

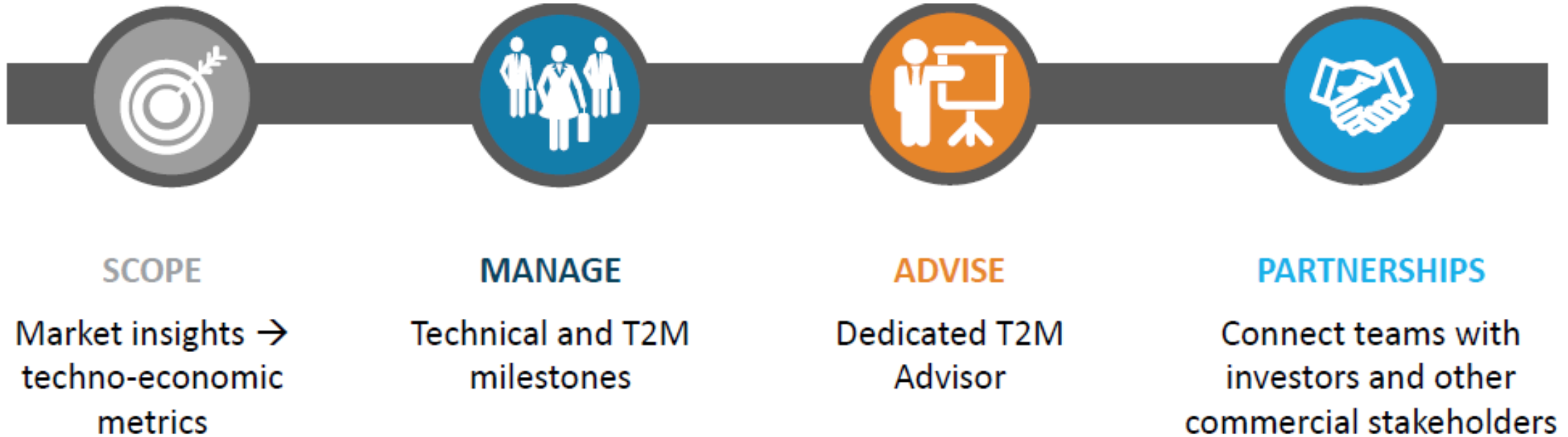
# **FUSION Diagnostics First Annual Review: Technology-to-Market Perspectives**

Sam Wurzel, Technology-to-Market Advisor, ARPA-E

March 5, 2021

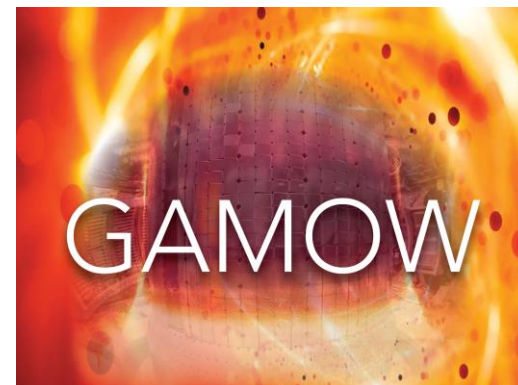
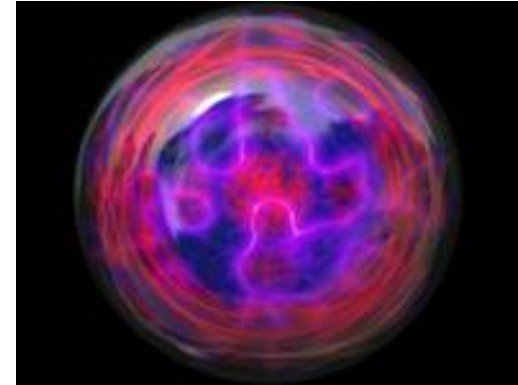
# T2M at ARPA-E: If it works, will it matter?

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# Overall T2M Priorities for ARPA-E Fusion Portfolio

- ▶ Investor engagement
- ▶ Fusion market research
- ▶ Power plant costing studies
- ▶ Engaging NGOs on social license, advocacy, communication, and education for fusion
- ▶ Supporting/coaching project teams (on development plan, team building, securing follow-on funding, etc.)
- ▶ Identifying sources of follow-on funding



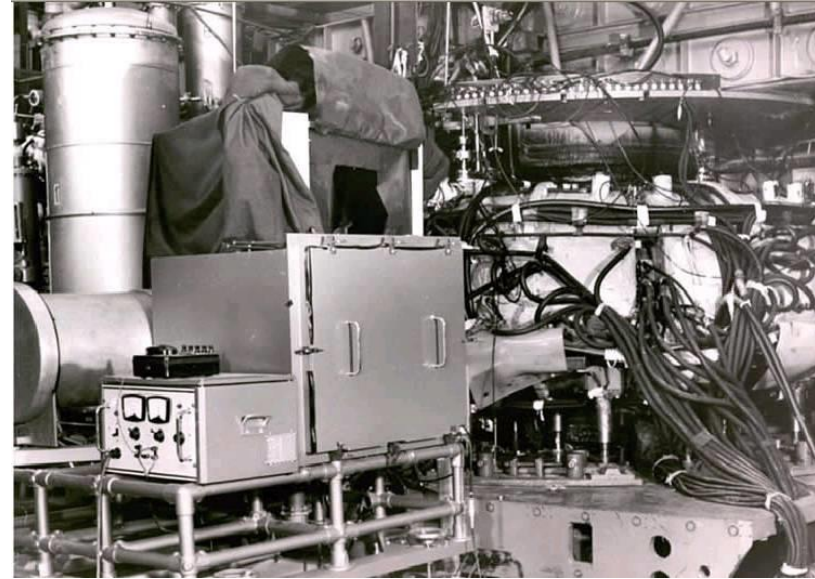
# Sustainment strategies for FUSION Diagnostics projects are different

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- ▶ [INFUSE](#) Program
- ▶ Potential, new public-private-partnership (PPP) programs (e.g., see [NASEM report](#))
  - [ARDP](#)-like
  - [COTS](#)-like
  - Industry-led FOAs
- ▶ Direct contracting

# Think Long Term

- ▶ Trust in key diagnostic results will drive investor and public funding... diagnostics are value creators
- ▶ Multiple private companies are planning T>1-keV devices and beyond... they will need you
- ▶ Self promotion and branding has a positive effect on investor perception which in turn increases investor trust in diagnostic results



Published: 01 November 1969

## Measurement of the Electron Temperature by Thomson Scattering in Tokamak T3

N. J. PEACOCK, D. C. ROBINSON, M. J. FORREST, P. D. WILCOCK & V. V. SANNIKOV

*Nature* 224, 488–490(1969) | [Cite this article](#)

780 Accesses | 157 Citations | 6 Altmetric | [Metrics](#)

### Abstract

Electron temperatures of 100 eV up to 1 keV and densities in the range  $1\text{--}3 \times 10^{13} \text{ cm}^{-3}$  have been measured by Thomson scattering on Tokamak T3. These results agree with those obtained by other techniques where direct comparison has been possible.



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