



# The Computerworld Honors Program

Honoring those who use Information Technology to benefit society

## Final Copy of Case Study

**Status:**

Laureate

**Year:**

2013

**Organization Name:**

Computer Sciences Corporation

**Organization URL:**

<http://www.csc.com/>

**Project Name:**

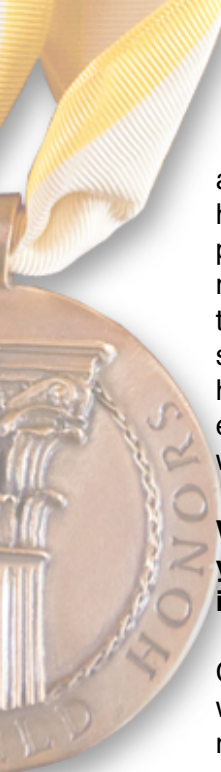
ClimatEdge

**Please select the category in which you are submitting your entry**

Emerging Technology

**Please provide an overview of the nominated project. Describe the problem it was intended to solve, the technology or approach used, how it was innovative and any technical or other challenges that had to be overcome for successful implementation and adoption. (In 300 words or less.)**

Global climate change, recently highlighted in the President's inaugural address, represents the most significant challenge to human civilization over the course of the next several hundred years. Extreme weather events are the most easily observed symptoms of a change in our climate. Over the longer term, costly economic and significant societal effects will be felt in ways we have yet to imagine. Rising temperatures and changing precipitation patterns will reshape agriculture, making some lands no longer productive while creating new arable regions. Rising sea levels will affect low lying coastal areas where large population centers reside, causing the potential relocation of tens or hundreds of millions and the destruction of trillions of dollars of real property. The consequences of these changes are unavoidable, but some effects can be reduced if we better understand the complexities of Earth's natural systems. That's not an easy task. Getting answers means translating the complex science behind climate change into the decision-making context of cost-benefit analyses. ClimatEdge is an innovative risk management suite that applies the newly emerging field of "big data"



analytics to historical data from NASA, NOAA and other public sources that has been historically underused. By exploiting this previously untapped resource, ClimatEdge is providing new insights to commercial and public interests that need to minimize risk and make better-informed decisions. For example, US electronics manufacturers may want to take steps to minimize risks of disruptions in East Asian semiconductor supplies, should Pacific storms fueled by warming ocean waters become more intense. The US home building industry may want to prepare for fluctuations in lumber prices as expansion of the range of the western pine beetle, triggered by milder and shorter winters, destroys more forests in the U.S. northwest and adjacent Canada.

**When was this project implemented or last updated? (Please specify month and year.) Has it incorporated new technologies and/or other innovations since its initial deployment? (In 300 words or less.)**

ClimatEdge began producing reports in June 2012. It is updated on a continuing basis as we learn new ways to apply evolving data science principles and as we gain access to new data sources.

**Is implementation of the project complete? If no, please describe the project's phases and which phase the project is now in. (In 300 words or less.)**

Yes, ClimatEdge delivers free reports on a monthly basis providing a long-term view of climate-related effects on agriculture, energy, commodities and other industries.

**Please provide at least one example of how the technology project has benefited a specific individual or organization. Feel free to include personal quotes from individuals who have directly benefited from the work. (In 300 words or less.)**

Investment managers and infrastructure managers frequently rely on short-range weather forecasts to manage risk over a span of one to two weeks. ClimatEdge examines climate and weather events several months into the future, supporting decisions on investments with a 30- to 60-day horizon. By mining "big data" sources of climate and Earth observations, the reports are uncovering unique relationships and creating predictive indices that provide additional insight into market behavior.

**Would this project be considered an innovation, a best practice or other notable advancement that could be adopted by or tailored for other organizations and uses? If yes, please describe that here. (In 300 words or less.)**

Specific components of CSC's ClimatEdge are proprietary, but the practice of harvesting new insights from newly published public data sources is a trend we expect to increase. The drive to create an open government creates new opportunities in both the private and public sectors to build new products that, in turn, provide economic and social benefits to all. ClimatEdge is focused on an area that affects our lives on a daily basis and is likely to have even more influence in the near future.