

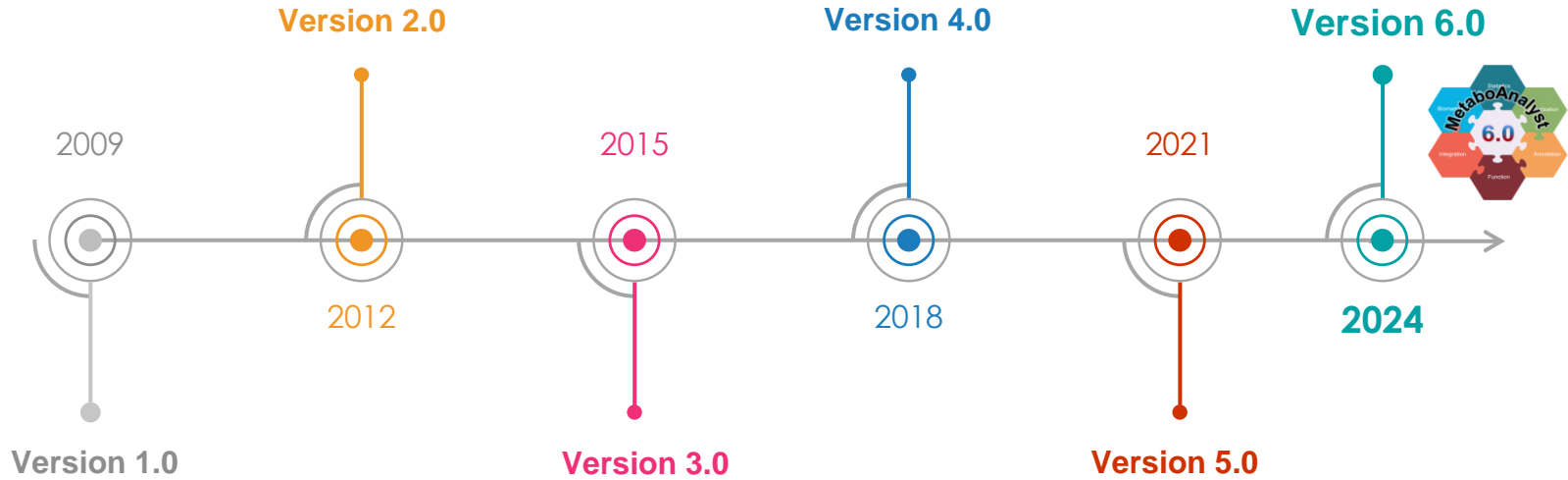


MetaboAnalyst 6.0

-- a unified platform for metabolomics data processing,
analysis and interpretation

Overview of New Features

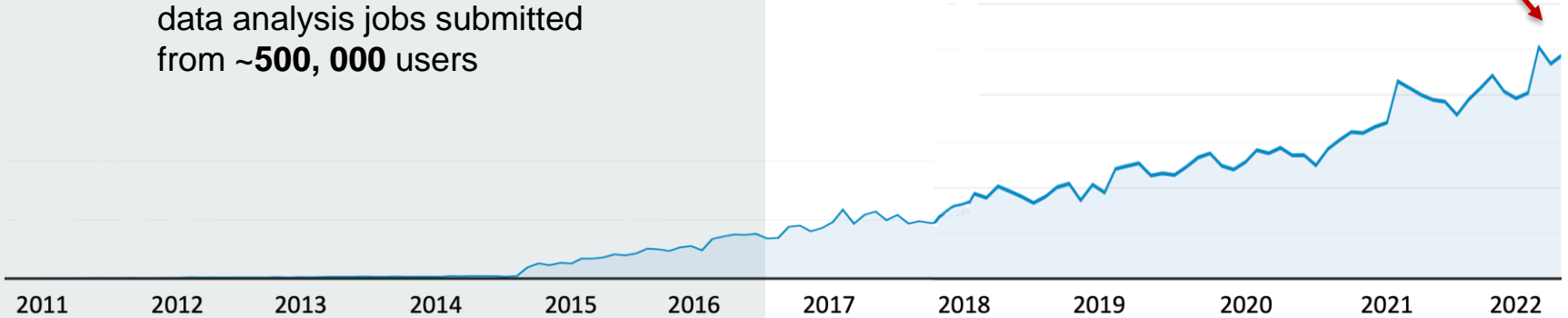
Our Roadmap



User Stats



- ~ **3,000** users per day
- Since 2018, >**13 million** data analysis jobs submitted from ~**500, 000** users



Country	Users	Sessions
	507,732 % of Total: 100.00% (507,732)	13,220,558 % of Total: 100.00% (13,220,558)
1. China	147,297	20.98%
2. United States	106,188	27.02%
3. Germany	22,018	4.23%
4. Japan	21,376	2.63%
5. Canada	20,515	3.83%
6. India	20,434	2.37%
7. United Kingdom	19,928	5.66%
8. Brazil	14,515	2.10%
9. Spain	13,057	2.83%
10. France	11,353	2.21%

30,000
users/month

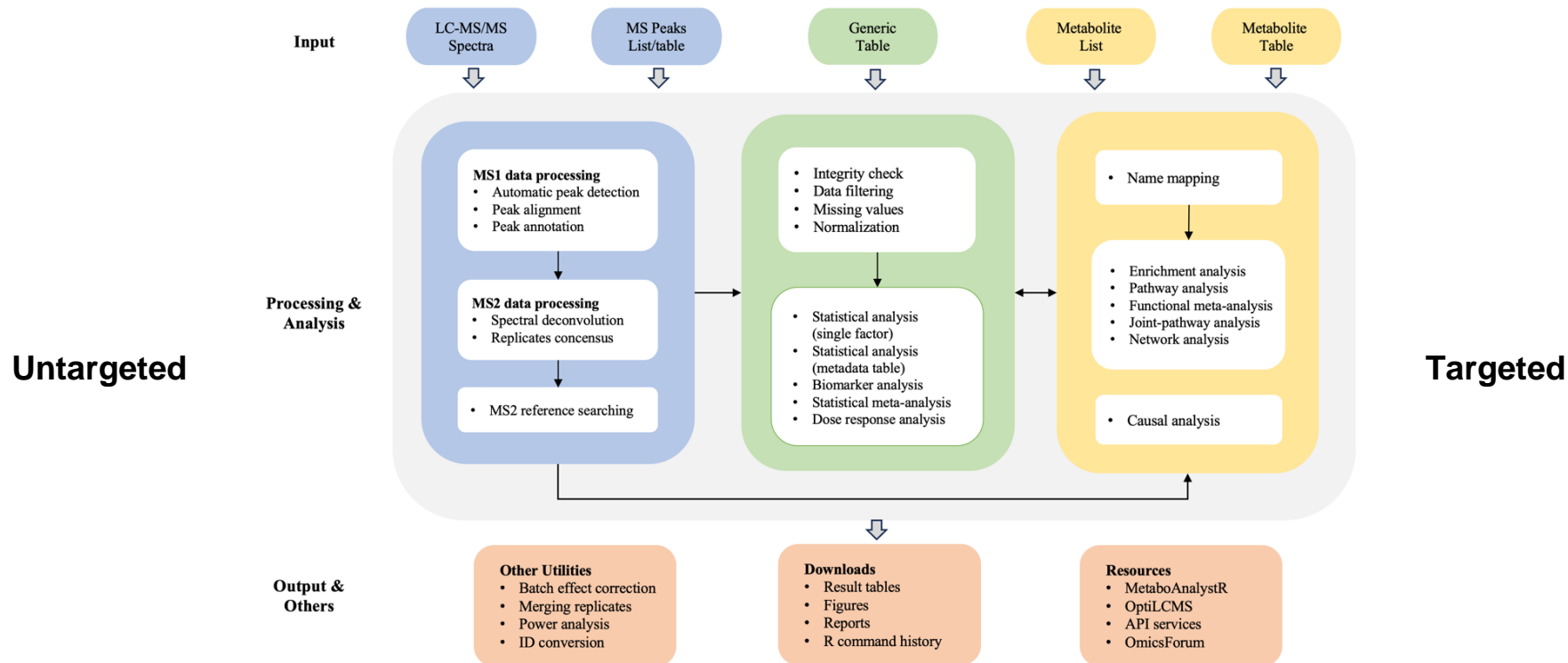


Main updates of all versions

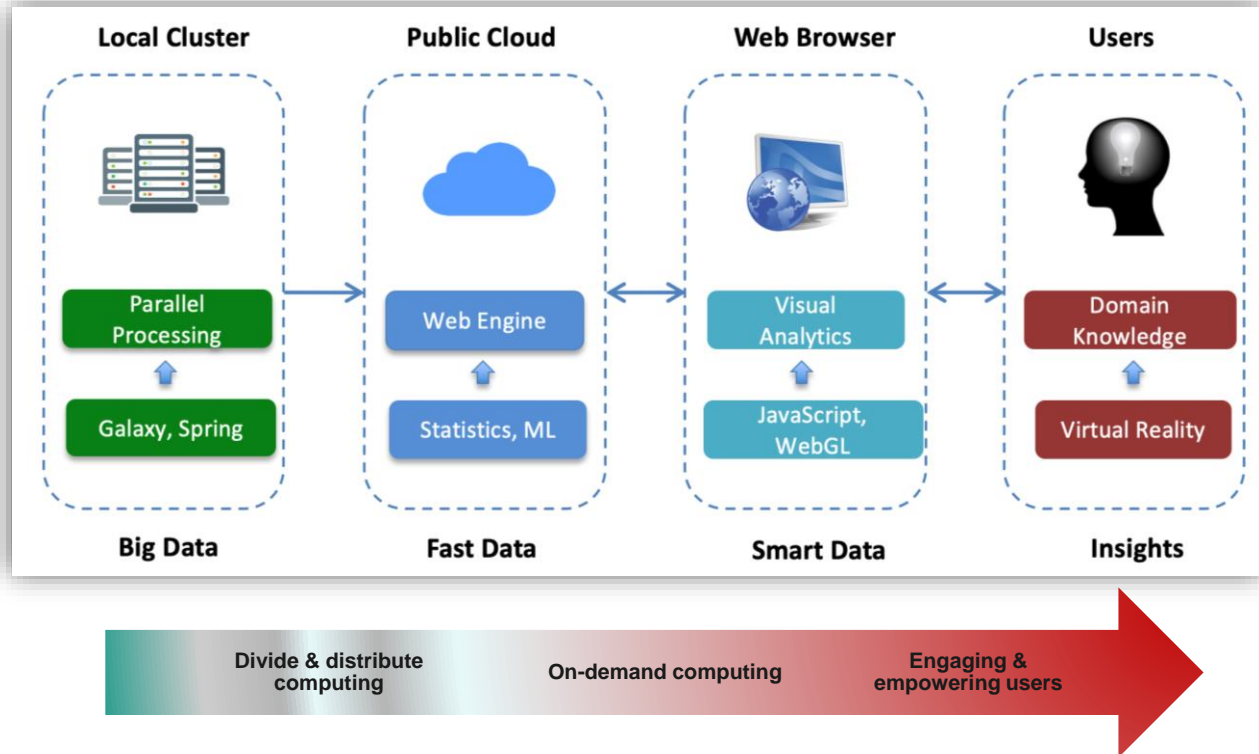


Versions	Key Features	Details
1.0	Statistical analysis for targeted metabolomics	Focused on data processing, normalization and statistical analysis of metabolomics data;
2.0	Functional analysis for targeted metabolomics	Added metabolite set enrichment analysis (MSEA) and metabolic pathway analysis, as well as two-factor and time-series analyses.
3.0	Translational applications	Added biomarker analysis, power analysis, and joint-pathway analysis. Completely updated the web interface
4.0	Global metabolomics and reproducible analysis	Completely revamped web framework for scalable performance, with three new modules (MS peaks to pathways, biomarker meta-analysis, and network explorer), together with a companion R package (MetaboAnalystR)
5.0	Big data analytics - from raw spectra to functional insights	Leveraging local server - public cloud - user browsers to deliver end-to-end metabolomics data analysis, with support for spectral processing, comprehensive functional analysis and meta-analysis.
6.0	Unified workflow for raw spectra processing, statistical analysis and functional interpretation	Including raw spectra LC-MS/MS analysis (Asari algorithm and support for LC-MS2), covariate adjustment based on metadata table, enhanced functional analysis, dose response analysis and causal analysis, etc

Toward a unified workflow for metabolomics



Design Concept (under the hood)



Help Us Help You



Before you contact us or post on the forum,

- **Have you read the Data Format and Tutorials?**

These resources provides detailed explanations for common questions received from users. Please first go through these resources as listed on the left bar.

- **Have you tried our example data to see if the issue still exists?**

Most of the time, the issue is related to improper data format. Although we try to give informative error messages during data uploading, there are always exceptions. If our example works, download and examine our example datasets to get better idea

- **Have you searched OmicsForum to see if similar questions asked before?**

OmicsForum (www.omicsforum.ca) is a newly launched platform for users to communicate and share experience when they are doing omics analysis with any tools from our team. FAQs of MetaboAnalyst are provided there and updated more frequently.

- **Did you provide enough details so that the issue can be reproduced?**

Remote troubleshooting requires more information in order to figure out the exact cause of the issue. Please

- **Indicate which example data you used, or provide a copy of your data;**
- **Document all steps leading to the issue. Sometimes screenshots may be necessary**

Acknowledgements



New Tutorials for MetaboAnalyst 6.0

1. Spectral Processing
[LC-MS1 w/wo MS2]
2. Peak Annotation
[MS2-DDA/DIA]
3. Dose Response
Analysis
4. Causal Analysis
5. Functional Analysis
[LC-MS1 + MS2]

Available Modules (click on a module to proceed, or scroll down to explore a total of 18 modules including [utilities](#))

		1 Spectra Processing [LC-MS1 w/wo MS2]		
	2 Peak Annotation [MS2-DDA/DIA]	5 Functional Analysis [LC-MS1]	Functional Meta-analysis [LC-MS1]	
Statistical Analysis [one factor]	Statistical Analysis [metadata table]	Biomarker Analysis	Statistical Meta-analysis	3 Dose Response Analysis
	Enrichment Analysis	Pathway Analysis	Network Analysis	
		4 Causal Analysis [Mendelian randomization]		