

# BMW Manufacturing Co.



**"Manufacturing: The Knowledge Economy and  
Higher Education Partnering"**

**Commission on  
Higher Education**



# **BMW Manufacturing Co.**

## **Overall Focus on Education – Our Goal**

### **Producing Vehicles & Knowledge**

- In order to sustain the future of BMW Manufacturing, investment in education at every level is critical.
- From K-12 to graduate students, BMW's objective is to be a catalyst for young people to pursue their maximum potential.
- BMW Manufacturing is committed to partnering with our associates to develop a continuum of learning.

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## **Higher Education - Tactics**

- Spearhead innovative marketing and recruiting strategies that support student and teaching goals
- Fund endowments to help strengthen the faculty resources of our local universities
- Focus on math, science, arts & humanity to stimulate human and intellectual capital
- Provide collaboration within SC Technical College System and SC's research universities
- Promote equipment donations (robots, computers) to assist school operations

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## **Higher Education - Partnerships**

**CLEMSON**  
UNIVERSITY



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## **Centers of Economic Excellence - CoEE**

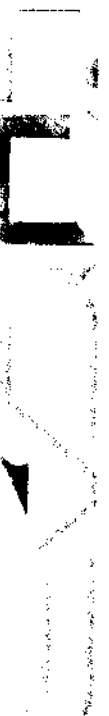
- Established in 2002 by the South Carolina General Assembly
- Funded through proceeds from South Carolina Education Lottery
- Legislation authorizes the state's 3 public research institutions (MUSC, Clemson University and USC) to use state funds to create Centers of Economic Excellence in research areas that will advance S.C. economy
- Each Center of Economic Excellence is awarded up to \$5 million in state funds, which must be matched on a dollar-for-dollar basis with non-state funds

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## **How to Sustain Excellence – CH-IOAP**

- Higher Education
  - Provide relevant educational opportunities
  - Produce qualified workforce
  - Attract/support creation of knowledge-based industries
- BMW's Strengths
  - Knowledge & skills required in the auto industry
- Clemson's Strengths
  - Academic program development/delivery
  - Research/Innovation
  - Industry Rescue Team (with SCMEP)

### **Collaborative Result:**



TOMORROW'S ENGINEER TODAY

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## **BMW Endowed Chair Program – CU-ICAR**

- CU-ICAR
  - Through CoEE, BMW invested \$10 million for two Endowed Chairs
- Areas of Collaboration:
  - Manufacturing Chair (BMW) – Dr. Thomas Kurfess
    - High precision manufacturing and metrology systems
  - Systems Integration Chair (BMW) – Dr. Paul Venhovens
    - Functional design and integration of vehicle safety, NVH (noise/vibration/harshness), fuel economy and vehicle dynamics

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## ***Other Endowed Chairs – CUI-CAR***

- Automotive Design & Development Chair (Timken) – Dr. John Ziegert
  - Design of systems for high precision dimensional metrology and manufacturing
- Vehicular Electronic Systems Integration Chair (Michelin) – Dr. Todd Hubing
  - Integration of electrical, digital and mechanical sub-systems



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## **USC Moore School of Business**

- \$1 million endowment for Master of International Business Studies program
  - 2 Fellowships Annually
- Collaboration for 2002 & 2008 Economic Impact Study on BMW. The study revealed:
  - 23,050 jobs created directly from BMW
  - 2.2% of SC's manufacturing employment is directly related to BMW
  - \$8.8 billion annual contribution to SC economy

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## **BMW Endowed Chair Program – MUSC**

- MUSC
  - Through the CoEE, BMW also has supported an Endowed Chair at MUSC Hollings Cancer Center
  - BMW Invested \$1 million for this Endowed Chair
- Areas of Collaboration:
  - The Chair will be named in the specialty of “Tobacco Related Malignancy”.
  - Chair will collaborate with multiple medical centers and health agencies throughout the state, using genomics, proteomics and lipidomics to discover biomarkers for specific cancers across the diverse populations of South Carolina.
  - This CoEE will provide an important component in the fight against the number one cancer killer – lung cancer.

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## **SC Technical College System**

- BMW supports the Mechatronics program to ensure workforce capacity and high performance skills necessary to compete for the jobs of tomorrow
- Over 235,000 students are enrolled in one of the SC Colleges
- In just a five-year period, the System's Center for Accelerated Technology Training (CATT) and its readySC™ program have seen a 33% increase in trainees (2003-2007)
- 49% of **all SC public college or university undergraduates** attended the System's Technical Colleges in Fall 2006
  - BMW collaboration with SC Technical System supports articulation from SC Technical System to a four year university

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## **Other Partnerships**

BMW also supports:

- College of Charleston – Global Logistics & Transportation Program
- Call Me MISTER – 10 scholarships annually at 4 HBCU's in SC
- USC-Upstate – Partnership agreement has been reached, announcement coming soon

*Upstate!*



COLLEGE of  
CHARLESTON

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