



**NDIA Program
Management System
Committee**

15 August 2012

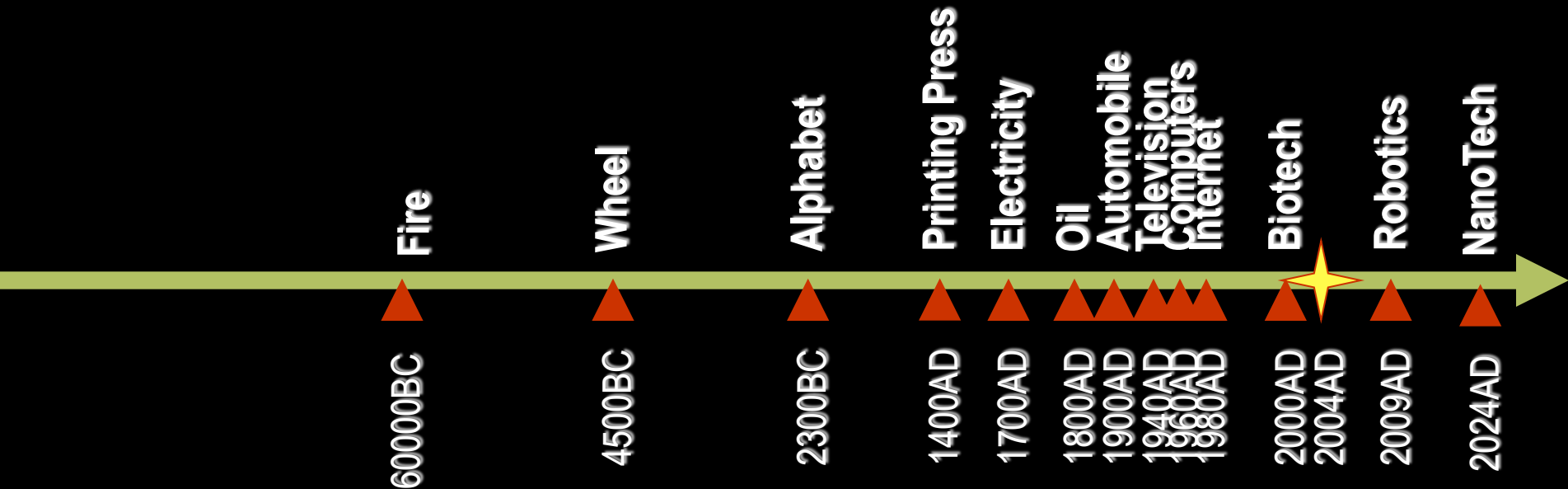


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Disruptive Technologies Timeline



Massive disturbances occur with the introduction of disruptive technology. Life before and after a disruptive technology is fundamentally different.

Disruptive Technologies Timeline

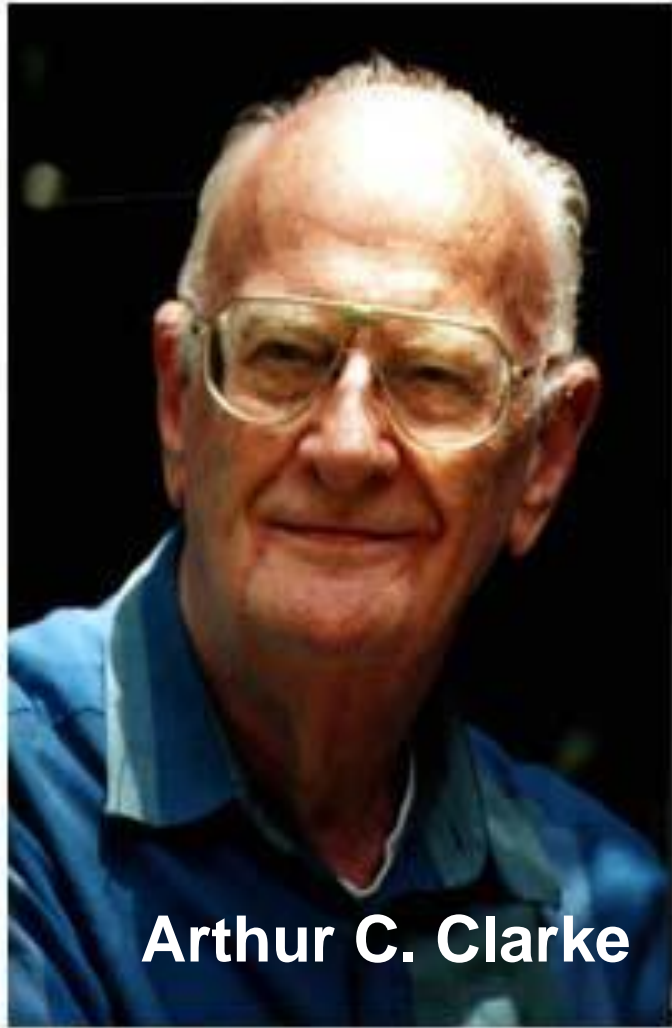


Fire



60000BC





“Every revolutionary idea seems to evoke three stages of reaction. They may be summed up by the phrases...

(1) It’s completely impossible.

(2) It’s possible, but it’s not worth doing.

(3) I said it was a good idea all along.”

Google's EVM Snapshot

- | | |
|------------------------------------|--------------|
| 1. "Earned Value Management" (EVM) | A. 22,300 |
| 2. "EVM Training" | B. 1,720,000 |
| 3. "EVM Formulas" | C. 2,610,000 |
| 4. "EVM Jobs" | D. 2,080,000 |
| 5. "EVM Criticism" | E. 1,770,000 |
-



OPEN →

Picante Sauce

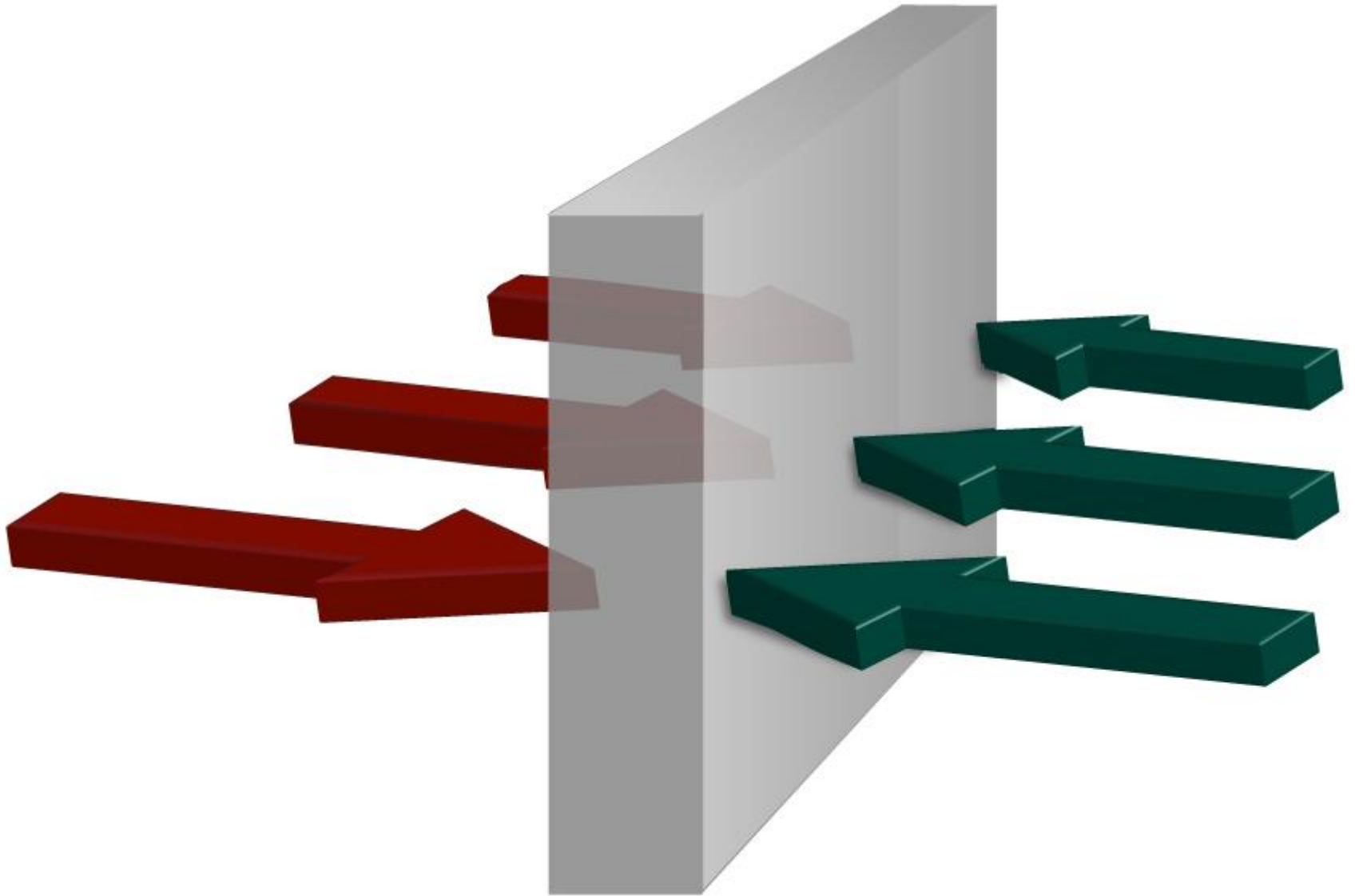


Gerber

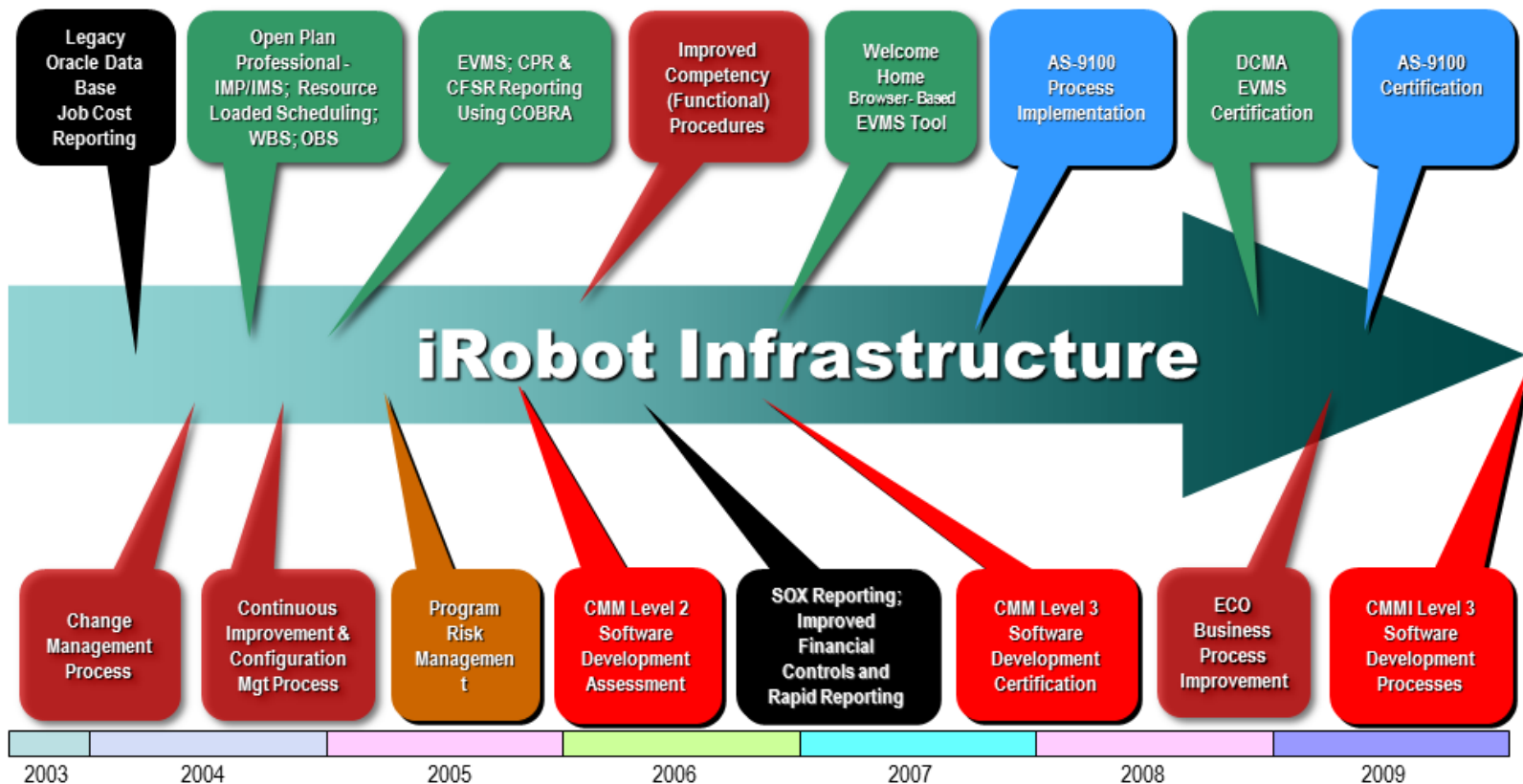
2ND FOODS

NET WT. 4 OZ (113g)

A DIFFERENT KIND OF “VECTOR ANALYSIS” OR FORCE BALANCE...



Competencies and Processes Required for Defense “Programs of Record”



MOVE TO THE RIGHT TO REDUCE RESISTANCE...



Compliance

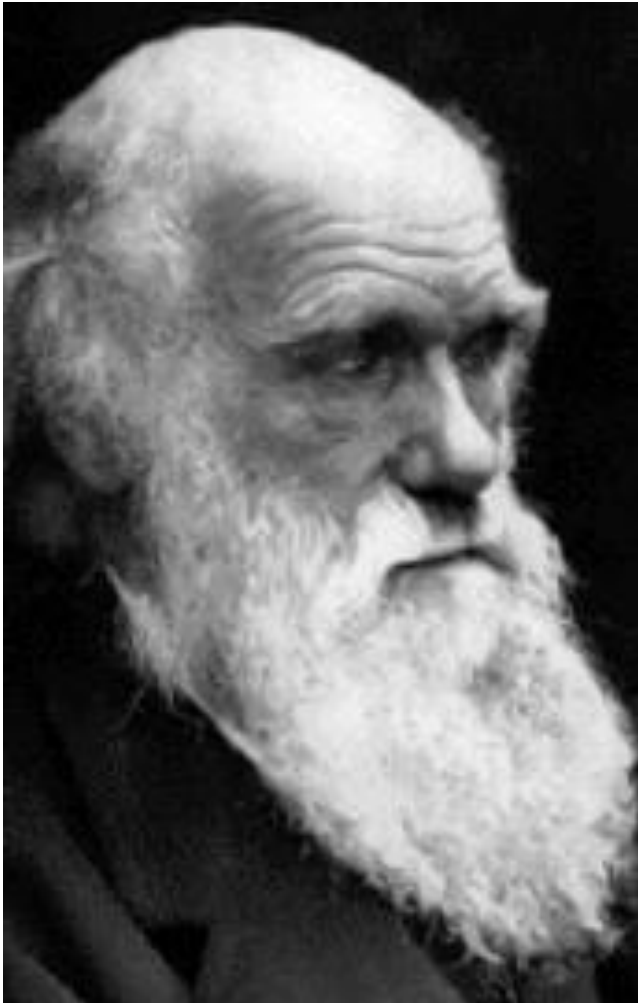
Value Added Tool

MOVE TO THE RIGHT TO REDUCE RESISTANCE...



“One Size Fits All”

Tailor for...



“It is not the strongest of the species that survive, nor the most intelligent, but the one most responsive to change.”

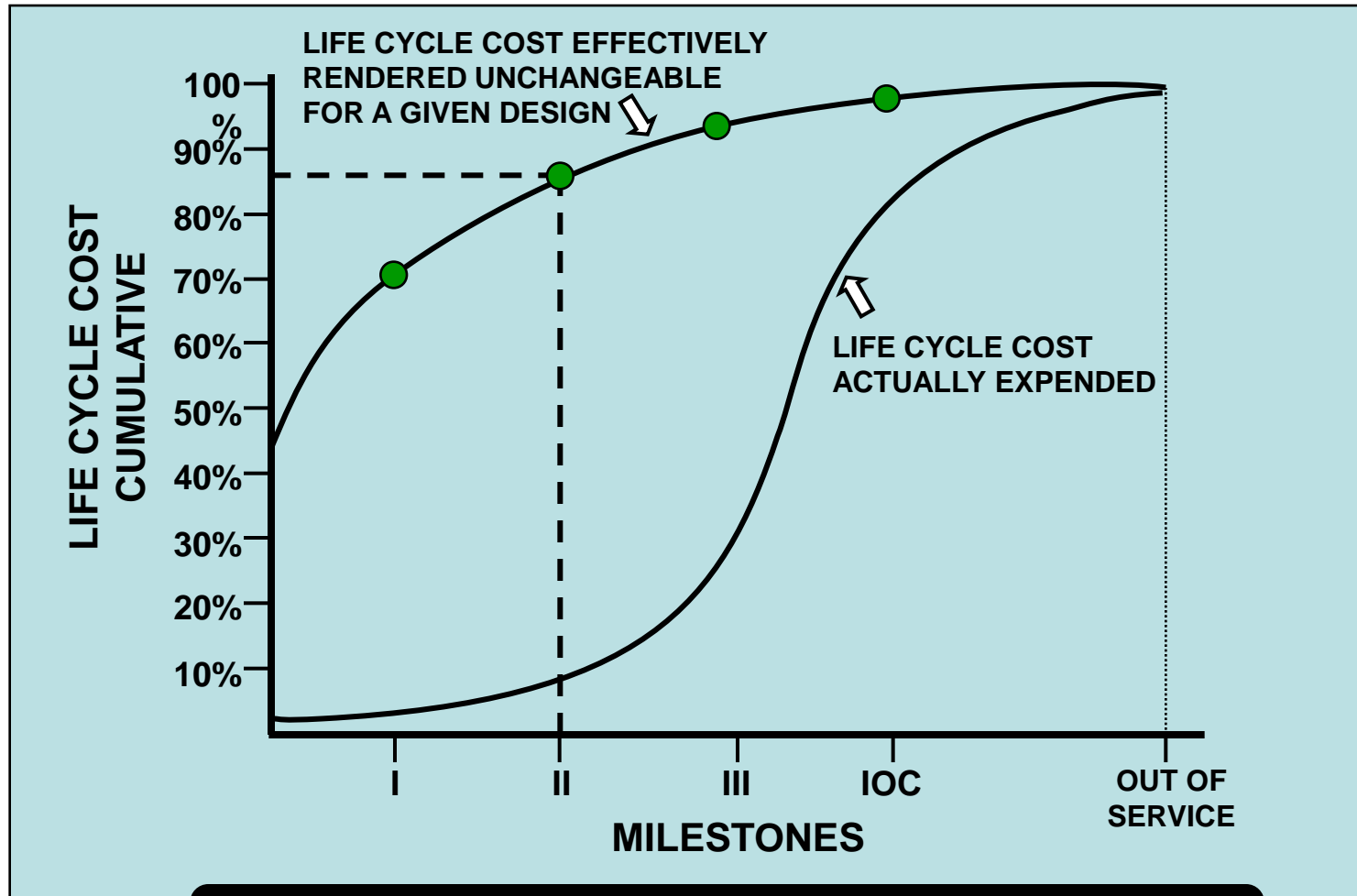
Charles Darwin

**DO WE HAVE THE
BIG PICTURE?**



<http://micro.magnet.fsu.edu/primer/java/scienceopticsu/powersof10/>

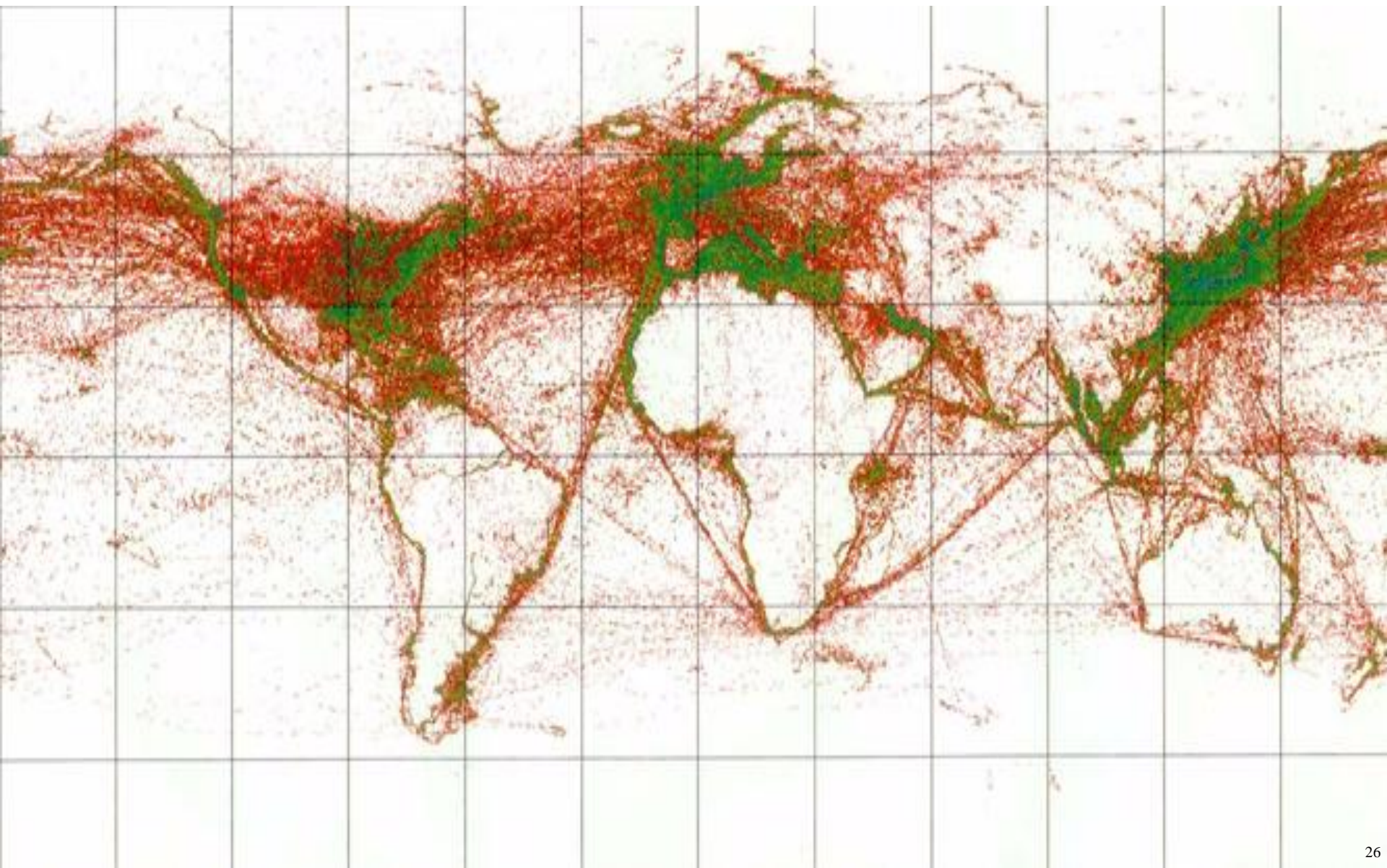
Early Decisions Affect Life Cycle Cost



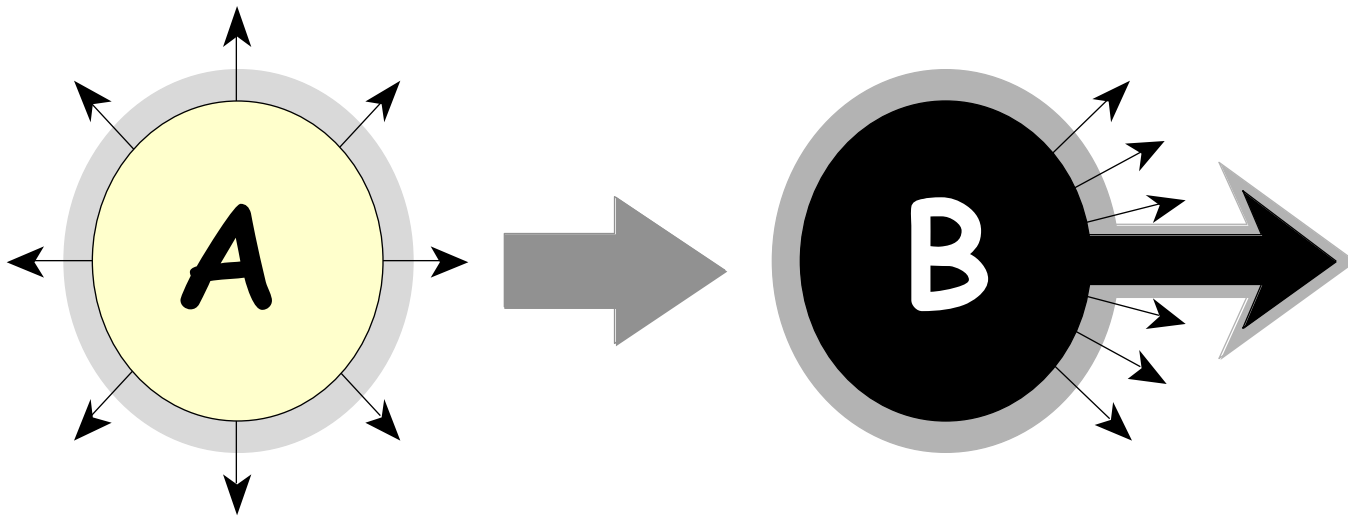
SYSTEM LIFE CYCLE

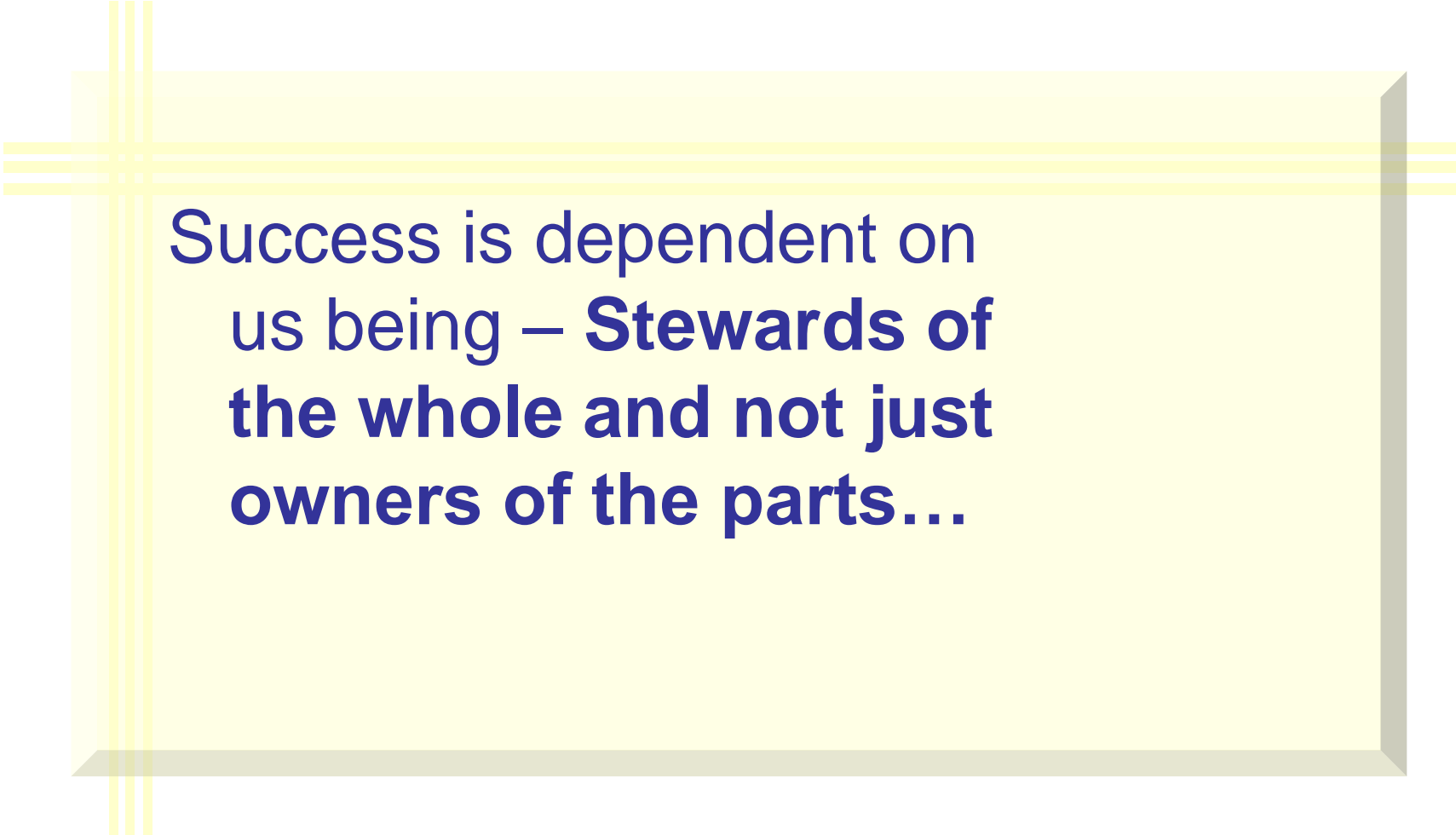
“When we try to pick out something by itself, we find it hitched to everything else in the universe.”

John Muir



Which Way Is North?



The slide features a light yellow rectangular background with a subtle drop shadow. On the left side, there are three vertical yellow lines. At the top, there are three horizontal yellow lines. The text is centered within the yellow area.

Success is dependent on
us being – **Stewards of
the whole and not just
owners of the parts...**



Profiles in Acquisition Leadership. The End-to-End F/A-18E/F Development Story



PILLARS OF A GOOD PROGRAM

A well understood requirement with flow down to performance spec and temp

A genuine integrated schedule with associated Earned Value Management

An independent cost estimate

(one that isn't part of the missionary movement where folks are trying to sell a program and to force fit it within available funds)

Genuinely sufficient and stable funding

A culture of drawing in outside competency

(from the contractor, from the syscom, from academia. . .)

A willingness to ask the hard questions and the courage and energy to not quit until you gain understanding

A recognition that it takes requirements, resources, and acquisition, all working together, to get the dog to hunt

Program success is made difficult by missing any one of these;
Missing two does not lead to a good place. . .

Background

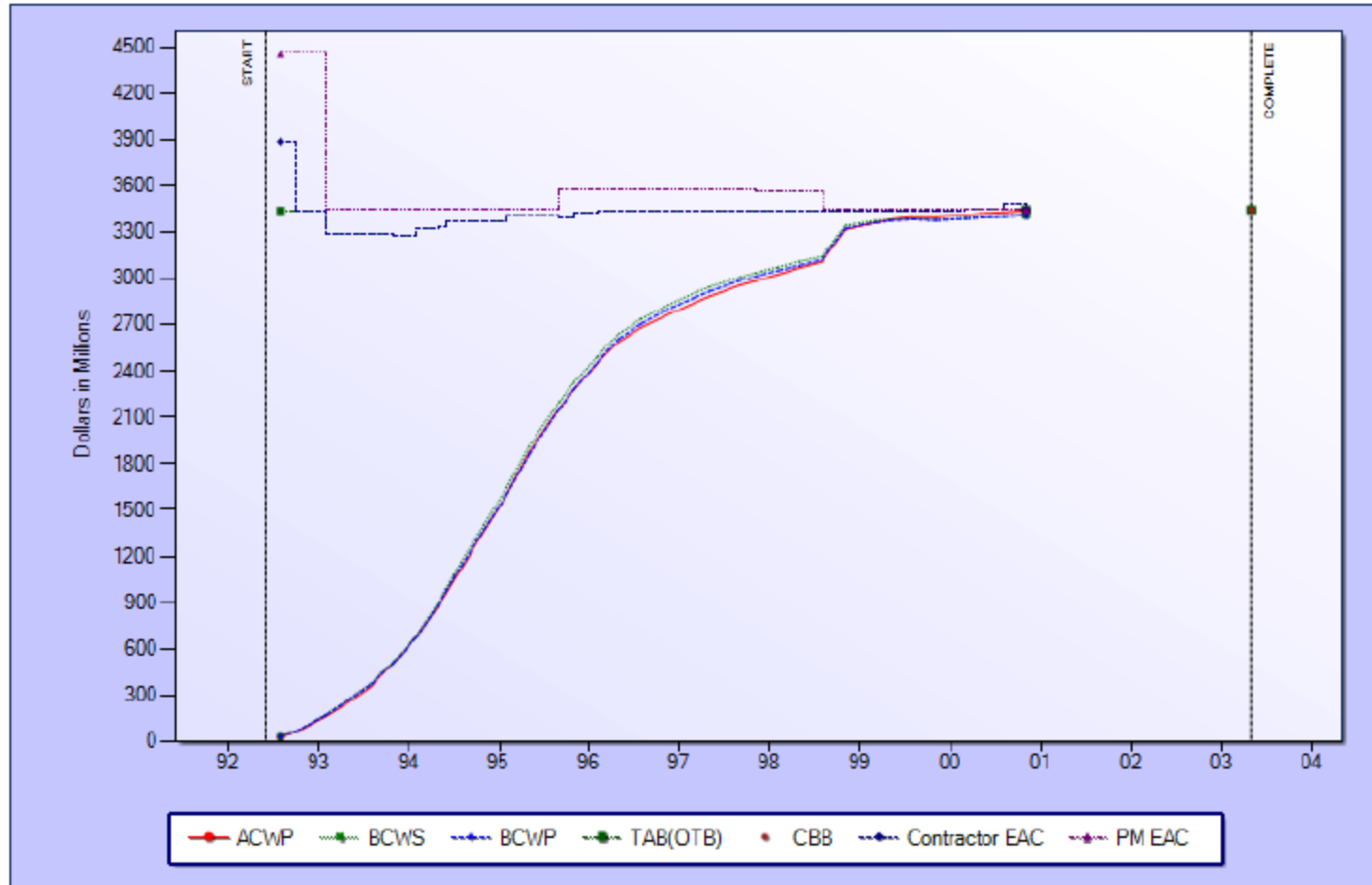
- Since the late 1990s
 - Major acquisition program costs, schedule extensions, and contractor **management problems have been increasing at an alarming rate**
 - Congressional and public **confidence** in the ability of the Department of Defense to effectively manage its weapons acquisition programs is **declining**
 - The geopolitical environment is in flux, and it is placing demands on the acquisition system to support a **broad spectrum of warfighting requirements**
 - The Department is likely to be entering a prolonged period of **severe budget constraints**
- This situation demands the most effective and efficient acquisition system we can devise.

F-18 E/F contract performance

CONTRACT PERFORMANCE

F/A-18E/F
Airframe EMD - N00019-92-C-0059 (N00019-92-C-0059) (CPAF/CPIF)

MCDONNELL DOUGLAS
As of 11/01/2000



What makes F-18 E/F special?



U.S. Department of Defense
Office of the Assistant Secretary of Defense (Public Affairs)

News Release

On the Web:

<http://www.defenselink.mil/releases/release.aspx?releaseid=782>

Media contact: +1 (703) 697-5131/697-5132

Public contact:

<http://www.defenselink.mil/faq/comment.html>

or +1 (703) 428-0711 +1

IMMEDIATE RELEASE

No. 122-96
March 07, 1996

NAVY SUPER HORNET PROGRAM RECEIVES ACQUISITION AWARD

The Defense Acquisition Executive today recognized the Navy's F/A-18 Super Hornet Government Industry Team for excellence and superior performance in the engineering and manufacturing development phase of the F/A-18 E/F Super Hornet program. Under Secretary of Defense for Acquisition and Technology Paul Kaminski presented the award to the Navy and Industry Program Team in a ceremony held at Naval Air Systems Command Headquarters in Crystal City, Va.

Was the F-18 E/F special?

- First U.S. Department of Defense Acquisition Excellence Award.
- Order of the Daedalians Weapon System Award
- American Institute of Aeronautics and Astronautics Aircraft Design Award
- Collier Trophy
- PMI Project of the Year Award runner up (international competition)

Is Earned Value Special?

- Yes
- If Linked with
 - An Enterprise Resource Management Program
 - Weight Tracking
 - An Genuine Work Breakdown Structure

**EV CAN (ALMOST) BE A LEADING
INDICATOR OF WHAT IS TO COME**

F-18 E/F performance history

Characteristics	SAR Baseline	Current
	Dev Est	Estimate
Deck Spot Factor (F/A-18A/B/C/D =1.2)	1.4	1.46
Fighter Escort Radius (F/A-18E)(internal fuel)(Nm)	N/A	462
Interdiction Mission Radius (Nm)		
2 external tanks (retained)	400	444
3 external tanks (retained)	450	489
Combat Ceiling (max thrust) (ft)	>50000	52,300
Launch: Catapult WOD (C-13-1 Catapult MAX TOGW (kts))	25	19
Recovery: WOD (MK-7MOD 3) (kts)	10	8
Approach Speed (kts)	140	142
Recovery Payload (lbs)	9000	10152
Usable Load Factor (Subsonic; Nz) (G's)	7.5	7.5
Specific Excess Power (Max Thrust, .9M, 1G, 10kft) (fps)	650	648
Acceleration (.8M to 1.2M at 35kft) (sec)	60	65
Built-In Test (All Avionics)		
Fault Detection (%)	75	99
Fault Isolation (%)	90	99.5
False Alarm Rate (%)	30	34.5
Speed (Mach) Fighter Escort Mission Configuration @10,000 ft with	0.98	0.96
Empty Weight (lbs)	29950	30149

September 30, 2000 SAR

F-18 E/F program cost history

Summary Base Year 2000 \$M			
	RDT&E	Proc	Total
SAR Baseline (Dev Est)	5972.1	59970.3	65942.4
Previous Changes			
Economic	0	0	0
Quantity	0	-18164	-18164
Schedule *	-187.1	1024.1	837
Engineering	0	-116.1	-116.1
Estimating	126.7	131	257.7
Other	0	0	0
Support	0	-4908.6	-4908.6
Total	-60.4	-22033.6	-22094

September 30, 2000 SAR

* Quantity reduction: 1000 to 548

**THERE ARE A
FEW PRIZES
INSIDE!**

THANK YOU!

Joe Dyer

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ENVIRONMENT

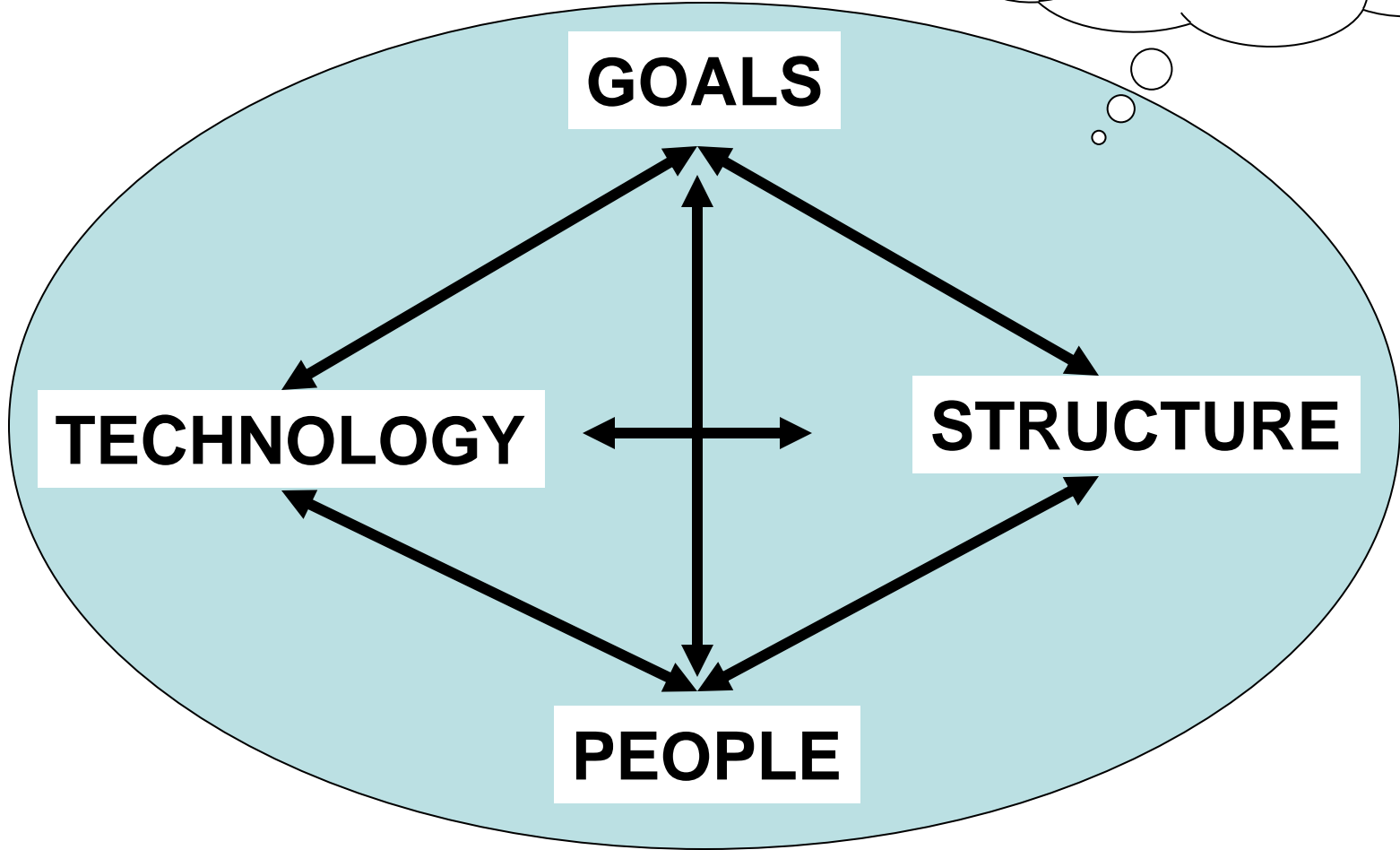
GOALS

STRUCTURE

TECHNOLOGY

PEOPLE

ENVIRONMENT



GOALS

TECHNOLOGY

STRUCTURE

PEOPLE

Can You Know Too Much?

KODAK

“More than any other time in history, we face a crossroads. One path leads to despair and utter hopelessness. The other, to total extinction. Let us pray we have the wisdom to choose correctly.”



Woody Allen