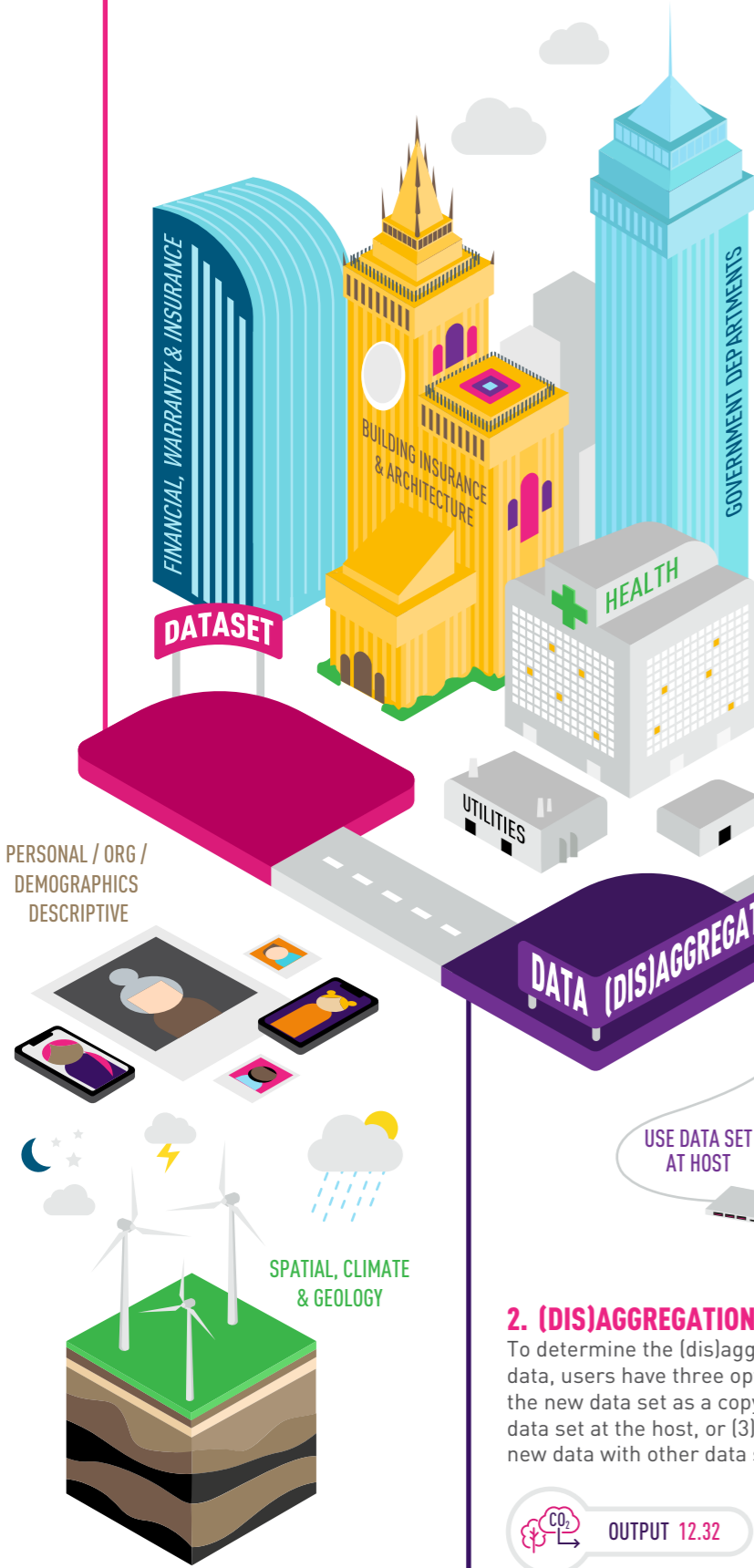


DATA CARBON LADDER

TO DISCOVER THE CARBON FOOTPRINT OF YOUR DATA PRACTICES

1. DATASET

To diagnose the data carbon footprint along the data journey, the ladder begins with the selection of a dataset. A new ladder is completed for every new dataset, until the minimum viable level of data is achieved to fulfil the task or solve the problem.



2. (DIS)AGGREGATION

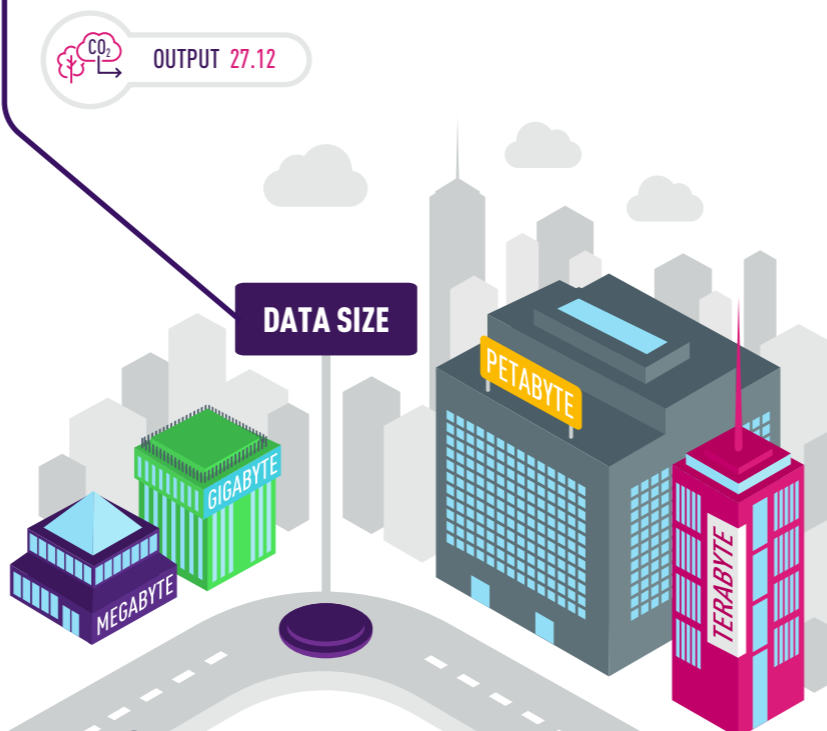
To determine the (dis)aggregation of the new data, users have three options: (1) importing the new data set as a copy, (2) utilising the data set at the host, or (3) aggregating the new data with other data sets.

OUTPUT 12.32

3. DATA SIZE

A data carbon score of the proposed dataset can be directly calculated from the size of the dataset, the user can choose to measure dataset size in MB, GB, TB, or PB, depending on appropriateness.

OUTPUT 27.12

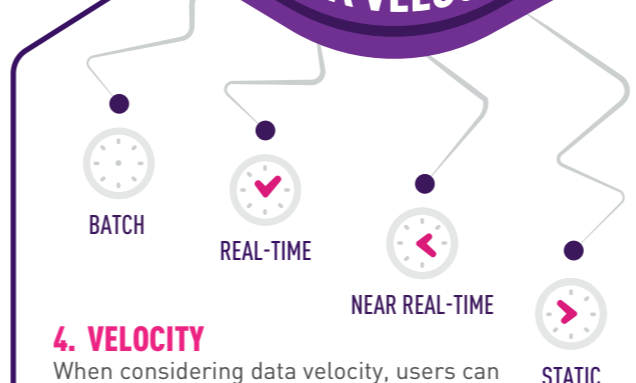


4. VELOCITY

4. VELOCITY

When considering data velocity, users can choose from four options: Static, Batch, Near-real Time, and Real-Time, representing the desired frequency of data processing. The "rate of size increase" can be measured in units MB, GB, TB, or PB.

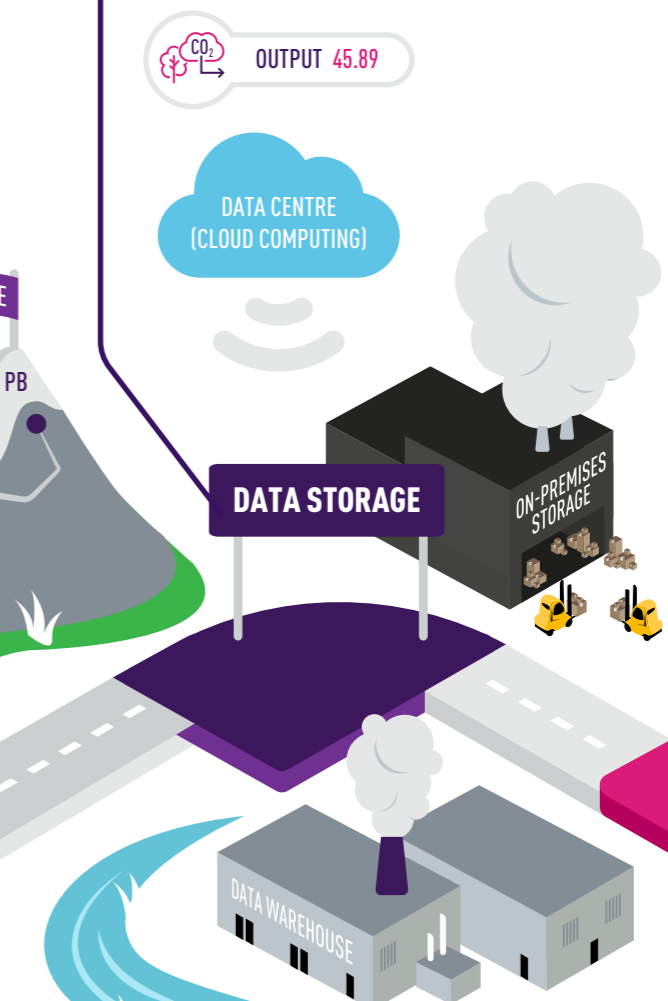
OUTPUT 33.09



5. STORAGE

When it comes to data storage, users have three options to consider: Store at Host with zero carbon cost, (2) Data Lake, Data Warehouse or Data Centre or (3) On-premises. If the user is unsure where the dataset is being stored the default should be data centre.

OUTPUT 45.89



6. ANALYTICS

Users can select the type of data analytics they wish to perform from four options. These options range from descriptive analytics, (e.g. simple spreadsheet), to cognitive analytics powered by AI. Each analytics approach corresponds to an increase in CPU usage.

OUTPUT 53.65

