Using Corporate Finance Principles to Easily Determine Return on Investment

OST®

CMMI LEVEL 3 | ISO 9001:2008

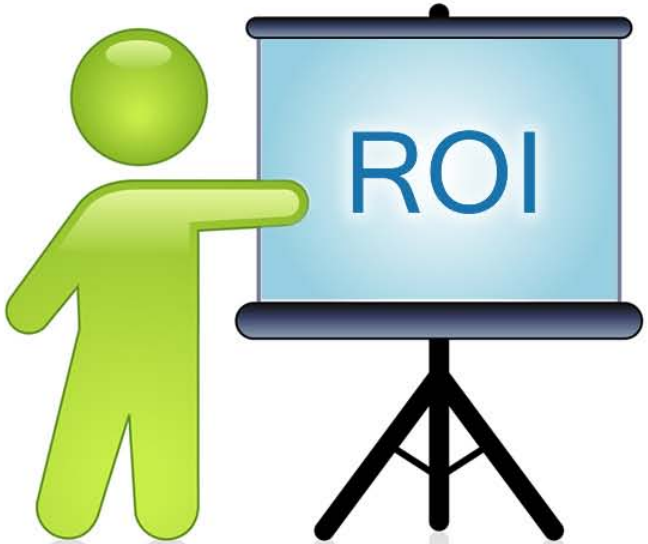
Introduction – Who we are

- Optimal Solutions & Technologies (OST, Inc)
- Washington DC-based, founded in 1999
- Core competencies
  - Integrated IT solutions
  - Managed Services
  - Management consulting
  - Research, development & engineering
- CMMI L3 (CMMI-DEV v1.2)
- ISO 9001:2008 certified
- ANSI 748 compliant

The Roadmap

ROI
Risk
Hurdle
Terms
E.g.1
E.g.2
Measure
Consider
Steps
Decide
Why
Ponder

Defining ROI



Net Benefits

Cost

Example	
Invested	$25,000 (Cost)
Return	$75,000
Net Benefit	$50,000
ROI	50,000/25,000 = 2

Divided by

Risk

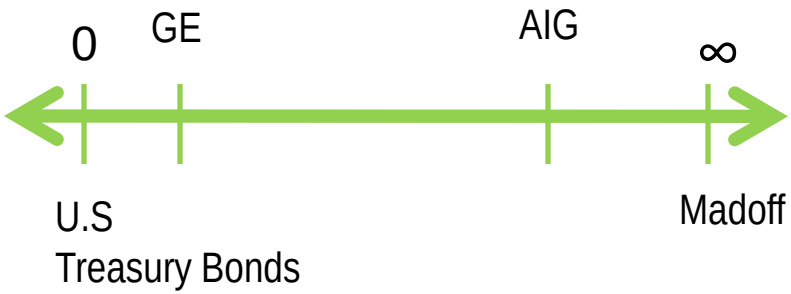
- For which investment would you require the least return?

U.S Treasury Bonds

AIG

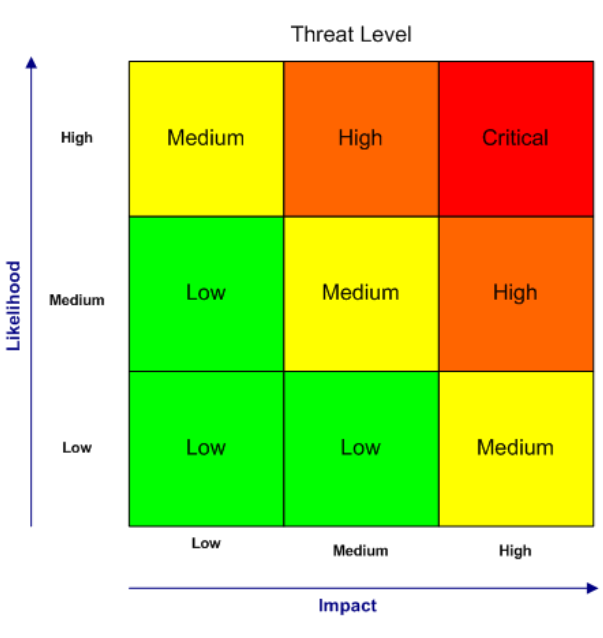
GE

Bernie Madoff



Risk

- Measuring Risk
  - 1-3; 1-9, 0-100 etc.



Hurdle Rate

∞

Madoff

AIG

GE

0

U.S
Treasury Bonds

Min
acceptable
return
I can
live with
given the
riskiness of
the project

Terms

Safe Investment

"Riskless/Riskfree Rate"

E.g.
U.S Treasury Bonds
Hourly Rate…doing your regular tasks

ROI Risk Hurdle E.g.1 E.g.2 Measure Consider Steps Decide Why Ponder

Terms

Excess returns stock market makes over treasury

Market excess

Market excess:
Average over 80 years = 4.82%

ROI Risk Hurdle E.g.1 E.g.2 Measure Consider Steps Decide Why Ponder

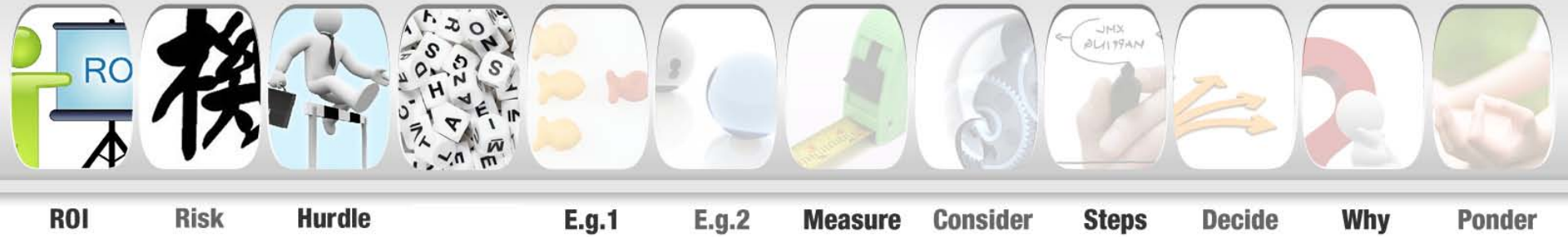
Terms

Additional return for taking risk

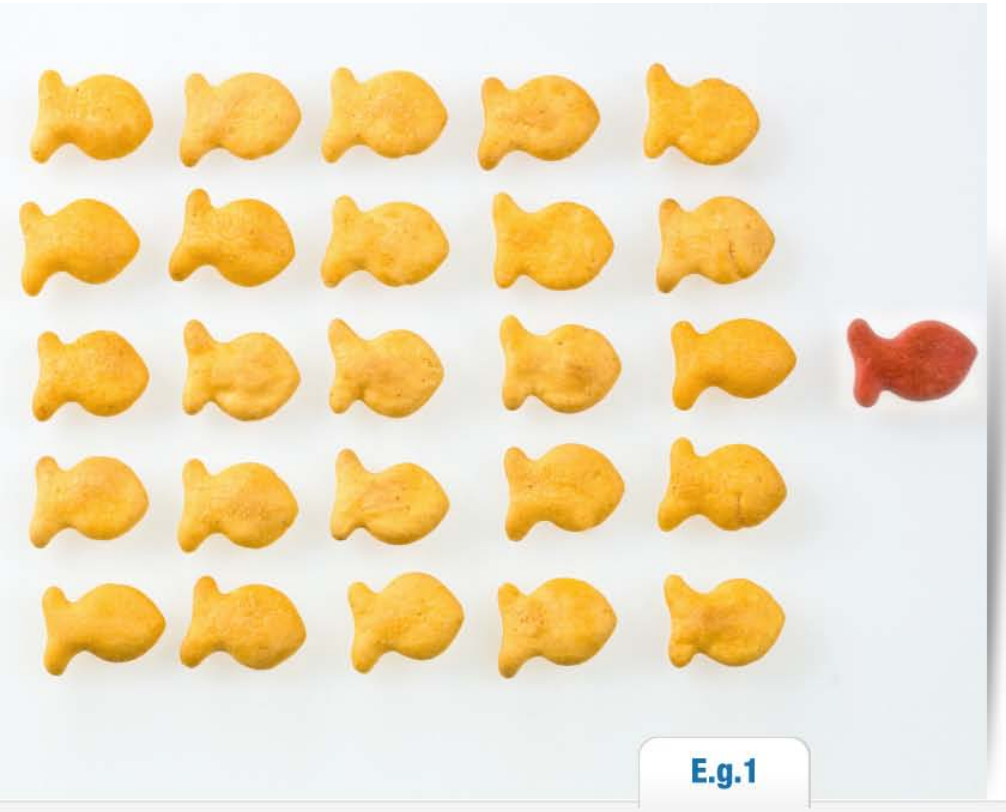
Risk Premium

E.g.
RiskScore * (Riskfree rate)

Risk Score * (Market Excess)



Example – Process Improvement



You have 1 person available for 70 hrs.
Risk free rate = 70 hrs

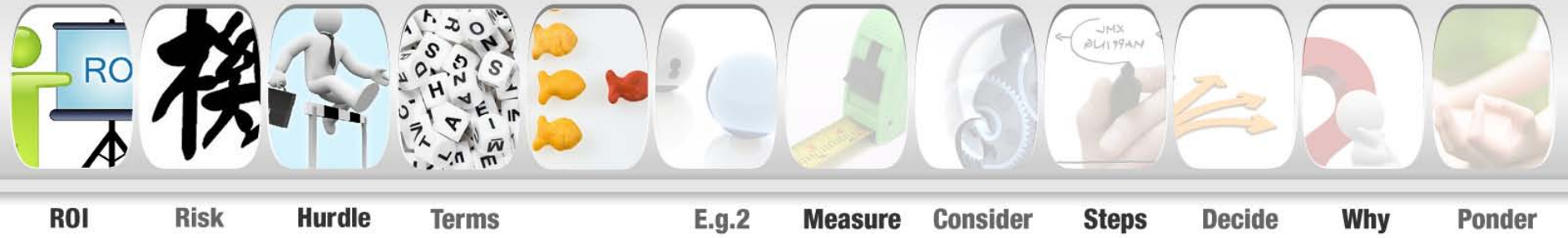
They could work on –

Options A = Project "Audit"
Investment = 70 hrs
Expected Return = 400 hrs

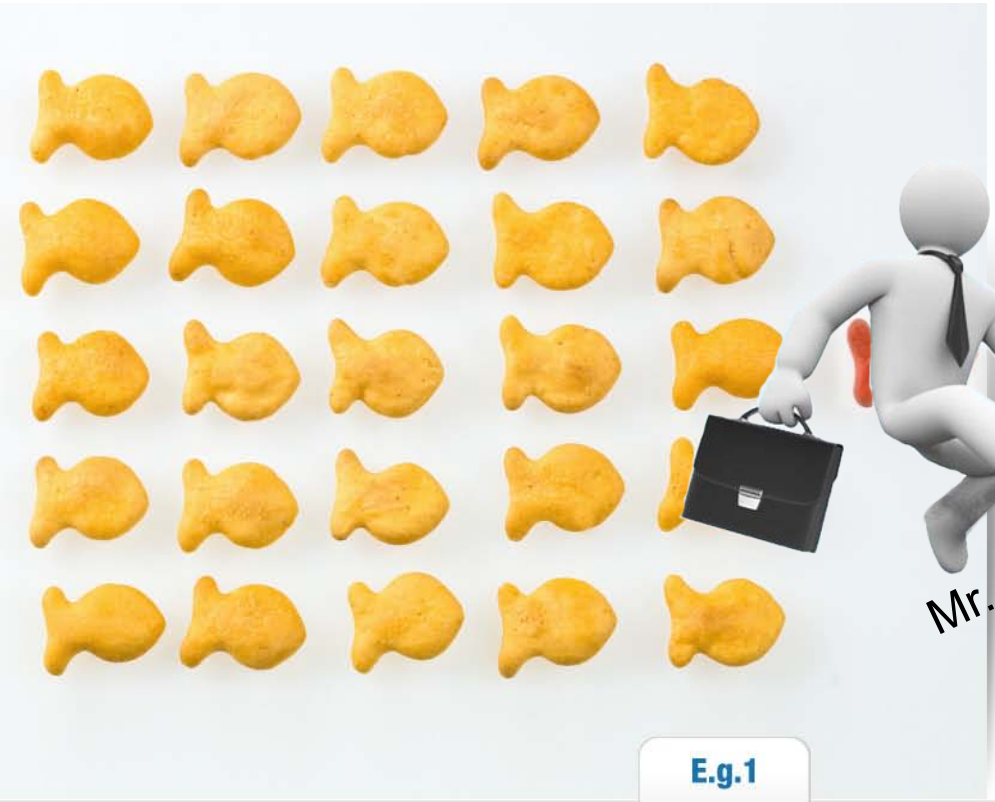
OR

Options B = Project "Training"
Investment = 70 hrs
Expected Return = 600 hrs

Risk Score for Project "Audit" = 1
Risk Score for Project "Training" = 10



Example – Process Improvement



Expected Return = 400 hrs

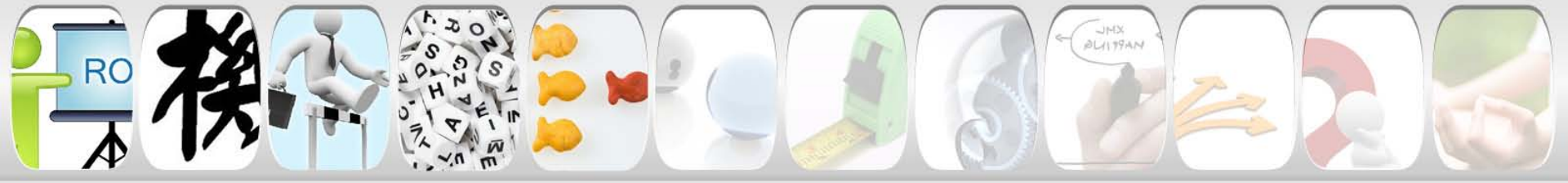
HR = 140 hr

Risk Premium (70)

Risk free (70)

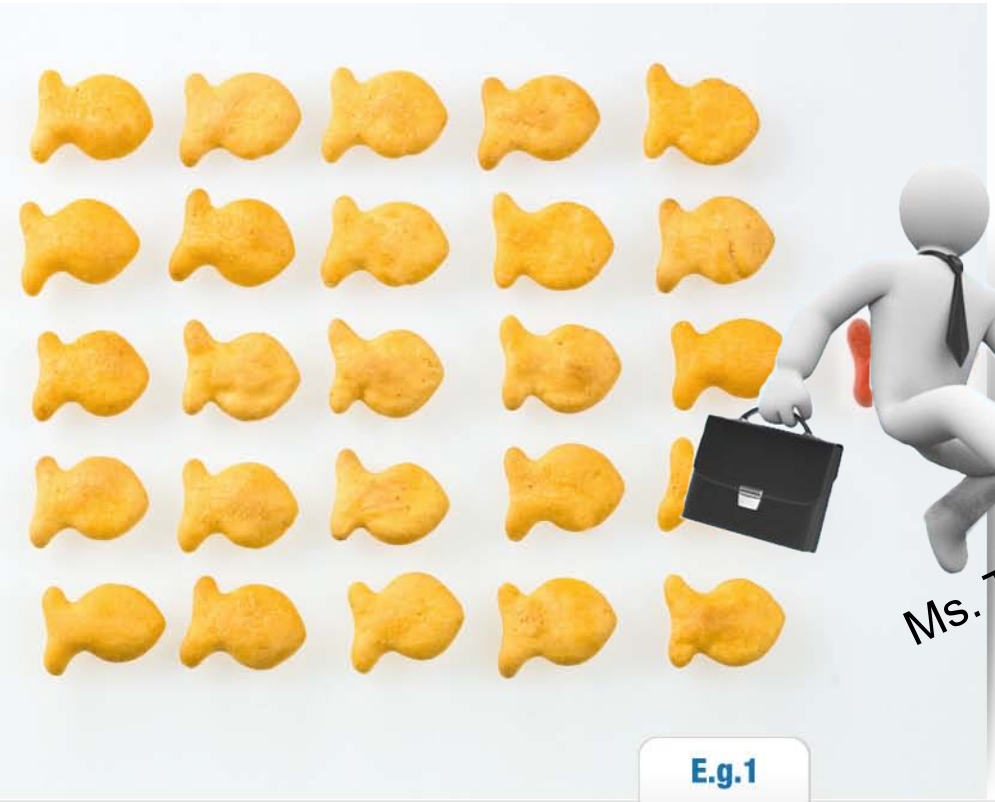
Mr. Audits

Risk premium = risk score*risk free rate
= 1*70 = 70

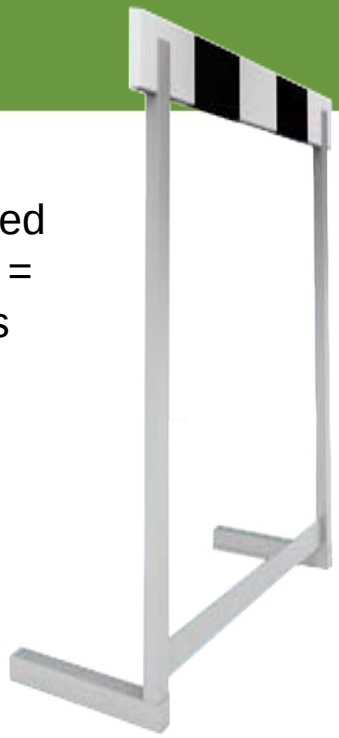


ROI Risk Hurdle Terms E.g.2 Measure Consider Steps Decide Why Ponder

Example – Process Improvement



Expected Return = 600 hrs



HR = 770 hr

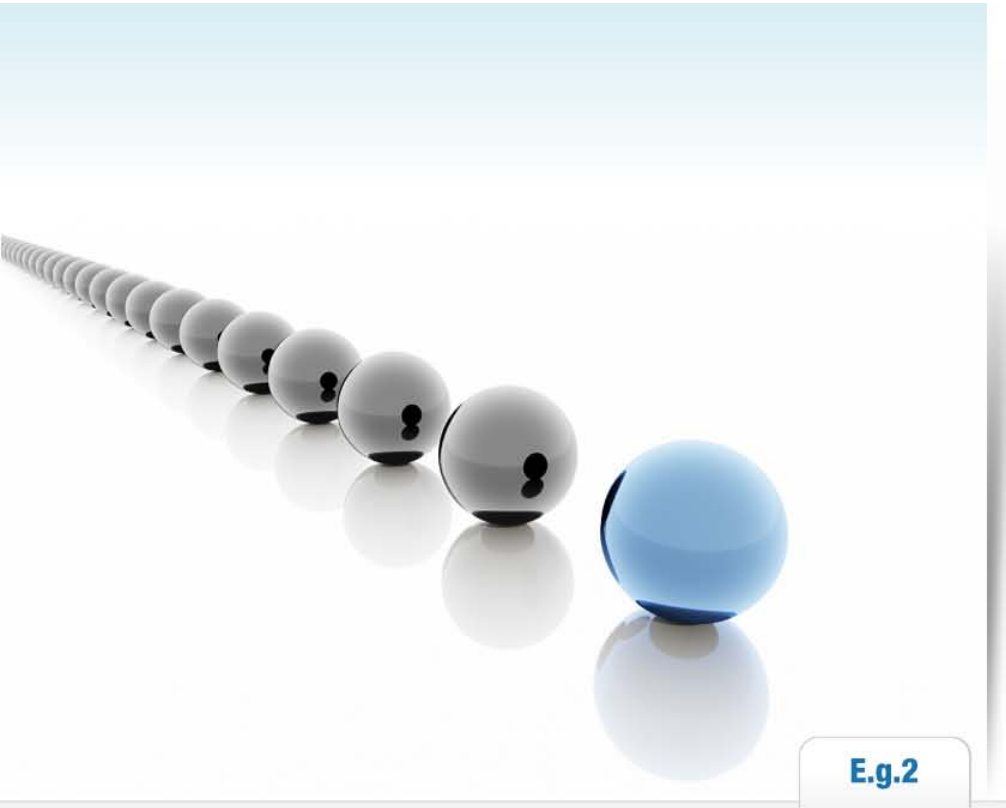
Risk Premium (700)

Risk free (70)

Ms. Training

Risk premium = risk score*risk free rate
= 10*70 = 700

Another example – Business Development

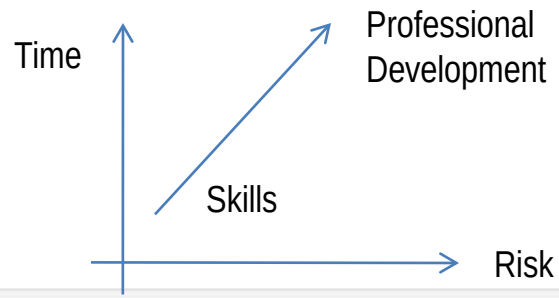


= Riskless rate + β*(Market Premium)
= 4% + β(4.82%)

Key Statistics page of Yahoo finance

Measure or Quantify

- CMMI, ISO 9001 etc.
  - Output/Cost/Time/Quality
  - New Business which required CMMI/ISO
- Branding Activities
- Training
  - Output/Cost/Time/Quality



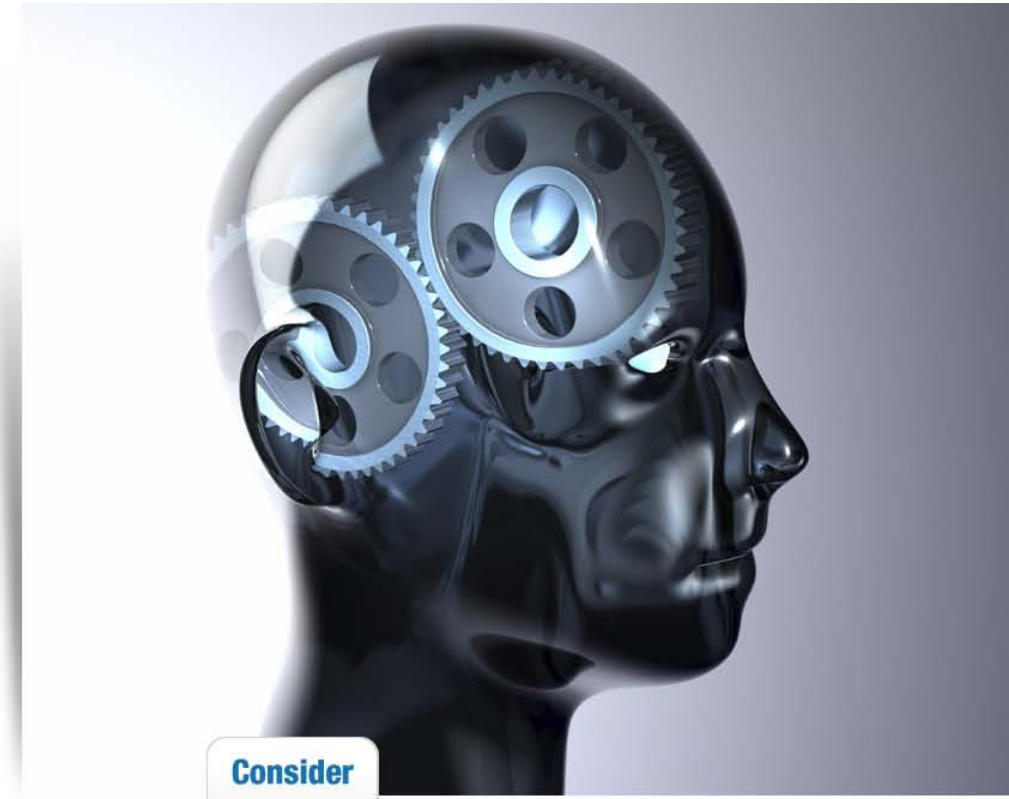
Measure

ROI | Risk | Hurdle | Terms | E.g.1 | E.g.2 | Consider | Steps | Decide | Why | Ponder

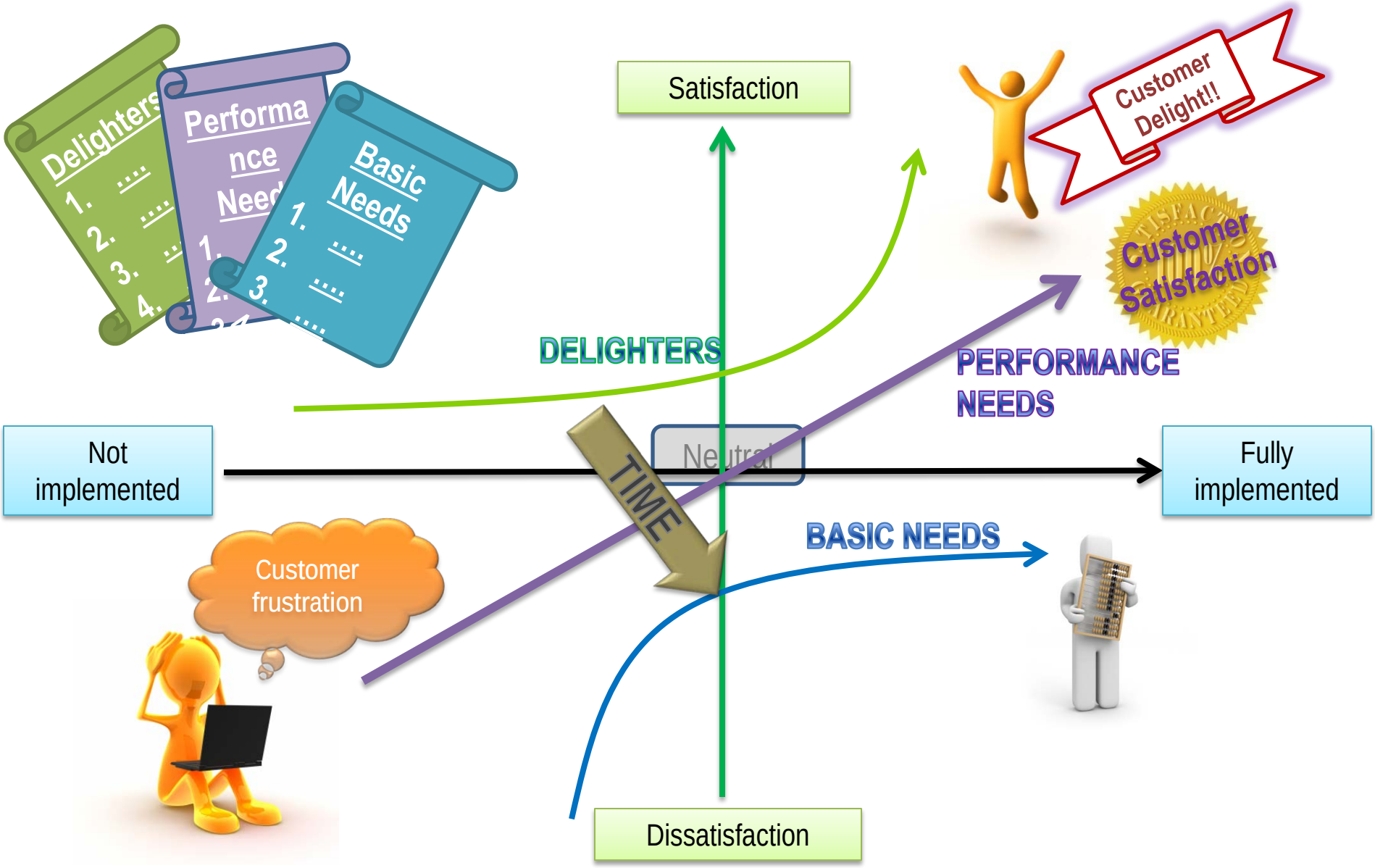
Additional things to consider

- Use ranges..

  …instead of single values
- Guidance
  - Timeframes
  - Hourly rates
  - Exchange rates
- Priorities



Additional things to consider…Priorities



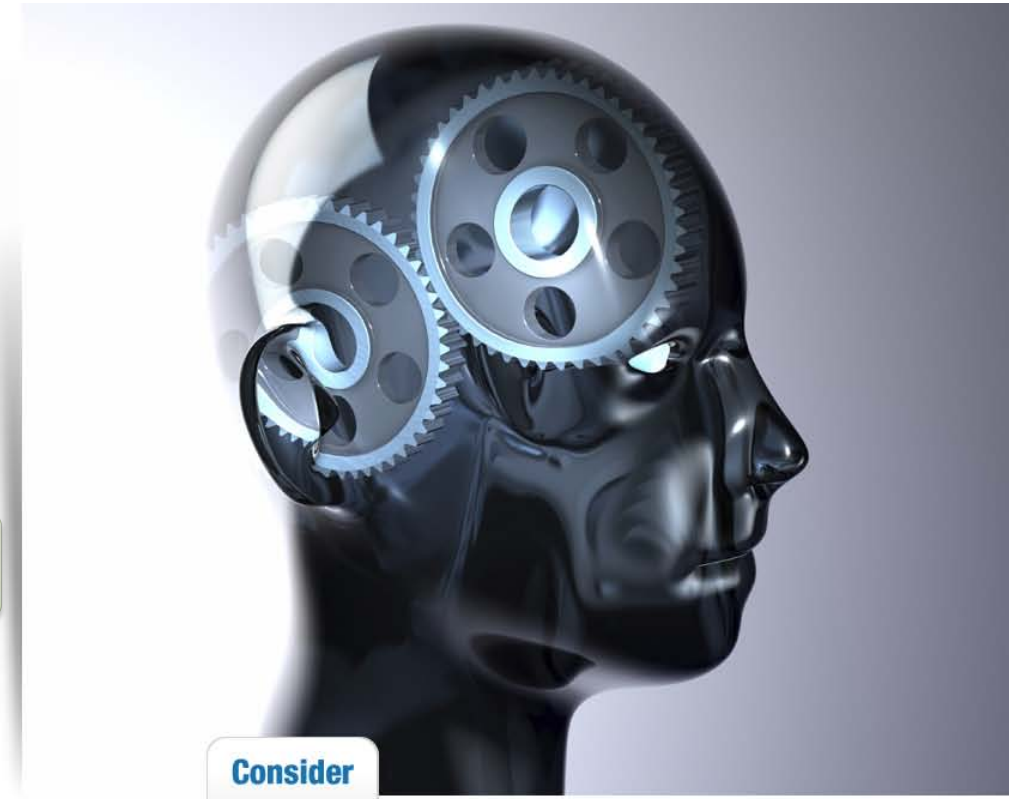
Additional things to consider

- Isolating effects

…CAR before the fact

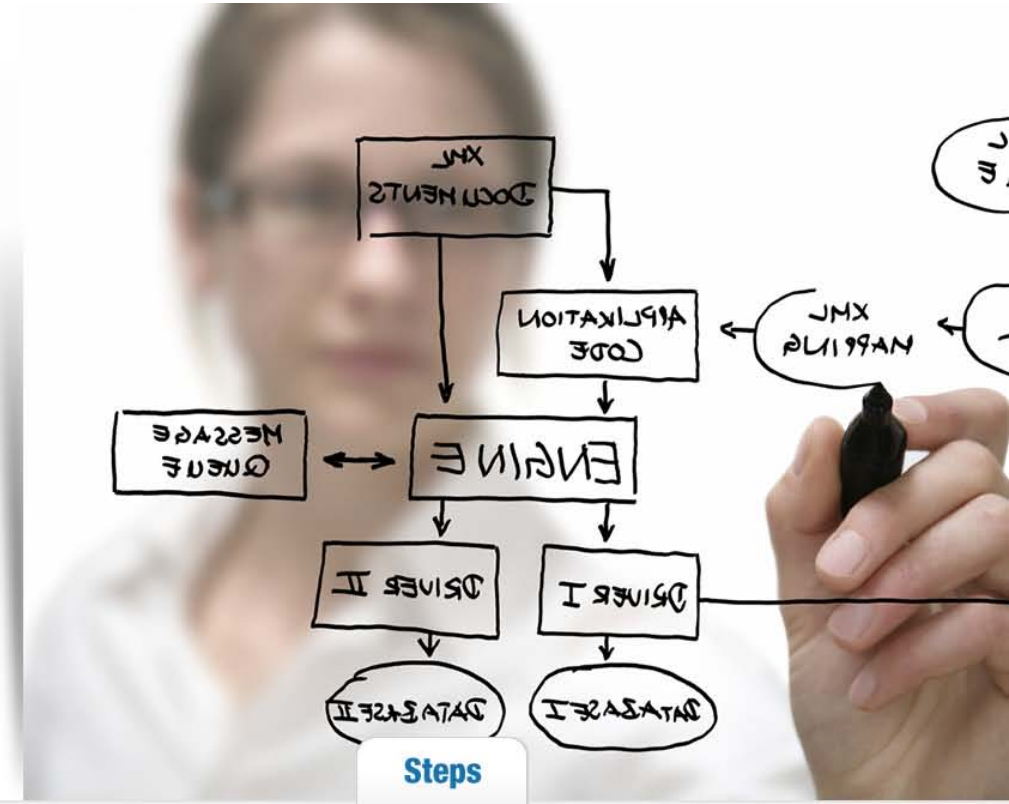
- Training failed to deliver business result
- Applied correctly
- Learned correctly
- Correct training

Measurements are needed at all levels so you can make the right decisions going forward!



Best practices for the process

1. Determine alternatives (DAR like)
   - Normal
   - Scale Up
   - Scale Down
   - Sustain
2. Peer review
3. Senior Management Review
4. Get Agreement
5. Make Portfolio decision



Making the decision…

- Creating a portfolio Vs top 10
- Whole is greater than sum of parts
- Risk reduction/greater value
- E.g. harnessing synergy
  - EVM
  - ANSI Compliance
  - Estimation
  - Project Server

Harnessing the synergy

Decide

Why bother?

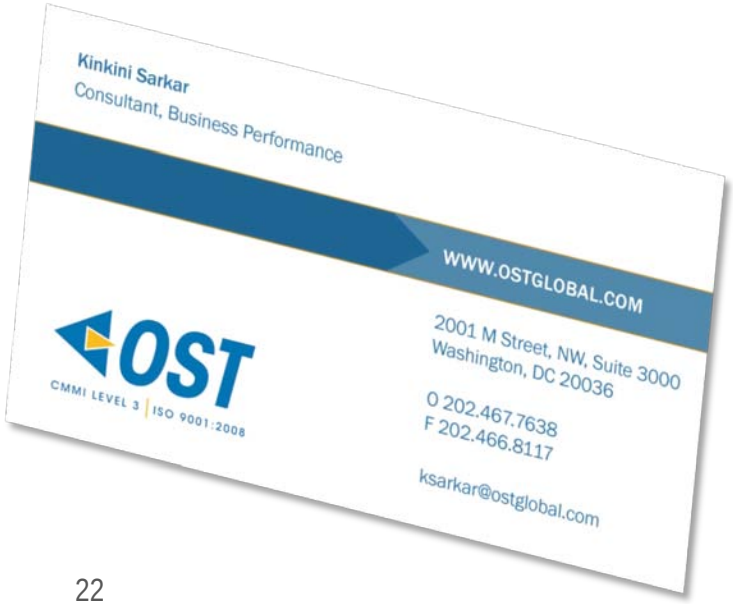
- Transparency
- Consistency
- Sound justification
- Better decisions
- High Maturity organization

Why

Closing thought…to ponder about

- The finance debacle…risk/return models
- Does the ROI model pass the “common sense” test
- Intuitive sense?
- Assumptions can be validated?
- Do the users understand it?
- Do we know when not to use it…
- Higher Maturity thinking…SEI

Our contact information



Any Questions?