

A high-action photograph of a surfer in silhouette riding a large, curling wave. The surfer is positioned in the upper right quadrant, leaning forward with arms outstretched. The wave's crest is breaking into a massive spray of white water that fills the upper half of the frame. The ocean surface is a deep blue with white foam from the wave. In the bottom left corner, the ECC logo is visible, consisting of the letters 'ECC' in a stylized, overlapping font, with a circular emblem containing a stylized 'V' or 'C' shape below it.

# Riding the Wave

CAPITALIZING ON THE VELOCITY OF CHANGE

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# Role of an Owner's Central Project Organization



**Micheal G. Elliott, PE MBA**

- Manager, Project Services – Phillips 66
- Project Director – Yanbu Export Refinery – ConocoPhillips/Saudi Aramco
- Project Director – Qatar GTL – ConocoPhillips/Qatar Petroleum
- Project Manager – Venezuela Extra Heavy Oil Project – Petrozuata – Conoco/PDVSA





# The Story of a Chevy Suburban

Spouse



Me



Mechanic



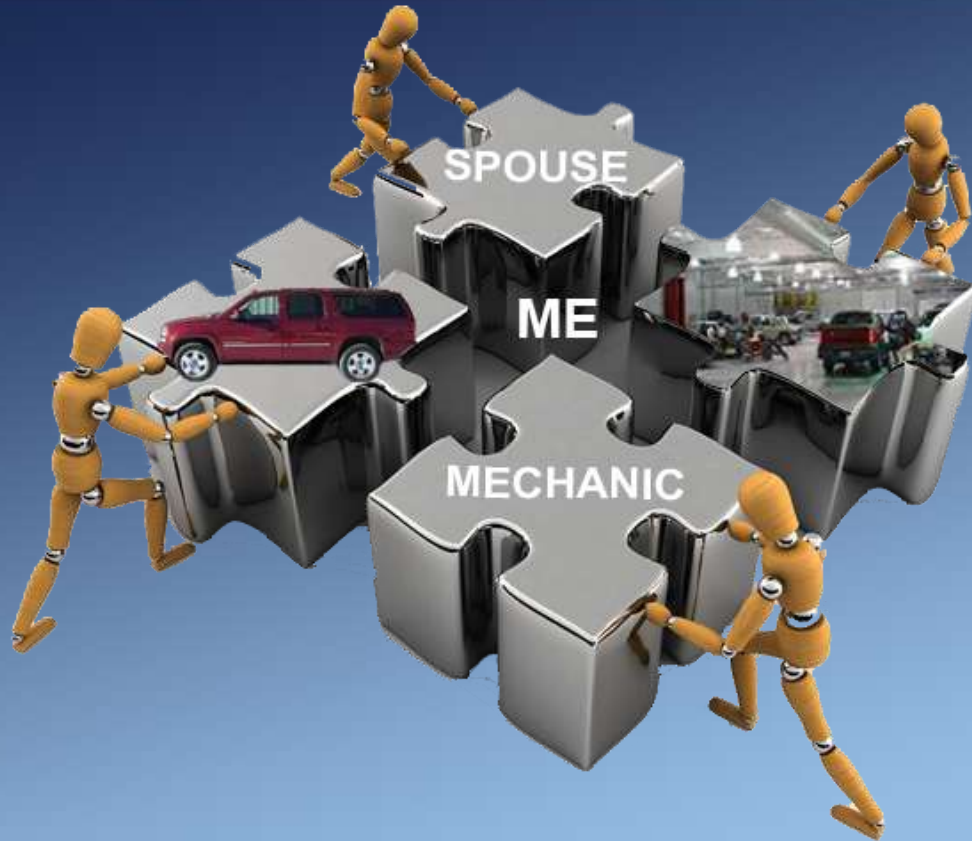
# Role of the Owner's Central Project Group

“How we organize depends on what we believe we should do” to properly evaluate this. I would like to suggest honest conversation around a few points.

- What the PM organization will NOT do
- What the PMT organization CAN do
- How the gaps will be filled



# The Story of a Chevy Suburban







# We are part of the Owner's Team, but. . .

In most Owner's Team.

We can NOT authorize money.

We can NOT sign contracts.

We can NOT select contractors.

We can NOT buy feed-stocks or sell products.

We will NOT operate the asset.

We will NOT maintain the asset.

We will NOT permit the project.



# We are called the Project Management Team, but . .

We are not the EPC contractors:

We do NOT do much of the engineering.

We do NOT draft.

We do LITTLE purchasing.

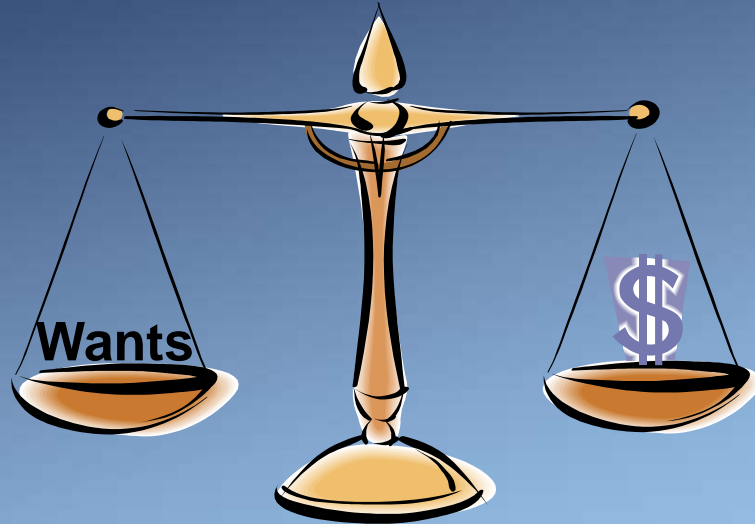
We do NOT construct.

We do NOT start-up or commission.



# So, why are we here?

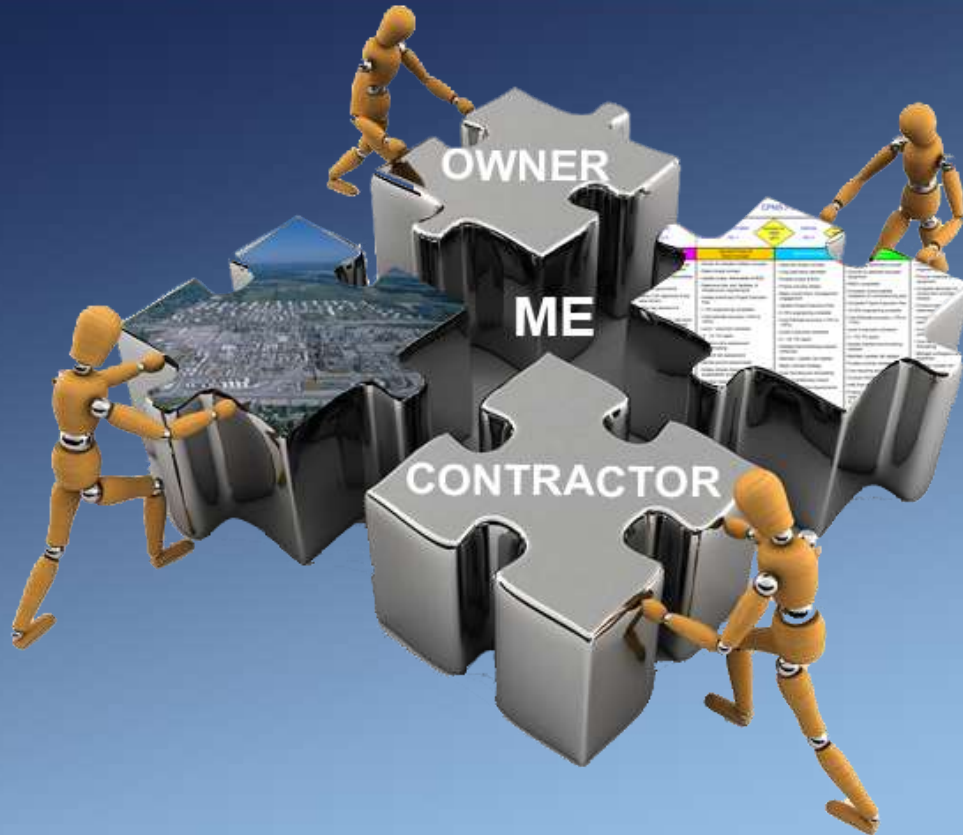
Facilitate execution of projects within the expectations (cost, schedule, and quality) upon which they were selected.







# Modify The Suburban Story





## The Project need to . . .

- Analyze and understand our Owner
- Evaluate the EPC contractors
- Compare the strengths and weaknesses of both
- Define and deliver the asset, and
- Bridge the gaps between the pieces.



And . . .

We get to be part of building some really incredible projects!







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# Capital Projects – What Have We Learned?



**Mike Walker**

Retired

Frito-Lay, Inc.



engineering and construction contracting association

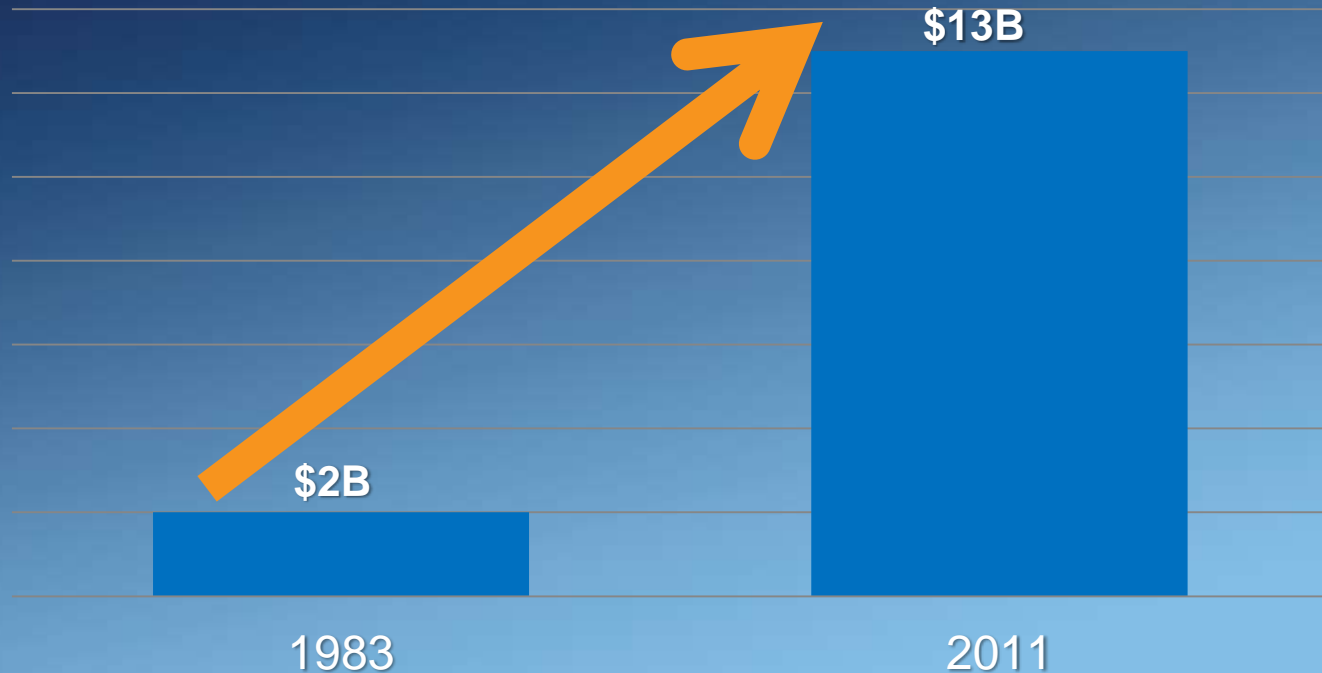
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# Annual Sales – Frito-Lay

Annual Sales





# Two Phases of Capital Project Activity

## Expansion Mode ('83 – '96)



- 10 greenfield sites
- 4 purchased/renovated sites





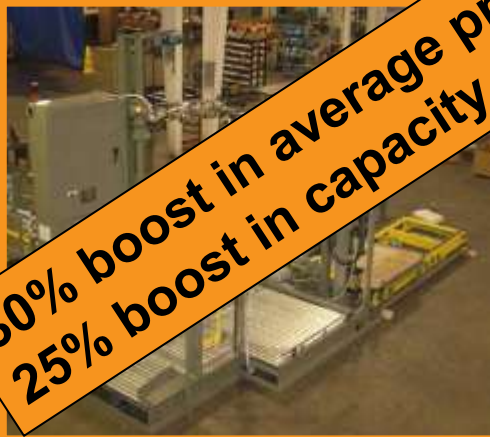


# Two Phases of Capital Project Activity

## Productivity/Boost Mode ('97 - '12)

- Major expansions at 17 existing sites
- New high throughput production lines
- Significant throughput boosts of existing lines
- High speed packaging automation

**30% boost in average production line capacity**  
**25% boost in capacity per sq. ft.**







**During this time, our engineering team has changed from:**

## Single Focus of New Capacity

- New plants
- New production lines



# During this time, our engineering team has changed from:

## Organizational Structure – Full internal capability

- Self Perform
  - engineering/design/specifications/drawings
  - equipment design, procurement and fabrication (proprietary items)
  - general construction management
- Contract
  - building work
  - equipment installation



# During this time, our engineering team has changed to:

## Split Focus

- Productivity
  - Automation Development & Beta Site Testing
- Project/Program Execution
  - Major capacity
  - Productivity project rollouts (sites 2 thru N)
  - Major Facilities Repair/Replacement Projects



**During this time, our engineering team has changed from:**

## Organizational Structure; Selective Expertise

- Smaller internal support staff for projects
  - Project Managers
  - Limited Technical Support
- Emphasis on EPC's





# Influencing Factors on Capital Projects:

- Speed to market
- Product Quality
- Asset utilization
- Capital availability



# Influencing Factors on Capital Projects:

- Speed to market
  - Maintain market share
  - An empty store shelf is a missed sale
- Our approach
  - Design-build for facilities
  - Alliances/ partnerships w/ EPC firms for process/packaging/warehouse systems





# Critical Learning for Alliances/Partnerships

- Partnerships are not successful by edict
- From both sides, they require:
  - Hard work
  - Commitment
  - Openness to feedback/critique

**“I reserve the right to get smarter!”**



# Influencing Factors on Capital Projects:

- Product Quality
  - The Best - Every bag, every bite, everywhere
  - Process consistency is a must
- Our approach
  - Maintain knowledge & expertise in-house
  - Be careful not to evolve to project management focus only





# Influencing Factors on Capital Projects:

- Asset utilization
  - Minimum downtime
  - Minimum idle assets
  - Maximum throughput
- Our approach
  - “Plug & Play” design for equipment
    - Pre-built
    - Pre-tested
  - Vertical start-ups



# “Plug & Play” Example

## Corn Cook & Soak System

- Global standard specifications
- Prebuilt module
- Factory acceptance testing
- Installation Time: 21 days → 3 days
- Commissioning Time: 3 days → 3 hours
- Cost Savings per System: ~20%





# Influencing Factors on Capital Projects:

- Capital availability
  - Major international expansions taking a large share of PepsiCo's capital
  - Many projects competing for the balance of funds
- Our approach
  - Maximize capital efficiency (get the cost down)
    - Benchmarking
    - Competitive bidding
    - International Equipment Standards



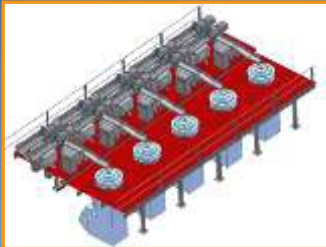
# International Equipment Standards

- The combination of worldwide technical standards and commercial cost management tactics have generated real savings



*Chip Fryers*

**20% Savings**



*Packaging  
Distribution  
System*

**30% Savings**



# In Summary – Key Learnings

- Willingness to split the internal focus
- Competition is good – even for alliance partners
- Worldwide equipment standard drives lower costs
- Reserve the right to get smarter  
(Encourage ‘push back’)





# In Summary – Key Learnings

**Thank You!**



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# Capital Projects Groups – What have we Learned?



**Tony Jones**

SVP Project Execution - Valero



engineering and construction contracting association

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# Large Capital







# Small(er) Capital





# Mid Size Capital





# Owner's Organizations Fundamental Decisions

- Large Capex, Small Capex, Mixed?
- Capital Budgets Change. Staff up, Lay Off ?
- Centralized, Decentralized, Scope of Responsibility, Capability, Size?
- Many ways to “skin the cat”. No “right” way
- Each has Benefits & Drawbacks



# Valero's Project Execution Approach

- Corporate Controls the Capital Budgets and approves Capital AFE's
- AFE's appv'd - Stage Gate Process
- Technology & Development develops & justifies the Project. Econs (Gates 1, 2 ½)
- Project Execution Manages the Project's E,P,C (Gates 2 ½, 3 & 4)







# Valero's Project Execution Approach

- Staff the Owner's Team as Required
- Project Directors, Managers, Discipline Leads, etc...
- Look to the local facility for Team Members
- Missing Members supplied by contractors
- Not all Projects or Teams are the same



# Valero's Project Execution Approach

- Being flexible in staffing is important
- Dependant on Project Size, Contract Types, and the Contractor(s) capability
- Lump Sum, Reimbursable, Incentivized, etc
- EPC or E, P, C, with Subs. Effects Owner's Staff
- But Project Consistency is important.





# Valero's Project Execution Approach

- Select Contractors and Vendors
- Develop Contracts and Contracting Approach, selective Procurement
- Approve Contractor's Deliverables. Engineering, Specs & Standards
- Scope Change Management
- Safety, QA, QC, oversight, Pay the Bills





# Valero's Project Execution Approach

- Minimize disruptions/distractions from continuing operations
- Provide through checkout and turnover to operating staff
- Project operates reliably. Meets operating objectives
- Safe, on Cost, on Schedule.  
Predictable Results! Investor's Risk





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