



Examples of automation across UNECE

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Outline

- Why use automation for data transmission
- Types of automation used for data transmission
 - Use of application programming interfaces (APIs)
 - Use of coding to access data at predictable URLs
- Examples
 - UK – use of coding
 - Open SDG – use of APIs
 - Tajikistan – automation throughout SDG flows

Why use automation for data transmission?

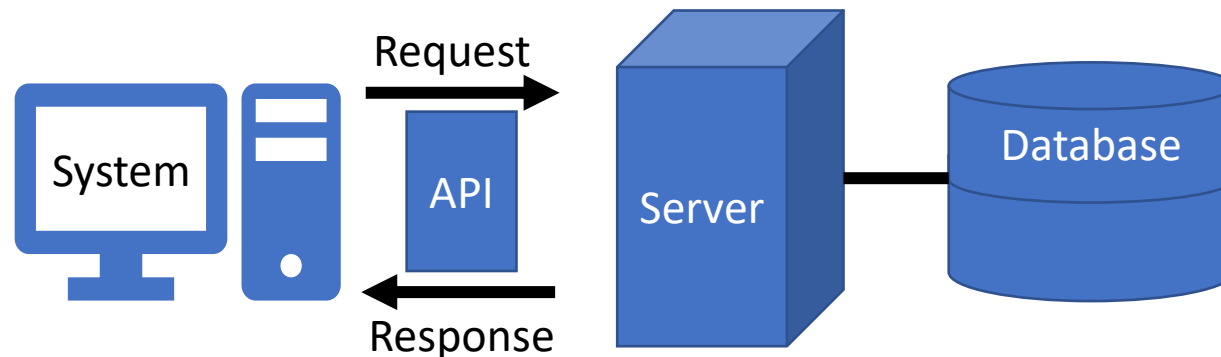
Data transmission automation helps:

- speed up processes that would otherwise be very time-consuming if carried out manually.
- reduce errors that may be introduced when manually entering data
- conserve resources for other projects that cannot be automated

It's important to consider the resource it takes to set up an automated process against the expected benefits including overall time spent and the improved quality that automation may bring.

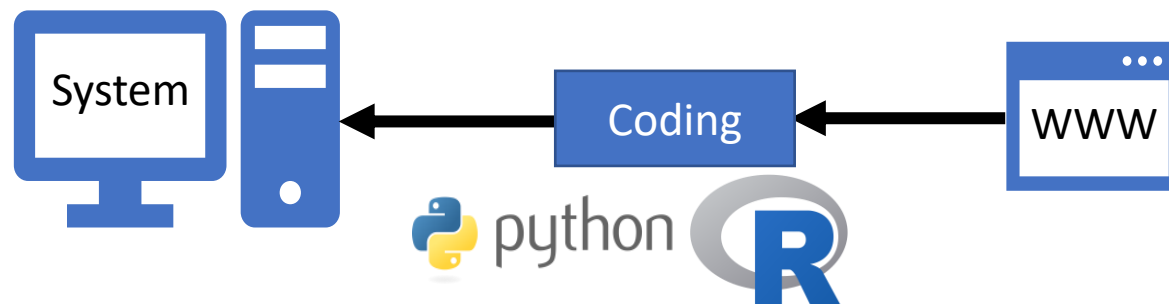
Use of APIs

- An API is a piece of software that allows two different applications to talk to each other in order to automate processes.
- APIs can give direct access to the data you want but in some cases some manipulation may still need to be done, depending on the software and format provided
- APIs aren't always provided and when they are they may be limited or have a resource implication.



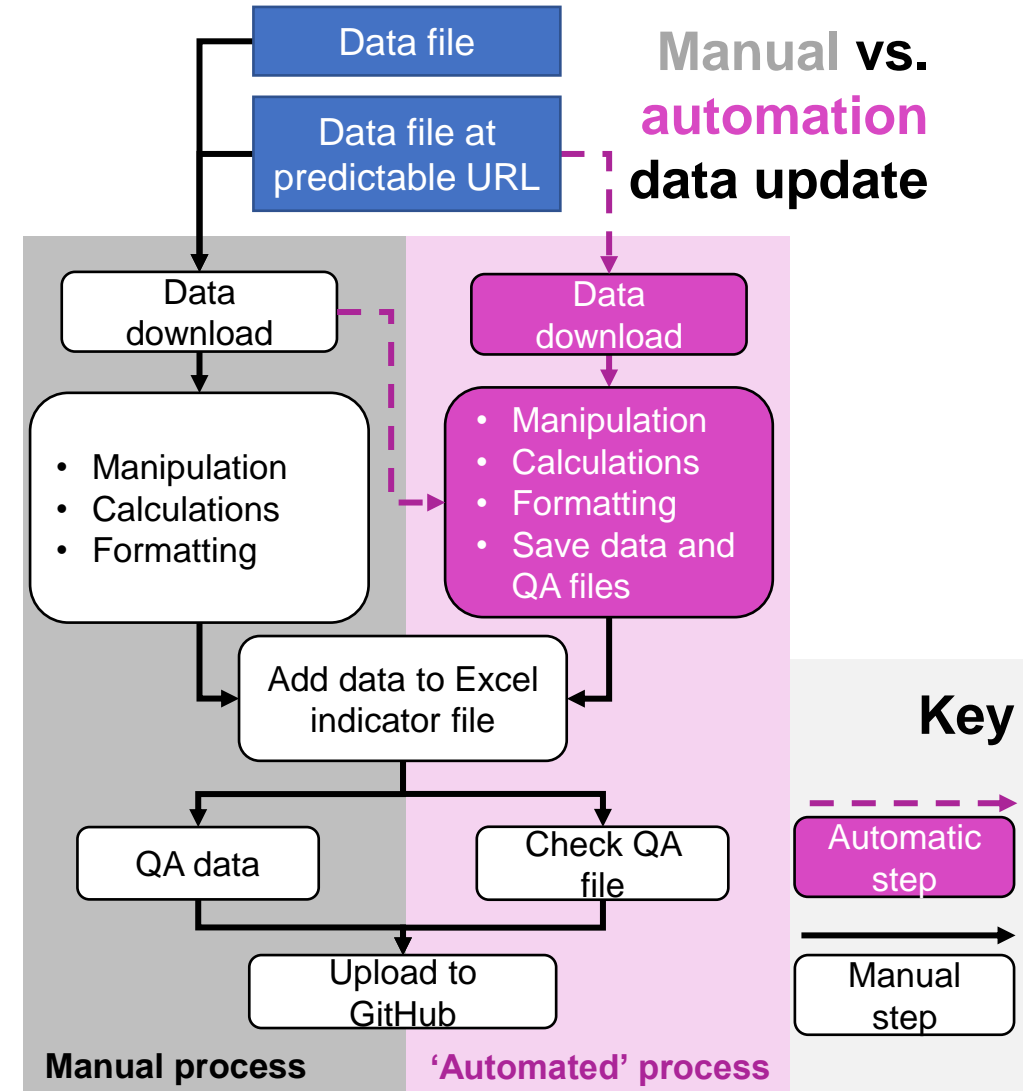
Use of coding

- When data is available at a predictable URL, programming languages such as R or Python can be used to access that data and manipulate it into the format required.
- This method allows for data to be downloaded from any website
- Depending on the format and structure of the data being provided, this method may need varying amounts of resource to set up and maintain



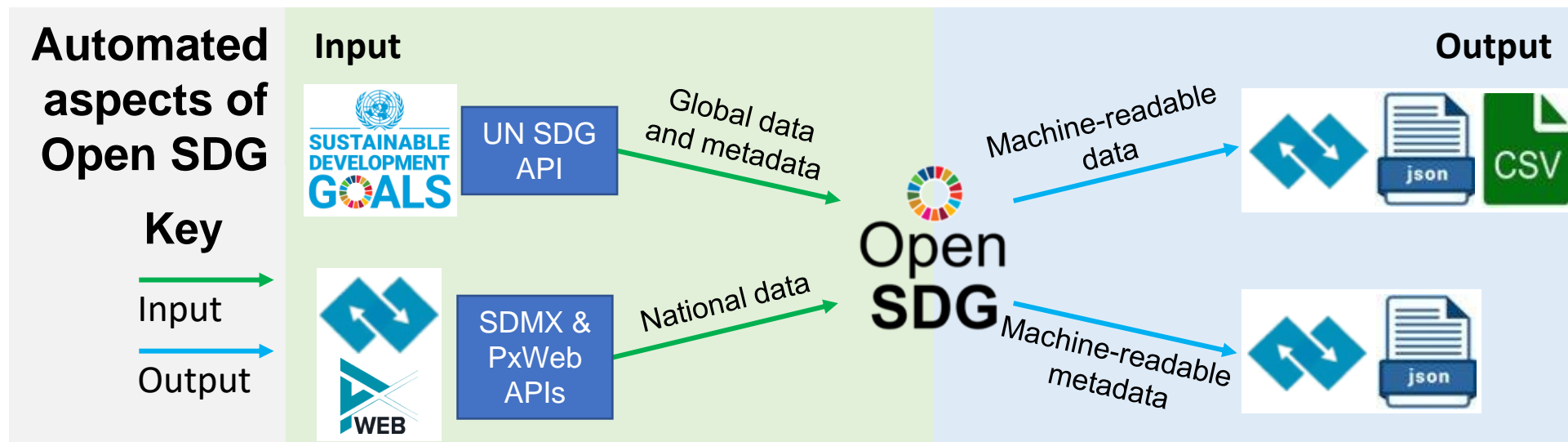
UK: preparing data in required format

- The UK ONS SDG team use coding to automate some data collection which provides clear time improvements in the data update process
- The following automation is carried out for selected indicators:
 - Manipulation
 - Calculation
 - Formatting
 - Part of quality assurance process
- We will also exploring pulling data from a cross-government data service



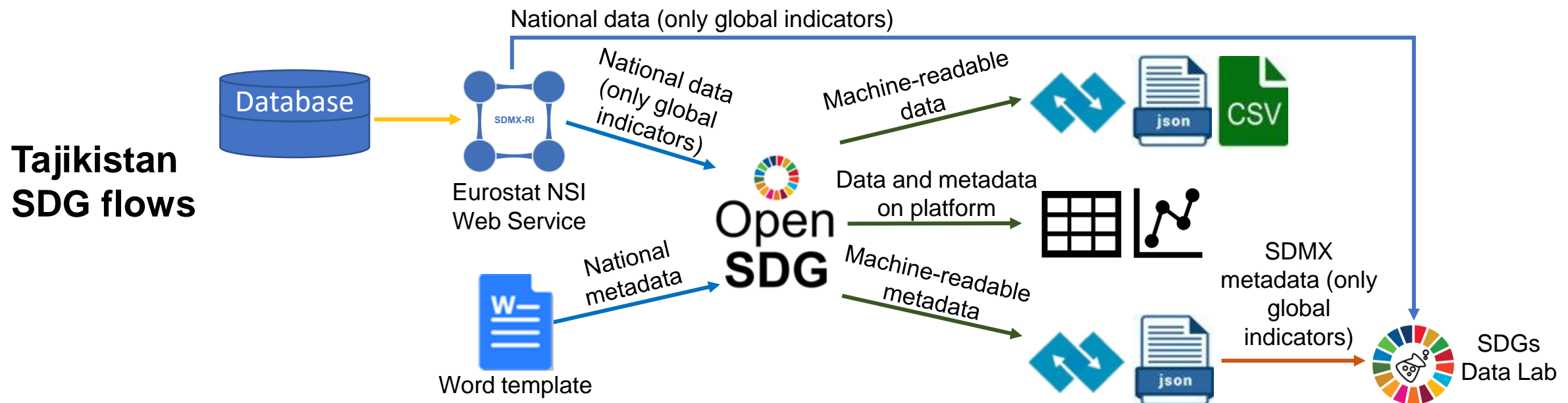
Open SDG: use of APIs for data and metadata

- Open SDG users can benefit from the use of APIs to populate their platform by
 - pulling global data and metadata from UN SDG SMDX API
 - pulling national data from a country's SDMX API or PxWeb API
- All platforms output machine-readable data and metadata at predictable URLs to help with automated transmission from platforms



Tajikistan: automation throughout SDG flows

- Automated transmission used throughout SDG data and metadata flows
- Configured API over their database allowing SDG data to be pulled directly into their Open SDG platform and SDGs Data Lab
- Open SDG platform converts uploaded Word metadata file into SDMX-ML which is then uploaded to SDGs Data Lab, avoiding need for separate conversion tool



Contact details

If you want to learn more about any of the example cases, get in touch with:

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- Open SDG team: opensdg@googlegroups.com
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