



# Carolinas Photonics Consortium

Aug 14, 2007

# Meeting Emphasis

- **Brief Review of 2006 / 2007**
- **CPC 2007 / 2008 Plans**
- **CPC Pilot Funding Program**
  
- **“Moving to the Next Level”**

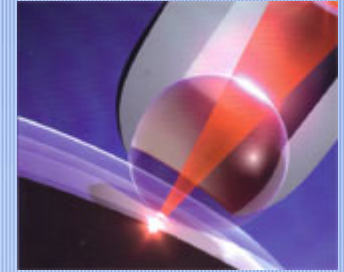
# Photonics in Automotive



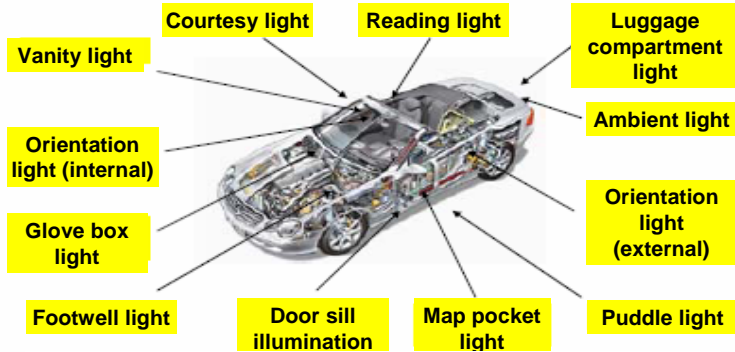
Proximity Sensors



Exterior Lighting



Laser Welding



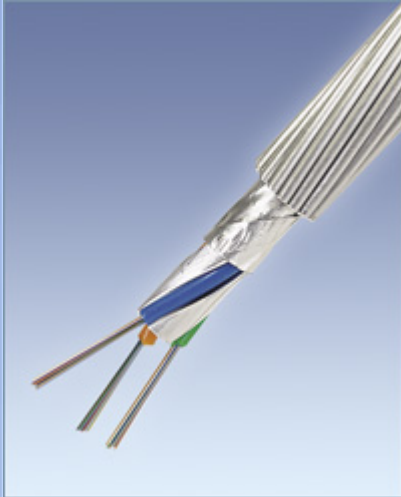
Applications for interior lighting

Interior Lighting

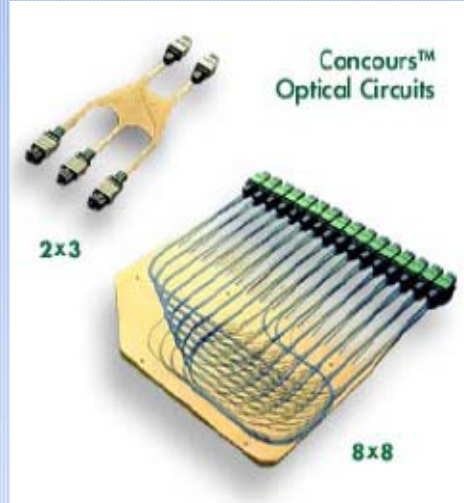


Night Vision

# Photonics in Telecommunications



Optical Ground  
Wire Cable



Fiber Assemblies



Fiber Optic Fiber



Fiber Management

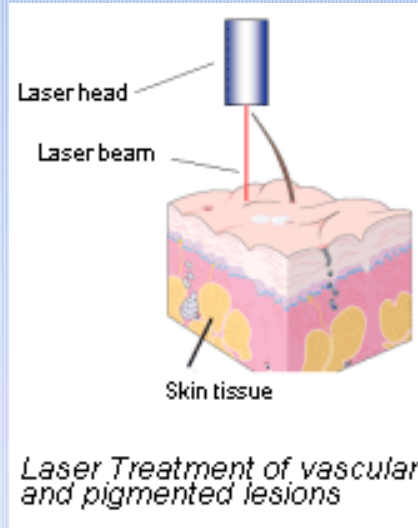


Ribbon Cable

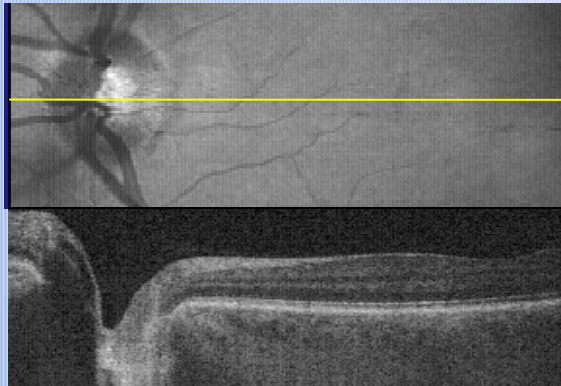
# Photonics in Medical



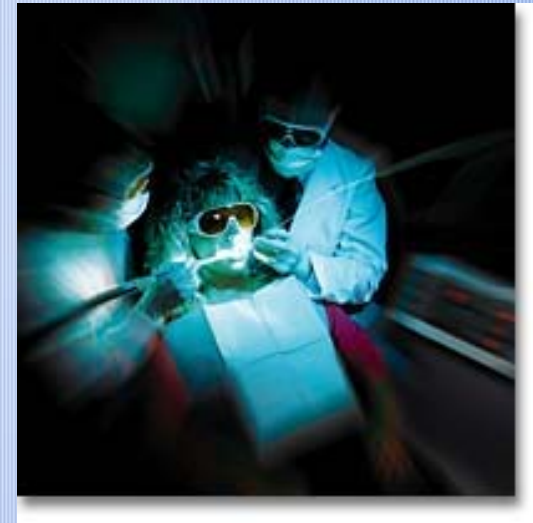
Laser Eye Surgery



Spectroscopy



3D Optical Imaging



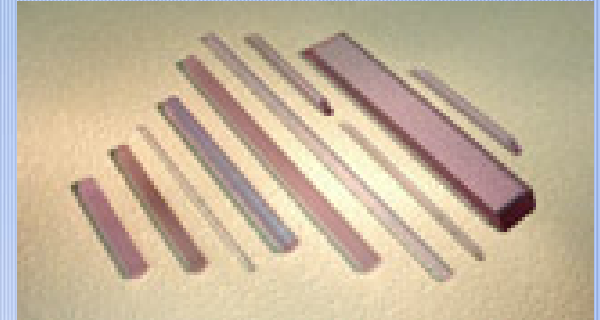
# Photonics in Defense



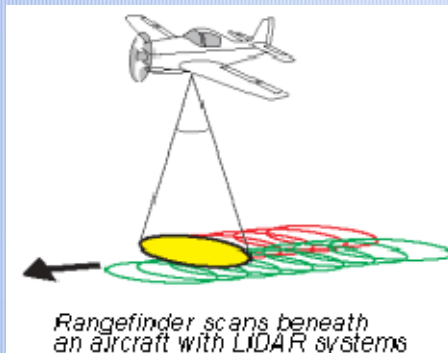
Surveillance



Night Vision



Laser Crystals



Guidance



Biological Detection

# Photonics in Consumer



Commercial Lighting



LED's



Data Storage



Solar



Back Lighting

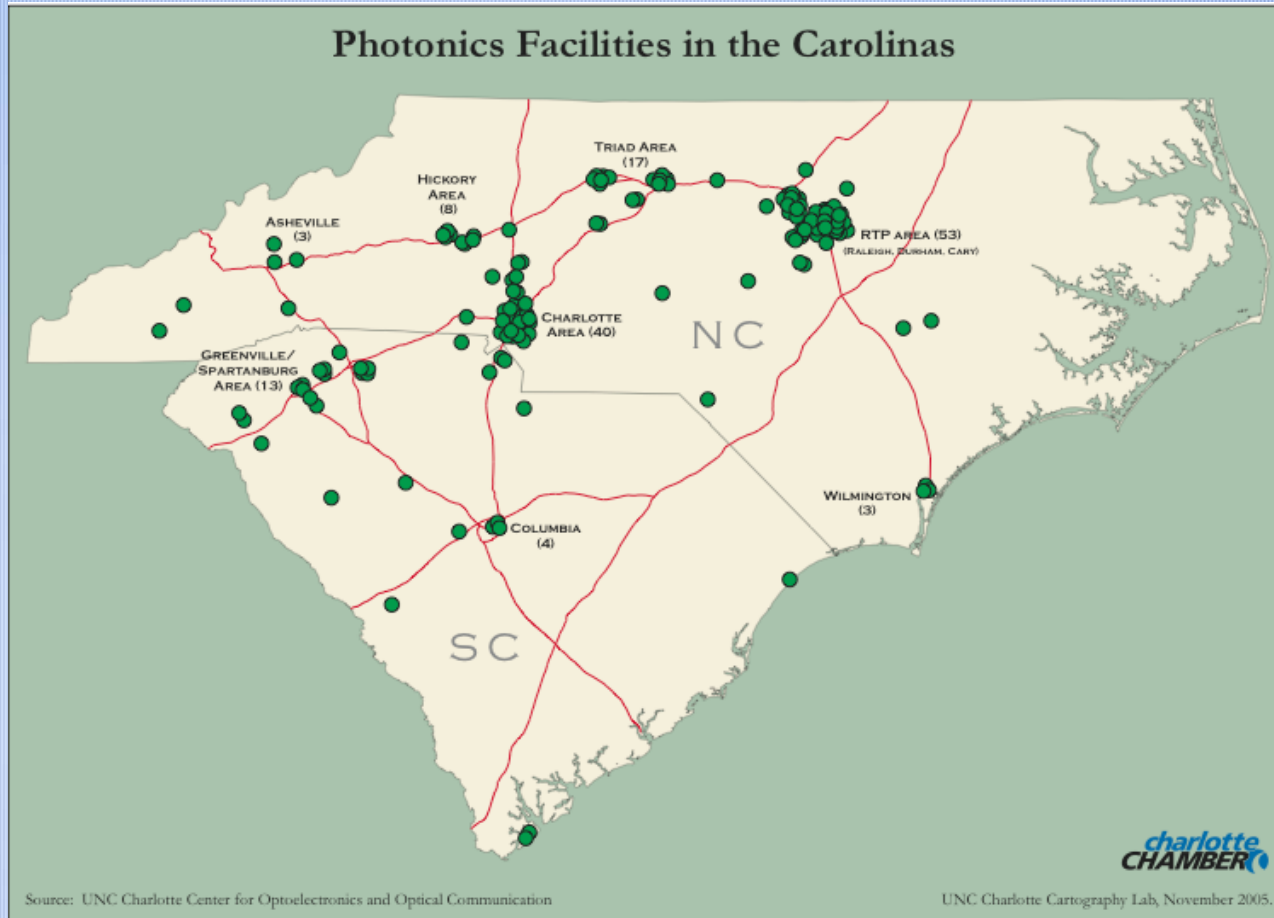


Imaging



Barcode Scanner

# Photonics in the Carolinas: > 160 Photonics-Related Facilities

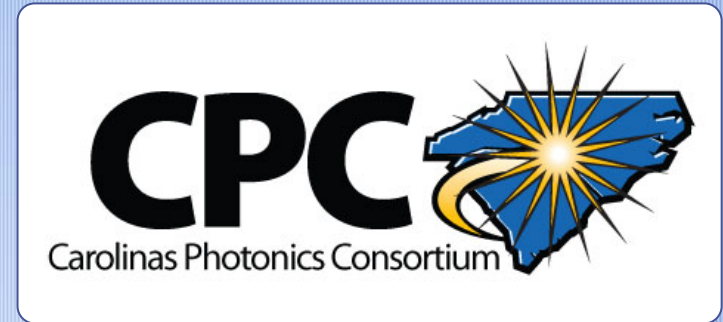


# CPC: Synergistic Technologies

**Clemson:** Materials  
**UNCC:** Integrated Optics  
**NCSU:** Imaging / IT  
**Duke:** Bio-Photonics  
**WCU:** Rapid Product Realization



# Running with the big dogs...



90,000 sq ft  
\$60M Bldg / Equip  
\$10M Ext Research  
120 Students  
23 Professors  
College of Optics  
19 Years Old

150,000  
\$20M  
410  
40  
College of Opt Sci  
42

>400,000  
>\$200M  
>\$60M  
>500  
>80  
Consortium  
4

- **Vision**

The Carolinas Photonics Consortium will be the catalyst that makes the Carolinas the top photonics region in the world by 2015.

- **Mission**

The mission of the Carolinas Photonics Consortium is to provide resources and to proactively interface between key stakeholders in the region (universities, companies, economic development, government agencies, investment groups) to **commercialize CPC university photonic technologies.**

# CPC 2006 / 2007 Accomplishments



- **Creation of Carolinas Photonics Consortium / brand**
- Creation of CPC Website
- **Development of the \$2.3M CPC Initiative**
  - Approved by UNC Board of Governors
  - Communicated to 17 legislators
- **Creation and Approval of the CPC Inter-Institutional Agreement**
- Approval of Request to Plan a Center
- **Campus meetings held at UNCC, NCSU, Duke, WCU and Clemson (all five schools in attendance)**
- Involvement of CCCC and TriCounty Tech (SC)
- **Industrial participation / networking**
- Tradeshow participation – Photonics West, OFC, Innoventure, Zoom Zone

# Looking Ahead



- **2006 / 2007 Established a Firm Foundation**
- **2007 / 2008 Focus on Process for Commercialization**
- **2008 / 2009 CPC Initiative**

# Desired Results: 2007 / 2008



- Creation, refinement and implementation of project submission, tracking, and management process
- Creation of “commercialization pipeline” with 5 photonics-based commercialization opportunities
- Establishment of CPC Board
- Positioning for full CPC Initiative funding for 2008 / 2009
- Deeper involvement of CPC universities, regional industry and community colleges
- **“Moving to the Next Level”**

# Key Dates



- Aug 14 – WCU – Rollout of CPC Pilot Funding Program
- Oct 3-5 – OISE – Clemson (Greenville)
- Oct 11-12 – Duke – Annual Symposium
- Nov 1 – UNCC – Annual Symposium
- Jan, 2008 – Photonics West
- Feb, 2008 – NCSU – Symposium
- March, 2008 – OFC, Innoventure
- April, 2008 – WCU – Symposium

# Thank you



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