

Smart procurement in the
bewildering world of materials
handling automation

Presented by Roger Quemby
of Corelogix Limited



Meet the Experts



The Voice of the
Automated Materials
Handling Industry

- Introduction
- Traditional procurement
- Prescriptive versus performance tendering
- Key stages of developing performance tender
- Q & A?

- Roger Quemby – Corelogix Ltd
- Independent consultancy
- 28 years industry experience
- Materials handling automated facilities
 - Solution architect
 - Procurement
 - Implementation
- Poacher turned Gamekeeper!
 - I've been on the receiving end of some dreadful ITT's!
 - I want to improve things for Clients and Suppliers alike!

- IMHX has over 400 stands
- 1,000's of salesmen & saleswomen
- A few consultants!
- 27,000 visitors
- What's it all about?

Moving Stuff

Storing Stuff

Picking Stuff

- My presentation is about

Buying Stuff

- This presentation will give you some guidance when procuring systems for your organisations
- It will help you
 - Increase the number of acceptable bids received
 - Maximise the quality of those bids
 - Utilise niche technology where appropriate
 - Create a truly “competitive” environment
 - Maximise supplier buy in to the solution
 - Deliver a solution that will stand the test of time.



Choice of type



Choice of Model



Quality Check



Maintenance



Running Cost

Accessories



Cost



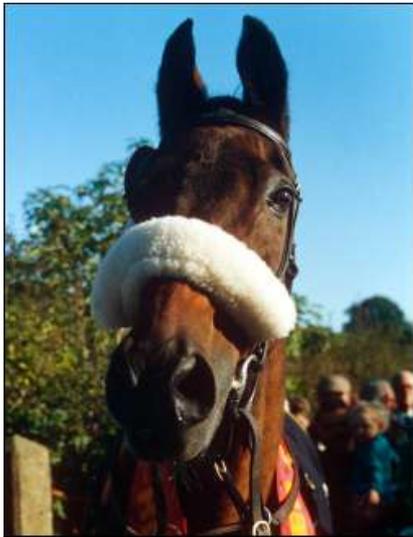
Performance



Security



Negotiation & Purchase



Enjoy your
new
purchase



However
without
knowledge &
experience



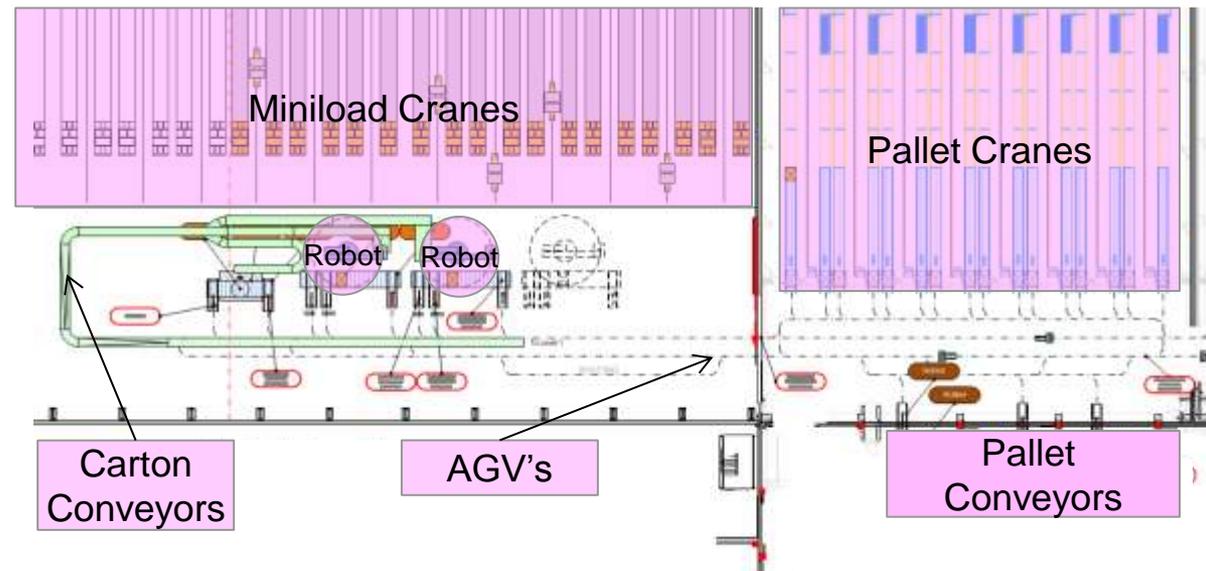
Caveat Emptor

- Developing niche technology over time

- Basket
 - Wheelbarrow
 - Fork truck & racking
 - Bar code technology
 - Taller racking & vehicles
 - Conveyor networks
 - Sorters
 - Automated picking
 - Goods to man picking
- Niche becomes commodity



- Complex integrated solution
 - Pallet and carton ASRS
 - Conveyor systems
 - AGV
 - Robot
 - Control systems
- There are many ways to configure this!



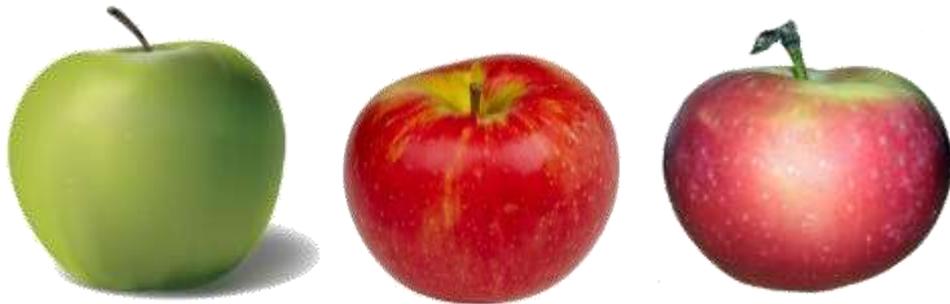
- **Prescriptive Procurement**

- Commodity equipment
- You know exactly what you want
- You specify it
- Go out to tender
- Compare the bids
- Buy it

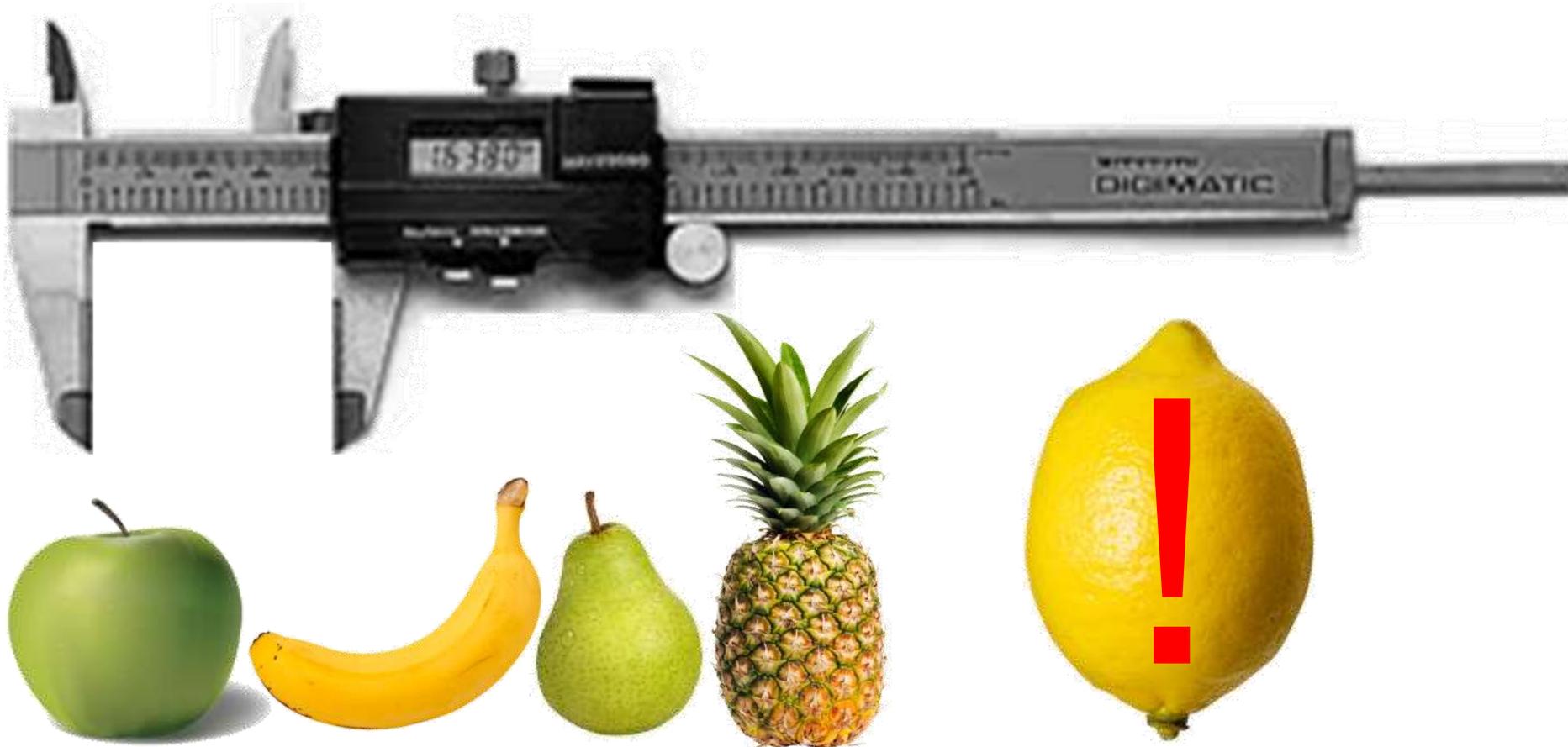
- **Performance Based Procurement**

- Complex or Integrated equipment
- You know exactly what you want to achieve
- You define the performance requirements
- Allow the suppliers to develop a solution to meet your needs
- Compare the bids
- Buy it

- Prescriptive based procurement



- Performance Based Procurement



- Prescriptive bidding advantages
 - Increase the number of acceptable bids received
 - Maximise the quality of those bids
 - Utilise niche technology where appropriate
 - Create a truly “competitive” environment
 - Maximise supplier buy in to the solution
 - Deliver a solution that will stand the test of time
- Considerations
 - Requires a high degree of time commitment
 - Technical competence
 - Methodical approach to evaluating the bids

Objective
To increase the quality, quantity and competitiveness of bids received to provide the buyer the maximum choice to procure the very best for the business

Data Acquisition

Define Objectives

Develop Ops Strategy

Develop "Straw Man"

Create Tender Docs

Choose Bidders

Issue Tender

Bid Development

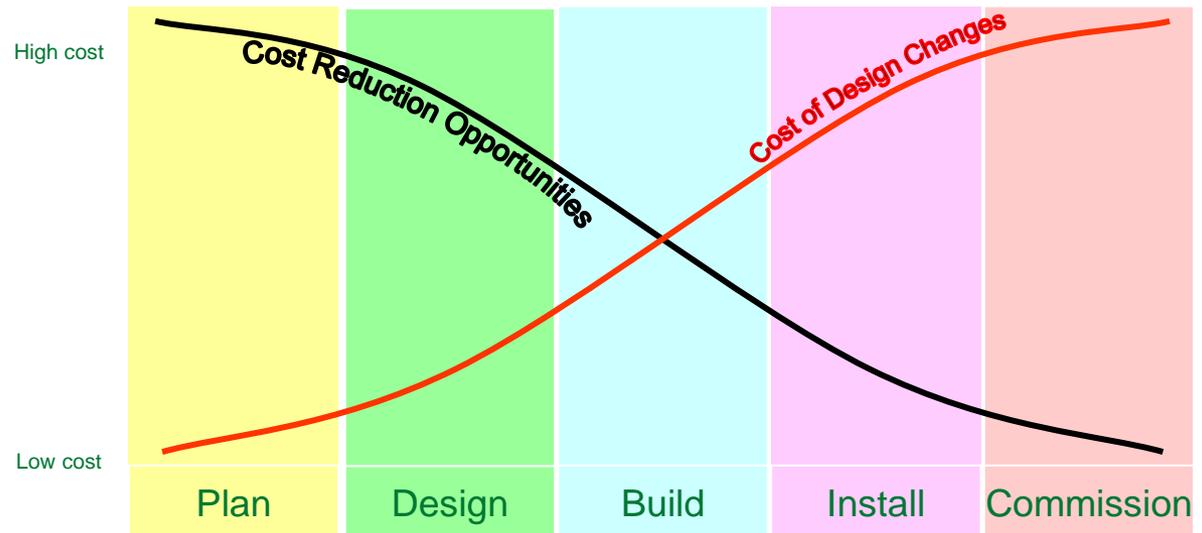
Bid Return & Evaluation

Selection

Finalise design

Implementation

Emphasis on Early Development



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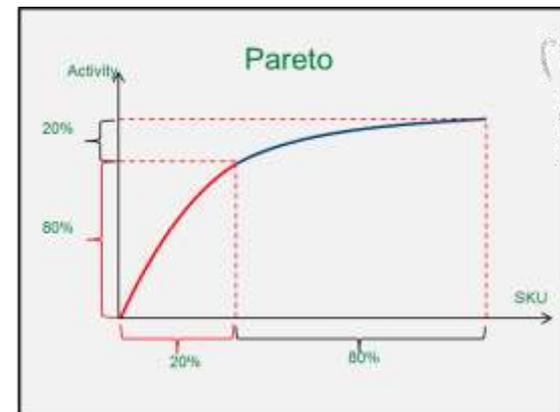
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Implementation

- You need to understand where you are!
- What data is available?
 - Storage, movement, range, size
 - Suppliers, clients, receipt, despatch
 - Order, size, frequency, profile
- No data available?
 - Synthetic analysis
 - Sensitivity checks
- Forecast
 - Growth
 - SKU range
 - size
 - orders
 - etc.



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Implementation

- Operating hours
- Physical parameters, building interface
- Systems interface
- Performance requirements
- Life expectancy
- Future scenarios
 - Expansion
 - Route to market
 - Acquisition



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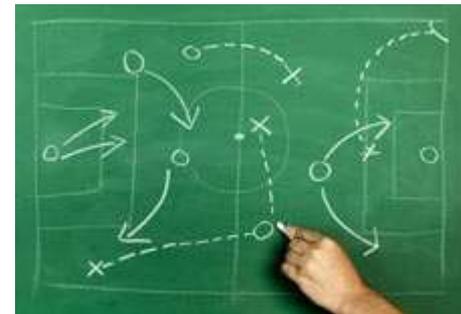
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Finalise design

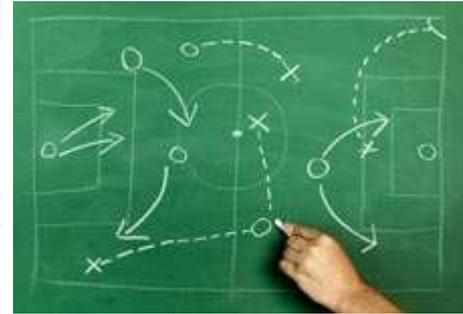
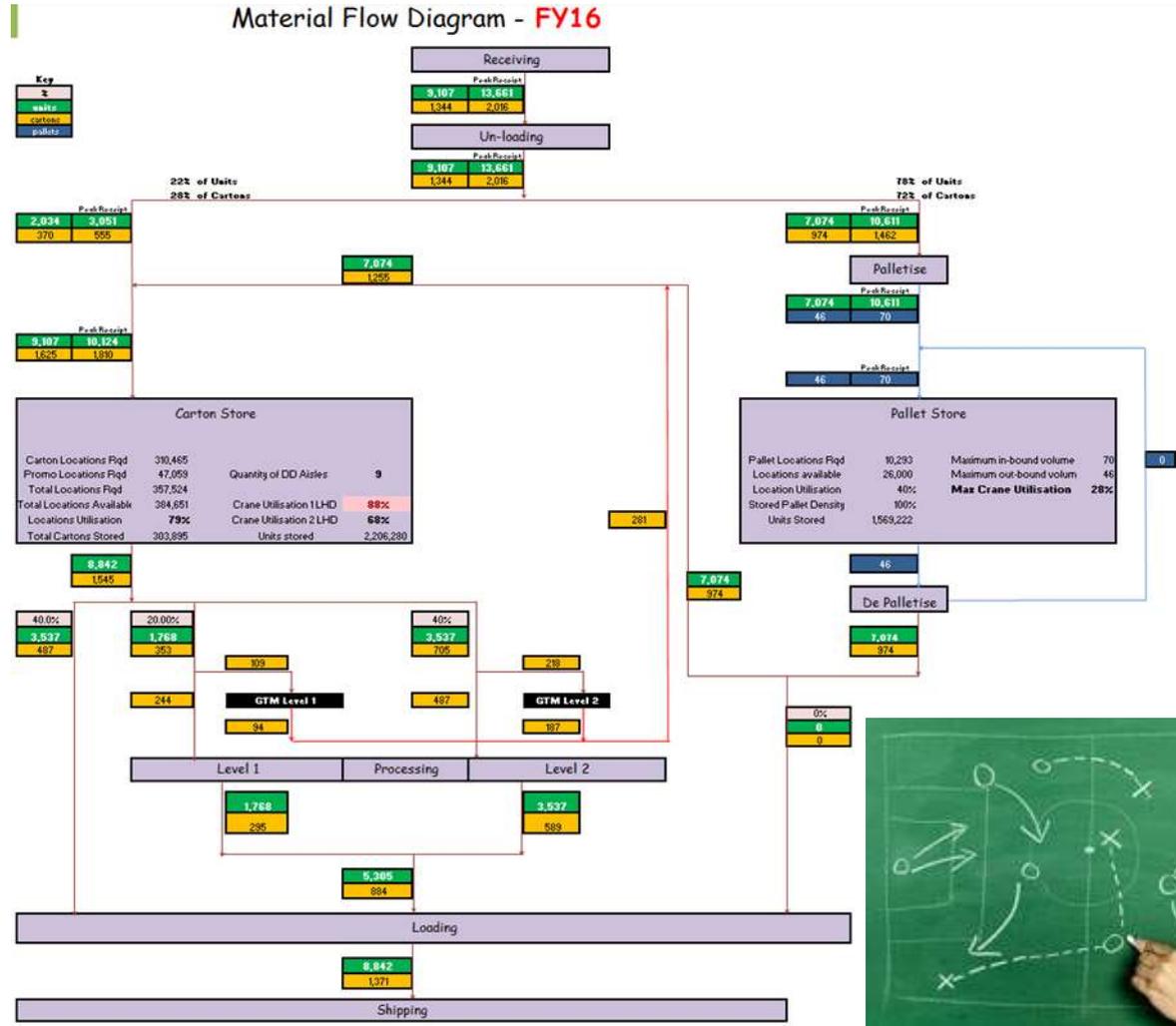
Implementation

- Review operational strategies
 - Single order versus batch picking
 - Man to goods versus goods to man
 - Pick face stock versus reserve locations
- Model impact on your business
 - Capex
 - Opex
 - Disruption
 - Other KPI
- Choose the preferred strategy



Key stages of developing performance tender

- Data Acquisition
- Define Objectives
- Develop Ops Strategy**
- Develop "Straw Man"
- Create Tender Docs
- Choose Bidders
- Issue Tender
- Bid Development
- Bid Return & Evaluation
- Selection
- Finalise design
- Implementation



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Implementation

- Develop a “vanilla” design
- Proves that there is a workable solution
- Gives focus for process development
- Helps describe the functionality to the bidders
- Don’t insist that bidders quote for it!
- Should you approach a “supplier” to develop a “straw man”?
 - It may “niche” the design
 - Demoralise other suppliers
 - Reduces the competitive environment



Key stages of developing performance tender

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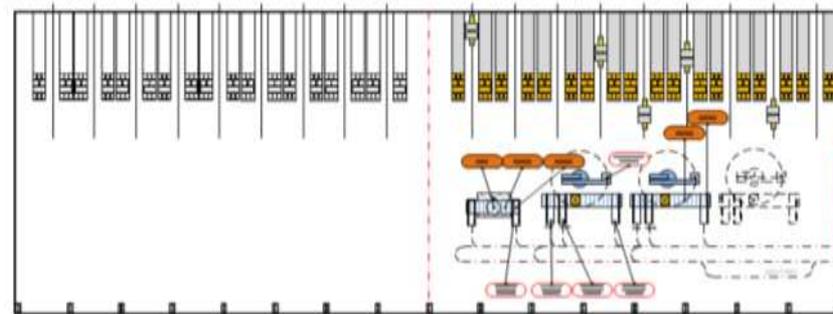
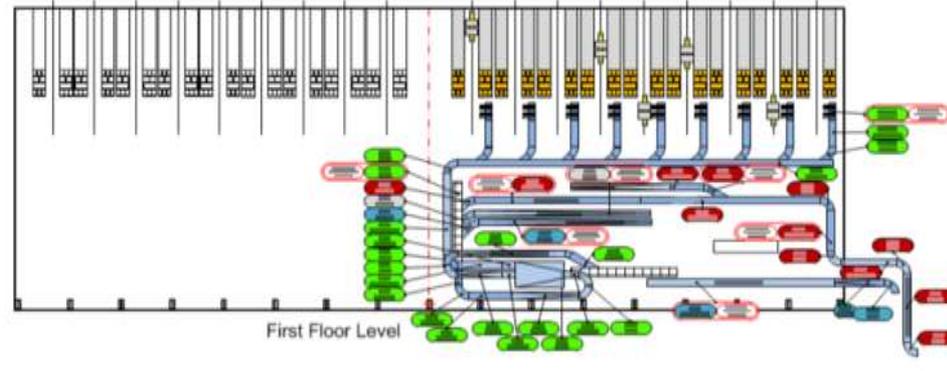
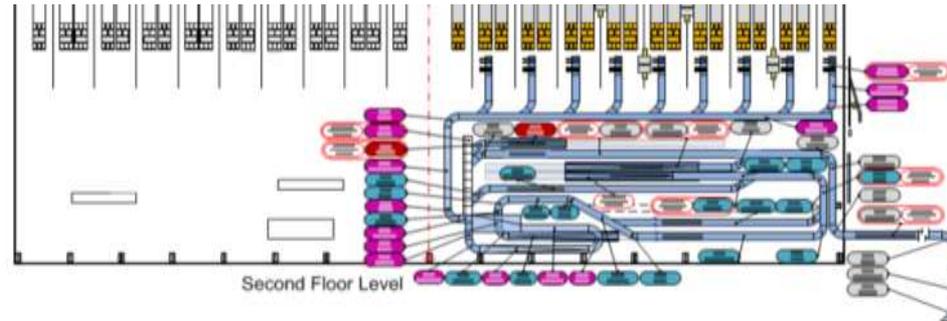
Bid Development

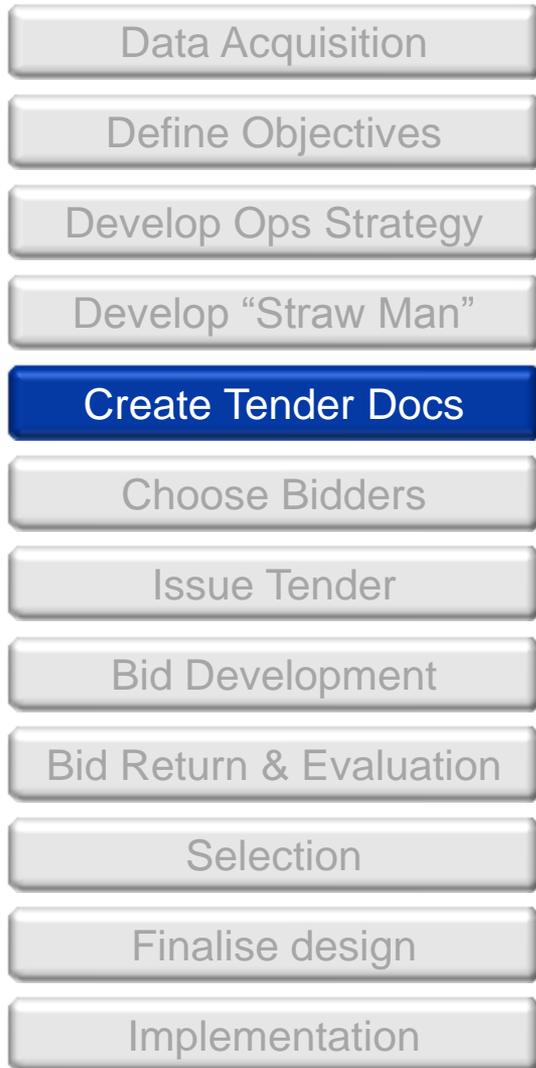
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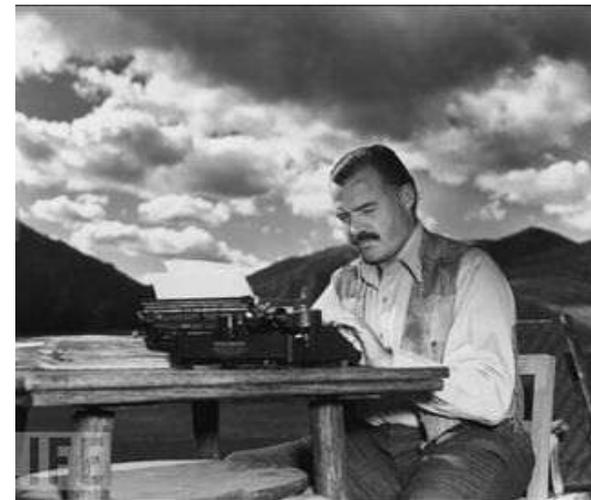
Finalise design

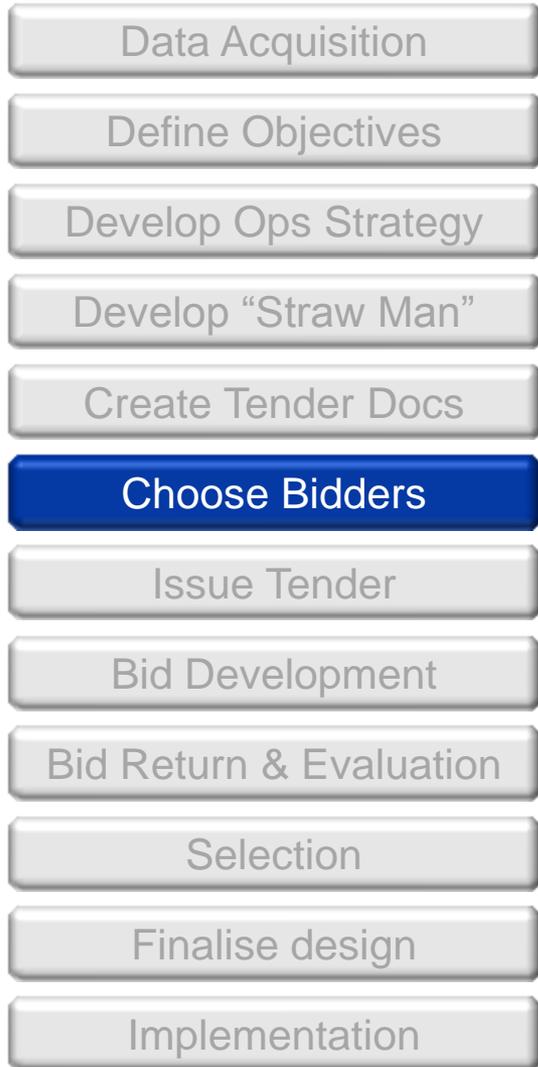
Implementation





- Give the bidders as much information to enable them to flourish
- Provide data sets
- Key requirements
 - Load parameters
 - Storage quantities
 - Flow rates
 - Response times
- Operational description





- Pre-qualify bidders
 - Financial status
 - Size
 - Relevant experience
 - Support
 - Track record
 - Commercial expectations

Be honest with them!

- Shortlist



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Implementation

- Pre-warn bidders of Tender issue
- Pre notification of
 - Likely content
 - Tender duration
 - Assemble their team
 - Warm up sub-contractors



Key stages of developing performance tender

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You want the A team



Not the B team



- Work with the bidding teams
- Develop trust
 - No cross-pollination of ideas
- Let them ask questions
 - Specific technical question - **Answer to them**
 - General specification question - **Answer to all**
- Allow innovation
 - Design
 - Equipment
- Moderate the solution



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- Bid Return & Evaluation**
- Selection
- Finalise design
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- Dissimilar bid returns
- Develop a scoring matrix
- Main heading examples
 - Solution layout
 - Implementation
 - Control systems
 - Support
- Specific questions
 - Weighted answers
- Red Flags
- Decision audit trail



Sample Project Evaluation

Supplier: S

Logix

Criteria	Supplier			1 to 5 Weighting	Result		
	Supplier 1	Supplier 2	Supplier 3		Supplier 1	Supplier 2	Supplier 3
Proposed Solution							
Full description of operation provided	4	3	4	5	20	15	20
Suitability of equipment proposed	4	4	4	5	20	20	20
Method of sortation proposed and clearly described	4	4	4	5	20	20	20
Suitability of sorting machines conveyor proposed	4	4	4	5	20	20	20
Suitability of Control System	4	4	4	5	20	20	20
Suitability and inter action w conveyor controls system	4	4	4	5	20	20	20
Inter action w conveyor controls system	4	4	4	5	0	0	0
Proposed part	4	4	4	5	20	20	20
Proposed cut	4	2	3	5	20	10	15
Solutions for Flow sortation	4	4	4	5	20	20	20
Solutions for handling tall vertical boxed flowers	2	0	2	5	10	0	10
Solutions for handling boxed wines	4	2	3	5	20	10	15
The energy consumption of the eq				5	0	0	0
Noise Levels of the plant whilst in	4	4	4	5	20	20	20
Layout proposed workable	4	4	4	5	20	20	20
All partners and equipment suppl	4	4	4	5	12	12	12
Suitability of the partners -	4	4	4	5	12	12	12
Test system covering key components	3	0		5	9	0	6
Location of test system and length of availability				5	0	0	0
Agreement to simulate capacity through-puts				4	0	0	0
TOTAL					283	239	270
Technical Ability							
Robustness of design	4	4	4	5	20	20	20
Reliability quoted	4	4	4	5	20	20	20
Flexibility provided within solution	4	4	4	4	16	16	16
Demonstrated awareness of problems to be overcome	4	1	2	4	16	4	8
Experience of delivering integrated solution	4	2	4	4	16	8	16
Planned preventative maintenance requirements addressed				3	0	0	0
Conveyor system design - suitability	4	4	4	4	16	16	16
Software capability	4	4	4	5	20	20	20
Data transfer method proposed	4	4	4	4	16	16	16
Integration with conveyor control systems				4	0	0	0
TOTAL					140	120	132
Delivery and Installation							
Delivery schedule proposed (shows lead times for delivery, installation schedule, and commissioning)	4	4	4	4	16	16	16
Recognition of the testing requirements	4	4	4	3	12	12	12
Proposed commissioning strategy	4	0	3	3	12	0	9
Project management team proposed	4	0	2	2	8	0	4
CV of proposed Project Manager				2	0	0	0

Main Headings

Answer Weighting Column

Specific Questions

Supplier Answer Column

Supplier Weighted Answer Column



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Bid Return & Evaluation

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Finalise design

Implementation

- Review evaluation score
- Review commercial offering
- Negotiate
- Beware negotiating too hard!
- Make your selection!



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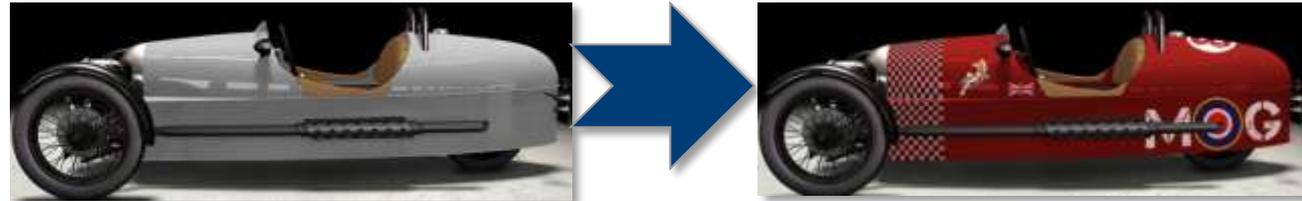
Bid Return & Evaluation

Selection

Finalise design

Implementation

- Bid process should result in the design being well advanced
- Minor modifications
 - Perhaps captured during negotiation



- Sign off the drawing
- Develop the FDS

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Happy Ever After

