



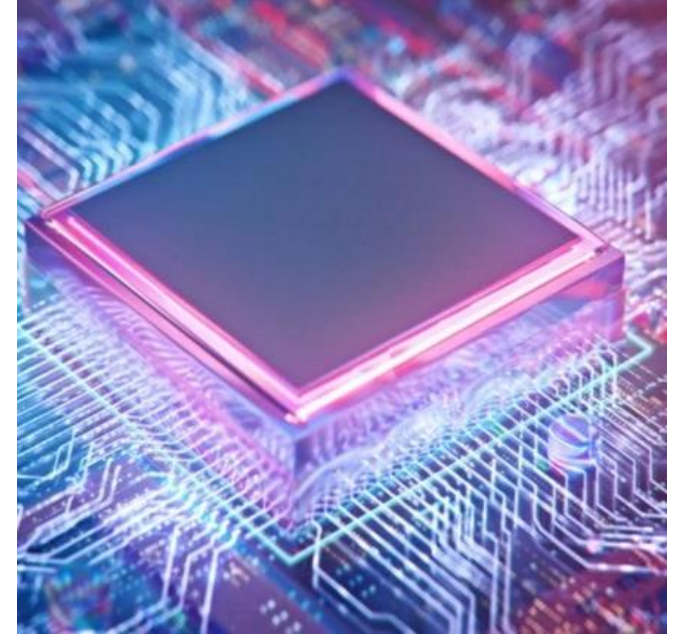
Creating intelligent assets for a safe and sustainable future

EPIC OTM on Optical Fiber Sensing
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In an increasingly complex world, asset management is critical to manage safe operations and lifecycle costs.



Technology developments enable better asset management

Making informed decisions about the assets during its lifecycle



Quality of data → Sensing technology



'Smarter' decisions → Decision support software


Making informed decisions about the assets during its lifecycle



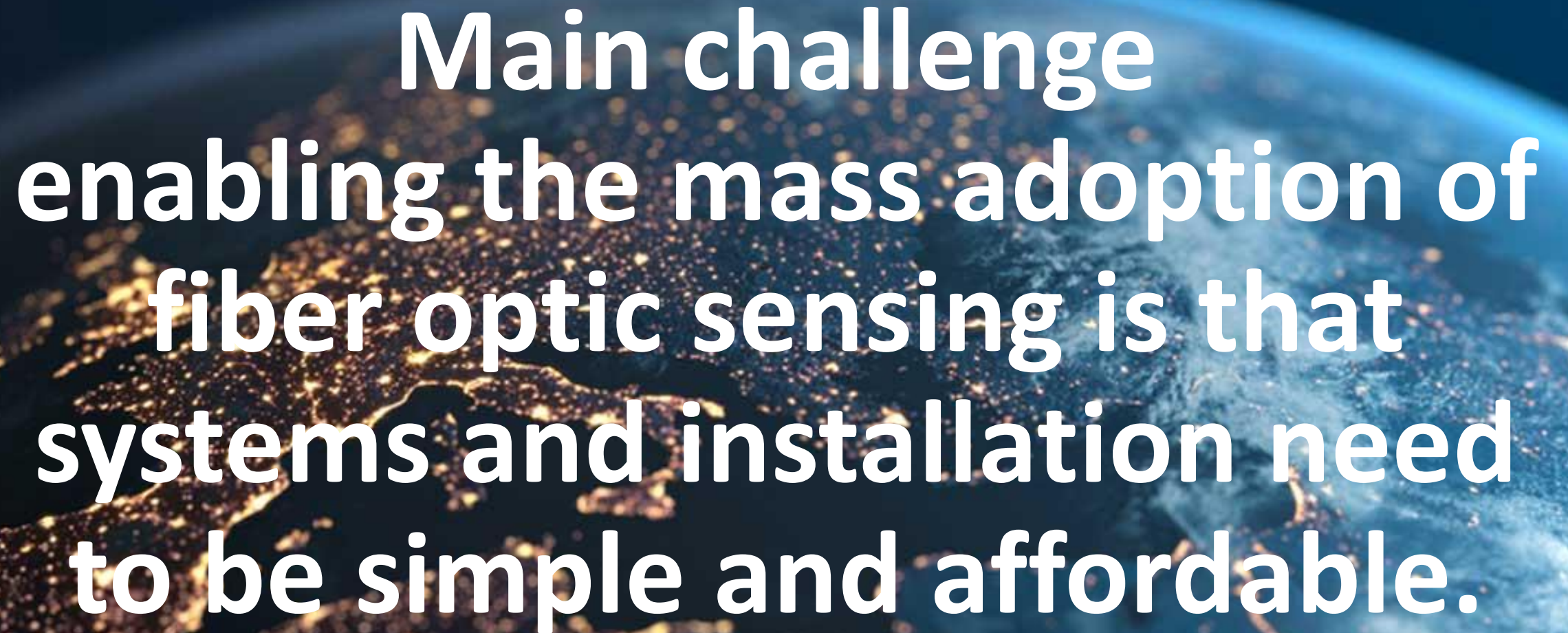
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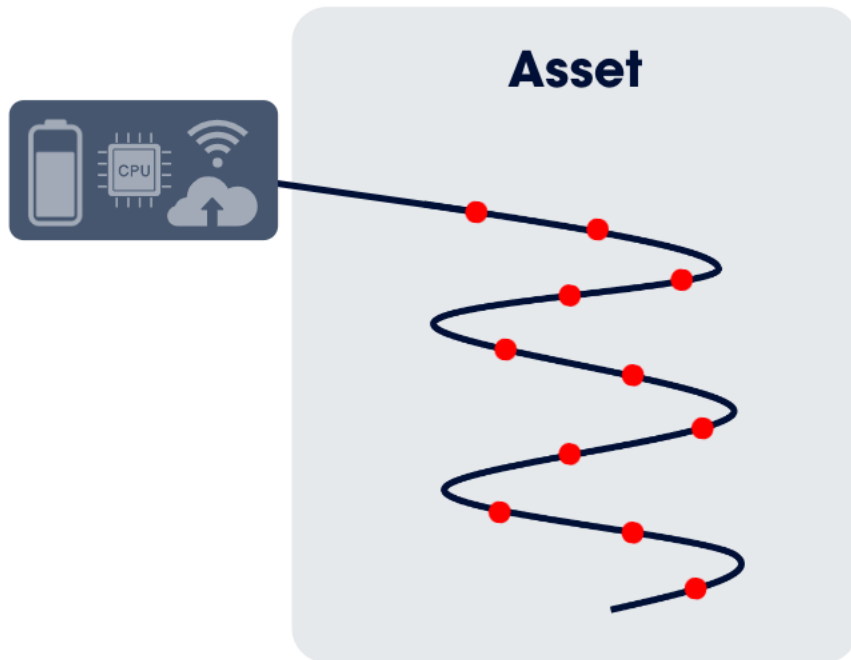
**Provide high-quality data with
integrated photonics sensing
to enable smarter decision
making at scale**



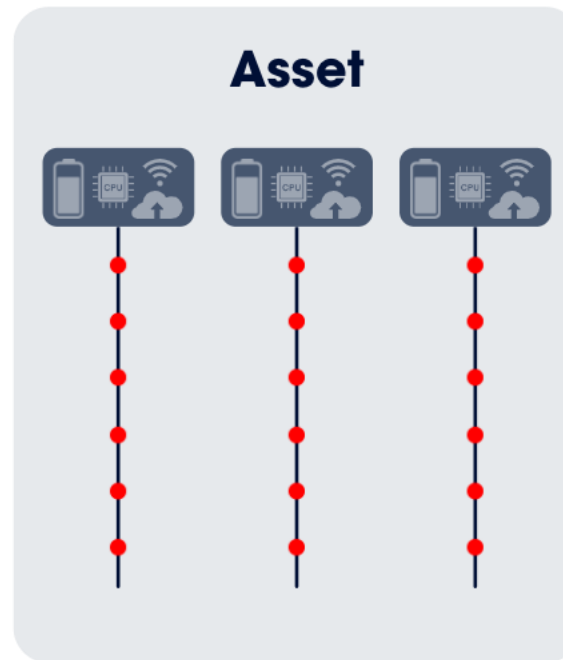
**Main challenge
enabling the mass adoption of
fiber optic sensing is that
systems and installation need
to be simple and affordable.**

Photonic integration for fiber optic sensing aims to offer maximum flexibility, reduced total system costs and reduced installation time.

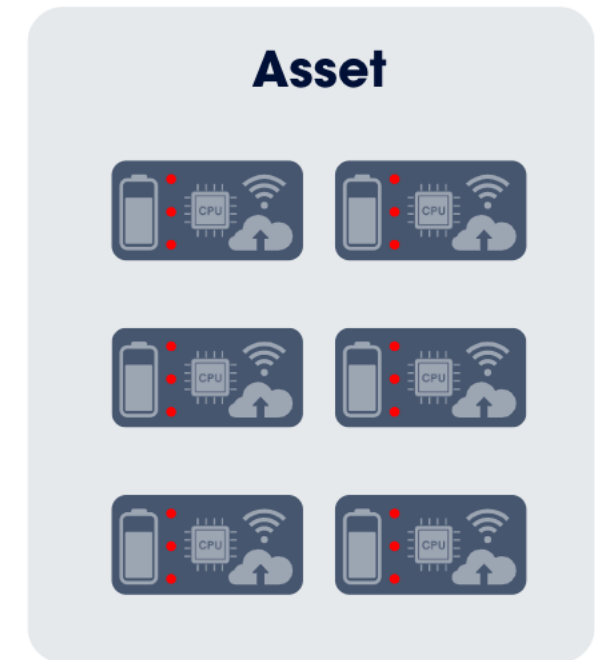
System is the network



Connected systems operate as a network



System is sensor in a mesh network



Further photonics integration: growing, accessible and miniaturization



Current: System is the network



Future: System is the sensor in a network

Adoption of fiber optic sensing at scale

- Conventional FOS technology allows for monitoring of the largest infrastructure assets
- Current FOS technology increases the market reach by 10x by monitoring to regional midsized assets.
- Future FOS technology increases the market reach with an additional 100x to also start monitoring local assets.



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Need for more advanced sensing solutions is driven by a need for **better monitoring** to reduce **total costs of ownership** during the **lifecycle** of an asset.



Integrated photonics will **push technology progression** and **further cost reductions and simplification** to enable **widespread use** of advanced sensing solutions.



Main drivers to increase acceptance are **application specific solutions** with **maximum flexibility** and **minimal installation time**.

THANK YOU!