

Transforming Plant Operations with Digital Technology





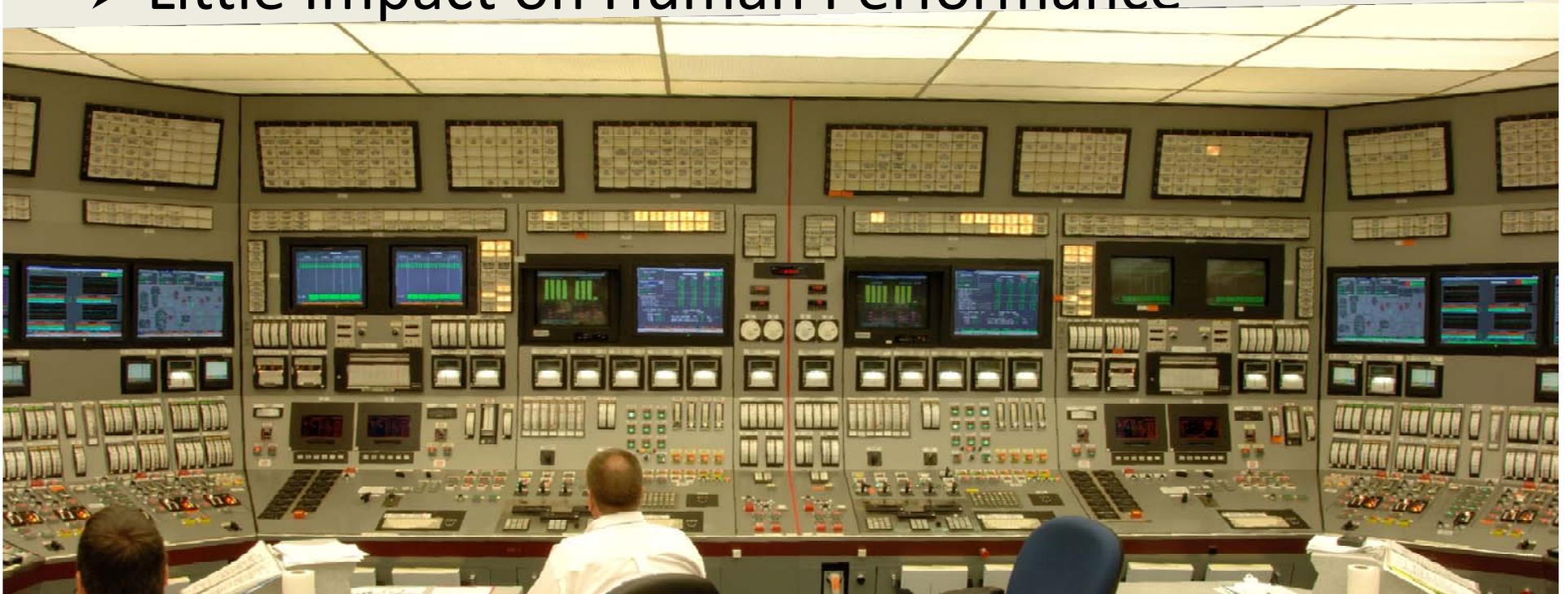
Current Fleet Operating Model

- 70's Technology
- Large Workforce
- Huge Investment in Process, Procedures, and Training
- Design & Licensing Basis Inertia
- Safe & Reliable Performance

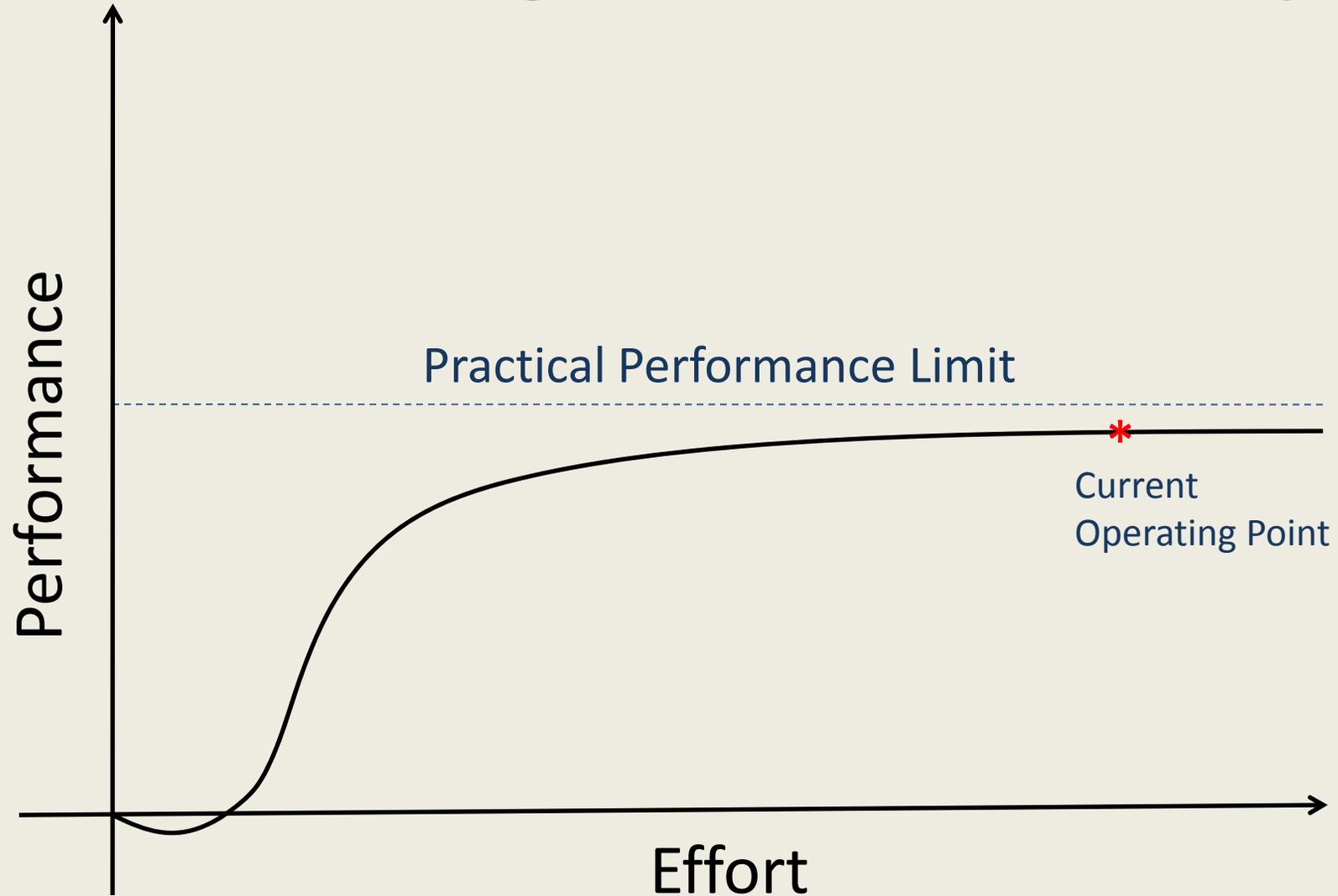


Cautious Approach for Digital

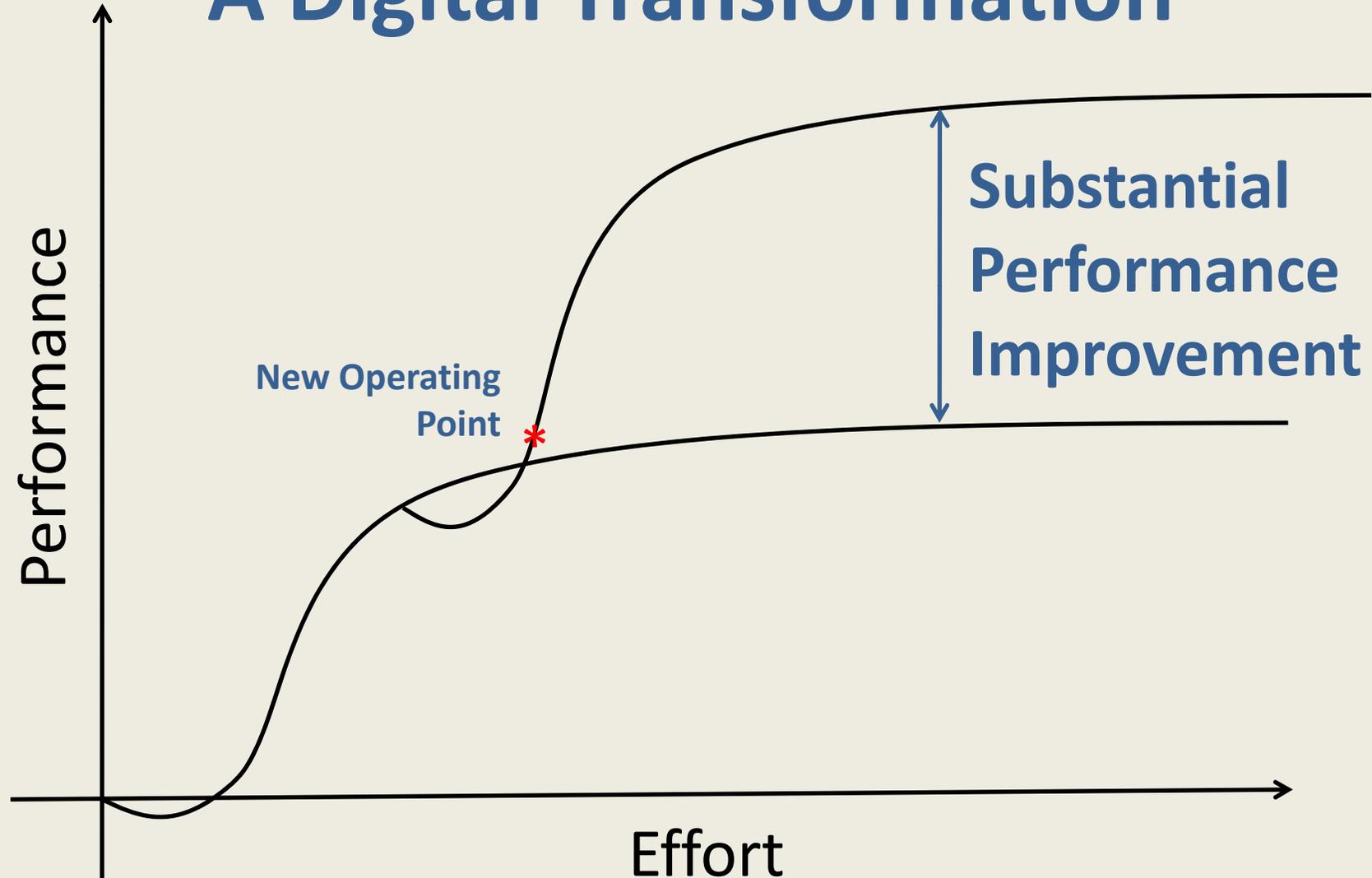
- Like-for-Like Replacements
- Limited Innovation
- Little Impact on Human Performance



Challenge for Sustainability



Future Performance Based on A Digital Transformation



Digital Transformation

Address long-term operations with innovations in asset management - particularly aging management



Digital Transformation

Develop advanced technologies for operational control, decision support, plant performance, configuration management, and safety oversight/margin



Digital Transformation

Address future shortage of qualified workers, availability of needed expertise, and job enrichment



Improve human performance, reduce dependence on human skill for quality

LWRSP II&C Working Group

- Demonstrate near-term beneficial digital applications for NPPs
- Conduct research on a long-term vision of substantial digital technology integration
- Communicate this work to utility and support organizations for a transformed NPP operating model based on a digital infrastructure
- Coordinate research with major nuclear industry support organizations