6	6%	5	5%
High income	35	85%	5	12%	0	0%	1	2%
Upper middle income	19	58%	9	27%	2	6%	3	9%
Lower middle income	15	56%	10	37%	2	7%	0	0%
Low income	2	29%	2	29%	2	29%	1	14%

Where do we stand on interoperability around the world (cont'd)?

Mobile money services still lack interoperability...

	Mobile Money							
	No interoperability		Full interoperability		Low interoperability		Good interoperability	
	#	%	#	%	#	%	#	%
Global	54	55%	19	19%	13	13%	12	12%
High income	16	47%	7	21%	7	21%	4	12%
Upper middle income	20	67%	3	10%	1	3%	6	20%
Lower middle income	14	54%	8	31%	2	8%	2	8%
Low income	4	50%	1	13%	3	38%	0	0%

- Most countries reporting having interoperability stated that it is based on using a **central infrastructure**.
- Looking at the type of services made available through mobile money accounts, interoperability is most common for person-to-person (P2P) funds transfers and least common for cash-outs at agents.

Where do we stand on interoperability around the world (cont'd)?

New acceptance technologies are rising but are not interoperable

- 55 economies reported having QR code payment acceptance.
- In practically all cases there are multiple QR code service providers for payments, in some cases exceeding 5 or even more than 10.

	For service providers facilitating acceptance via QR code, regulations enforce EMV or other Interoperability standard			
	No		Yes	
	#	%	#	%
Global	74	71%	30	29%
High income	29	76%	9	24%
Upper middle income	24	77%	7	23%
Lower middle income	15	56%	12	44%
Low income	6	75%	2	25%

What does interoperability mean in the changing payments landscape?

Interoperability = enabling beneficiaries' choice in the delivery of social protection programs by disbursing funds through payment mechanisms that can be used everywhere

Large-volume payment streams (G2P, P2G, bill payments, transport)

New acceptance technologies, e.g., QR Code

Interoperability = enabling the single-access point (any device, any instrument, any provider)

Interoperability = enabling access to real-time payments from any (bank/non-bank) wallet and access channel, acquiring of merchants through common interoperable acceptance technology

Fast payments

...

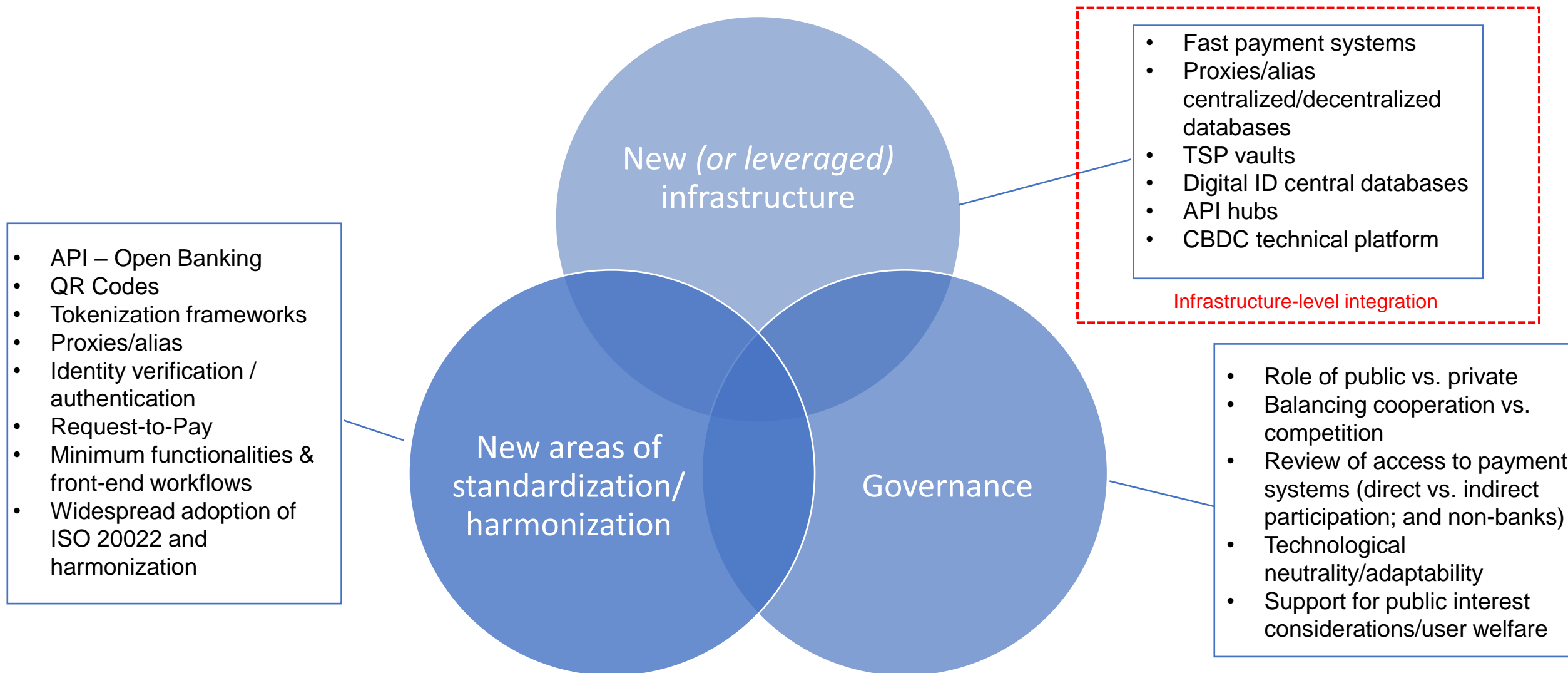
Interoperability = allowing the public to use different forms of money interchangeably and enabling the easy flow of funds between different systems

Central Bank Digital Currency

Open banking

Interoperability = choice of customer interface; enabling the transfer of customer-permissioned data between banks and fintechs

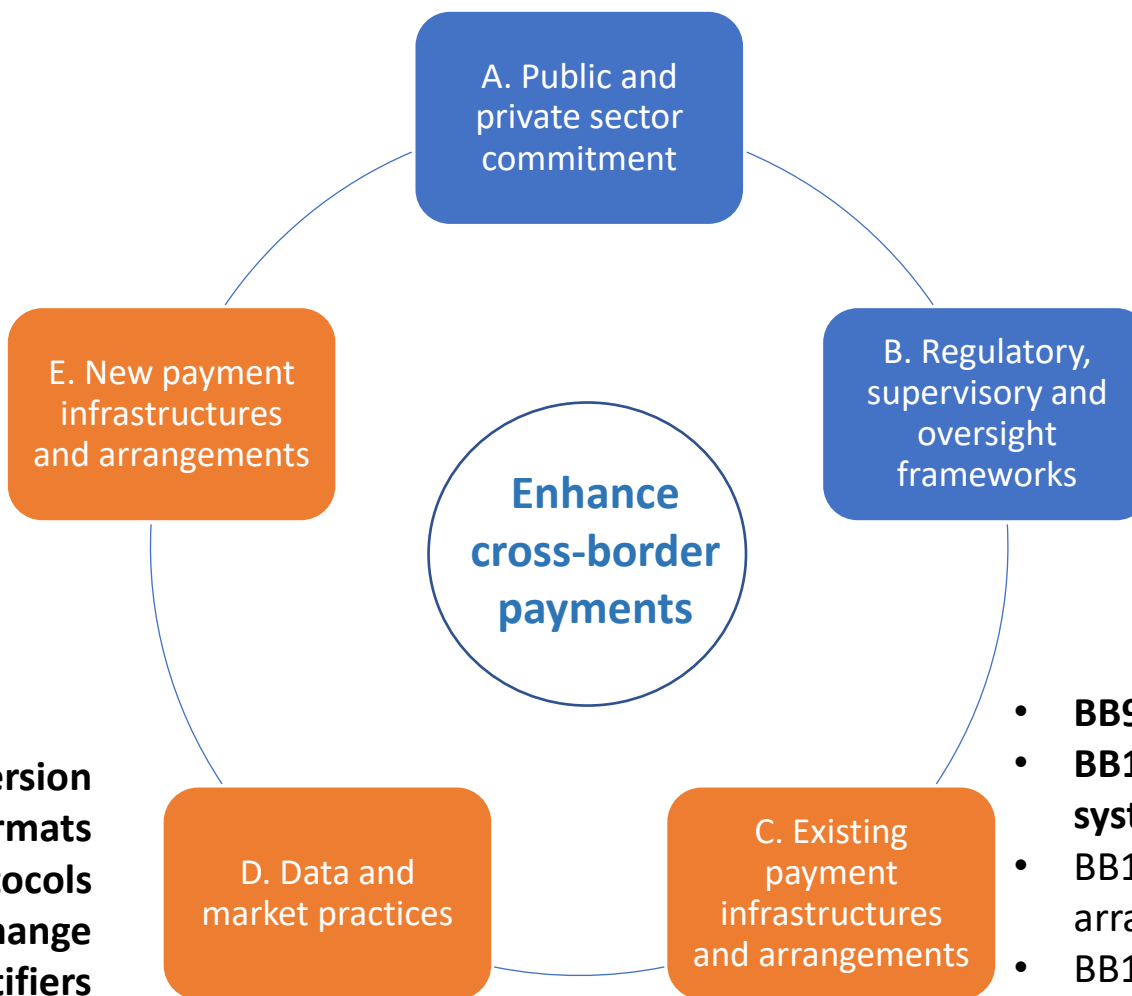
New areas of standardization, new infrastructure, new governance



Relevance of interoperability to global cross-border agenda

- BB17 Factor an international dimension into CBDC designs
- BB18 Foster the soundness of global stablecoin arrangements
- **BB19 Consider the feasibility of new multilateral platforms and arrangements for cross-border payments**

- **BB14 Adopt harmonised version of ISO 20022 for message formats**
- **BB15 Harmonise API protocols for data exchange**
- **BB16 Establish unique identifiers with proxy registries**



- **BB9 Facilitate increased adoption of PvP**
- **BB10 Improve (direct) access to payment systems**
- BB11 Explore reciprocal liquidity arrangements
- BB12 Extend and align operating hours
- **BB13 Pursue interlinking of payment systems**

Conclusions

- Interoperability is key to the efficiency of the national payments system, commerce and the broader economy – in normal and exceptional circumstances.
- Interoperability is instrumental to increasing access to, and use of, transaction accounts/digital payments.
- The fundamentals of interoperability have not changed over time. New use cases have emerged as a result of technological innovation in payments and as a result the scope of interoperability will also need to expand.
- Enabling interoperability in the changing payments landscape – both domestically and across borders – requires a combination of standardization/harmonization and new infrastructure, as well as a review of governance arrangements.