Improving Speed, Quality, and Cost in the Delivery of Effective Applications

Session 210

Chick Schoen Texas Instruments

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"Effective Applications"

- Deliver measurable improvements to current business operations
- Enhance the ability of the business to respond aggressively to change

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Speed, Quality, and Cost

Speed + Quality = Low Cost

Key Theme of this Presentation

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- The power of a *full partnership* between *business leaders* and *application development* to create dramatic change
- The partnership works best over the *full lifecycle* of a major reinvention initiative

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"Breakthrough Results" IT Team

- Concentrates on IT's potential for creating dramatic business change
- Understands resistance to change and the power of IT as an element of the change management strategy
- Combines RAP speed with key elements of the business breakthrough vision

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"Partnership" Timeline-Role of **Breakthrough Results IT Team**

1 Project Initiation	2 Process Understanding	3 New Process Design
Benchmarking	Process modeling	Technology assessment
Change readiness assessment	Communication Strategy	Key element prototyping
Case for Action	Chartering P.E. team	Implementation planning
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"Parallel Engineering" Teams

- Use Iterative Development techniques to build clearer and clearer visions of business improvement opportunities
- · Continually focus on change management role
- · Coordinate with reinvention teams to "chunk" or "phase" implementation efforts

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"Partnership" Timeline-Role of **Parallel Engineering Team**

2 Process Understanding	3 New Process Design	4 Business Transition
Development risk assessment	Reuse, component strategies	Design-in support for improvement
Business impact development priority	Iterative development	Support early pilots, fanout
Learning cycles	Implementation risk assessment	Adjust to project learnings
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"Breakthrough Results" Personnel



"Breakthrough Results" Personnel–Roles

- Business and IT strategies
- Business improvement
- Benchmarking, technologies and operations
- Champions for:
 - Technology labs, prototyping
 - Capable IT infrastructure
 - Low-maintenance application architecture

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"Parallel Engineering" Team– Membership, Structure



 Composer-capable personnel working directly with business re-engineers

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Composer Capabilities

- More mature GUI, ease of use
- Client-server encyclopedia
- Flexible training, e.g., RSD
- Maturing RAD/RAP development lifecycles

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- Emerging OOA-like features
- Expanding middleware

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Partnership for Quality– Measuring Performance

The Key Question is:

 How to measure efficiency and effectiveness in time to take corrective action

Measuring Efficiency

- Worktime per function point
- In-process measures:
 - Meeting time:design points cleared
 - Worktime per design point turnaround
 - Turnaround times for test cycles
 - Ratio of early:late design changes

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 User time: AD personnel time in design decision-making

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Measuring Effectiveness– Baldrige Framework

- From Malcolm Baldrige National Quality Award
 - Performance Improvement Categories
 - Measures
 - Indicators
 - Correlations

Measuring Effectiveness–Examples

- Stretch goal benchmark reality check
- Benchmarking preparation:contact time; number; learnings targeted:collected, design impact; communication follow-up
- **Communication strategy** number of contacts; stakeholder coverage; message recognition; receiving:transmitting time; response turnaround; message awareness

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Measuring Effectiveness–Examples

- Change Management growth in change network; monthly activities; stakeholder response
- Prototyping number and make-up of review panels; number of points made; response turn-around time
- *Implementation* phasing linked to interim results; realization of targeted results

Keys to Business Reinvention Partnerships

- Organize and train
- Deploy tools and personnel
- Measure quality of efforts and interim results

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