

# The Impact of 40 years of the Charles Hatchett Award and Introduction of the 2018 Winners

Dr Mike Hicks

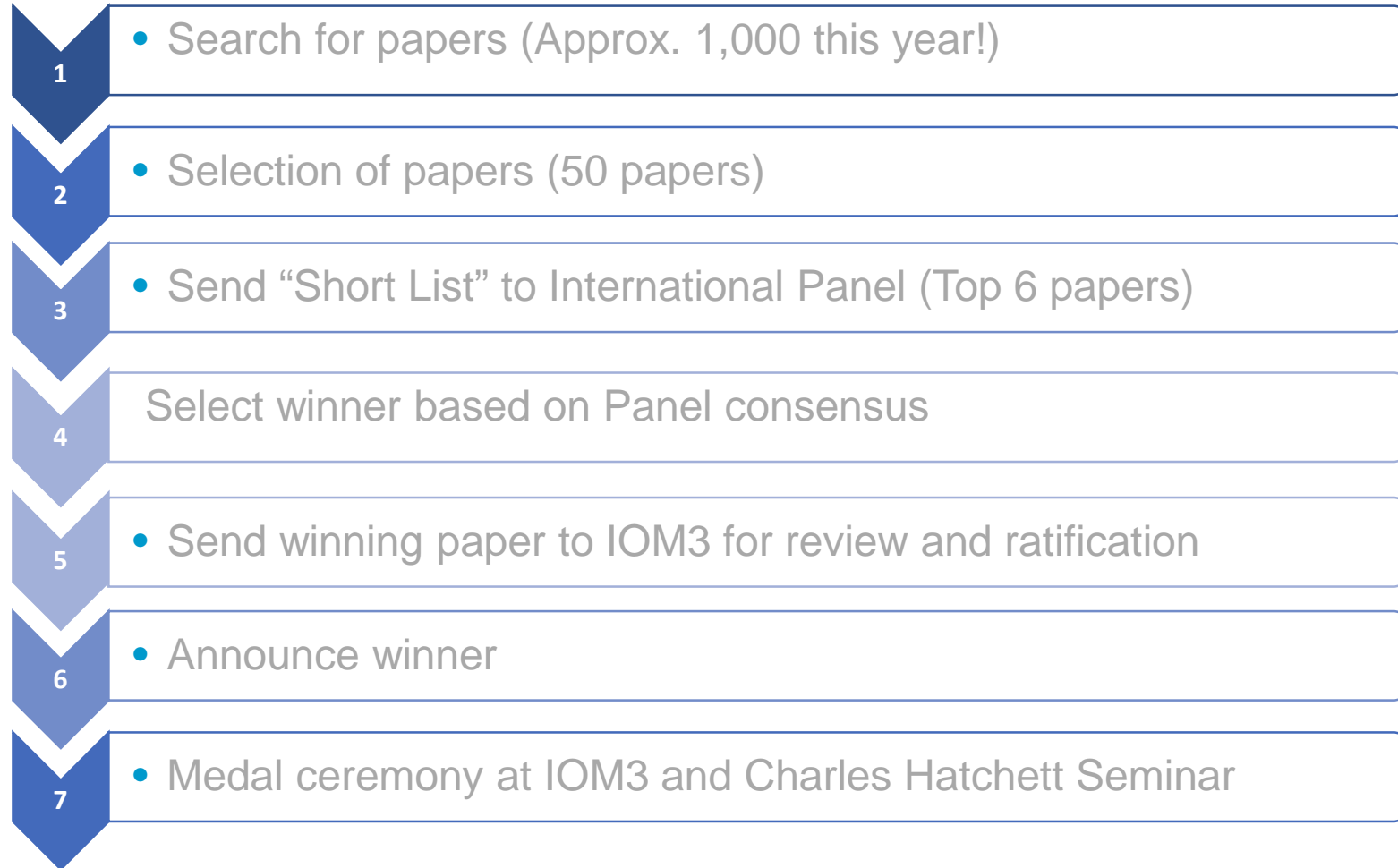
Chair of the International Charles  
Hatchett Panel



# The Charles Hatchett Award

- Established in 1979 to recognize outstanding work on the science and technology of niobium from the preceding two years;
- Now in the 40<sup>th</sup> year of the award;
- 161 medals for work from 12 countries;
- Helped to establish a global network of leading scientists working to understand the role of niobium and its application in advanced materials.

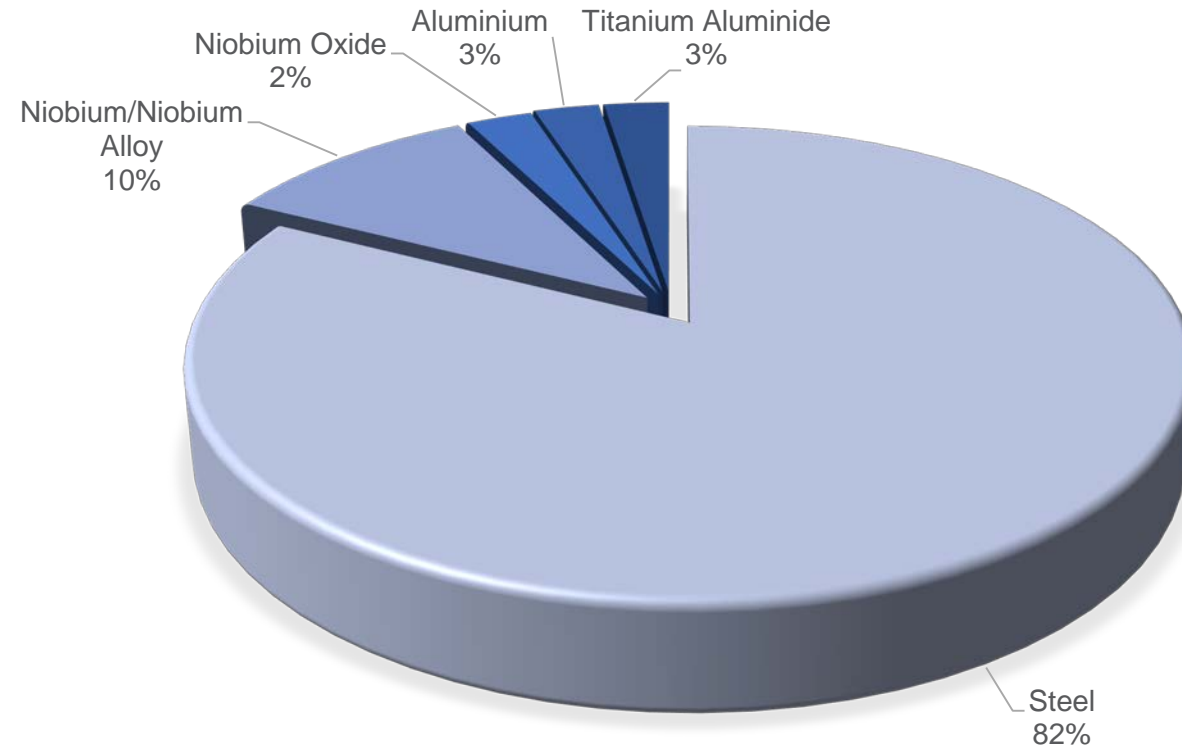
# Selection Process for the Charles Hatchett Award



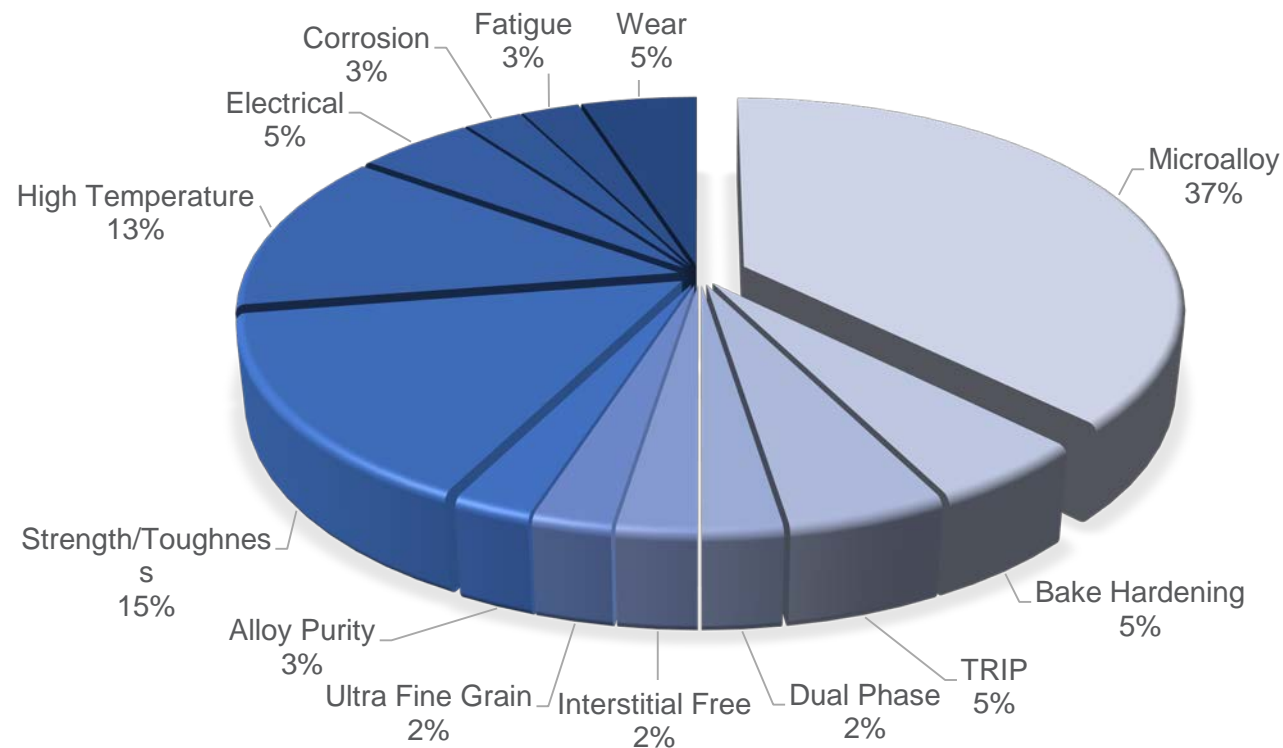
# Assessment of the Technological Impact of the Charles Hatchett Award

- Types of materials studied;
- Advances in material properties or new types of materials;
- Effect on markets for niobium and niobium products.

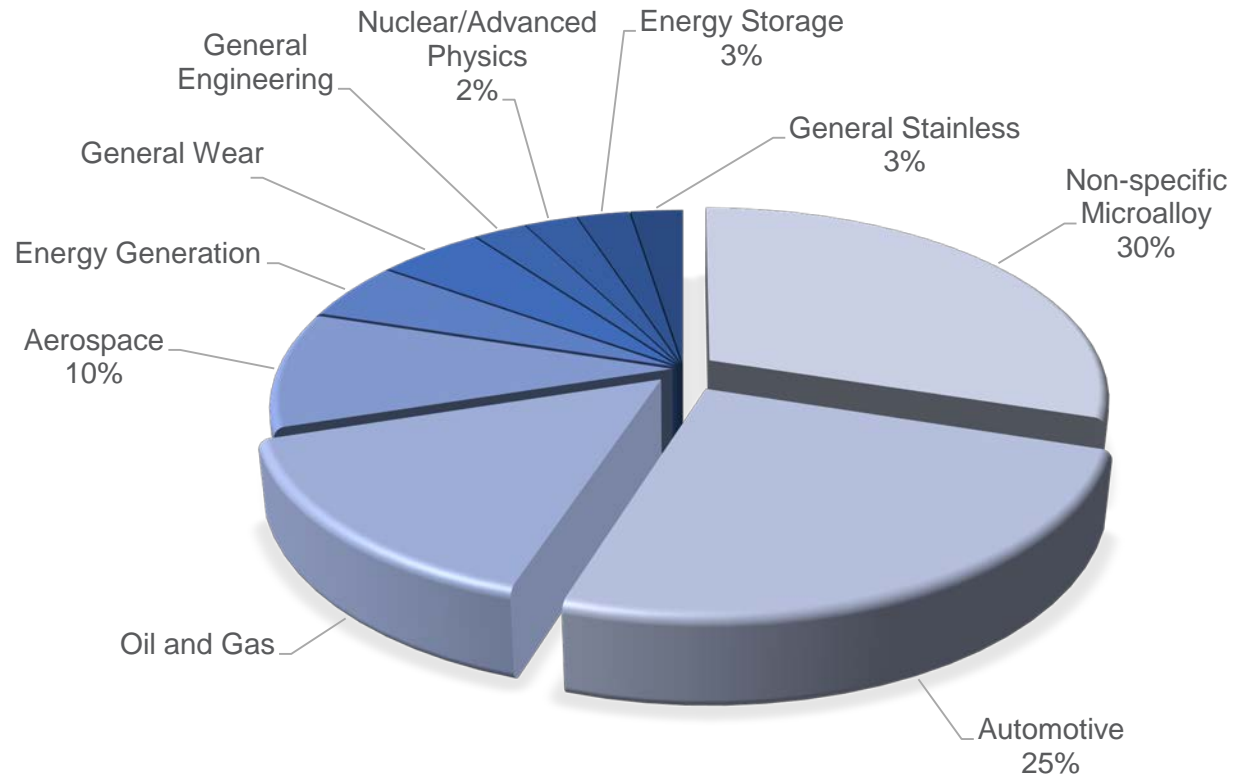
# Awards by Materials



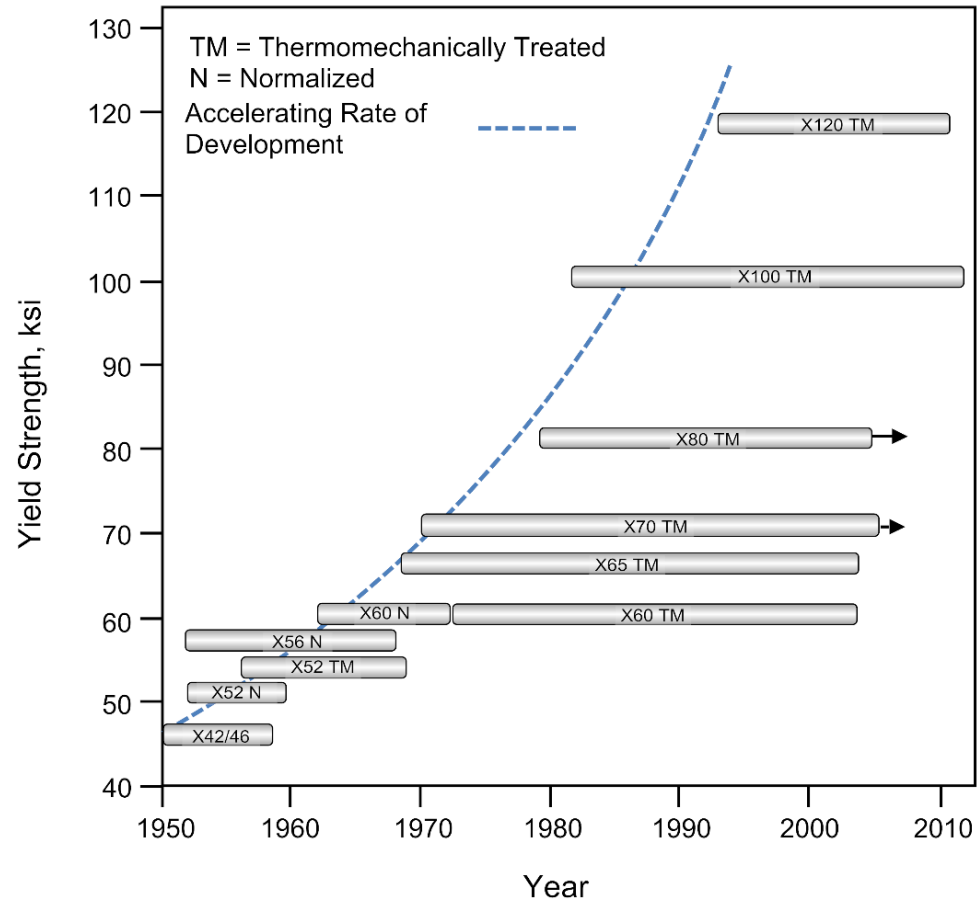
# Awards by Steel Type or Property Enhancement



# Awards by Market Sector

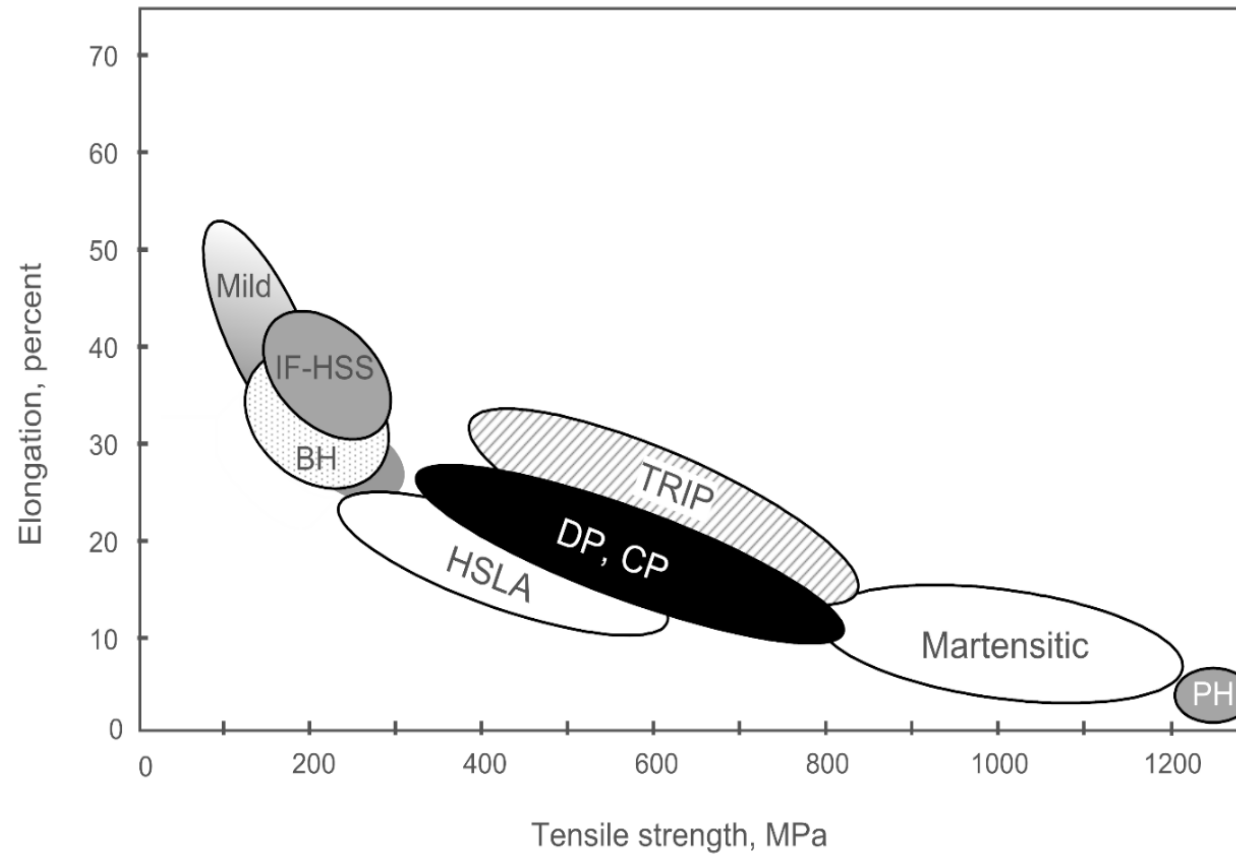


# Oil and Gas Market





# Automotive Market



# Impact of the Charles Hatchett Award

This knowledge-driven initiative, supported by CBMM over a significant period of time, has enabled the award to realise a number of benefits including:

- Recognising and rewarding leading scientists for world class work on niobium, building an international network of knowledge and expertise;
- Fostering links between leading researchers and industry with common interests in the application of niobium and its products;

# Impact of the Charles Hatchett Award

- Accelerating our understanding of the role of niobium in novel advanced and functionalized materials, with the potential to address current and future challenges;
- Facilitating the development of a wide range of new products which have brought economic, societal, technical and environmental benefits in important market sectors such as oil and gas, energy generation and transport;
- Stimulating interest in new areas of research, such as energy storage and lightweight alloys, and raising awareness of the potential of niobium with the next generation of scientists and potential Charles Hatchett Award winners of the future.

# The Charles Hatchett Award 2018

# Unraveling the Nature of Anomalously Fast Energy Storage in T-Nb<sub>2</sub>O<sub>5</sub>

Dongchang Chen, Jeng-Han Wang, Tsung-Fu Chou, Bote  
Zhao, Mostafa A. El-Sayed and Meilin Liu

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