



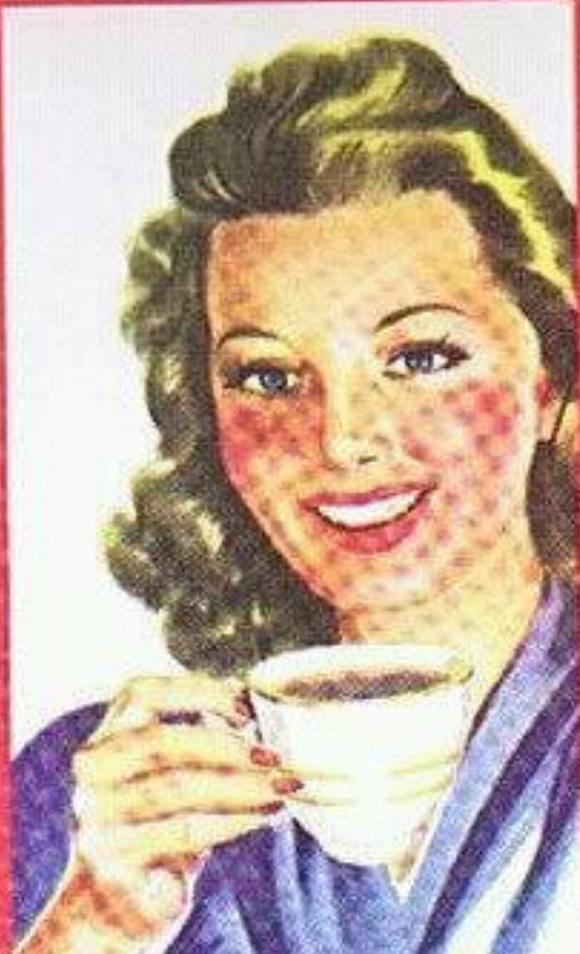
Industry Executive Panel

How can systems engineering help improve program development and execution in times of tight budgets

16th Annual Systems Engineering Conference

Sponsored by
NDIA Systems Engineering Division

In Conjunction With
Deputy Assistant Secretary of Defense, Systems Engineering



I'll have a
Café-Mocha-
Vodka-Valium-
Latte to go,
please.

Systems Engineering

Systems Engineering is not a silver bullet!

It is not the definitive answer to guaranteeing program success

Many other factors affect program performance, such as:

- **Inadequate funding, especially at the start of the program**
- **Inadequate schedule**
- **Inadequate staffing**
- **20-lbs of requirements for desired performance in a 5-lb package**

Keep in mind---

Systems Engineering is not a formula-driven engineering discipline

**It is as much of a philosophy of engineering design as anything
“big picture” engineering**

Tools are important to the systems engineer

**New tools are headed our way
model-based engineering
(e.g. the “CREATE” tool suite of physics-based models from HPCMP)**

Systems Engineering

BUT without competent and effective systems engineering, especially at the start of a program, including during development planning, the chances of program failure are very high.

Front-end systems engineering is absolutely essential to make sure we:

Rationalize requirements

Understand the intended use and environment

Make sure the requirements lead us to a **practical and **feasible** system**

Build the RIGHT thing, and Build the thing RIGHT!

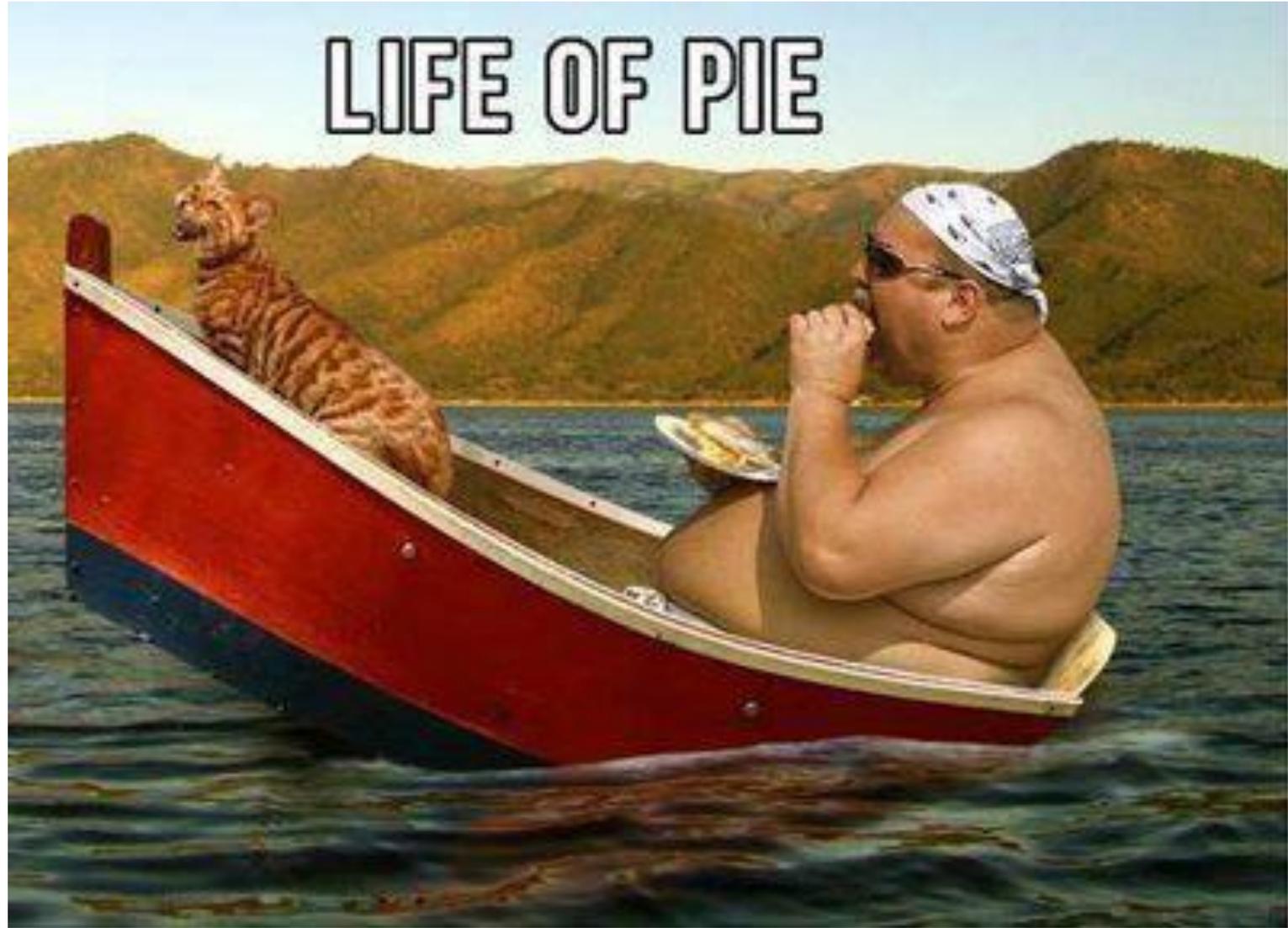
Truisms

There is no greater need among mankind than to edit the written word of another

Truisms

~~There is no greater need urgency~~
~~among program managers software~~
~~engineers software developers~~ than to
~~start initialize~~ begin coding writing
~~code on Day 1 at program start~~ as
soon as the contract is awarded

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The Panel

- **Mr. Jeff Wilcox, Vice President, Engineering, Lockheed Martin Company**
- **Mr. Paul Bailey, Chief Systems Engineer, Raytheon Company**
- **Dr. Mike Papay, Vice President, Information Security and Cyber Initiatives, Northrop Grumman**
- **Mr. Craig Miller, Vice President, Systems Engineering, Harris Corporation**
- ***Moderator: Bob Rassa, Director, Engineering Programs, Raytheon Space & Airborne Systems, and Chair Emeritus, NDIA Systems Engineering Division***