



LALIVE
THE DISPUTES POWERHOUSE

Smart Legal Contracts & Dispute Resolution

UIA 14th Winter Seminar
Hot Legal Topics in the Age of Digitalization

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What are Smart Contracts? Neither Smart nor Contracts?

Key characteristics of Blockchain Smart Contracts

- Software code reflecting any data-driven business logic
- Stored in an underlying blockchain-based network
- Event-driven – Triggered by trusted sources (Oracles, IoT)
- Automatically allocates and transfers digital assets/currency
- Self-verifying and self-executing once coded conditions are met

Smart Contracts Today & Forecast

Examples of SC currently developed in the market

- Smart Derivatives Contracts
 - Smart Contracts for Commodity Trading
 - Self-Executing Insurance Smart Contracts
- Industries where automatic executing process will be useful

Global Forecast for Smart Contracts Market

- USD 3 Billion by the end 2023*

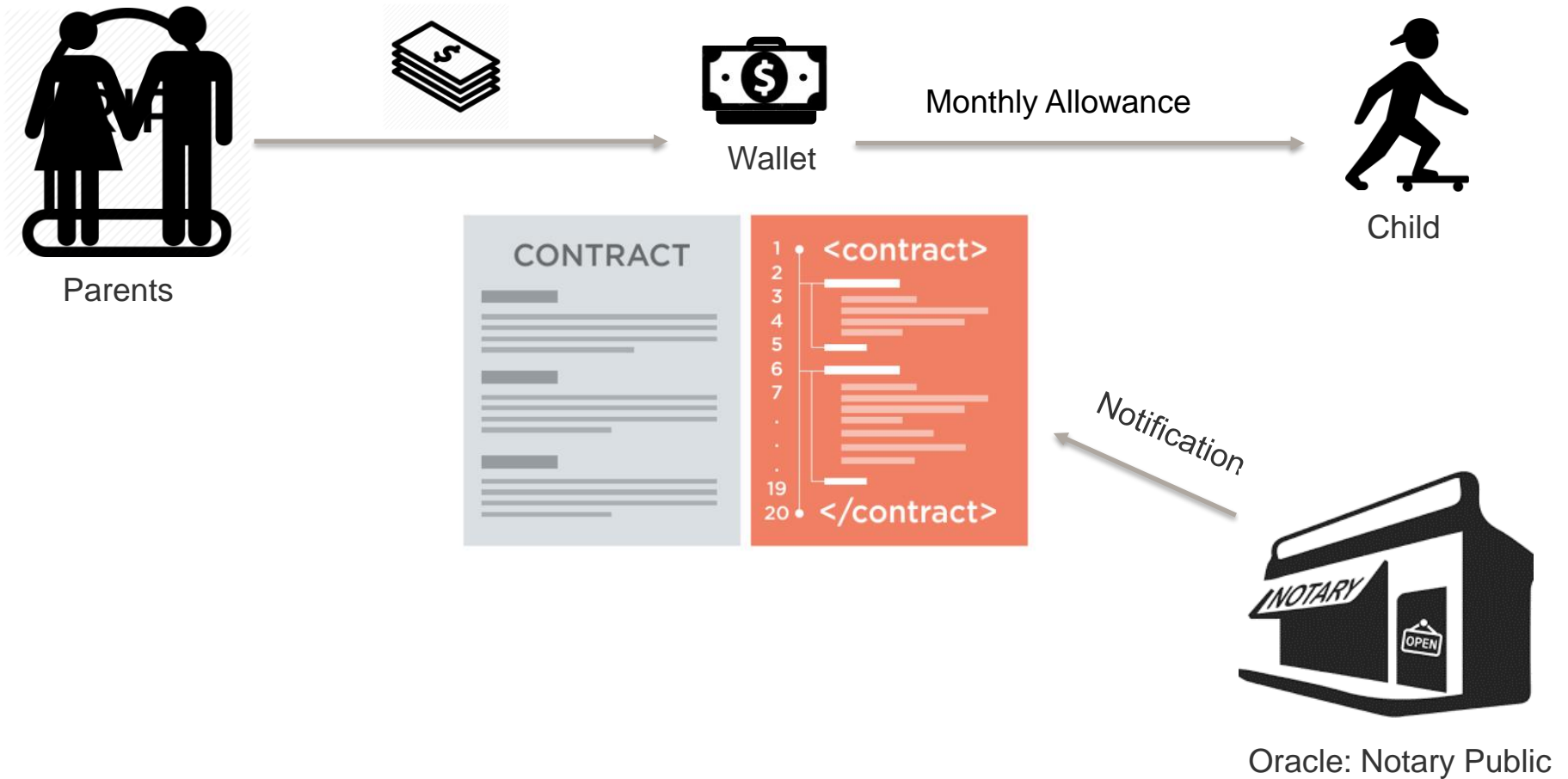
(*Source: Smart Contracts Market Research Report – Global Forecast to 2023)

Blockchain Smart Contracts vs Smart Legal Contracts

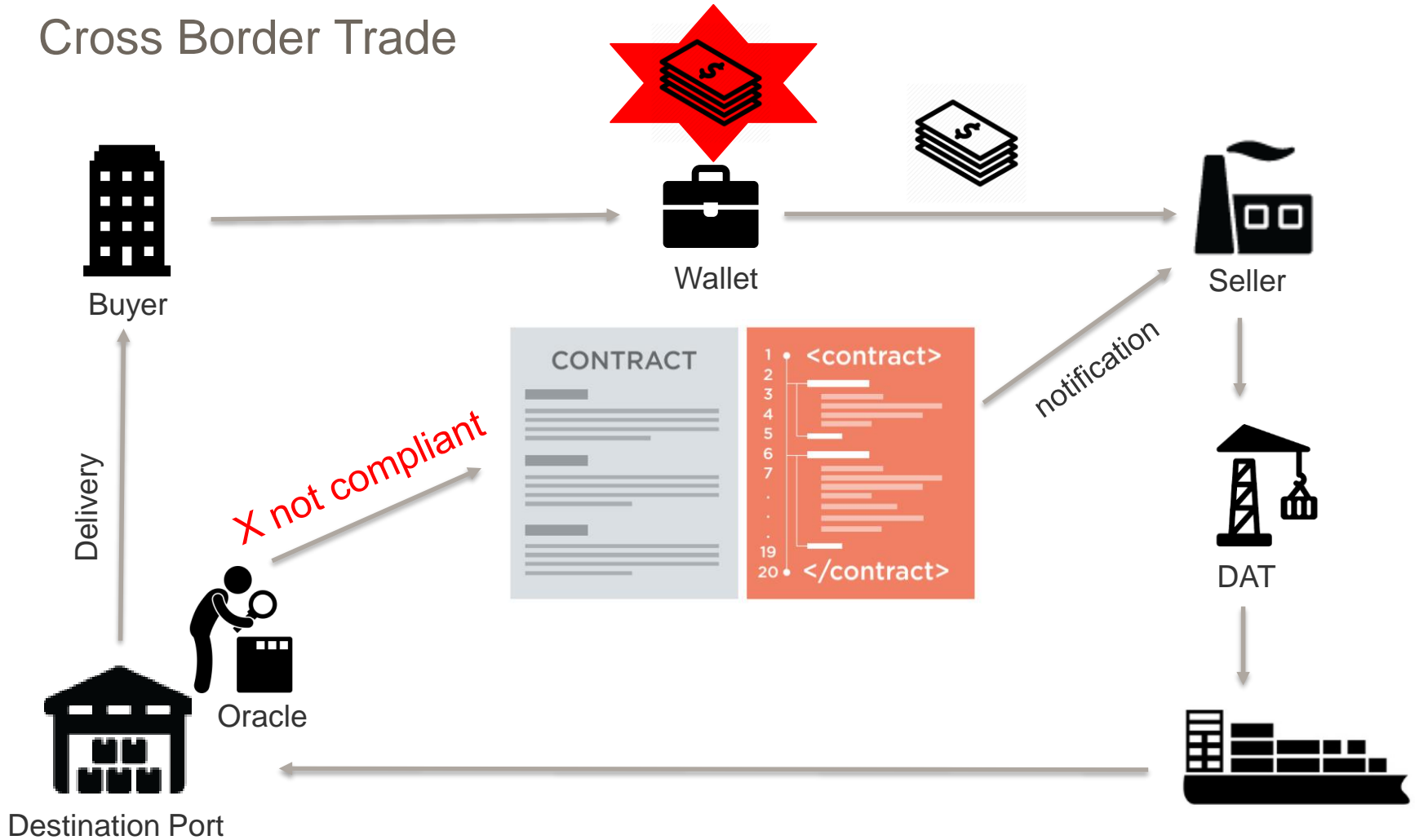
Legally Binding?

- Applicable law → new rules on validity and enforceability
- Hybrid version (traditional written contract + encrypted-coded smart contract)
- Validation of smart contract code to ensure faithfulness to legal text
- Operational semantics (actions to be performed) vs Non-operational semantics
- Dispute Resolution → Article II (1) and (2) of the New York Convention

Estate Planning



Cross Border Trade



Benefits of Smart Contracts

- ✓ Execution & transaction certainty (but less flexibility)
- ✓ Speed of execution
- ✓ Increase verifiability & transparency (DLT)
- ✓ Self-enforcement of contractual obligations (≠ traditional legal contracts)
- ✓ Remove the middlemen and trusted intermediaries
- ✓ Lower transactions costs

Potential Sources of Smart Contracts Disputes

- Unexpected performance issues (bugs, coding errors)
- Incorrect external data / false signal from IoT sensors
- Oracle's disappearance (long-term smart contracts)
- Parties may want to unwind a transaction on the grounds of misrepresentation, mistake or duress
- Discrepancies between the traditional written agreement and the coded-language
- Uncertainty over governing law and dispute resolution (decentralized nature of the blockchain)
- Sanctions (OFAC)

Arbitration proceedings as optimal dispute resolution?

State courts

- Potentially limited authority to order the alteration of the encoded obligations
- Alternative: court order to pay remedies to the aggrieved party for damages

-VS-

Arbitration

- Flexibility and swiftness of arbitral proceedings
- Bespoke arbitration process which may help overcome irrevocable nature of SC
- Selection of arbitrators with relevant technical knowledge

What dispute resolution mechanisms could be used?

Intra – blockchain dispute resolution

- Parties delegate to a Central Blockchain Administrator the authority to directly resolve disputes
- Dispute resolution conducted without formal parties' submissions



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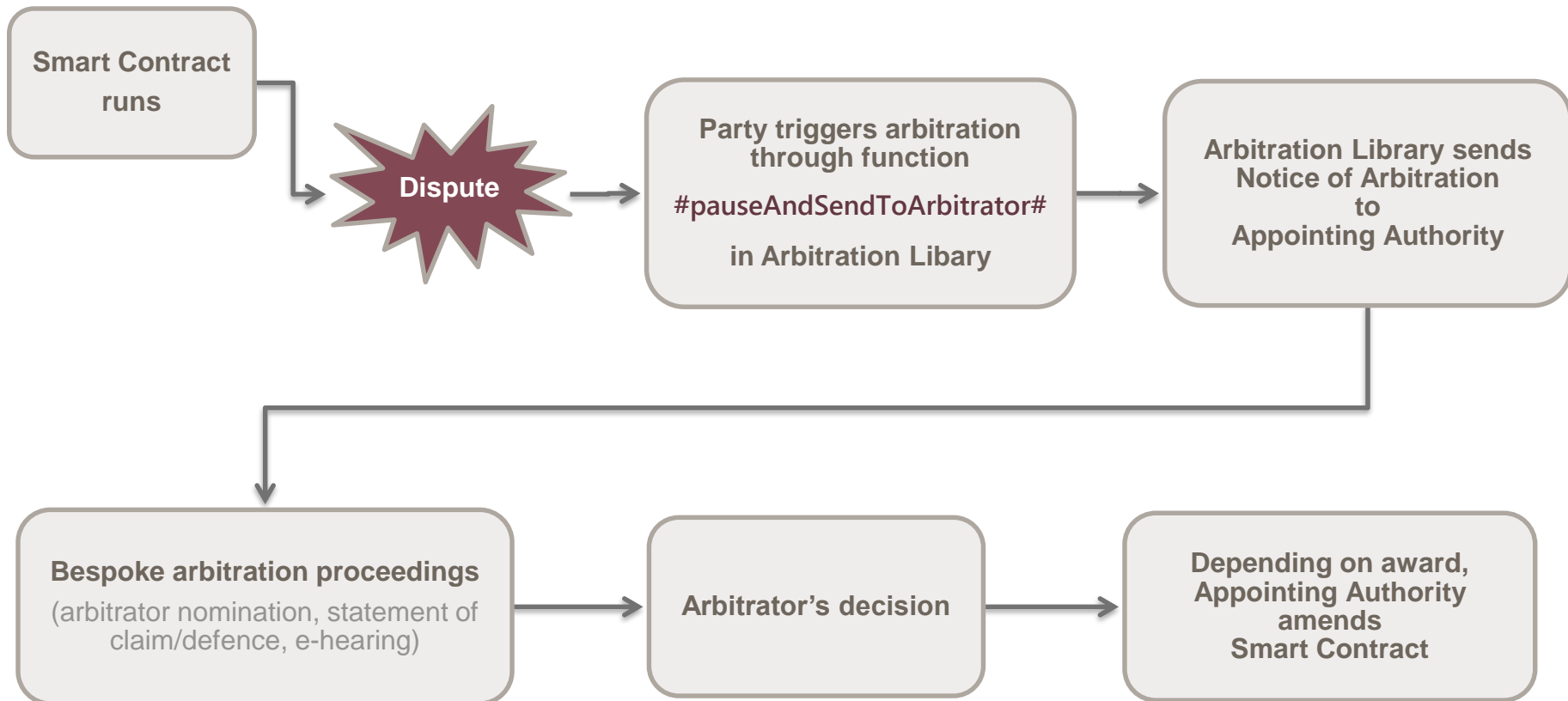
Arbitration Library Process

- Once triggered, pause execution and send a message to an Appointing Authority
- Appointing Authority
 - (i) propose an arbitrator to the parties -or-
 - (ii) provide a database with arbitrators from which the parties can choose



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Arbitration Library Process – Simplified



(Source: CodeLegit)

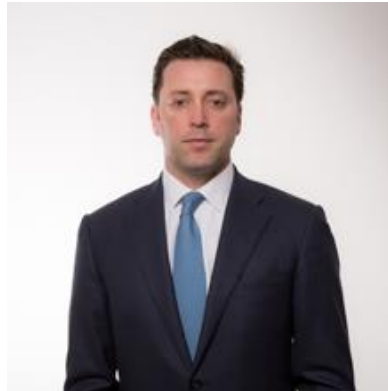
Arbitrating Smart Contracts Disputes – Legal Challenges

- Independency of private companies providing online dispute resolution services/platform (merchant's friendly?)
- Risk of invalidation by courts (depending on applicable Law on Consumer Protection and corresponding rights and prohibitions)
- Arbitration clause incorporated between anonymous parties may not be deemed as a valid arbitration agreement (e.g. Swiss case law)
- Central Blockchain Administrator may be unable or unwilling to amend the ledger

Conclusion

- Disputes will not disappear with self-executing smart contracts (dispute resolution mechanism is a must-have)
- Innovation within arbitration rules (so-called “Blockchain Arbitration Rules”)
- Emerging arbitration institutions aspiring to provide smart contracts dispute resolution
- Development of dispute resolution services/platforms for smart contracts (e.g. CodeLegit, Datarella, SAMBA, Kleros, etc.)
- Compatibility with consumer protection rights and data protection requirements

Thank you



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