

## WEBINAR

# Data transmission and regional reporting

## Statistical Data and Metadata eXchange (SDMX) for SDGs

Abdulla Gozalov (UNSD) & Lucy Gwilliam (ONS)



Data transmission and regional reporting



# Introduction to SDMX



- An initiative sponsored by seven international organizations
- SDMX aims to standardise data and metadata exchange between international organisations and member countries
- Standards for:
  - Structuring of statistical data
  - Packaging of statistical data as XML, JSON, CSV, and other formats
  - Registry of data and metadata
- Specifications, guidelines, tools, and manuals are freely provided to support implementation
- Data Structure Definitions (DSDs) and Metadata Structure Definitions (MSDs) are developed and used to model data for statistical subject-matter domains, such as National Accounts, Labour, or SDGs
- Data and metadata are then structured according to the DSD or MSD, and disseminated or exchanged as SDMX

# SDMX-SDGs working group



- Working Group on SDMX for SDG Indicators established by IAEG-SDGs in April 2016
- Objectives:
  - Develop global Data Structure Definition(s) and Metadata Structure Definition(s) for SDG Indicators
    - Standards for the packaging of SDGs data and metadata including concepts, codes, structures
  - Develop, pilot, and establish data exchange mechanisms for SDG indicators
    - Dissemination and reporting at national, regional, global level
- First meeting: Oct 2016, monthly virtual meetings since
- Draft DSD: Feb 2018
- Pilot data exchange: Apr – Sep 2018
- Official DSD and start of production data exchange: Jun 2019
- Pilot metadata exchange: Oct 2020; release of MSD: Dec 2020

# SDG Global Platform



- Consists of the Global SDG Indicators Database and SDG Lab

## **Global SDG Indicators Database:**

- Maintained and regularly updated by the Statistics Division
- Makes data on the global SDG indicators available to all users
- Includes both country-level data and regional and global aggregates
- Contains official SDG indicators from the Custodian Agencies, compiled using harmonised methodology that makes the figures internationally comparable

## **SDG Lab:**

- Provides data exchange and comparison functionality
- Contains SDG indicators from the Global SDG Indicators Database as well as national figures submitted by countries

# SDG Lab



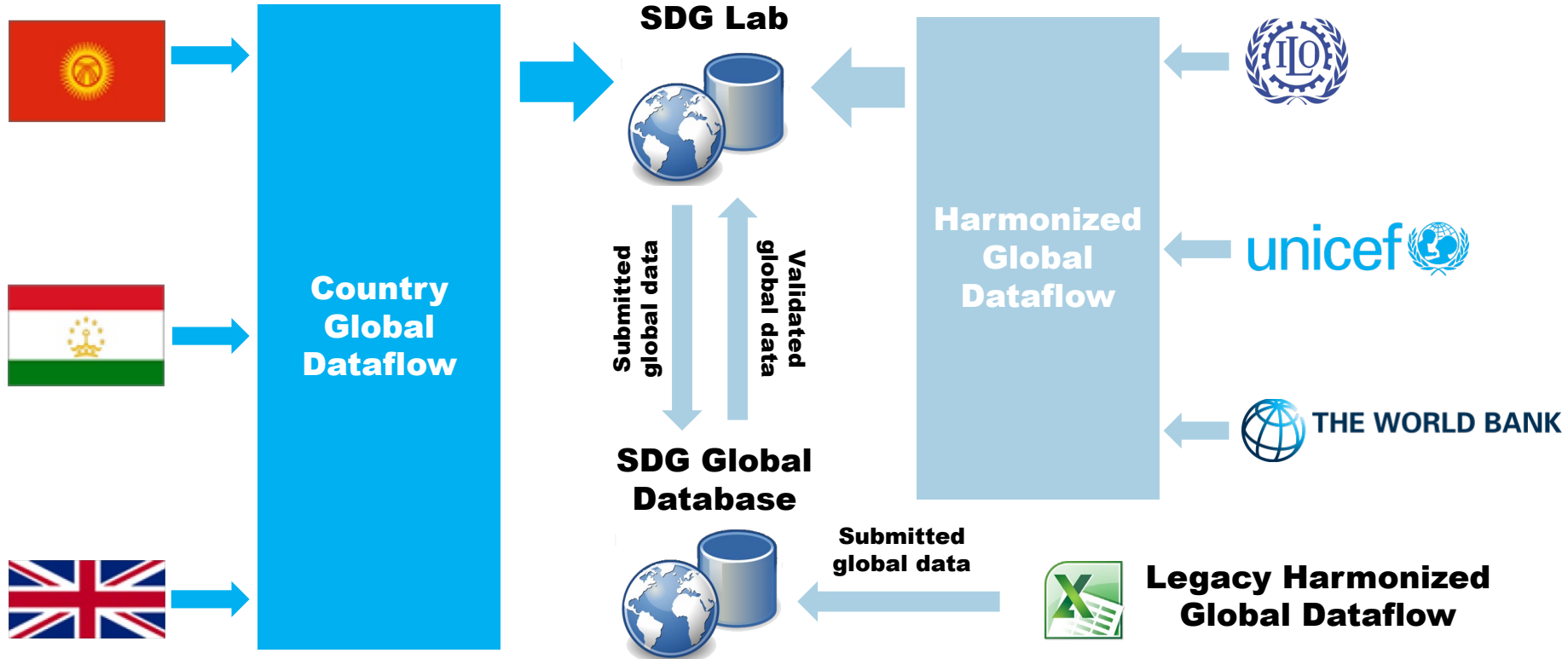
The SDG Lab is an online platform established by UNSD to:

- I. Allow the exchange of SDG indicator data, and soon metadata, by countries and SDG custodian agencies with UNSD.
- II. Allow the comparison of national data provided by countries against the global data provided by the custodian agencies.
- III. Gradually replace all of other forms of data submission to the UNSD SDG Global Platform.

SDG Lab is developed as part of the UNSD-DFID Project on SDG Monitoring and is open to all countries



# SDMX dataflows for SDG reporting



# Global and National DSDs



## **Global SDG DSD:**

- Used by both countries and SDG Custodian Agencies to submit their data to the SDG Lab through the global dataflows
- Supports the official global SDG indicators and their disaggregation

## **National SDG DSDs:**

- Countries can create national customised DSDs, and establish national dataflows, by extending the global DSD with their own indicators, disaggregation, and codes e.g. subnational reference areas or custom age groups, as well as national disaggregation
- Cannot be used to report to the SDG Lab
- Are used to disseminate the full national dataset in the SDMX format, as well as in support of dissemination platforms such as Open SDG

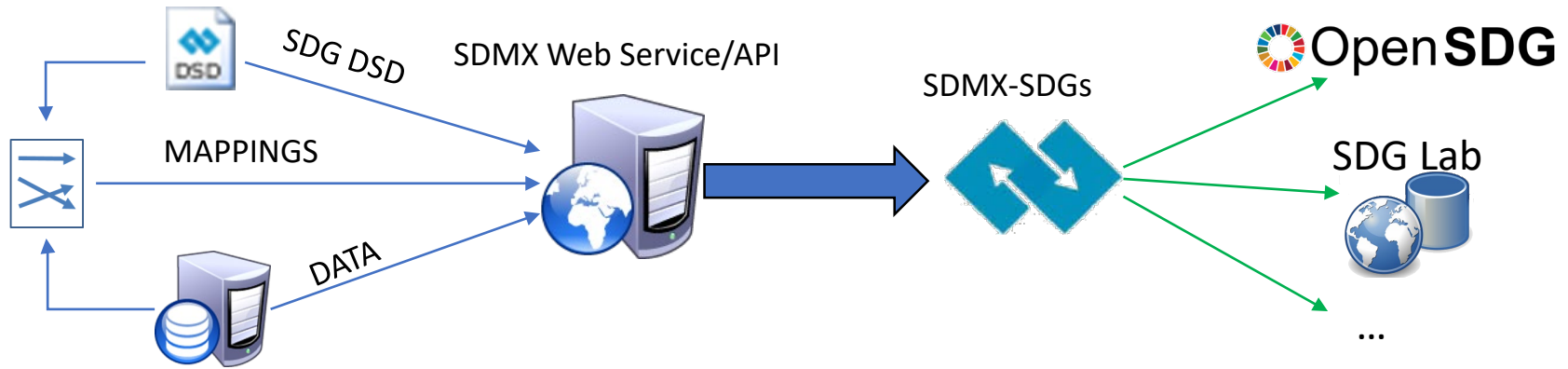
# Tools and platforms used for SDMX-SDG reporting



- A range of tools exist that can be used to support SDMX reporting in various infrastructure environments
- Some of the commonly used free tools include:
  - Eurostat's SDMX Converter and ILO SMART, which enable mapping data in Excel, CSV, or similar formats to a DSD and its conversion to SDMX
  - Eurostat's SDMX Reference Infrastructure, which enables mapping a database to a DSD and subsequently automatically establishing an SDMX API
  - ILO DSD Constructor and OECD SDMX Matrix Generator, which facilitate DSD maintenance

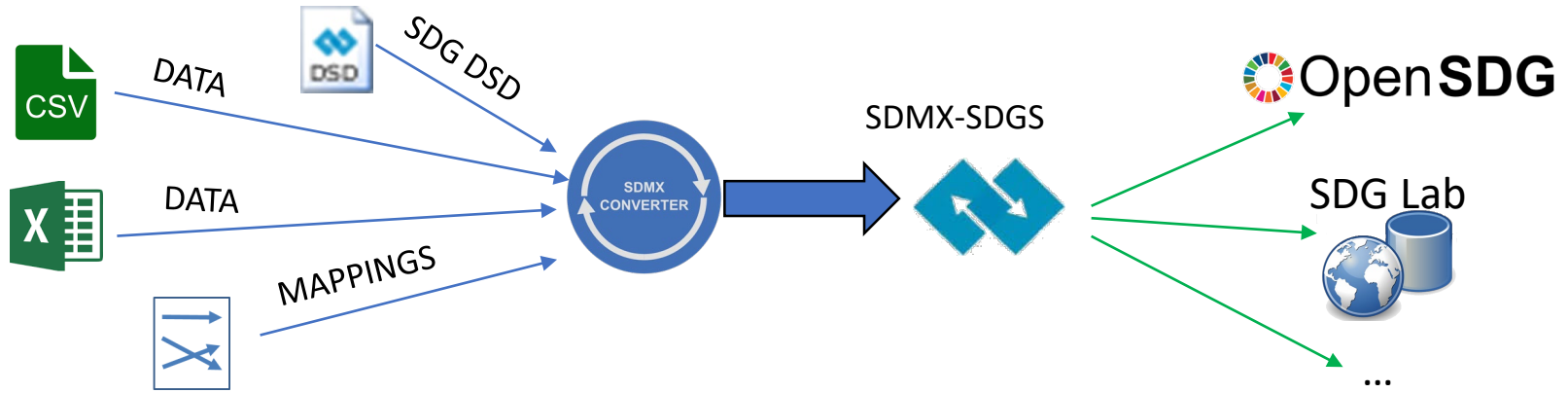


# Scenario: existing database



- Most efficient scenario
- Use software such as **SDMX Reference Infrastructure** to map the database to the DSD
- Once mapped, full SDMX API is available
- No software development!
- Most effort goes to mapping

# Scenario: no database



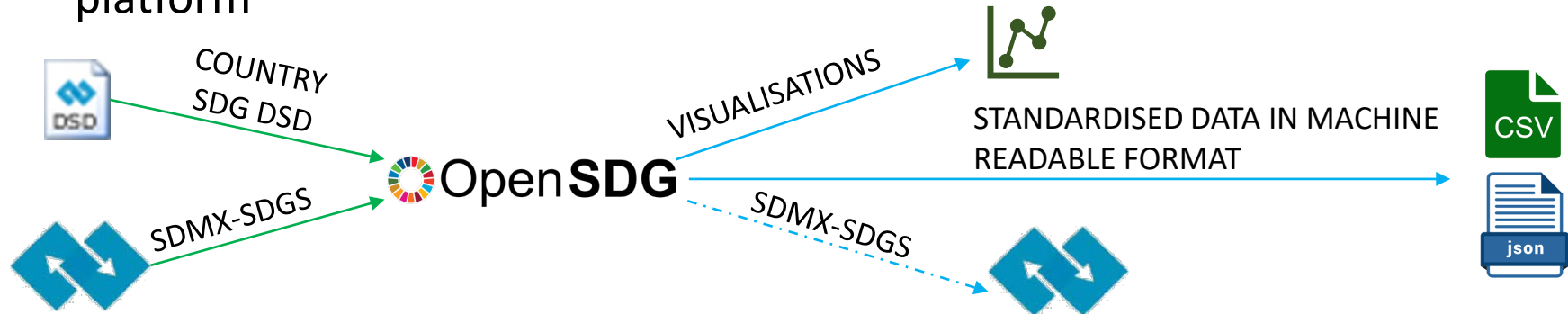
- Map data files to the SDG DSD
- Once mapped, use tool such as **SDMX Converter** to transform the data to SDMX files
- No software development!
- Most effort goes to mapping

# Tools and platforms used for SDMX-SDG reporting



## Open SDG:

- An open-source, free-to-use SDG reporting platform
- Currently has functionality for SDMX input
- SDMX input functionality means that Open SDG users can upload standardised data, and in the future, metadata to their platforms
- Will soon be adding functionality for SDMX download, which will simplify data exchange and enable the user to download SDMX directly from the platform

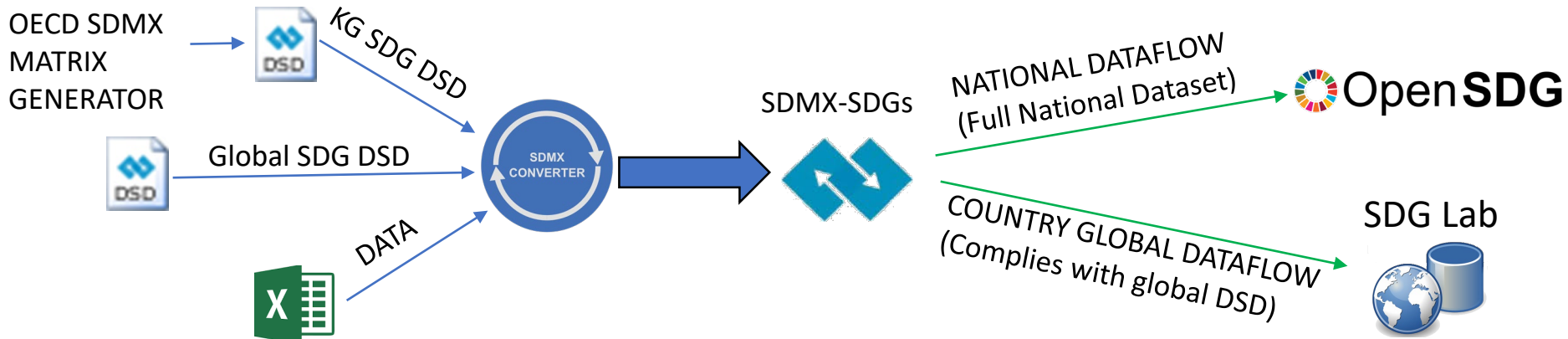


# Kyrgyzstan case study



- Kyrgyzstan began implementing SDMX for their SDGs in May 2019
- Have received in-country and remote support for implementing SDMX and using Open SDG
- Use SDMX Matrix Generator and SDMX converter
- They now have two data flows set up

## Dataflows:



**Thank you!**

28.04.2020



**Data transmission and regional reporting**

