

# Leighton Spadone, Tire Technology & Data Analytics

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## CAREER SUMMARY

President of DAAS, Tire Technology and Data Analytics Consulting firm with tire manufacturing clients in Romania, China, India, and Poland. Expert Witness for Earthmover Tires R&D, manufacturing, and mine site performance retained by Bodman Law for London Arbitration in Feb2017.

Chief Technical Officer, Eurotire Inc, responsible for managing OTR Tire technology, including Compound Formulations, Curing Systems, Manufacturing Processing, Material Technology, Tire Design, Statistics, Application Programming, Quality Assurance, and Technical Services for Radial OTR Production.

A Seasoned R&D Technical Associate at Goodyear Tire & Rubber with solid record of success in Materials Research, Compounding, Tire Curing, Radial Truck and OTR Product Design and Development, Manufacturing Process Development, Design of Experiments and Modeling, Project Management, Data Modeling, and experience in SAS and JMP technical application program development.

### Conferences Presentations:

2017 "Rubber Mixing Uniformity" 2017 ACS Rubber Division

2016 "Overview of Tire Curing Technology" University of Akron

2016 "Paired Design for Treadwear Testing" ITEC and published in RPN

2015 "Efficient Paired Design Treadwear Testing and Analysis" ACS Rubber Division

2015 "Introduction to Split Plot Design's Analysis" Central Ohio JMP Users Group

2015 "Predicting OTR tire TMPH field ratings from Test Wheel results" ITEC

2007 "Predicting Radial Truck and Passenger Road Tire Performance from Test Wheel results" ASTM Papers

Recognized as an expert in *Heavy Tire Curing Methodology*, with strategies that reduced cure times by 40% for Radial Truck and EM Tires.

A Material Product Development and Formulation Creation Specialist who is also knowledgeable in *Quality Systems Analysis* and applying Statistical Process Control to reduce production cost and variation.

An experienced designer of Technical Computer Applications including Data Modeling, GUI design, Coding and Flow-charting who has contributed to both Laboratory Information Systems and tire and compound Performance modeling systems.

Black Belt Six-Sigma projects credited with building successful team environments. Has an ability to solve technically complex problems and provide solutions with positive impact on bottom line. Leighton has experience as teacher and consultant for Six-Sigma and JMP Statistical methodology.

## QUALIFICATION HIGHLIGHTS

- Project Management
- Tire Cure & Thermocouple Methodology
- New Materials Development
- Experimental Design & Analysis
- Statistical Compounding
- 8 Patents Published
- OTR and RMT Tire Product Development
- Statistical Process Control & Six-Sigma
- Data Modeling, Analytics, Database Modeling
- Software Application Development
- Mixing, Extrusion, & Calender Processing
- Compound and Formulation R&D

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## ACCOMPLISHMENTS AND ACHIEVEMENTS

- President of DAAS Consulting for Tire Technology and Data Analytics 2012 to present.
- Chief Technical Officer for Eurotire Inc. 2009-2012.
- 43-year career at Goodyear Tire & Rubber Co with experience in International Production, Quality Assurance, and Corporate Tire R&D in both management and senior R&D capacities since 1966.
- Expertise in Materials Engineering, Compounding, Tire Curing, Rubber Processing, Electron Beam Processing, Statistical Analysis and Modeling, Statistical Process Control, Application Design, and Statistical Training.
- Experienced Materials Product Developer for Radial Light Truck Tires, Radial Medium Truck Tires, Farm Tires, and Off-Road Radial Earthmover Tires.

## HIGHLIGHTS

- Tire Technology Management
- R&D and Technical Service, and Compounding for International Clients
- Product Development expert for Radial Medium Truck, OTR and Farm Tires
- Off-the-Road Tire Temperature and Performance Prediction Modeling
- Heavy Tire Cure Modeling and Thermocoupling
- ASTM Tire Running Temperature Prediction for Wheel to Vehicle Testing
- Materials and Formulations Information and Laboratory Systems
- SAS and JMP applications for Tire Technical Information and Performance Modeling
- Electron Beam Processing of Tire Components
- Six Sigma Mixing Optimization
- RMT, OTR, and Farm Heavy Tire Compound Development and Processing
- Wire Coat Formulations for Radial EM and Radial Truck Tires
- Halobutyl Innerliner processing and Formulations
- Reversion Resistant Compound Materials Development
- International Plant Technical Service in Brazil, Indonesia, Jamaica, Romania, India, and Poland

## EDUCATION

### **BA in Chemistry**

University of Colorado, Boulder, Colorado

- Minors in Physics, Math & Biology
- Graduate studies in Biochemistry

US Air Force Academy

Colorado Springs, Colorado

## TRAINING

- Goodyear International Tire Materials Engineering Training
- Goodyear Six-Sigma Black Belt Certification
- JMP Programming and Statistical Training: Regression, ANOVA, Hazard Analysis, Neural Net, and Multivariate, Design of Experiments, Quality and Process, Mixed Models, and Mixture Models,
- Relational Database Design at System Advisors, London
- Project Management Training at Battelle Institute and ETP Corporation
- Management Training at Kent State University, Battelle Institute and Vance Institute
- Goodyear Sales and Project Management Training
- Principles of Electron Accelerators
- Statistical Training at Princeton University Associates, SAS Institute, and American Statistical Association

## TECHNICAL TOOLS

Software: MS Office, MS Project, SAS and JMP

Languages: SAS, JMP JSL, REXX

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Instructor: SAS JMP Statistical Data Exploration, ANOVA and Regression Analysis, Design and Analysis of Experiments, Six Sigma Courses, Cure Technology and Statistical Compound  
**Developed and taught practical application of JMP Analytics using actual tire industry data and problem examples**

## **EXPERIENCE**

2012- Present: President DAAS Tire Technology and Data Analytics: China, India, Poland, Romania.

2009- 2014: Chief Technical Officer Eurotire Radial OTR Tires, Romania

1966- 2008 R&D at **Goodyear Tire and Rubber Co.**

## **HISTORY**

1966 Akron, Ohio: Wingfoot Squadron and International Materials Technical Trainee

1967 Port Morant, Jamaica: Service Compounder, Plant Start-Up

1968 Sao Paulo, Brazil: Service Compounder Truck Tires and Industrial Products

1970 Bogor, Indonesia: Director of Development responsible for Compounding, Tire Design, Equipment Design, Tire Testing and Quality Assurance – Bias Truck and Light Truck, OTR

1972 Port Morant, Jamaica: Technical Superintendent, Radial Passenger, Truck and OTR

1973 Akron, Ohio: Manager Electron Beam Processing Project and Pilot Plant

1975 Akron, Ohio: Senior Compounder Radial Light Truck Tires and all Innerliner compounding.

1979 Akron, Ohio: Senior Compounder Radial Medium Truck Tires and Project Manager for RMT Curing. Specialized in the development of Wire Coat Compounds.

1980 Akron, Ohio: Principal Compounder – Project Manager and Senior Programmer for the RMT Tire Modeling Prediction Application. RMT Data Modeling and Predictive Modeling in SAS and JMP.

1982 Akron, Ohio: Project Cure: Project Manager for OTR, RMT, FARM and Aircraft

1984 Akron, Ohio: Project Manager RMT Innerliner and Management Statistics Project

1986 Akron, Ohio: Project Manager Technical Data Modeling System for LIMS and Principal Engineer for RMT

1989 Akron, Ohio: Project Manager Corporate Materials Information Database Modeling. Begin Reversion Resistant Compound Development Project.

1992 Akron, Ohio: R&D Associate Radial Off the Road Tire Materials, Applied Statistics and Heavy Tire Curing Processes. Project Manager of Advanced Wire Coat Development.

1996 Akron, Ohio: R&D Associate expert support for Aircraft, Farm, RMT, RLT and OTR Materials Engineering and Curing

2003 Akron, Ohio: Project Mix Efficiency – Completed Goodyear Six Sigma Black Belt Certification

2004 Akron, Ohio: Six Sigma Instructor and Course Development

2005 Akron, Ohio: Director of Statistics Training using JMP for R&D

2007-8 Akron, Ohio: Senior R&D Associate – ASTM Statistical Modeling of RMT Temperature Response to Flat vs. Curved Surfaces for Tire Industry and NHTSA

2008 Akron, Ohio: Statistician and Compounding Expert for Virtual Compound Laboratory Neural Net Modeling Project.

2009-2014: Chief Technical Officer Eurotire Inc. Radial OTR tire development and production in Romania.

2012-Present: President of DAAS Inc. Tire Technology and Data Analytics in India, Poland, & China

## **Goodyear Tire Chronological Summary:**

2 years: Goodyear Akron Squadron & Training Assignments

6 years: International Compounding Assignments: Jamaica, Brazil, Indonesia, & Jamaica

4 years: Akron R&D Process Development: Banbury, Extruder, Calender, Curing, Electron Beam Processing.

4 years: Akron R&D Heavy Duty Radial Light Truck tire compounding.

15 years: Akron R&D Radial Medium Truck Tire compounding, RMT Performance Modeling, SAS & JMP Programming, Database Modeling, Laboratory Information System, Virtual Compounding, etc.

6 years: Radial and Bias OTR Tire compounding & Project Manager

6 years: Central R&D Compound, Statistical Training and Support for R&D, and Problem Solving Projects.