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# Data @ RENCI

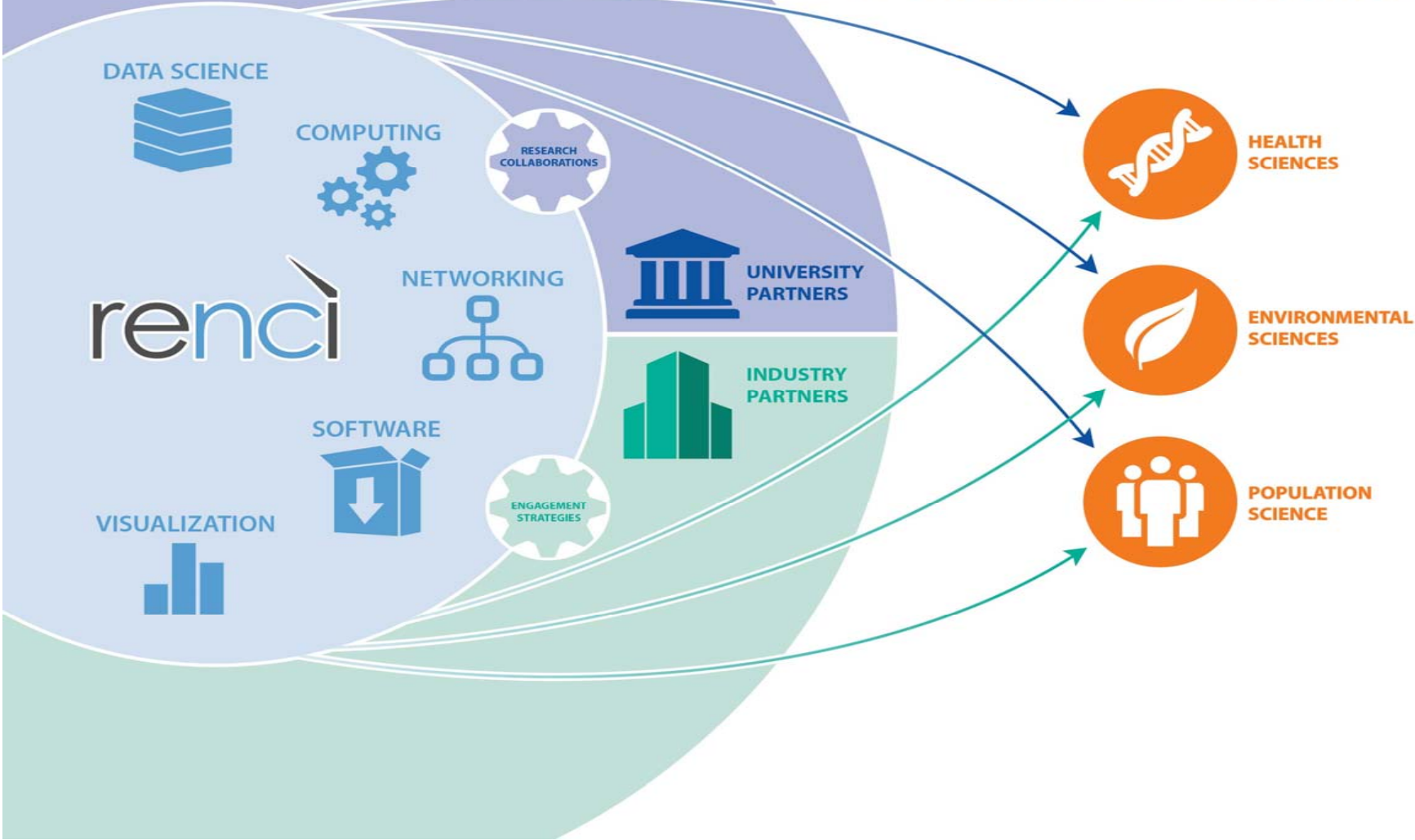
## Stanley C. Ahalt

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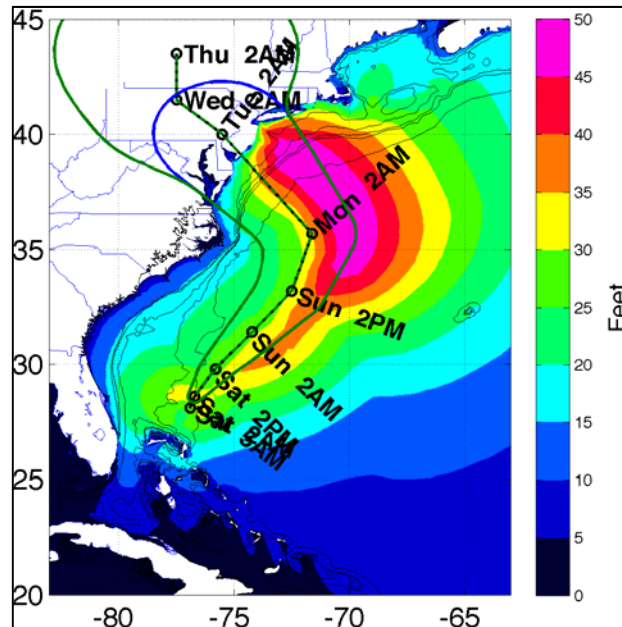
# DOMAIN SCIENCES



# RENCI Impact

## ADCIRC: Storm Forecasting

**Hurricane Sandy '12**  
Forecast trajectory and wave heights



<http://adcirc.org/>

## GENOMICS: Towards Personalized Medicine

**COSMOPOLITAN**

FEB 26, 2014 @ 8:10 PM

HEALTH & FITNESS HEALTH

### For 30 Years I Couldn't Walk, Until I Took One Pill

Elizabeth Davis was bullied out of school, hid her condition from teenage dates, and struggled to keep up with her two children without the use of her legs. But a late-in-life diagnosis changed everything.

Cyberinfrastructure  
for whole  
genome/exome  
sequencing

Scalable methods for  
finding disease-  
related information  
in genomic data

Personalized,  
evidence-based  
diagnosis and  
treatment

**NIDA, NC GENES, NC NEXUS**

Thousands of human genomes

# “Data” Consortia @ RENCi

## National Consortium for Data Science

### MISSION

*To secure the U.S. role as leader in data science research & education and position U.S. industry to use data to drive economic growth.*

## iRODS Consortium

### MISSION

*To ensure the sustainability of iRODS and further its adoption and continued evolution.*

The collage features logos for the following organizations:

- THE UNIVERSITY of NORTH CAROLINA at CHAPEL HILL
- NC STATE UNIVERSITY
- THE UNIVERSITY of NORTH CAROLINA GREENSBORO
- UNC-CHARLOTTE
- Deloitte Consulting
- Drexel UNIVERSITY
- MCNC Connecting North Carolina's Future Today
- CISCO
- Duke UNIVERSITY
- RTI INTERNATIONAL
- GE
- UNIVERSITÄT CARL MARX
- IBM
- renci
- EMC<sup>2</sup>
- UCL
- NOVARTIS
- D·I·C·E
- wellcome trust sanger institute
- NASA
- cleversafe<sup>®</sup>
- DDN<sup>®</sup>
- SEAGATE

*Also contracts with:  
Bayer, SSAI, Nestle, and Max Planck Society*

## Partnerships:

w/ NC  
Dept. of Commerce



North Carolina Board of  
Science, Technology & Innovation

w/iRODS  
to create  
*Data Observatory*

NC STATE UNIVERSITY



DATA  
DISCOVERY



WORKFLOW  
AUTOMATION



SECURE  
COLLABORATION



DATA  
VIRTUALIZATION



## Programs & Workshops:



*Data Fellows*

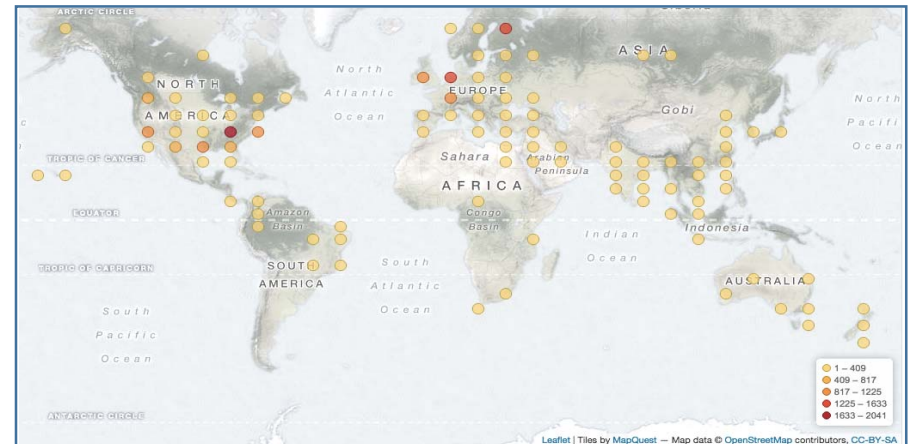
*Internet of Things*

**DATA MATTERS**

DATA SCIENCE SHORT COURSE SERIES

2015 JUNE 22-26, CHAPEL HILL, NC ncds renci

... and other...



*iRODS downloads*

# Moving Forward: What will it take?

## What do we want?

If, for example, we want Carolina to become **“First in data”** we must:

- Create a tangible vision  
EXAMPLE
  - “We will be known as the university that used data as a platform to transform all aspects of our pedagogy, scholarship and service.”
- From the vision define a business plan, and
- Secure the resources.

