

RESOURCE

Trade & Technology

Blockchain in Practice Program

MATCH Prototype

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MATCH Final Report

Annex of MATCH Test Scenarios

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Scenario 1: Hypothetical Transfer

On 10 March 2021, Entity 1 in Baltica transfers 80,000 kg of methyldiethanolamine (MDEA) to Entity 2 in Gondwana. This amount is above both the threshold for Entities to report the transfer of a Schedule 3 chemical to the national authorities (according to the national legislation of both Baltica and Gondwana), and for national authorities to declare the transfer to the World Authority. Entity 2 receives the consignment on 5 April 2021 and records the same quantity of MDEA. Both Entities report the successful transfer of MDEA to the National Authority of Baltica and National Authority of Gondwana, respectively. The National Authority of Baltica declares the export and the

National Authority of Gondwana declares the import of MDEA to the World Authority, and the quantities of both declarations match.

Scenario 2: Quantity Mismatch

Entity 1 in Baltica transfers 162,000 kg of methyldiethanolamine (MDEA) to Entity 2 in Gondwana on 28 January 2022. Entity 1 reports the transfer of 162,000 kg of MDEA to the National Authority of Baltica. Entity 2 receives the consignment of MDEA on 1 March 2022 and reports the import to the National Authority of Gondwana. However, Entity 2 reports an import of only 127,000 kg of MDEA. In this simplified scenario, Entity 1 and Entity 2 either do not realize that there is a discrepancy in the quantity of MDEA transferred, or the error is the result of a mistake in record keeping by either of the Entities. It is also possible that the discrepancy has since been resolved by the Entities, but one or the other failed to report this to their respective national authorities.

As a result, the National Authority of Baltica declares the export of 162,000 kg of MDEA to the World Authority, while the National Authority of Gondwana declares an import of 127,000 kg of MDEA to the World Authority. There is a significant discrepancy in the declared quantities of the transfer, a concern for the World Authority.

Scenario 3: Misunderstanding of Aggregate Reporting

Entity 1 in Baltica transfers four consignments of triethanolamine (TEA) to Entity 2 in Gondwana. Entity 1 transfers 8,500 kg on 5 January 2022, 7,000 kg on 6 February 2022, 7,000 kg on 28 February 2022, and 7,500 kg on 14 March 2022. Entity 2 does not report these transfers to the National Authority of Baltica, mistakenly believing that the aggregate quantity of these four exports is beneath the threshold for reporting exports of Schedule 3 chemicals, according to the specific national thresholds imposed by Baltica. Entity 2, however, reports the import of 30,000 kg of TEA to the National Authority of Gondwana on 20 March 2022, because the aggregate quantity of TEA imported between January and March was above the threshold for declaring the import of Schedule 3 chemicals, according to the national thresholds imposed by Gondwana.

As a result, the World Authority receives an import declaration from the National Authority of Gondwana, but no matching export declaration from the National Authority of Baltica.

Scenario 4: Declaration of Transfer in Different Years

On 28 November 2021, Entity 1 in Baltica transfers 56,700 kg of triethanolamine (TEA) to Entity 3 in Laurentia. Entity 1 reports the export to the National Authority of Baltica on 28 November 2021. Entity 3 does not receive the consignment of TEA until 4 January 2022. Entity 3 reports the import of 56,700 kg of TEA to the National Authority of Laurentia on 4 January 2022. As a result, the World Authority receives an export declaration of 56,700 kg of TEA from the National Authority of Baltica, as part of Baltica's Annual Declaration on Past Activities for 2021 (which must be declared to the World Authority within 90 days after 1 January 2022, according to the declaration deadline for Annual Reports on Past Activities), while the related import of 56,700 kg of TEA is declared by the National Authority of Laurentia as part of the Annual Declaration on Past Activities for the year 2022 (which must be declared to the World Authority within 90 days of 1 January 2023.)

Scenario 5: Declaration of Transfer from Different Origin Countries Due to Transnational Transit

Entity 3 in Laurentia transfers 286,702 kg of phosphorus trichloride (PHT) to Entity 4 in Nena on 2 January 2022. The consignment of PHT is temporarily unloaded from its transport on 14 February 2022 and stored in a facility in Vaalbara. The consignment of PHT leaves the storage facility in Vaalbara and is transferred to Entity 4 on 4 April 2022. Entity 3 correctly reports to the National Authority of Laurentia that 286,702 kg of PHT was exported to Entity 4 in Nena. Entity 4, however, incorrectly reports to the National Authority of Nena that the origin of the transfer of 286,702 kg of PHT was Vaalbara. As a result, the World Authority receives a declaration from National Authority of Laurentia claiming that 286,702 kg of PHT was transferred to Nena. The National Authority of Nena, however, declares the import of 286,702 kg of PHT from Vaalbara.

Scenario 6: Customs Union Declarations Discrepancy

Entity 2 in Gondwana transfers 78,646 kg of phosphorus trichloride (PHT) to Entity 1 in Baltica which is a member of a customs union with Laurentia and Nena. Entity 1 proceeds to transfer 35,500 kg of PHT to Entity 3 in Laurentia, and 32,600 kg to Entity 4 in Nena.

- Entity 2 reports to the National Authority of Gondwana the export of 78,646 kg of PHT to Entity 1. Entity 1 reports to the National Authority of Baltica the import of 78,646 kg of PHT from Entity 2.
- Entity 1 does not report the transfers of 35,500 kg of PHT to Entity 3 and 32,600 kg of PHT to Entity 4, incorrectly believing it has no responsibility to report transfers that occur within a customs union.
- Entity 3 also does not report the import of 35,500 kg of PHT to the National Authority of Laurentia, incorrectly believing that it has no responsibility to report a transfer which occurred within the customs union.
- Entity 4, however, does report the import of 32,600 kg of PHT to the National Authority of Nena.

As a result, the World authority receives a declaration from the National Authority of Gondwana of the export of 78,646 kg of PHT to Baltica, and the declaration from the National Authority of Baltica of the import of 78,646kg of PHT from Gondwana. The World Authority also receives a declaration from the National Authority of Nena of the import of 32,600 kg of PHT from Baltica, but no matching export declaration from the National Authority of Baltica. The World Authority is also not aware of the transfer of 35,500 kg of PHT from Baltica to Laurentia.

Scenario 7: Free Trade Zone Declarations Discrepancies

Entity 1 in Baltica transfers 184,500 kg of methyldiethanolamine (MDEA) to Entity 3 in Laurentia which is a member of a free trade zone with Nena and Vaalbara. Entity 3 proceeds to export 30,750 kg to Entity 4 in Nena, and 81,000 kg to Entity 5 in Vaalbara. Entity 5 also transfers 32,500 kg of MDEA to Entity 2 in Gondwana, who is not a member of the free trade zone.

- Entity 1 reports the transfer of 184,500 kg of MDEA to Entity 3 to the National Authority of Baltica.
- Entity 3 reports the import of 184,500 kg of MDEA from Entity 2 to the National Authority of Laurentia.
- Entity 3 does not report the exports of 30,750 kg to Entity 4, and 81,000 kg to Entity 5.
- Entity 5 does report the export of 32,500 kg of MDEA to Entity 2 to the National Authority of Vaalbara.
- Entity 2 also reports the import of 32,500 kg of MDEA from Entity 5 to the National Authority of Gondwana.

As a result, the World Authority receives matching declarations of the transfer of 184,500 kg of MDEA between Baltica and Laurentia, but no declarations of the transfers

from the National Authority of Laurentia of 30,750 kg of MDEA to Nena, or 81,000 kg to Vaalbara. The World Authority does receive matching declarations of the transfer of 32,500 kg of MDEA between Vaalbara and Gondwana.

Scenario 8: Declaration Mismatch Due to Incorrect Chemical Name

In 2021, Entity 6 in Baltica is recognized as an exporter of Amgard 1045 and given access to the MATCH platform by the National Authority of Baltica as an Entity user, capable of making reports to the National Authority of Baltica. Entity 6 in Baltica transfers 1,200 kg of Amgard 1045 to Entity 5 in Vaalbara. Entity 6 correctly reports the export of Amgard 1045 to Entity 5 to the National Authority of Baltica, but Entity 5 mistakes the consignment of Amgard 1045 for a different phosphonic acid, CAS RN 41203-81-0, which is a component chemical of the mixture which comprises Amgard 1045, and an altogether separate Schedule 2 chemical. As a result, the National Authority of Baltica declares the export of 1,200 kg of Amgard 1045 to the World Authority, but the National Authority of Vaalbara incorrectly declares the import of 1,200 kg of CAS RN 41203-81-0.

Scenario 9: Different National Concentration Thresholds for Reporting

Entity 6 exports a chemical mixture containing a 20% concentration of Amgard 1045. Entity 6 transfers 5,000 kg of this mixture from Baltica to Entity 4 in Nena on 1 September 2021. Entity 3 in Laurentia also exports an identical mixture to Entity 4 on 5 November 2021. The National Authority of Baltica imposes a national concentration threshold for transfers of Schedule 2B chemicals lower than the World Authority's 30% concentration declaration threshold. Because of this, Entity 6 reports the export to the National Authority of Baltica, who requires reports of transfers of 20% concentrations of Schedule 2B chemicals. Also, 20% of 5,000 kg is 1,000 kg, above the Baltica's national threshold for reporting (and World Authority's declaration threshold). However, Entity 3 does not report the export to the National Authority of Laurentia, who imposes a 30% national threshold for concentrations of Schedule 2B chemicals. Entity 4 also does not report the import of 2,000 kg of Amgard 1045 to the National Authority of Nena, who likewise imposes a concentration threshold of 30% for concentrations of Schedule 2B chemicals, regardless of quantity. As a result, only the National Authority of Baltica declares the export of 1,000 kg of Amgard 1045 to the World Authority. The World Authority does not receive a matching import declaration from the National Authority of Nena and is unaware of the transfer of an additional 1,000 kg of Amgard 1045 from Laurentia to Nena.