

# Service category-specific KPIs

**Database:** software providing large amounts of structured data to the user. Usually the data can be uploaded, accessed, searched and/or downloaded via a web browser.

## Databases

- #Visits
- #Citations
- #Unique users/visitors
- #Recurring users/visitors
- #Support tickets
- #Publications
- #Citation DOIs\*
- #Downloads\*
- #Hits\*

## Tools / applications

- #Downloads
- #Citations
- #Support tickets
- #Downloads\_distinct\_IPs\*
- #Users\*
- #Executions\*

**Tool / application:** software that can be downloaded and executed locally on the users' hardware.

## Support / consulting

- #Support tickets
- #Publications
- #Citations\*

**Support / consulting:** service with direct user contact for topics going beyond the support for the other services.

**Library / API:** collection of pre-implemented functions for a specific task that can be accessed via a well-defined interfaces.

## Libraries / APIs

- #Downloads
- #Citations
- #Support tickets
- #Publications
- #Grant applications\*

## Web applications

- #Citations
- #Visitors
- #Visits
- #Visits duration\*
- #Pageviews
- #Actions
- #Actions per visit\*
- #Support tickets\*
- #Users\*

**Web application:** software that is installed on a server and can be used by users via a web page and the internet.

**Workflow / pipeline:** software that combines multiple tools / applications. They may be used locally or remotely via the internet.

## Workflows / pipelines

- #Citations
- #executions
- #Users\*
- #Projects\*
- #Storage usage\*

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## Definitions of key performance indicators (KPIs)

- #Actions: number of actions performed (page views, downloads, searches, outlinks)
- #Actions per visit: average number of actions per visit.
- #Citations (Support/consulting): number of citations of the publications included in "#Publications (Support/consulting)"
- #Citations: number of citations of the publication(s) describing the service.
- #Citation DOIs: Search for specific DOIs
- #Downloads (databases): number of downloaded datasets.
- #Downloads (tools, libraries/APIs): number of software downloads.
- #Downloads\_distinct\_IPs: number of software downloads from year-wise distinct IPs.
- #Executions: number of executions of the software.
- #Grant applications: number of grant applications related to the service.
- #Hits: number of hits without robots.
- #Pageviews: number of times a page has been viewed.
- #Projects: number of projects related to the service.
- #Publications (databases): number of publications as first and co-author in peer reviewed journals describing the database.
- #Publications (Support/consulting): number of publications with explicit mention of de.NBI-staff/de.NBI-service in the acknowledgements section or where de.NBI staff is included in author list and de.NBI is mentioned explicitly.
- #Recurring users (databases): number of unique users without robots.
- #Storage usage: amount of storage used by the service.
- #Support tickets: number of user requests regarding the service.
- #Unique users: number of unique users without robots.
- #Users (tools/applications & workflow/pipelines): yearly number of distinct IPs from "phoning home".
- #Users (webapplications): number of registered users.
- #Visitors: number of unique visitors
- #Visits (databases): number of visits without robots.
- #Visits (webapplications): number of visits of all visitors (default 30min session)
- #Visits duration: average duration of the visits (session time)

## How to collect KPIs

- #Actions: Matomo, Google Analytics
- #Actions per visit: Matomo, Google Analytics
- #Citations (Support/consulting): Google Scholar
- #Citations: Google Scholar.
- #Citation DOIs: Google Scholar
- #Downloads (databases): MATomo, Google Analytics
- #Downloads (tools, libraries/APIs): Bioconductor, GitHub, Google Analytics, Matomo.
- #Downloads\_distinct\_IPs: Bioconductor, GitHub, Google Analytics, Matomo.
- #Executions: Matomo, Google Analytics
- #Grant applications: collecting grant numbers
- #Hits: Matomo, Google Analytics
- #Pageviews: Matomo, Google Analytics
- #Projects (workflows/pipelines): service-specific
- #Publications (databases): Google Scholar
- #Publications (Support/consulting): count number of PubMed publications matching the KPI definition.
- #Recurring users: Matomo, Google analytics
- #Storage usage (workflows/pipelines): service-specific
- #Support tickets: Count the number of user requests manually or automatically via a ticket system (e.g., RT).
- #Unique users: Matomo. Google Analytics
- #Users (tools/applications, web applications): Matomo, Google Analytics
- #Visitors: Matomo, Google Analytics
- #Visits (databases): Matomo, Google Analytics
- #Visits (webapplications): Matomo, Google Analytics
- #Visits duration: Matomo, Google Analytics