



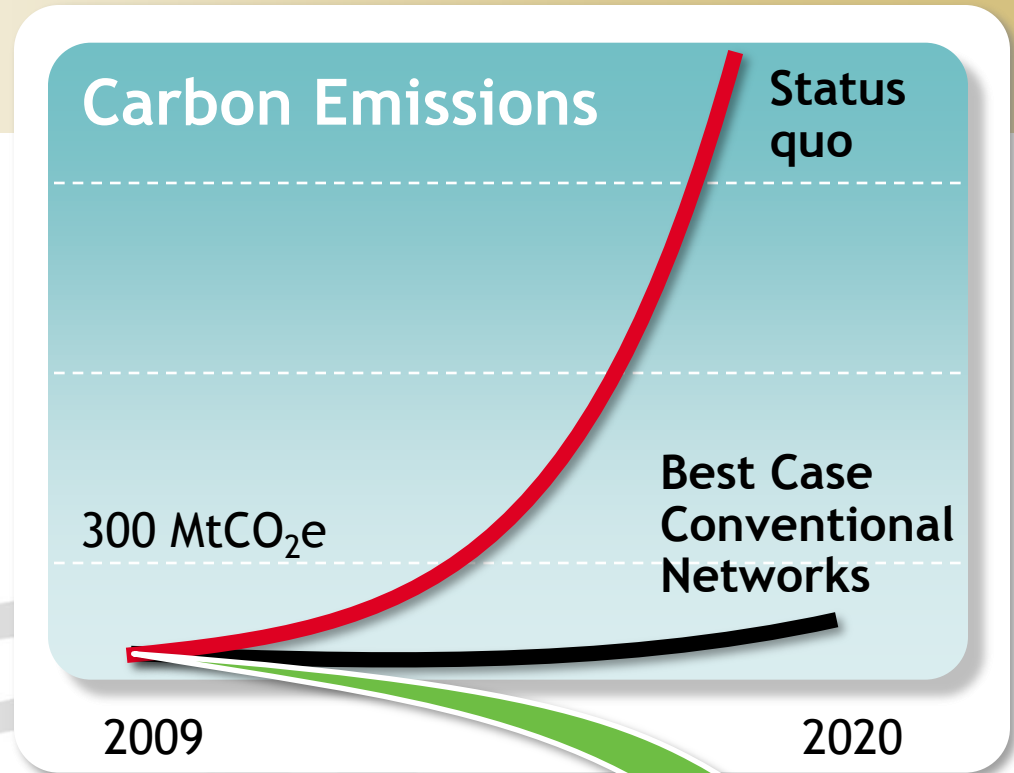
**Green Touch™ Initiative:**  
*A Five Year Quest to  
Achieve Sustainable  
Networking*

# Crisis on the Horizon

Global Users  
Information  
Video  
Wireless  
HD ... 3D ...



In 2020: > 50 Million Automobiles



## Meeting the Challenge

“communications networks could be **10,000 times** more energy-efficient than they are today”

thermal noise

optical

Keys



Claude Shannon

Wireless

## GreenTouch Mission

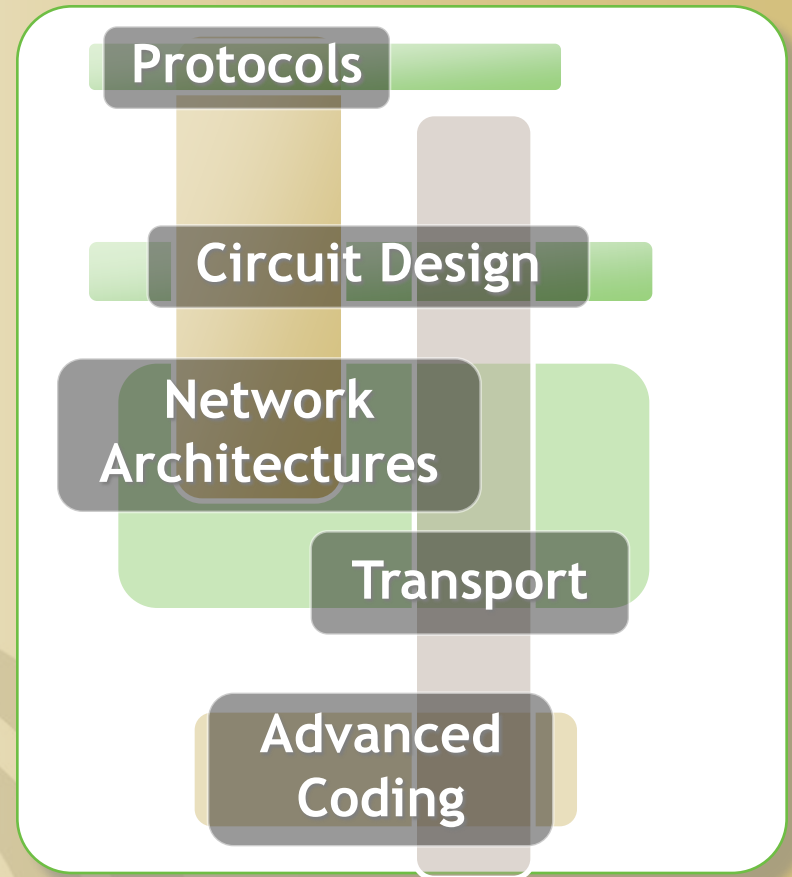
- Achieve a 1000-fold improvement in energy efficiency by driving a radical redesign of communications networks.
- Realize efficiency improvements significant enough to offset future carbon emissions from ICT by more than 250 million tons a year
- Accelerate efforts to reduce energy consumption and mitigate the impact of growing consumption.



## Achieving the Mission

Brilliant Minds ...  
Leading Experts

- Optimized for energy
- Holistic Approach
- Multi-Discipline
- Clear objective



## Milestones and Achievements

- Establishment of a governance board
- Creation of an organizational structure
- Definition of membership guidelines
- Intellectual property principles
- Definition of technical goals
- Opening of consortium to new membership

## Initial Activities

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- First technology demonstration spring 2011
- Establish common reference architecture
- Define primary research targets
- Establish key metrics to 2020
- Provide international forum for cooperation and exchange of ideas on energy research topics





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Perceptum ex Optimum

**Bell Labs**



**leti**

 **COLUMBIA UNIVERSITY**  
IN THE CITY OF NEW YORK



**Draka**



**GreenTouch™**

 **Dublin City University**  
School of Electronic Engineering

**ETRI**  
Electronics and Telecommunications Research Institute

  
**EMERSON**  
Network Power

**Fondazione Politecnico di Milano**

 **freescale™**  
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The Institute for **Systems** Research

  
**UNIVERSITY OF LEEDS**



**IBES**  
Institute for a Broadband-Enabled Society

 **UNSW**  
THE UNIVERSITY OF NEW SOUTH WALES  
SYDNEY • CANBERRA • AUSTRALIA



# Green Touch™ Initiative

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# GreenTouch

[www.greentouch.org](http://www.greentouch.org)