

# FUTURE TIRE TECHNOLOGIES AND MANAGING PROCESSING CHALLENGES

8<sup>TH</sup> SCRAP TIRE RECYCLING CONFERENCE

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BILL HALL

HALL PARTNERS LLC



# CUSTOMER DEMANDS ...

- SAFE
- RELIABLE
- ROLLING RESISTANCE
- WET AND DRY TRACTION
- SNOW PERFORMANCE/WET PERFORMANCE
- NOISE
- HANDLING
- LIFE



# CUSTOMER DEMANDS ... DRIVE TIRE INNOVATION

- SAFE
- RELIABLE
- ROLLING RESISTANCE
- WET AND DRY TRACTION
- INCLEMENT WEATHER PERFORMANCE
- NOISE
- HANDLING
- DURABILITY



- Tread/shape
  - Slim bead
  - Self-cleaning
  - Durawall
  - 3D Siping
  - Stone ejector
- Materials
  - Long link carbon
  - Graphene oxide additives
  - New silica compounds
  - Sealant gel
  - 80-90K warranty
- Chemistry
  - New rubber compounds
  - Bio-based compounds
  - Styrene-polymer-silica mixture
- Other innovations
  - Sound absorbing and dampening
  - Run-flat, self-sealing
  - Airless
  - Chip-in-tire



# THE PROCESSOR PERSPECTIVE

## CHALLENGES

- CONTINUED CHANGE IN TIRE DESIGN AND TECHNOLOGY
- LOW MARGINS
- CAPITAL INTENSITY FOR EQUIPMENT
- END-OF-LIFE TIRES TOPIC IS OFTEN “BELOW THE RADAR”

## OPPORTUNITIES

- ESTABLISH VOICE AMONG TIRE AND VEHICLE PRODUCERS
- PREEMPTIVELY PRIORITIZE EMERGING “FOREIGN ELEMENTS” IN TIRES
- INNOVATE PROCESSING EQUIPMENT TO ACCOMMODATE MULTIPLE SCENARIOS
- SPECIALIZE AND SCALE
- COLLABORATIVELY PURSUE MARKET DEVELOPMENT GRANTS
- RICHEN MARKET MIX