

# MSR-FAPESP Environmental Science Workshop

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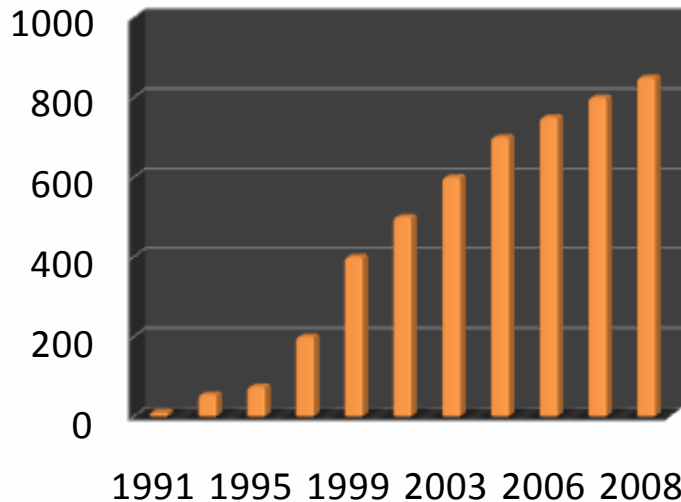
# Microsoft Research

- Founded in 1991
- ~ 800 people in ~ 60 groups
  - MSR Redmond: ~320 in 32 groups
- World renowned groups
  - 14 NAE members, 18 IEEE/ACM Fellows
  - Prizes: Kyoto, Fields, Turing, Draper, Oscar



# Microsoft Research

- Redmond, Washington (Sep 1991)
- San Francisco, California (Jun 1995)
- Cambridge, England (July 1997)
- Beijing, China (Nov 1998)
- Silicon Valley, California (July 2001)
- Bangalore, India (Jan 2005)
- Cambridge, Mass. (July 2008)



■ # PhD Researchers



MSR Asia



MSR Cambridge, UK



MSR Redmond



MSR India



MSR Silicon Valley, California



MSR New England

# MSR mission statement

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- Expand the state of the art in each of the areas in which we do research
- Rapidly transfer innovative technologies into Microsoft products
- Ensure that Microsoft products have a future

# Microsoft External Research in Latin America

- Division within Microsoft Research focused on partnerships between academia, industry and government to advance computer science, education, and research in fields that rely heavily upon advanced computing
- Supporting groundbreaking research to help to build capacity and competitiveness in the region
- Foster regional community development to build a critical mass and connections to the worldwide academic community.
- Support partnerships between universities and organizations in the region; and, with Microsoft Research.

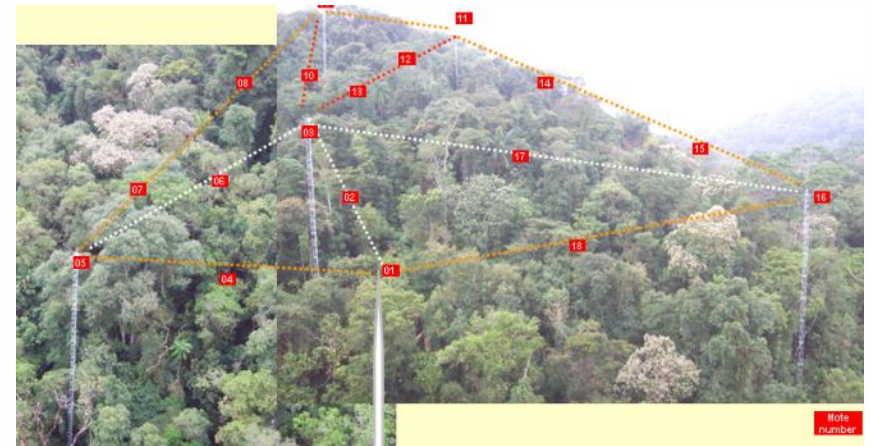


# MSR-FAPESP Virtual Institute for ICT Research

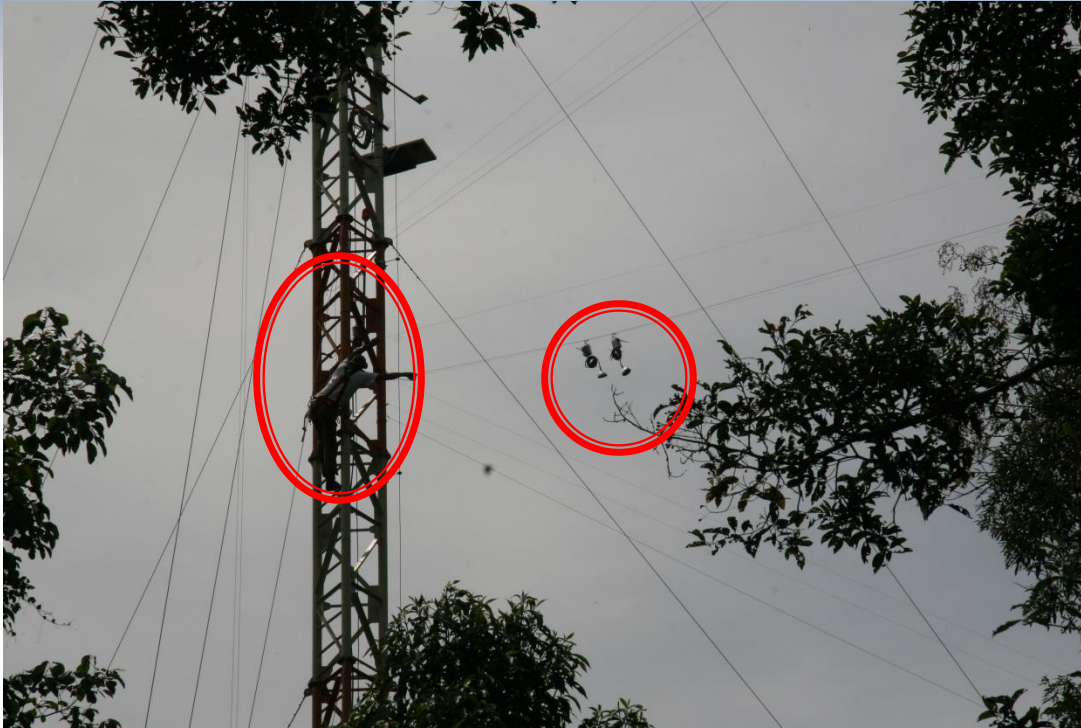
- Agreement signed in 2007
- Annual RFPs
  - 4<sup>th</sup> year
  - Projects in Computer Science, Bioenergy, Biodiversity, eGovernment, Climate Change...

# Environmental Science WS

- Deployment of a sensor net in a tropical forest
- Collaborative project involving INPE, USP, JHU and MSR



# Sensornets in a Tropical Forest



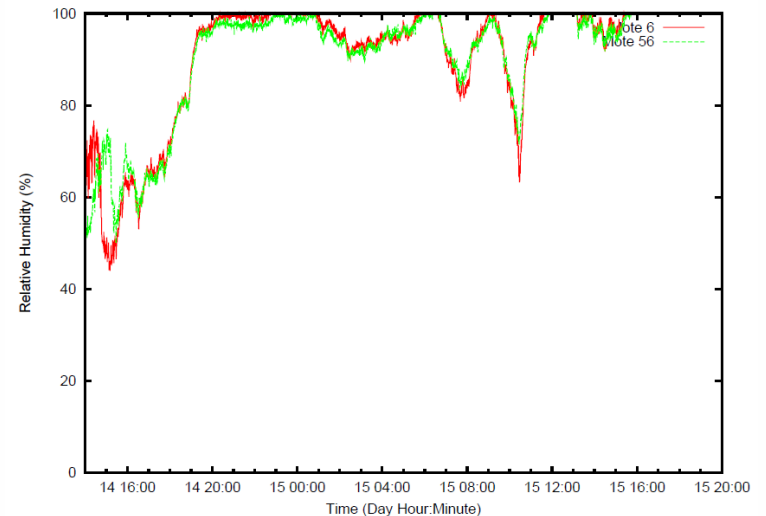
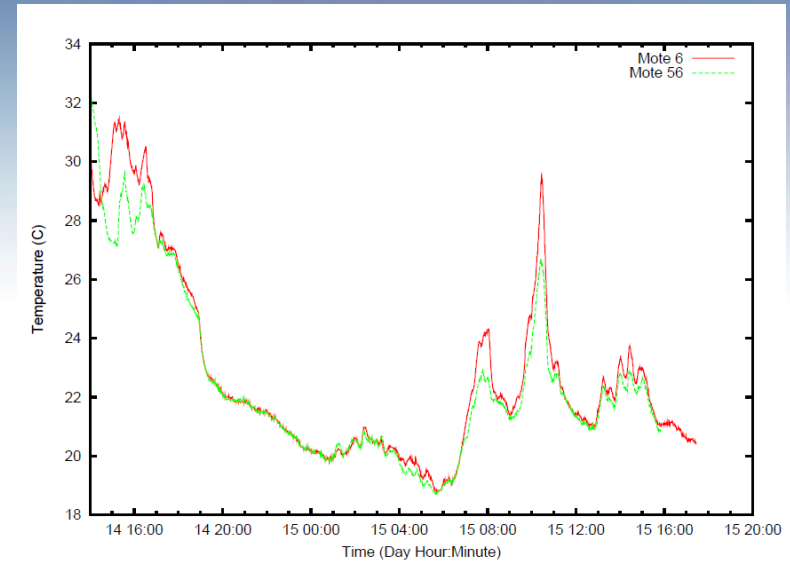
A photograph of a hand-drawn table with data, partially obscured by a grid pattern.

	A	X	90	40	100
WINDS			Y	10	90



# Sensornets in a Tropical Forest

- Pilot
  - 52 sensors deployed (6 spares)
  - 20 million data points collected over 6 weeks
- What are the next steps?



# Environmental Science WS

- How technology can enable new scientific findings?
- What research questions would we like to focus on?
- What is the impact on the methodology?
- How your discipline can benefit from new data and new methods?

# Environmental Science WS

- What are the science problems you would like to explore and currently can't?
- How technology can enable new scientific discoveries in your field?
- Some key aspects
  - Collaboration
  - Multidisciplinary
  - New scientific challenges
  - Technology enabling new research scenarios

# Questions?