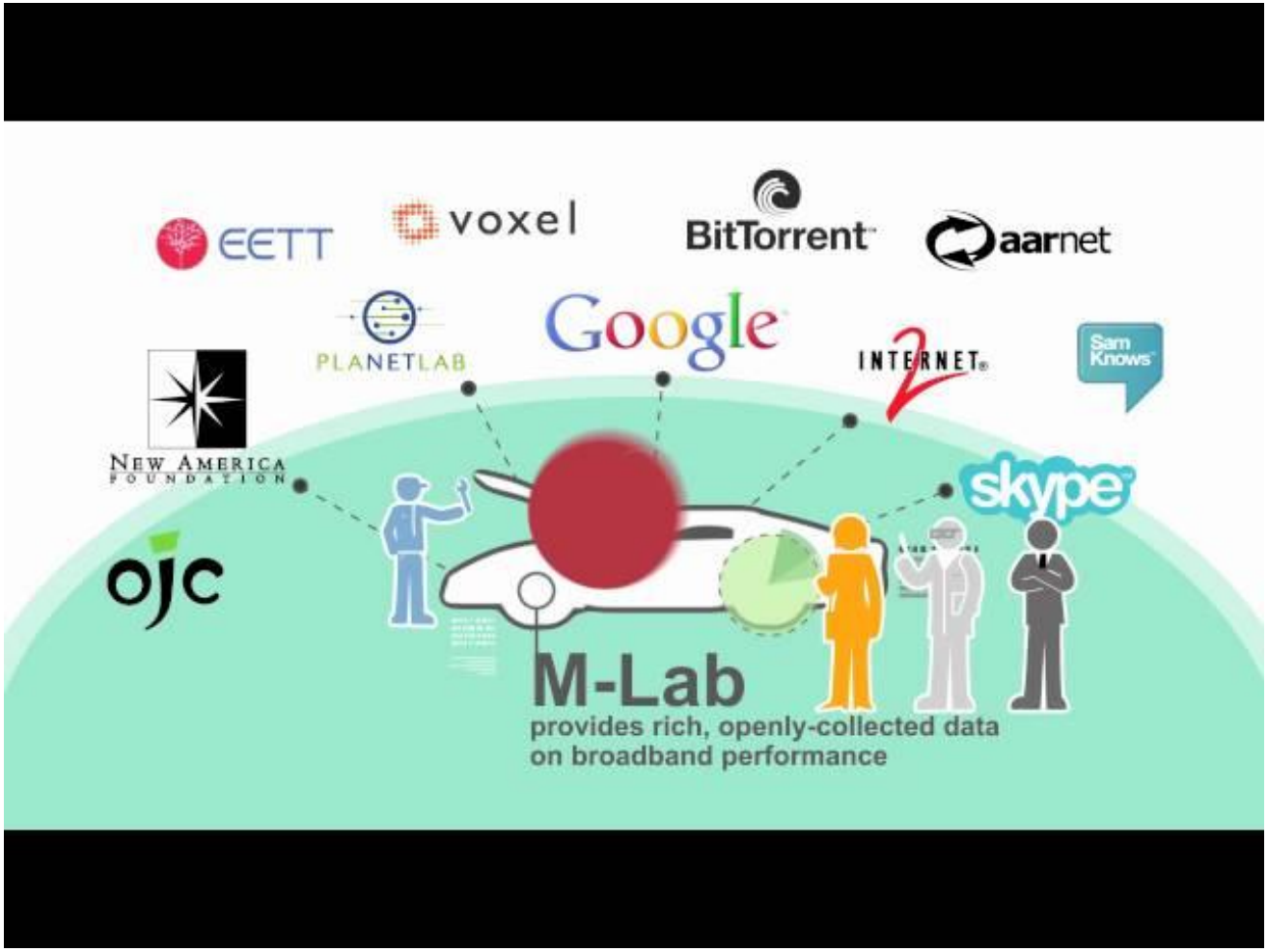
M-Lab: Open Measurement for an Open Internet

A quick introduction to M-Lab



With minimal cost, M-Lab provides:

- **Open, verifiable, public** measurement data and tools

- Facts at **scale**
  800+ terabytes of public, verifiable data, and growing.

- **Open, global** infrastructure
  designed and managed specifically for measurement

Why is openness important?

- The Internet is **vast, decentralized, and dynamic**.
- Measuring Internet performance is a **complicated science.**
- Complicated science requires **collaboration, peer review, and above all, *replicable results.*** Openness makes this possible.

M-Lab's open data provides a valid, trusted source of information used globally by regulators and researchers.

M-Lab: a diverse global partnership supporting open network research

Regulatory partners

- **Austria, RTR**

  Mobile tool using NDT, supporting M-Lab servers
- **Cyprus, OCECPR**

  Adopting Hyperion dashboard, supporting M-Lab servers
- **European Commission**

  SamKnows study running on M-Lab
- **Greece, EETT**

  Hyperion dashboard using M-Lab's NDT and Glasnost tools, supporting M-Lab servers
- **Thailand, NBTC**

  Initial stages, supporting M-Lab servers to gather open data
- **US, FCC**

  Consumer Broadband Test, Measuring Broadband America report

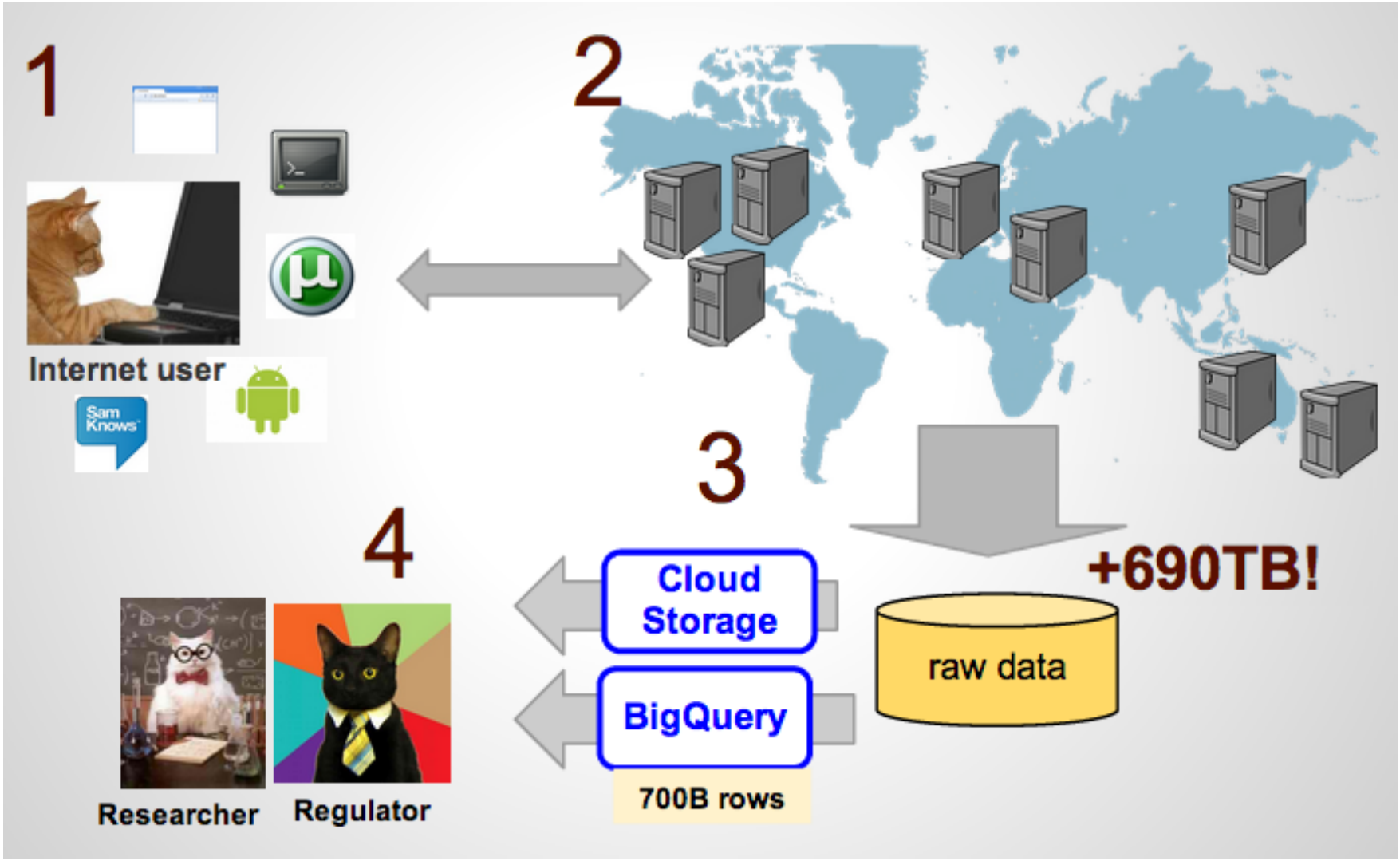
M-Lab's diverse suite of tools

12 tools, more on the way

- **Browser-based**
  NDT, Glasnost, Shaperprobe, Neubot, and more
- **Hardware-based**
  BISmark, SamKnows
- **Mobile**
  MobiPerf, NDT, more on the way

Multiple vantages and methodologies provide important layers of meaning. There is no one way to measure. The key to any choice is to ensure that it's open and verifiable.

How does it work?
An open measurement ecosystem



M-Lab's global server platform means global data

100+ global servers, and growing. A bird's eye view:

How can you get involved?

1. **Join 6 National regulators and many others in partnering with M-lab**. Host servers, use M-Lab tools to measure national performance.

2. **Engage with university researchers** to answer your questions openly, using open data.

3. **Engage citizens to measure their network performance using M-Lab's open tools**. They get real results, you get the benefit of reliable data on which good policy can be based.

Contribution matrix: what is already covered

Contribution	Requirement	Cost to you	Responsible party
Manage and maintain global servers	Full time staff of experts managing global server platform	$0	M-Lab Consortium
Develop and maintain state of the art open source measurement tools	Network experts developing using tools that measure Internet performance at scale	$0	M-Lab Consortium researchers
Store and make available collected data	Provide storage of and access to large cache of measurement data collected by M-Lab	$0	M-Lab data hosting partners
Provision servers	Provide suitable server hardware to interested hosts (3 servers and 1 switch)	$0	M-Lab Consortium

Contribution matrix: what you would contribute as an M-Lab partner

Role	Requirements	Responsible Party
Rack space	6U Rack Space	Host
Power	(700 Watts*4) Power requirement might differ with specification	Host
Transit Bandwidth	100Mbps dedicated capacity (with 1G burst capacity).	Host / Third Party support