



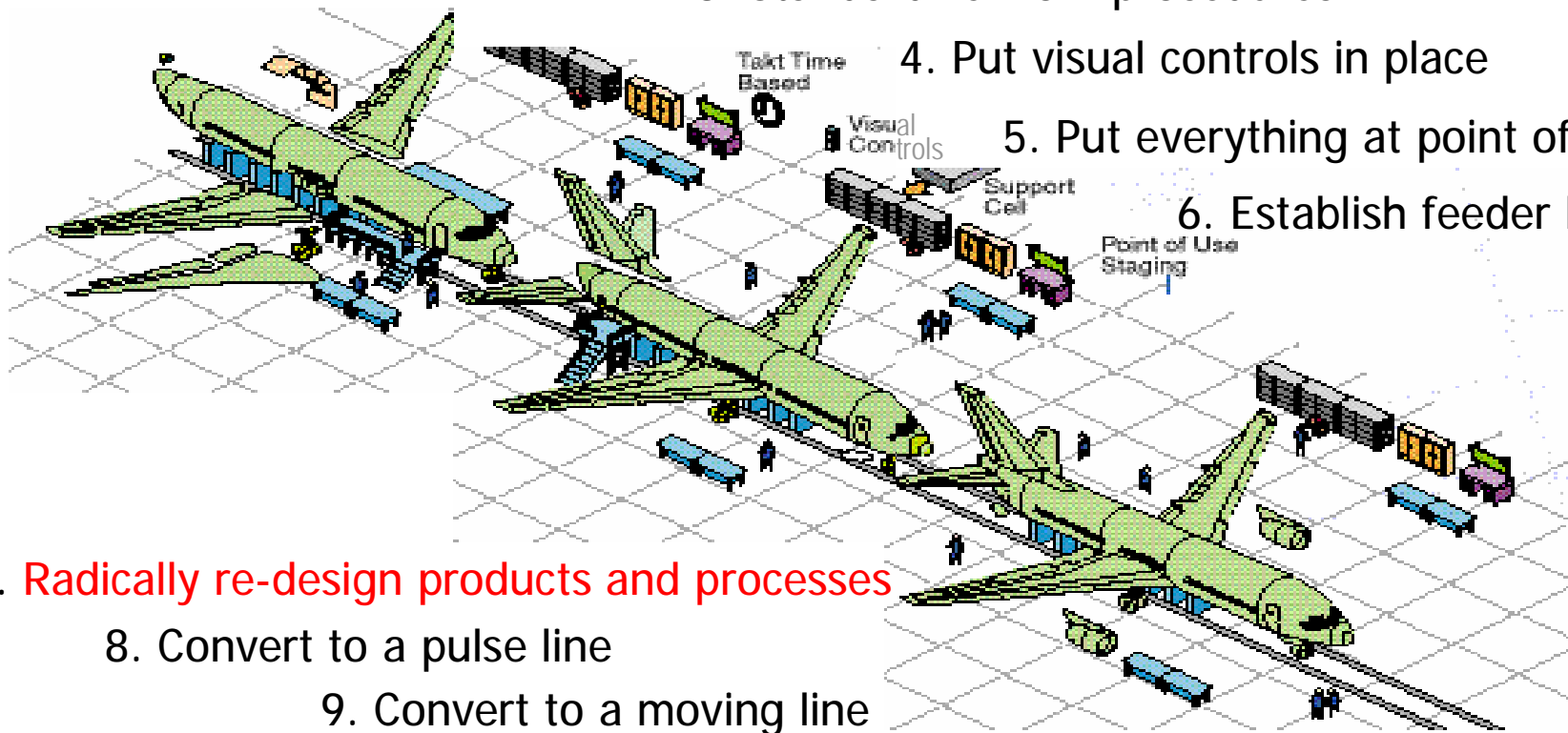
Driving LEAN into Construction at Boeing

Report out to NWCCC
March 28, 2009

The Nine Tactics

Site Services – Regional Services CM

1. Understand how value flows
2. Balance the line
3. Standardize work procedures
4. Put visual controls in place
5. Put everything at point of use
6. Establish feeder lines
7. Radically re-design products and processes
8. Convert to a pulse line
9. Convert to a moving line



737 Programs 737 BPS Implementation Strategy

- Implementation Benefits -

Site Services – Regional Services CM



§ Final Assembly

§ Factory Flow Time Reduction	50%
§ Inventory Reduction	
Stores Inventory	73%
Work in Process Inventory	55%
§ Unit Hours Reduction	40%
§ Footprint (ft) Reduction	21%
§ Hazardous Waste Reduction	31%
(Per Airplane (1999-2003))	

§ Final Assembly and Suppliers

§ Cost of Quality Reduction	61%
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§ Renton Site

§ Acreage Reduction (366 to 278)	41%
§ Floor Space Reduction (7.0M to 4.1M)	41%
§ Power Reduction (1999-2003)	52%

Waste – Our Definition

Site Services – Regional Services CM

§ Waste is...

§ Any action, process or product that adds cost, without adding value as perceived by our customer

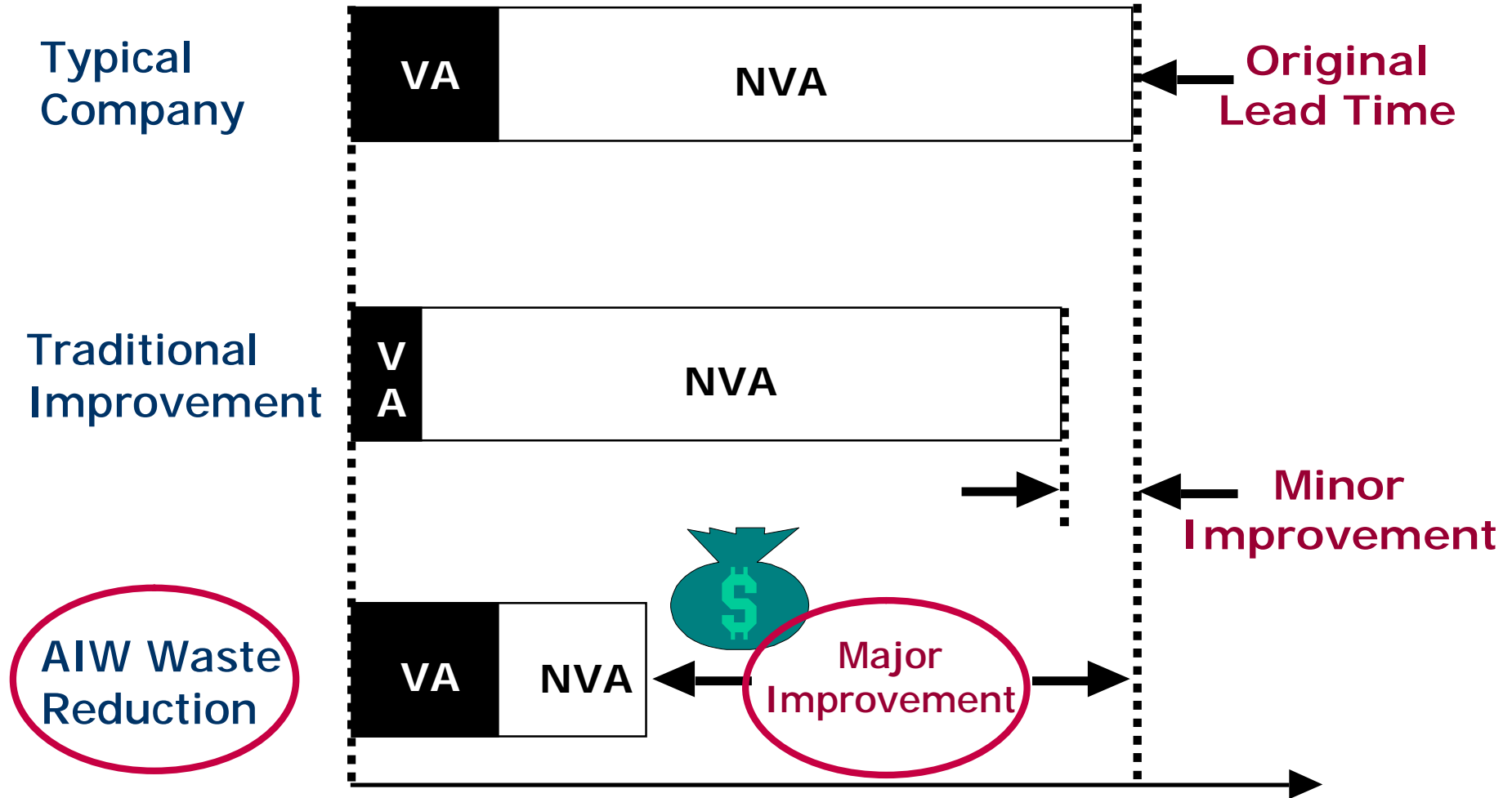
§ Value-Added

§ Changes fit, form and function of product

§ Product transformation has value to customer (customer would be willing to pay for it)

Changing our perspective...

Site Services – Regional Services CM



Construction LEAN Activities

Site Services – Regional Services CM

§ 2006 Focus

- § LEAN Education
- § Employee Involvement
- § LEAN Certifications

§ 2007 Focus

- § Standards
- § Project Management
- § Requirements
- § LEAN +

Standards

Site Services – Regional Services CM

- § Construction Project Process
- § Design Standards
- § Drafting Standards
- § Parts Standards
- § Contract Language
- § Computing Standards