



eCITES: Implementation Framework, Electronic Permit Information Exchange and the Blockchain Challenge

CITES: A Convention built on a permit



- ☐ Binding trade agreement for 183 Parties to control trade in endangered species
- ☐ Trade is regulated through the issuance, exchange and control of CITES permits
- ☐ Permit ensures legality, sustainability and traceability of trade

➔ The CITES permit is the key instrument of the Convention to control the trade in the species it protects

Illegal trade in wildlife

Number of pangolins legally traded and seized as contraband globally, aggregated 2007-2013

- ❑ Estimated 5 – 20 billion USD illegal trade in wildlife (excluding marine & timber)

- ❑ Illegal trade in wildlife is now ranked **4th in transnational crime**

- ❑ Frequent patterns:

 - ❑ organized crime

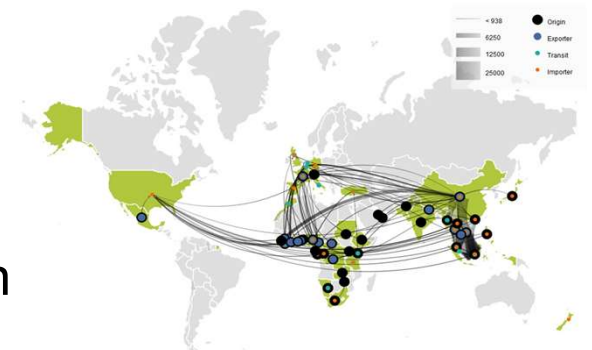
 - ❑ laundering of illegal trade with legal trade

 - ❑ trades through main ports and airports

 - ❑ often use of fraudulent paperwork

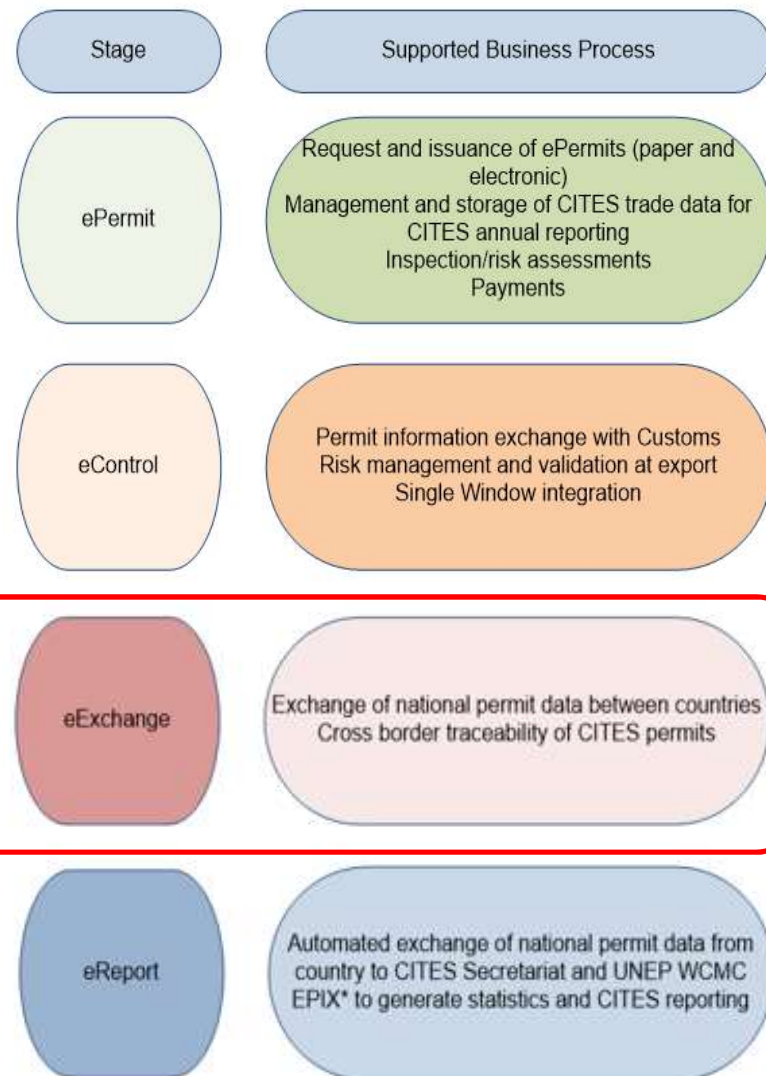
- ❑ Criminals exploit gaps in the control systems (manual procedures, lack of electronic information exchange & collaboration mechanisms)

➔ **Need electronic permit systems and electronic exchange of permits to prevent fraudulent use of permits**



Where we want to go: end-to-end control of Trade in CITES listed species

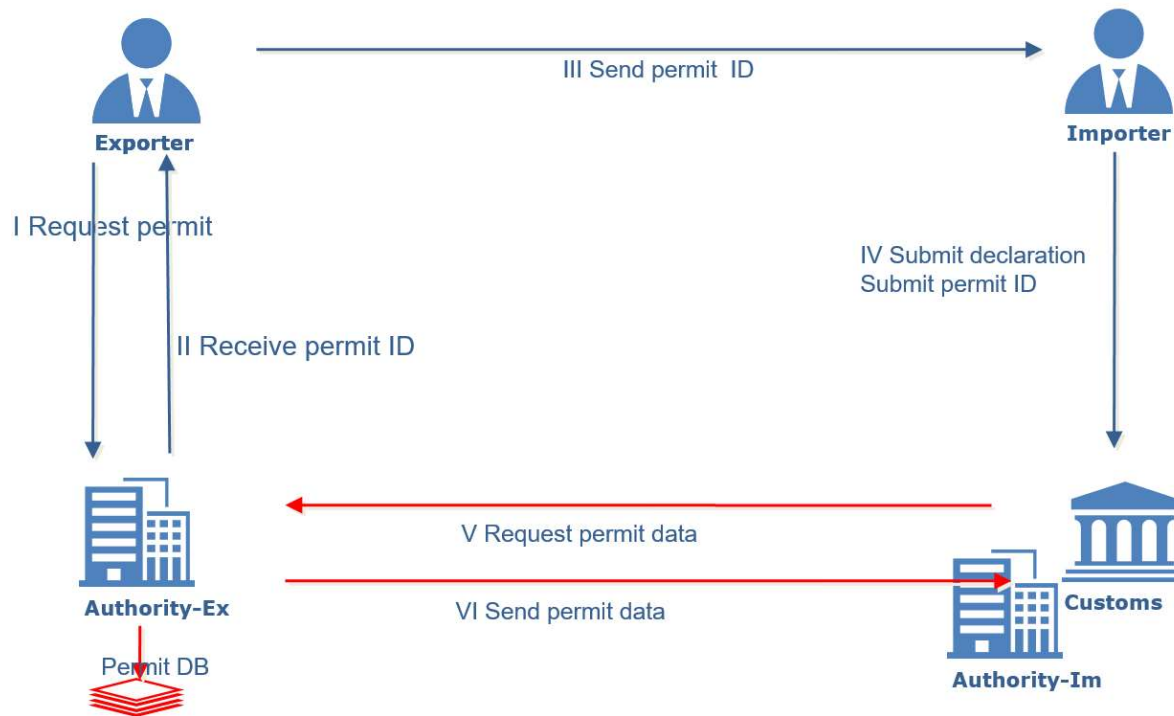
- ❑ **ePermit:** Automate CITES permit request, issuance and payment
- ❑ **eControl:** electronic information exchange with Customs & automated risk management
- ❑ **eExchange:** electronic permit exchange between authorities of different countries
- ❑ **eReport:** electronic information for automated reporting



eExchange

EPIX - Exchange of electronic permits between authorities in different countries

EPIX Permit cross border workflow



EPIX



- ❑ EPIX, the good:
 - ❑ Prevents any tempering of CITES permits
 - ❑ Creates end-to-end control in the CITES trade transaction
 - ❑ Based on simple, bullet-proved technology (Webservice)
 - ❑ Near zero running costs

- ❑ EPIX, the not-so-good: requires that both Parties
 - ❑ Both Parties need to have advanced electronic permitting systems
 - ❑ Trade process changes; all stakeholders rely on the electronic exchange between the MAs

- ➔ In the near future EPIX will not address the many-to-many permit exchanges between Parties

Is there another approach for secure, trusted exchange of CITES permits that is accessible to all Parties?

Blockchain for trusted exchange of CITES permits?

Blockchain for cross border exchange of paper and electronic permits:

- ❑ The (potential) good:
 - ❑ Allows exchange of electronic permits or scanned (digital) paper permits
 - ❑ An electronic permit system in the MA is not a precondition
 - ❑ Security, confidentiality, transparency and traceability
 - ❑ The not-so-good:
 - ❑ New technology with very limited experience
 - ❑ Requires a CITES BC permit exchange system: support/acceptance by Parties, traders and key government agencies (Customs)
 - ❑ Probably substantive implementation and operation costs
- BC **could** be a solution for secure and trusted exchange of CITES permits, accessible to all Parties

The CITES Blockchain Challenge

- ❑ We need research on the potential of Blockchain for CITES permit exchange
- ❑ CITES Blockchain Challenge, SC69 Inf.33
- ❑ *Can you conceive a BC system to transact CITES paper & electronic permits in a secure manner?*
- ❑ One (1) response: Technical University of Berlin and Adesso CH
- ❑ Proof-of-concept for a CITES Blockchain based on executable contracts and consensus



Things to take away



- ❑ eCITES implementation steps: ePermit → eControl → eExchange
- ❑ EPIX requires that the Party has advanced electronic permit system
- ❑ Blockchain *may* be a solution for secure and trusted exchange of CITES permits in paper and electronic format
- ❑ Without a robust, electronic permit system in the MA we may exchange untrusted permits in a trusted manner
- ❑ A technology is not the answer. What we do with a technology makes difference.

Computers are useless. They can only give you answers.

— Pablo Picasso

Thank you!

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