Cognos®
software

Managing your business in turbulent times with Rolling Forecasts

David Axson
Stephen Brook

DaVID AXson

PREDICTIVE INTELLIGENCE

Taking the guesswork out of forecasting

Prague, Moscow and Paris

2009

Course Rules

Be flexible

Ask lots of questions

There is no right answer (or wrong answer)

Learn from each other

Have fun

Today's Agenda

09:00 – 09:15 Welcome & Introductions

09:15 – 10:00 Rolling Forecasts Defined

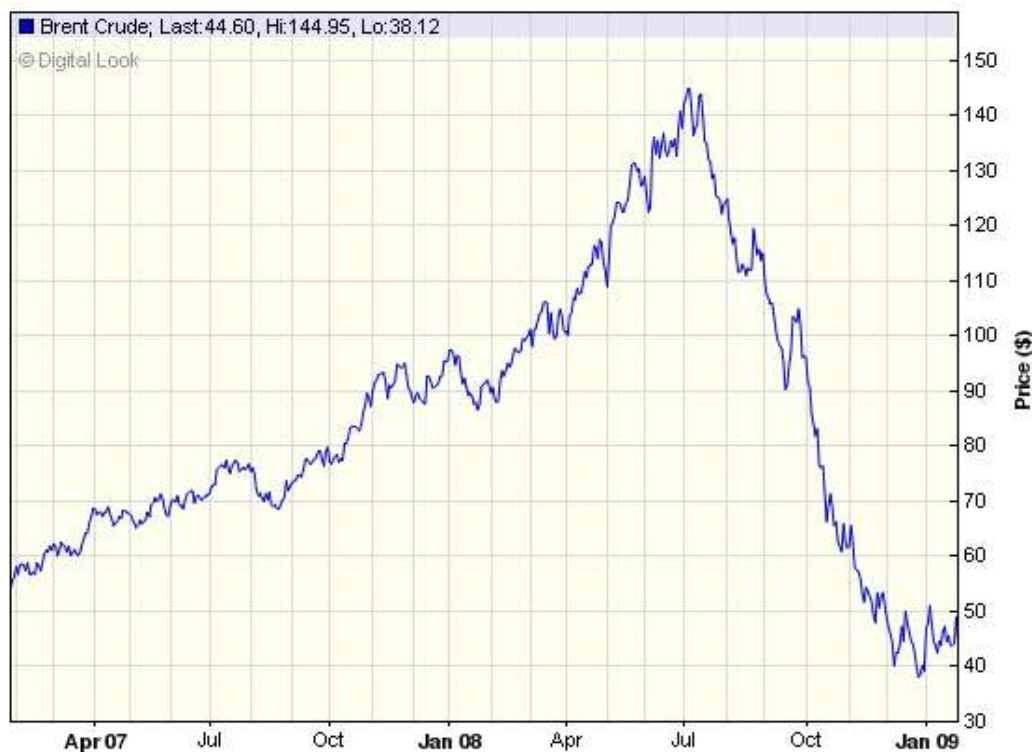**10:00 – 10:15 Break**

10:15 – 11:30 Designing An Effective Forecast

11:30 – 12:30 Implementing A Rolling Forecast

12:30   Q&A, Close

Forecasting has become a lot harder recently

Oil Prices: Last 2 Years
(Brent Crude)

Brent Crude; Last:44.60, Hi:144.95, Lo:38.12
© Digital Look

- Commodity prices
- Real estate
- Consumer spending
- Exchange rates
- Share prices
- Employment

Even the best are struggling

"Visibility is low and forecasting is challenging"

Peter Oppenheimer, CFO, Apple, 22nd October 2008

What is forecasting?

Forecasting is the process of periodically updating the current view of future performance to reflect new or changing information.

What it is and what it isn't

Is:

- **Positive**

- **Flexible**

- **Forward-looking**

- **Decision support oriented**

- **Insightful**

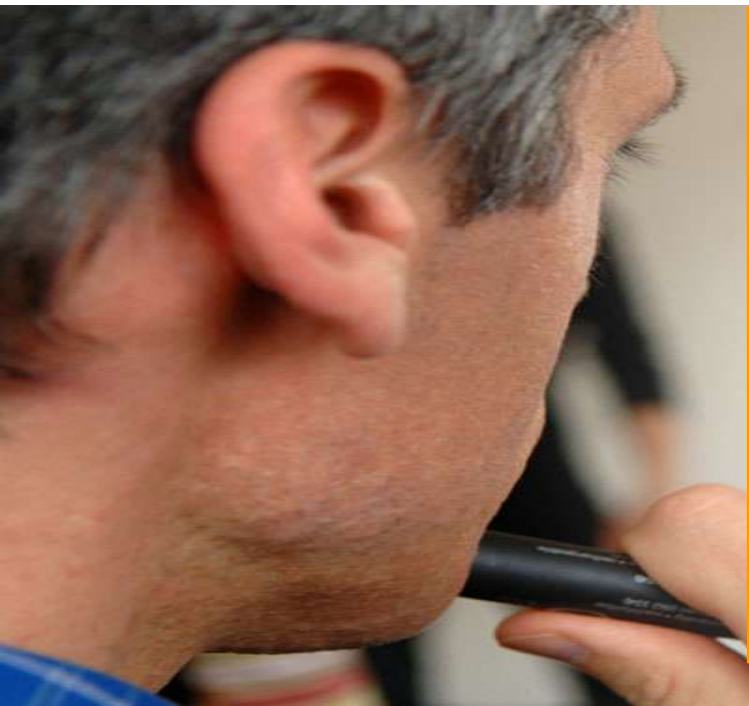- **Focused on opportunities and threats**

Is not:

- **A means for apportioning blame**

- **A target negotiation process**

- **Always right**

The goal of great forecasting

" The end result . . . is not an accurate picture of tomorrow, but better decisions about the future."

Peter Schwartz,
The Art of the Long View,
(New York: Doubleday, 1991)

Cognos.
software

Is forecasting the most valued and loved management process?

Why is it so painful?

- **Time consuming**
- **Detailed**
- **Financially driven**
- **Too many allocations**
- **Single point estimates**
- **Sandbagged**
- **Calendar driven**

- **Accounting oriented**
- **Simplistic**
- **Limited materiality**
- **Little accountability**
- **Spreadsheet dominated**
- **Manually intensive**
- **Exhaustive (or is it exhausting?)**

But, the real danger is the potential for making bad decisions
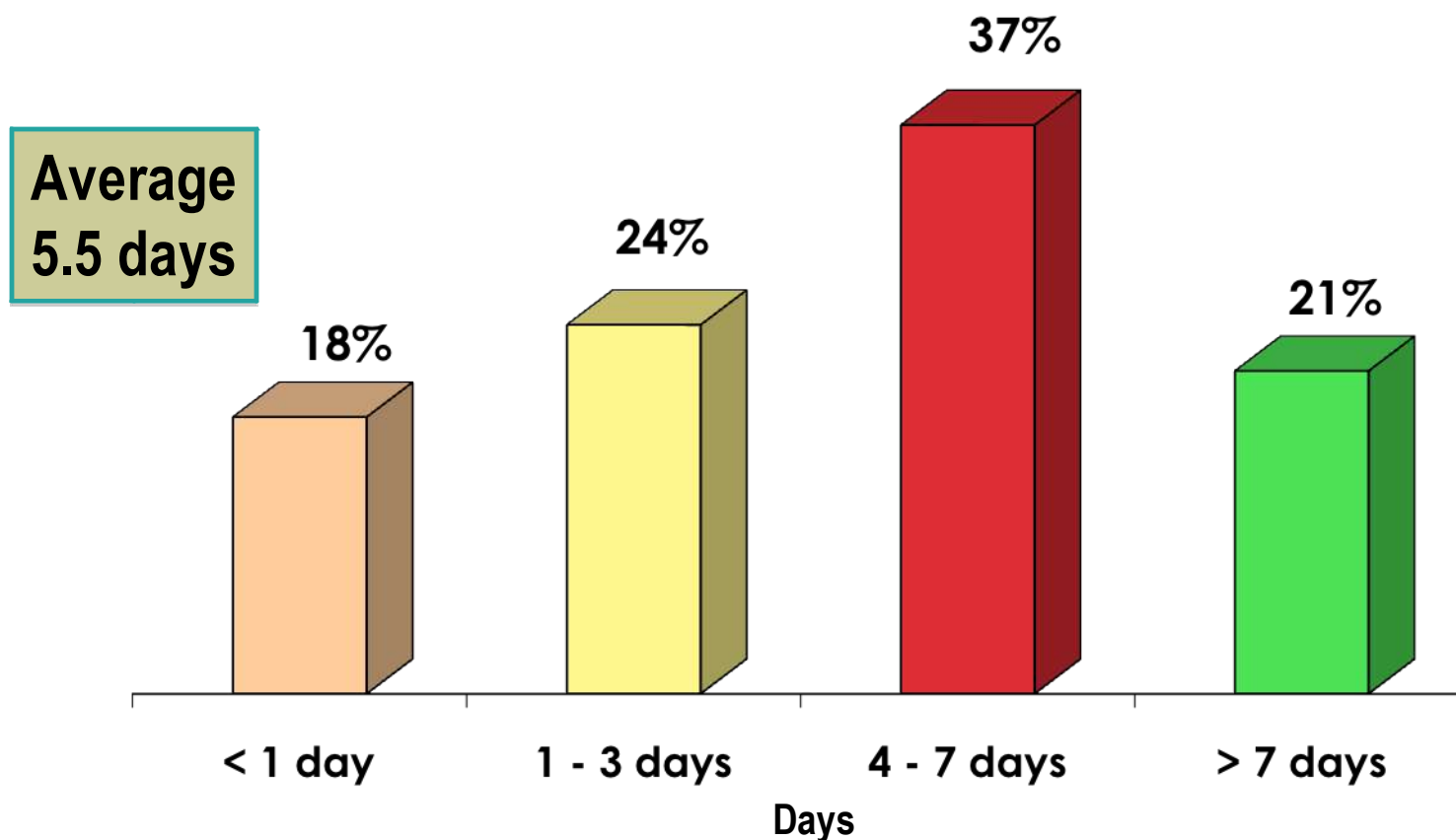
Cognos.
software

The focus is wrong

Do you forecast the following items?
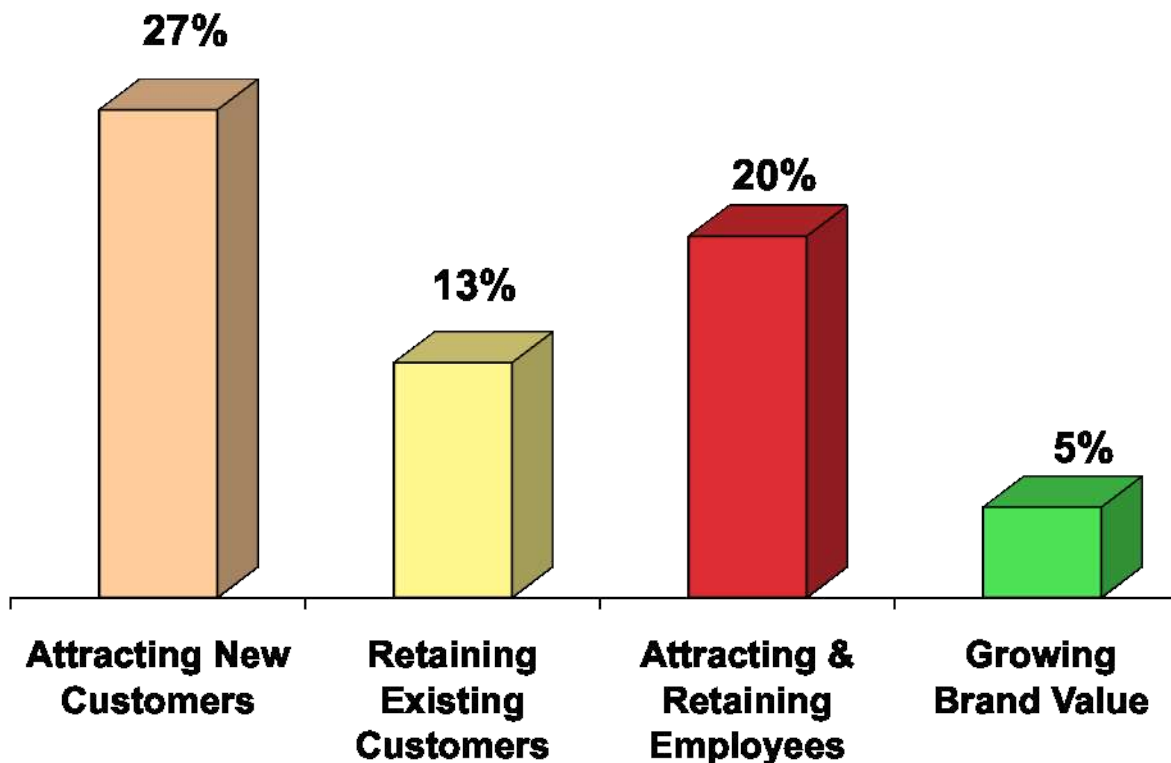
Fast, frictionless? Forecasting

How long does it take to develop a forecast from the triggering event to management acceptance?

Average 5.5 days

- 18% — < 1 day
- 24% — 1 - 3 days
- 37% — 4 - 7 days
- 21% — > 7 days

Days

So,

Why A Rolling Forecast?

What is a rolling forecast?
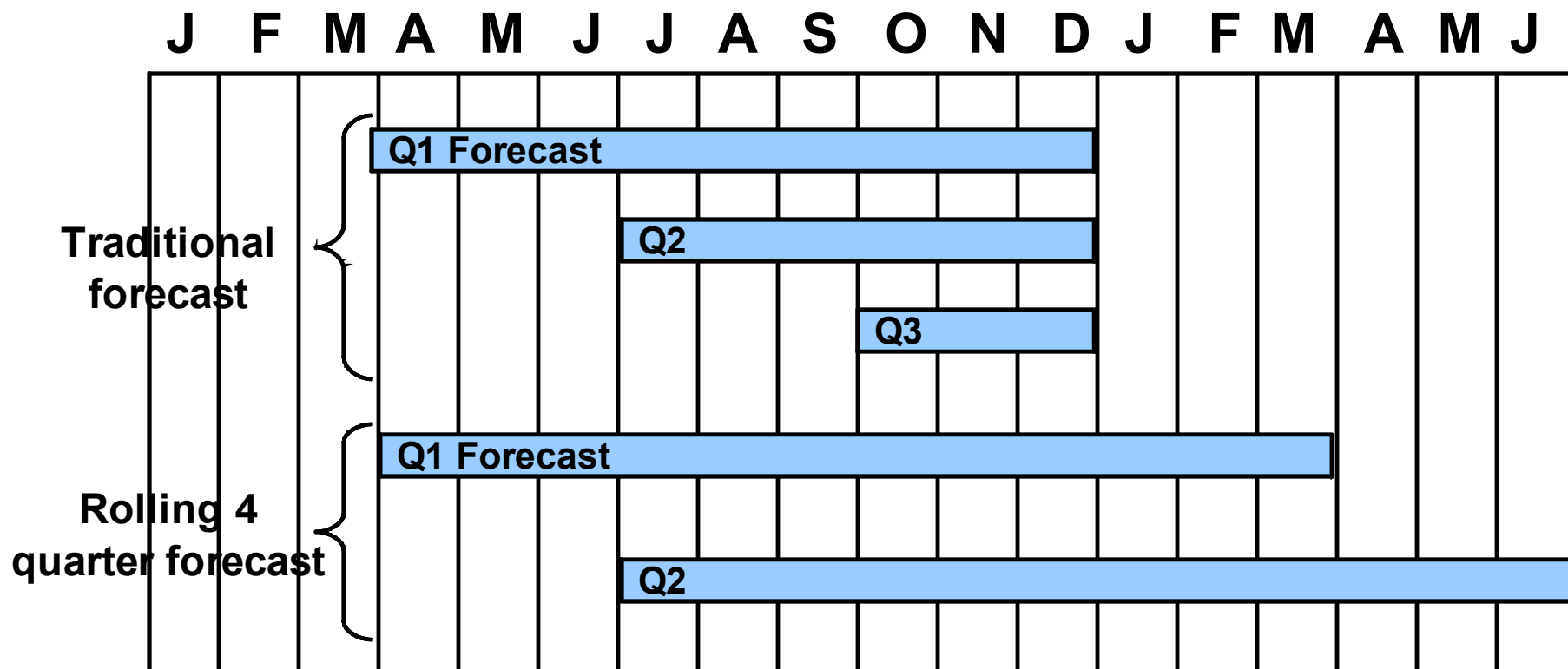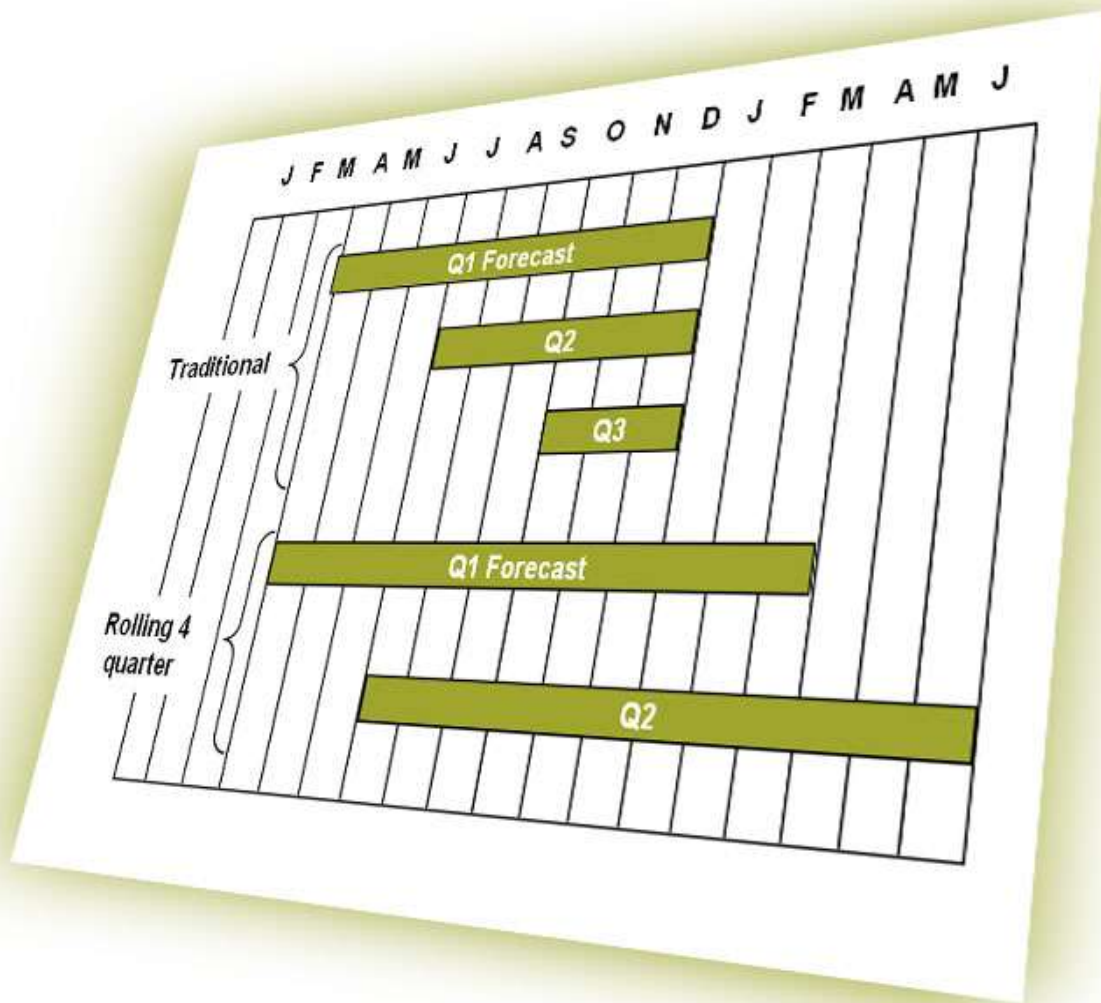
Why are rolling forecasts attractive?

Benefits

Consistent time horizon

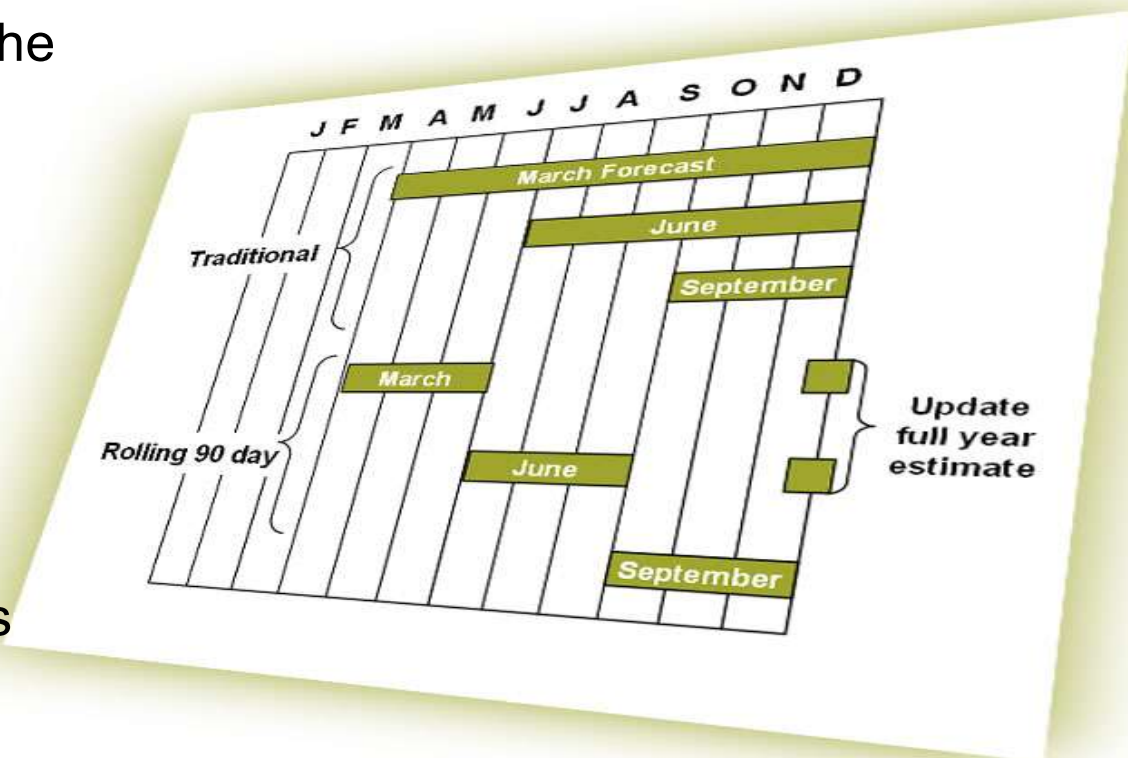Provides a baseline for future plan periods

Captures the longer term impact of changes

Reduces reliance on a obsolete budgets

Understand the limitations

- Match the time horizon to the rhythm of your business

- Level of detail driven by decision making needs

- Understand your predictive ability

- Can create confusion with annual performance targets

Case Study - Southwest Airlines

- **Southwest Airlines has consistently delivered industry leading performance in volatile times e.g. 9/11, Hurricanes Katrina and Rita, $120 oil**

- **The annual budget serves as a basis for estimating the resources required to deliver income and cost estimates within manageable ranges. However, budgets are updated every quarter for the next quarter to reflect current information.**

- **Quarterly budgets are further supported by 12-month rolling forecasts. These forecasts have no bearing on incentive compensation so the risk of sandbagging is minimized and accuracy is consistently good.**

- **Key attributes of the Southwest process include:**

  - Setting a realistic planning horizon – quarterly budget updates are for the next quarter only.
  - Matching the level of detail to its predictive ability – for example revenues are updated daily and the forecast horizon is monthly; while maintenance is updated semi-monthly and the forecast horizon is six months.
  - Integrating the budget, quarterly updates and forecasts but with a clear purpose for each.
  - Using the annual budget as a resource allocation process not a negotiated target setting process.

Source: The Beyond Budgeting Round Table and Southwest Airlines

Cognos. software

Today's Agenda

9:00 – 09:15 Welcome & Introductions

9:15 – 10:00 Rolling Forecasts Defined

0:00 – 10:15 Break

0:15 – 11:30 Designing An Effective Forecast

1:30 – 12:30 Implementing A Rolling Forecast

2:30   Q&A, Close

Ask the right questions

What is the forecast for?

What needs to be included?

What forecast methods should be used?

What time horizon makes sense?

How much (relevant) detail can we provide?

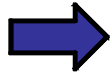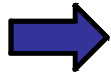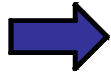**How do we incorporate risk and uncertainty?**
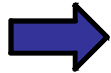
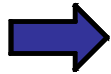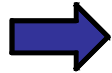**How often should we forecast?**

Who owns the process/results?

Who needs to be involved?

Why forecast? What is the purpose?

- **How will the forecast be used? For example:**

  a) Forecast new product sales to:
  - adjust advertising and promotional support
  - ensure adequate capacity is available to meet expected demand, or
  - identify new products that are failing

  b) Forecast staffing levels to:
  - Set recruitment plans
  - Identify mix of full-time and part-time staff
  - Adjust outsourced staffing levels

Cognos. software

What should be included?

Functions ➡️	**Business processes**
Organizational ➡️	**Product/customer**
nternal ➡️	**External**
Results ➡️	**Drivers**
Controllable ➡️	**Non-controllable**
Financial ➡️	**Non-financial**

Understand how the results will be used

Forecast Type	Primary Focus	Use(s)
Market	**Estimate market size**	**Determine marketing investments**
Sales	**Estimating booked sales**	**Establish production schedule**
Cash flow	**Estimate inflows and outflows**	**Optimize borrowing**

Focus on both business drivers and results

External Drivers

- Economic growth
- Consumer spending
- Population growth
- Exchange rates
- Unemployment
- Market size
- Competitor behavior
- Customer behavior

Internal Drivers

- Time to market
- Sales force efficiency
- Productivity
- Quality
- Labor costs
- Inventory levels
- Comparative pricing

Results

- Market share
- Sales
- Profits
- Return on equity
- Cash flow
- Capital requirements
- Staffing levels

Cognos. software

Build the early warning mechanisms

Metric	Perform Status	3rd Quarter Actual	Fcst	Status / Commentary
Customer				
Customer Delight	🔴	49.0%	54.0%	Stable to Q2. Early Q4 results trending toward 51%
Counterparty Delight	🔴	8.0%	12.0%	Modest 1pt increase.
Cust/Client Retention	🟡	88.4%	88.5%	Slow & steady improvement
Net Relationship Growth	🟡	.8 mm	.9 mm	Above plan voluntary attrition
Productivity	🟢	$1.4Bn	$1.2Bn	Focus shifted toward revenue improvement.
Associate				
Satisfied	🟡	77.0%	79.0%	
Turnover	🔴	18.50%	16.90%	Driven by economy and job opportunities. High seasonality in Aug/Sept - will trend down in Q4 to 17.8%
People of Color	🟢	13.76%	13.80%	24% of Sept opportunities were POC
Female	🟢	37.22%	37.80%	48% of Sept opportunities were Female
Shareholder				
TSR (3-Yr Return Ranking)	🟢	1	1	26% annual compound return
Change in SVA	🟢	$ 1,632	$ 538	$3.4Bn earnings growth; 1% decrease in cost of capital
EPS Growth	🟢	25.8%	7.8%	Drivers: 22% earnings growth; 50mm share reduction
Revenue Growth	🟢	10.1%	5.2%	2.4% margin growth, 22% fee growth. Mortgage, card and loan sale gains as significant contributors

Cognos.
software

Match the time horizon to the rhythm of your business

Short cycles

Long cycles

Industry

- **Consumer electronics**
- **Retailing**
- **Investment banking**

- Oil exploration
- Drug development
- Infrastructure investment

Function

- **Advertising**
- **Cash flow**
- **Overtime**

- Plant construction
- Infrastructure investment
- Research & development

Time horizon can vary by metric

- Sales
- Cash flow
- Inventory

- Operating expenses
- Customer satisfaction
- Competitor action

- Capital
- Market growth
- Economic growth

- Globalization
- Demographics
- Technology

Cognos. software
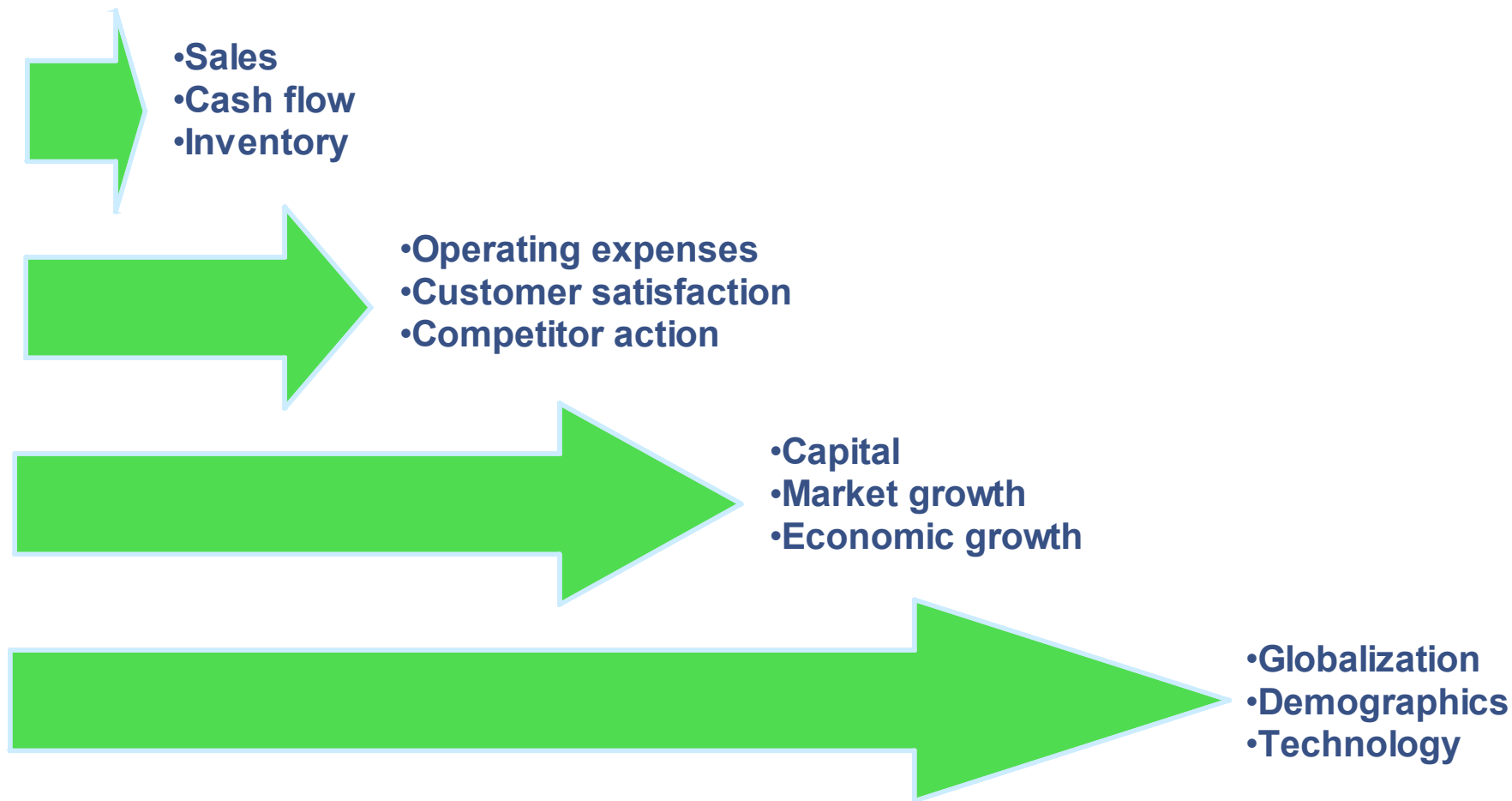
Companies are forecasting more frequently but with a shorter time horizon

J F M A M J J A S O N D

Traditional forecast

March

June

September

Rolling 90 day

Rolling 90-day with full year update
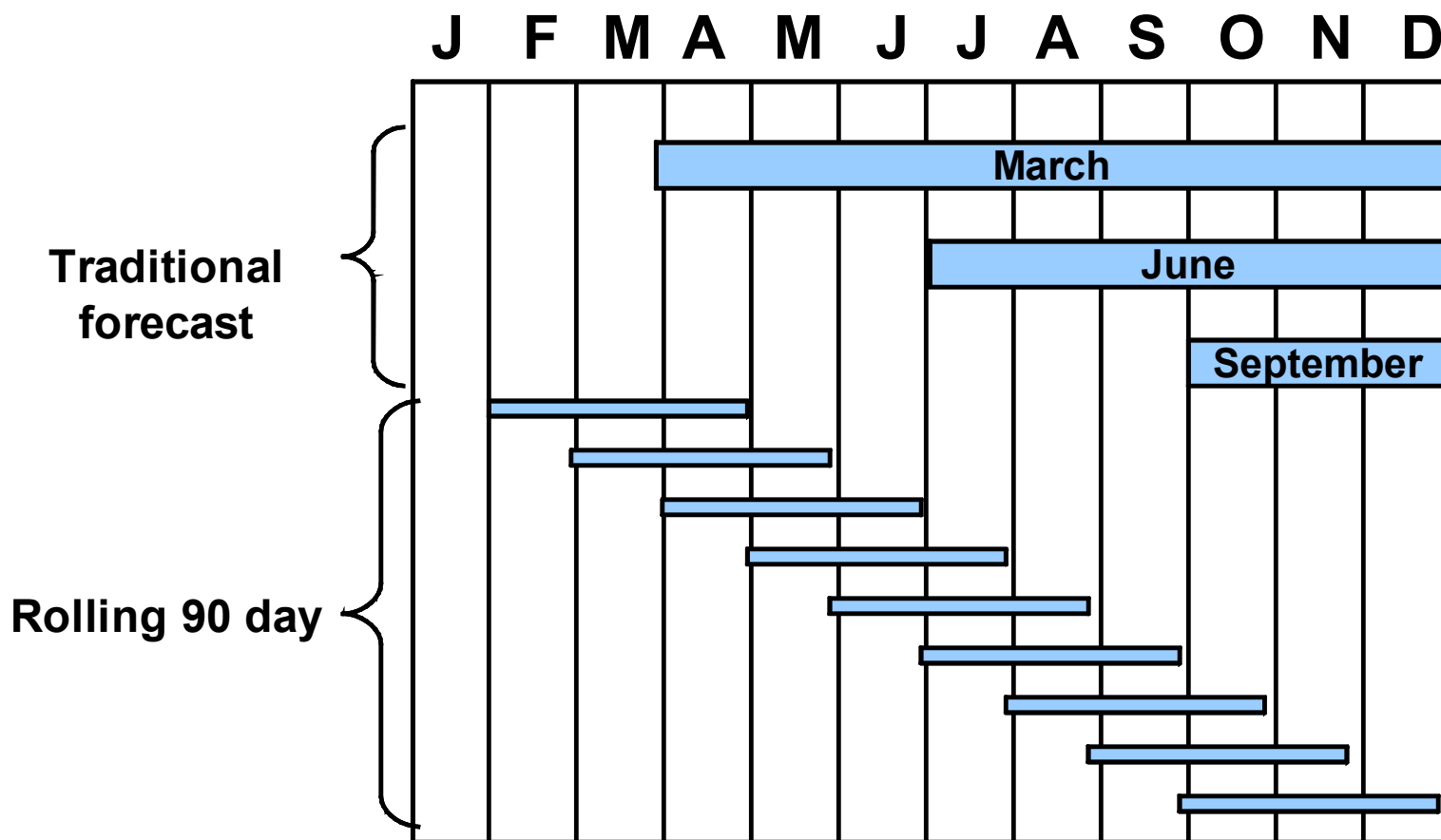
Use Ranges to Acknowledge Uncertainty

Narrow the range as visibility improves

Plan/ Forecast   ----

Actual   ——
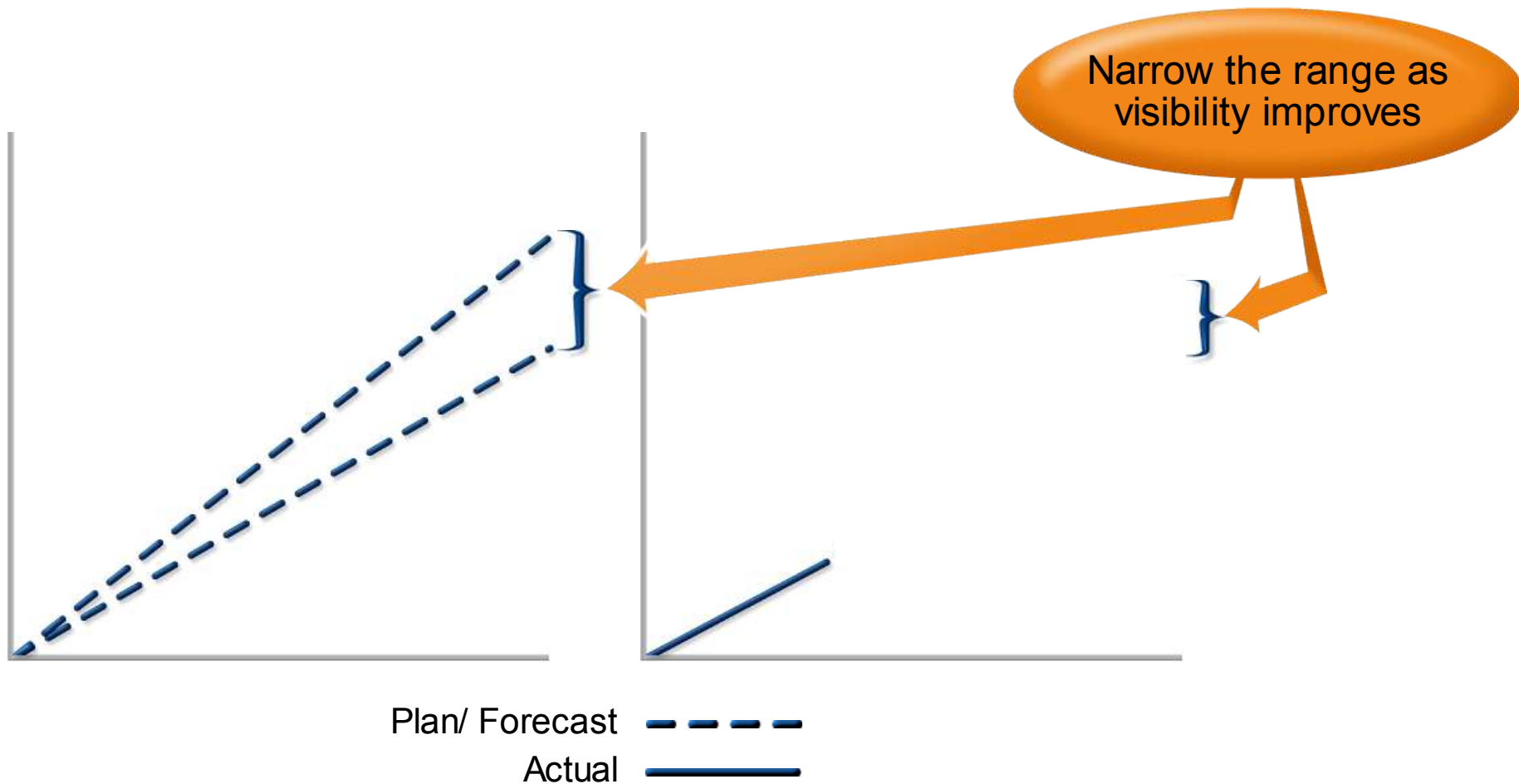
Forecasting at Google

"There is a cost to not providing guidance and I understand that. The reason that we don't is our business is so dynamic we'd have to give very broad ranges and I don't think that would be constructive."

Eric Schmidt, CEO Google, January 2006

Level of detail driven by your decision making needs

- When does a decision need to be made?

- What information is is needed to make the decision?

- What are the consequences of getting it wrong?

Evaluate alternative scenarios
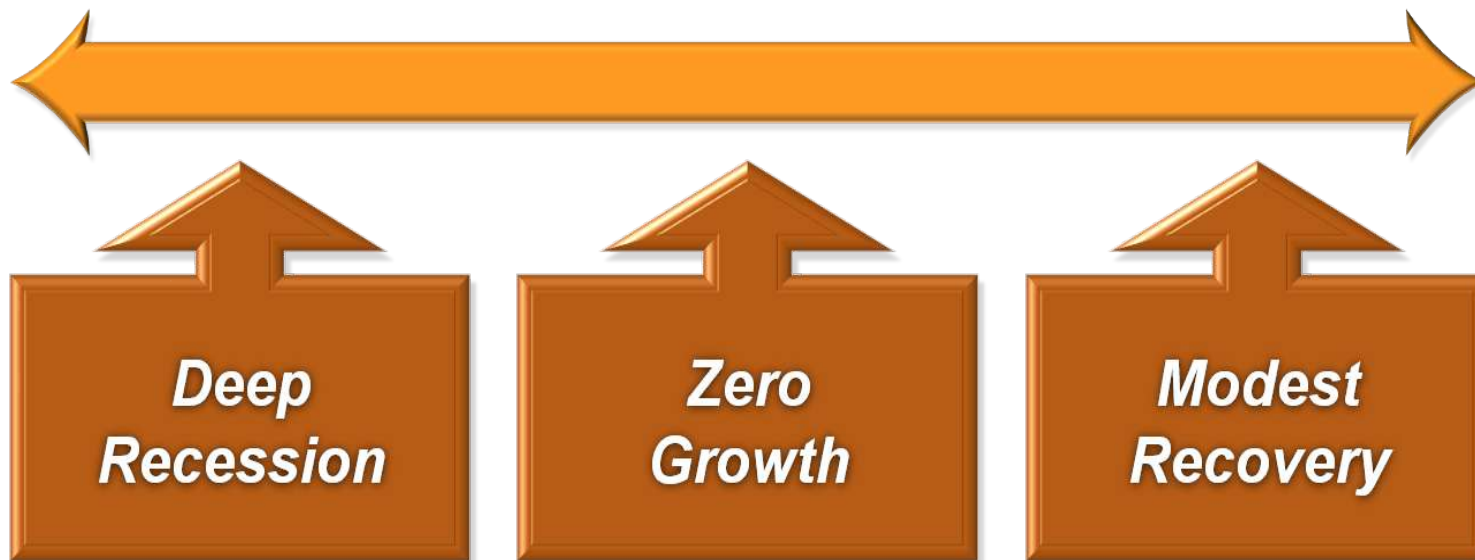
	Deep Recession	Zero Growth	Modest Recovery
GDP Growth	-7%	0%	2.5%
Inflation	-1%	1%	2-3%
Oil	$25	$50	$100
Gold	$1,200	$1,000	$750
Unemployment	14%	9%	6%

Cognos. software

What should trigger a forecast?

- **External needs**

  - Investor communications

  - Regulatory requirements

- **Management needs**

  - Strategic planning

  - Capital planning

- **Operational needs**

  - Market events

  - Execution issues

Participation, Roles and Ownership

Market Size
Share Targets
Product Launch

CEO

Strategic Targets
Market Priorities
Earnings Goals
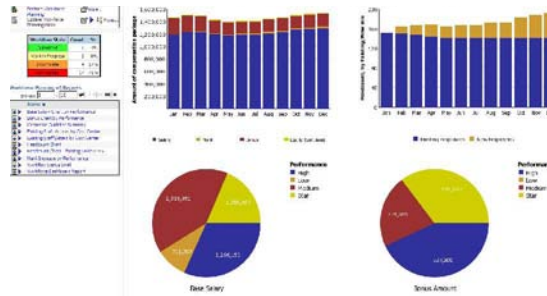
DSO
Free Cash Flow
Exchange Risk

Marketing

Finance

Contact to Close Cycle
Sales
Average Selling Price
Selling Expenses

Product Cost
Inventory Levels
Quality Costs

Sales

Operations

Cognos.
software

The forecast is the hub of the decision making process
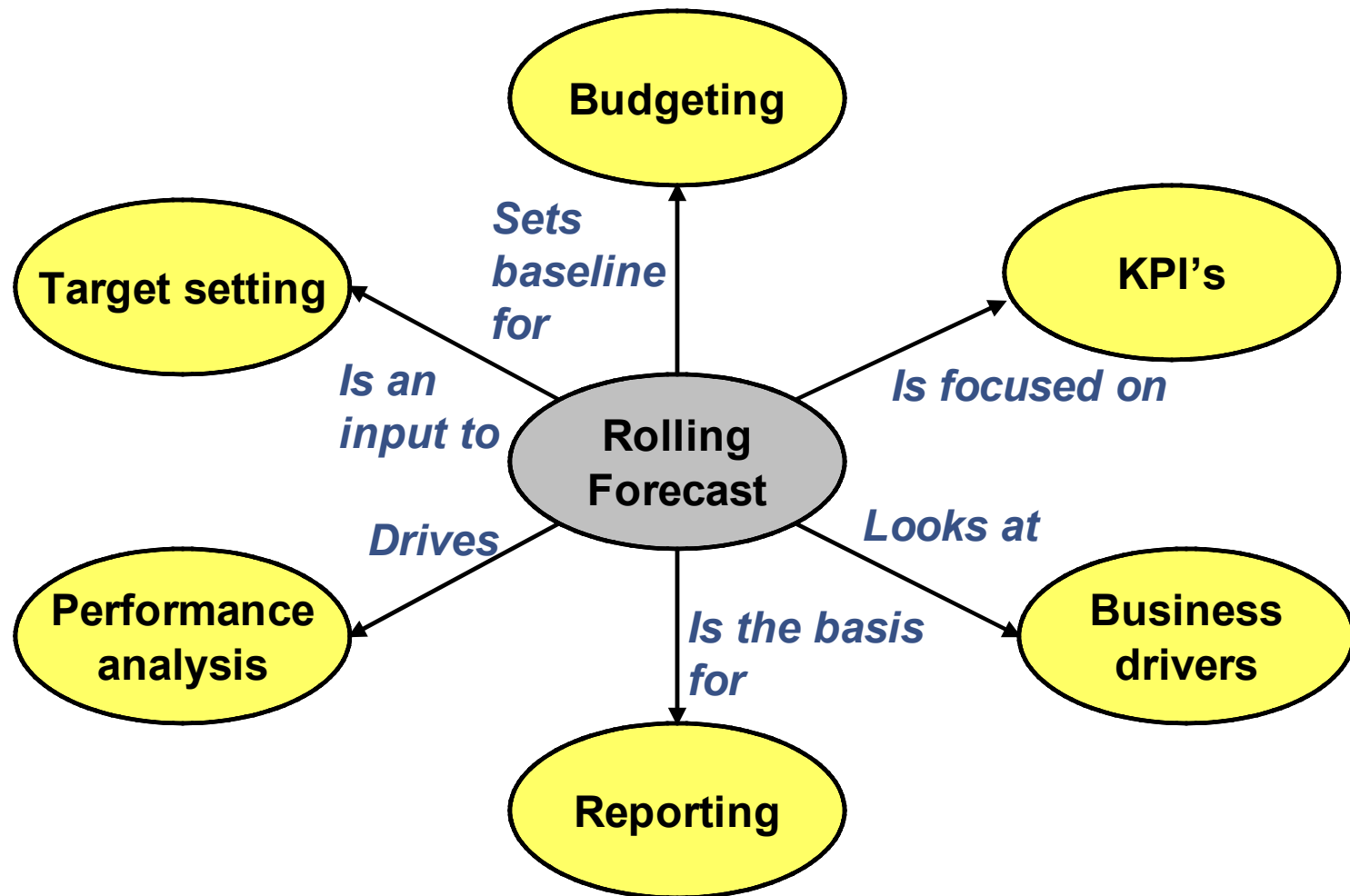
Set realistic expectations

Drivers of forecast variance:

1. **Unexpected external events**

2. **Discretionary decisions made after the forecast creation**

3. **Known items where timing or magnitude not known**

4. **Process errors**

Case Study - American Express

- **Volatility in post 9/11 served to highlight the deficiencies in Amex's traditional processes:**
  - Relatively static planning process
  - Lack of consistency in forecasting approaches
  - Numerous different systems across its three businesses.

- **The company needed a more flexible, integrated and responsive process to deal with the uncertain and volatile economic environment. The key elements are to:**

- **Base business forecasts on key drivers of activity such as the number of American Express cards in use and the average spending per card**

- **Set credible top down targets for each business unit**

- **Move to a rolling five quarterly forecast.**

- **Introduce scenarios to evaluate the potential impact of a range of uncontrollable events and create a management playbook to mitigate the risks and take advantage of the opportunities**

- **Standardize tools and methods while still allowing for local customization for unique business conditions and drivers.**

- **Eliminate the traditional annual budget in 2005.**

Source: The Beyond Budgeting Round Table and American Express

Cognos.
software

Today's Agenda

9:00 – 09:15 Welcome & Introductions

9:15 – 10:00 Rolling Forecasts Defined

0:00 – 10:15 Break

0:15 – 11:30 Designing An Effective Forecast

1:30 – 12:30 Implementing A Rolling Forecast

2:30 – Q&A, Close

IBM

Cognos.
software

The Roles of Process and Technology

Process management needs to be a focus

- **Set strict goals**

- **Link process to decision making**

- **Aim for discipline & repeatability**

	Update Models		Distribute Models		Aggregate data		What-if & Optimize

New version		Load Actuals		Collect Data		Report & Analyze	

Cognos software

Management
Meetings

Decision
Making!

Have you seen this template?

	January	February	March	April	May	June	July	August	September	October	November	December	TOTAL	YTD Actuals Variance	YTD Act Var %	Total Variance	Total Var %
	Actuals	Actuals	Actuals	Actuals	Actuals	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast					
Revenue	143.00	150.00	176.00	166.00	200.00	180.00	181.00	190.00	200.00	200.00	210.00	260.00	2256.00	-65.00	-7%	256.00	13%
COS	92.95	97.00	114.00	108.00	131.00	117.00	117.00	125.00	131.00	132.00	140.00	180.00	1484.95	-957.05	-64%	84.95	6%
Margin	50.05	53.00	62.00	58.00	69.00	63.00	64.00	65.00	69.00	68.00	70.00	80.00	771.05	-22.95	-7%	71.05	10%
Margin %	35.00%	35.33%	35.23%	34.94%	34.50%	35.00%	35.36%	34.21%	34.50%	34.00%	33.33%	30.77%	34.35%	0%		-0.65%	
Salaries	19.00	19.00	19.00	19.00	19.00	19.00	19.00	22.00	22.00	22.00	22.00	22.00	243.00	-1.00	-1%	-3.00	-1%
Bonus	1.43	1.50	1.76	1.66	2.00	1.80	1.81	1.90	2.00	2.00	2.10	2.60	22.56	-2.35	-39%	2.56	13%
Benefits	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.22	0.22	0.22	0.22	0.22	2.43	1.35	59%	-0.07	-3%
Insurance	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	1.80	0.00	0%	-0.10	-5%
Rent	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	34.80	0.00	0%	-1.20	-3%
Utilities	3.00	2.00	2.50	1.58	1.00	1.00	1.20	1.40	1.59	2.00	2.50	3.00	22.77	0.92	8%	-1.23	-5%
Office Supplies	0.11	0.20	0.16	0.20	0.07	0.37	0.14	0.42	0.49	0.34	0.38	0.43	3.30	0.07	9%	1.00	43%
Travel - Air	7.15	7.50	8.80	9.00	15.00	9.00	9.05	9.50	10.00	10.00	10.50	13.00	118.50	-17.45	-58%	13.50	13%
Travel - Hotels	1.43	1.50	1.76	1.66	2.00	1.80	1.81	1.90	2.00	2.00	2.10	2.60	22.56	-3.35	-67%	-7.44	-25%
Travel - Car	0.72	0.75	0.88	0.83	1.00	0.90	0.91	0.95	1.00	1.00	1.05	1.30	11.28	-2.68	-178%	6.28	126%
Travel - Train	1.30	1.00	1.50	1.00	1.20	1.00	1.00	3.00	2.00	2.00	2.00	3.00	20.00	-1.50	-33%	9.00	82%
Gifts & Misc	0.50	0.00	0.00	0.50	0.00	0.00	0.00	0.00	5.00	0.00	0.00	0.00	6.00	0.00	0%	-1.00	-14%
Maintenance & Repair	0.35	0.14	0.06	0.43	0.30	0.36	0.31	0.42	0.03	0.41	0.09	0.13	3.04	0.02	1%	0.04	1%
Marketing	2.00	0.00	8.00	9.00	4.00	7.00	8.00	4.00	5.00	2.00	9.00	1.00	59.00	-3.00	-15%	5.00	9%
Net Income	9.83	16.17	14.35	9.90	20.18	17.53	17.53	16.24	14.62	20.98	15.01	27.66	200.01	15.43	28%	0.01	0%

Cognos.
software

How do we spend our time?

Cognos Forecast Survey 2008
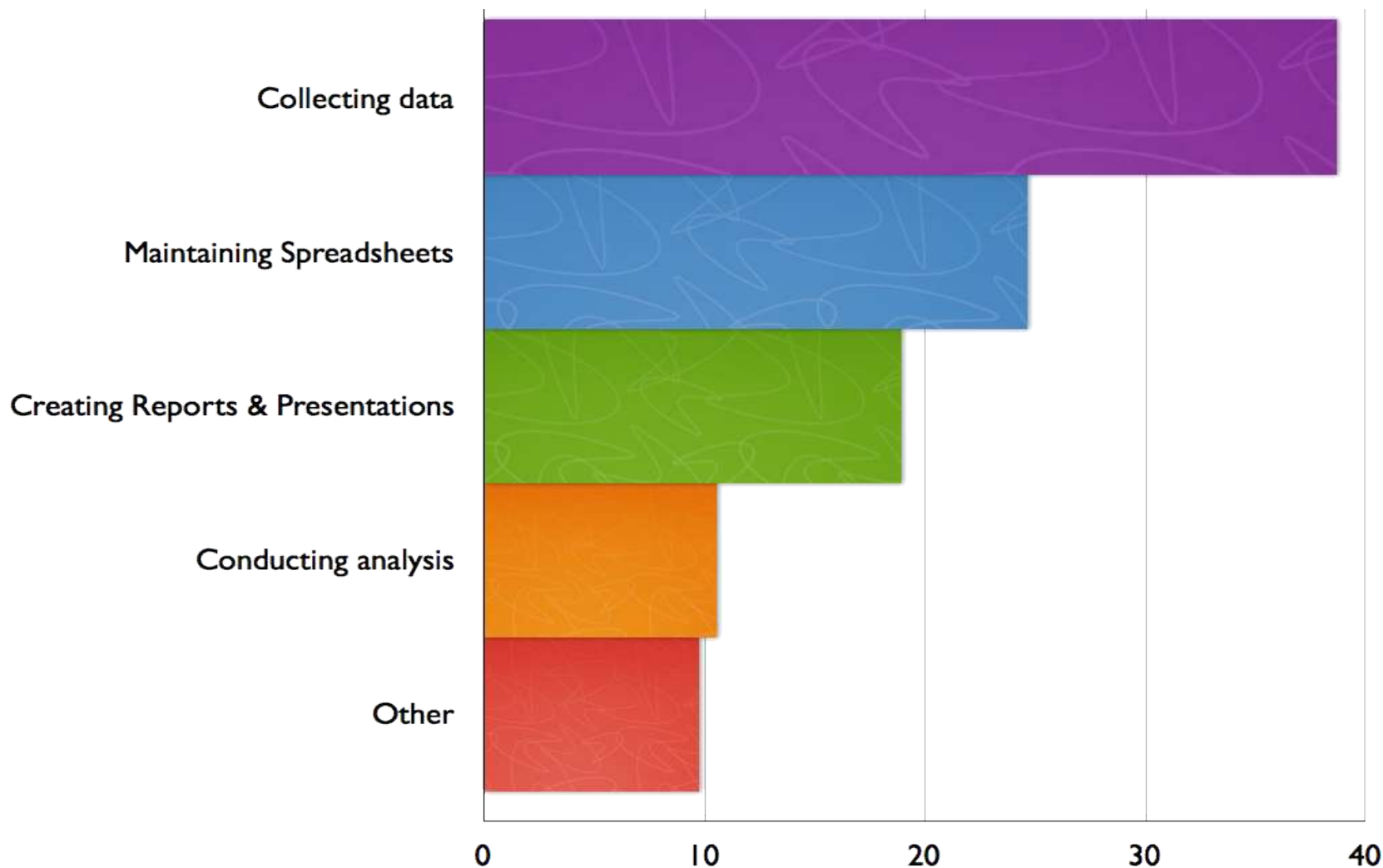
Same data – different perspective
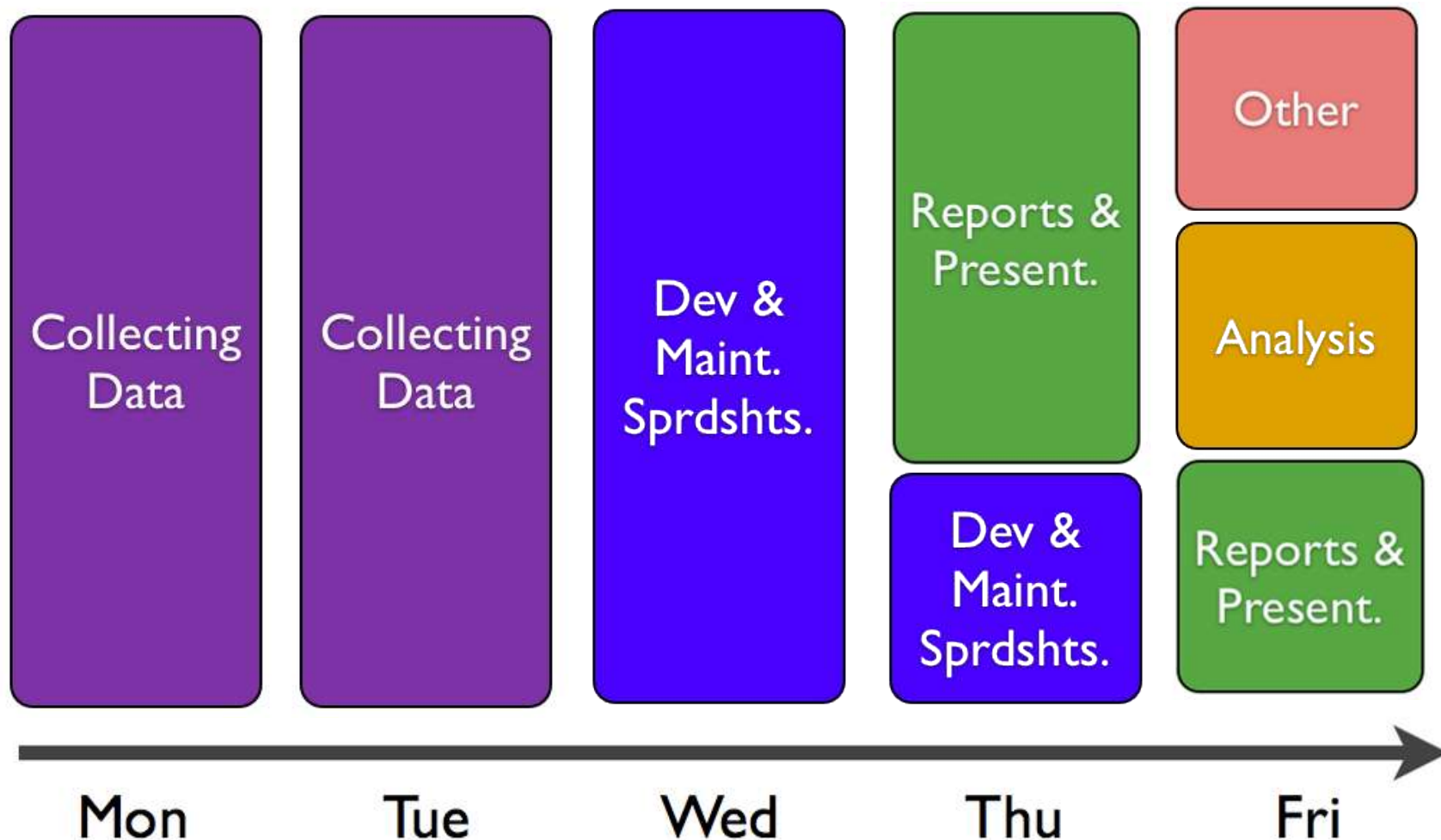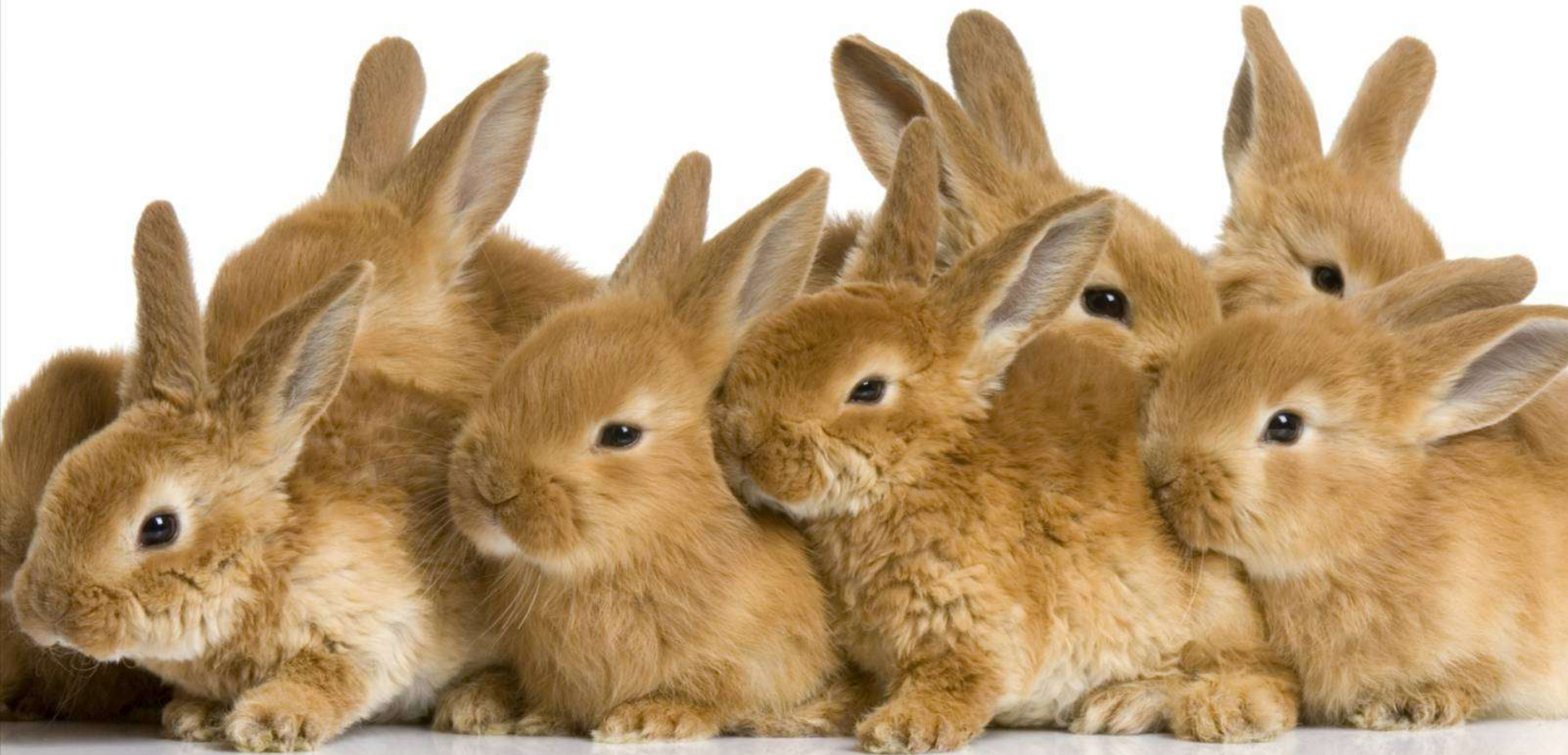
It's not only about the effort – consider the errors!

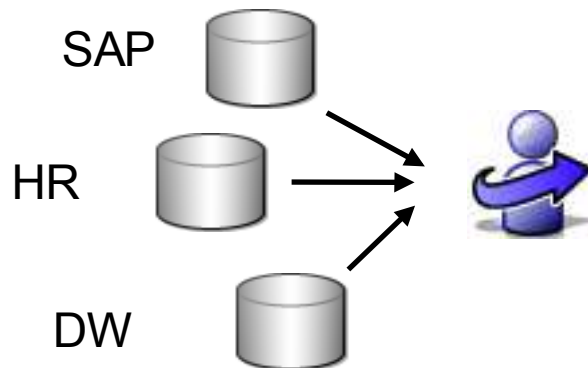"90% of the spreadsheets analyzed contained significant errors."

PriceWaterhouseCoopers

Cognos.
software

More time on Monday & Tuesday

Collecting Data

SAP

HR

DW

Automated Interfaces

Reviews
- Total Demand
  - Regional Accounts
    - Eastern Region
      - New York
      - Orlando
      - Atlanta
    - Central Region
    - Western Region
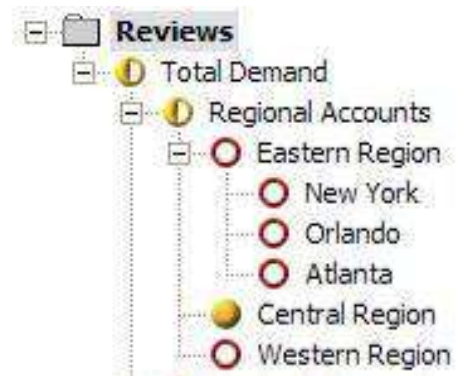
Workflow & High Participation

Wednesday and Thursday can look better as well

Reports & Present.

Dev & Maint. Sprdshts.
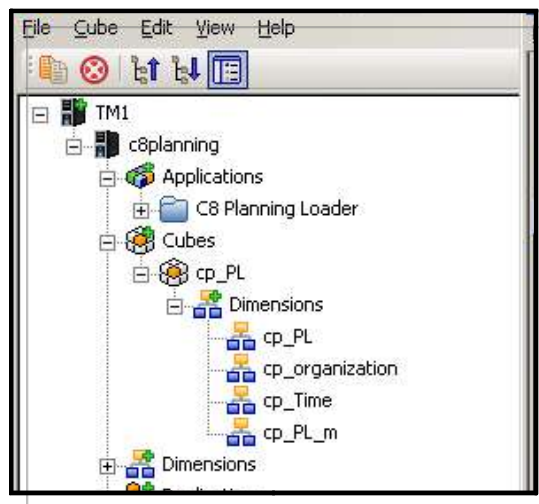
Centralized model maintenance
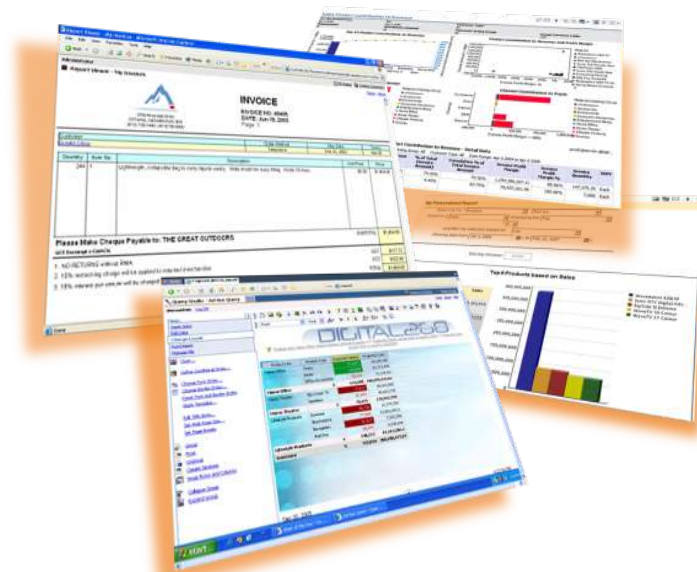
Automated reporting

The best are able to achieve this picture

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
Collecting Data / Performing Analysis	Performing Analysis	Interacting With Decision Makers	Interacting With Decision Makers	Other Activities / Strategic Initiatives / Personal Development

Let's stop talking and look at this in real life.

- Review progress of my team

- Review last quarter's actuals

- Create new sales forecast

- Perform sensitivity analysis

Select Forecast Versions to analyse

? ⟳ ⊞ _ ▢

Dataset 1 Dec-08 Forecast
Dataset 2 Jan-09 Forecast

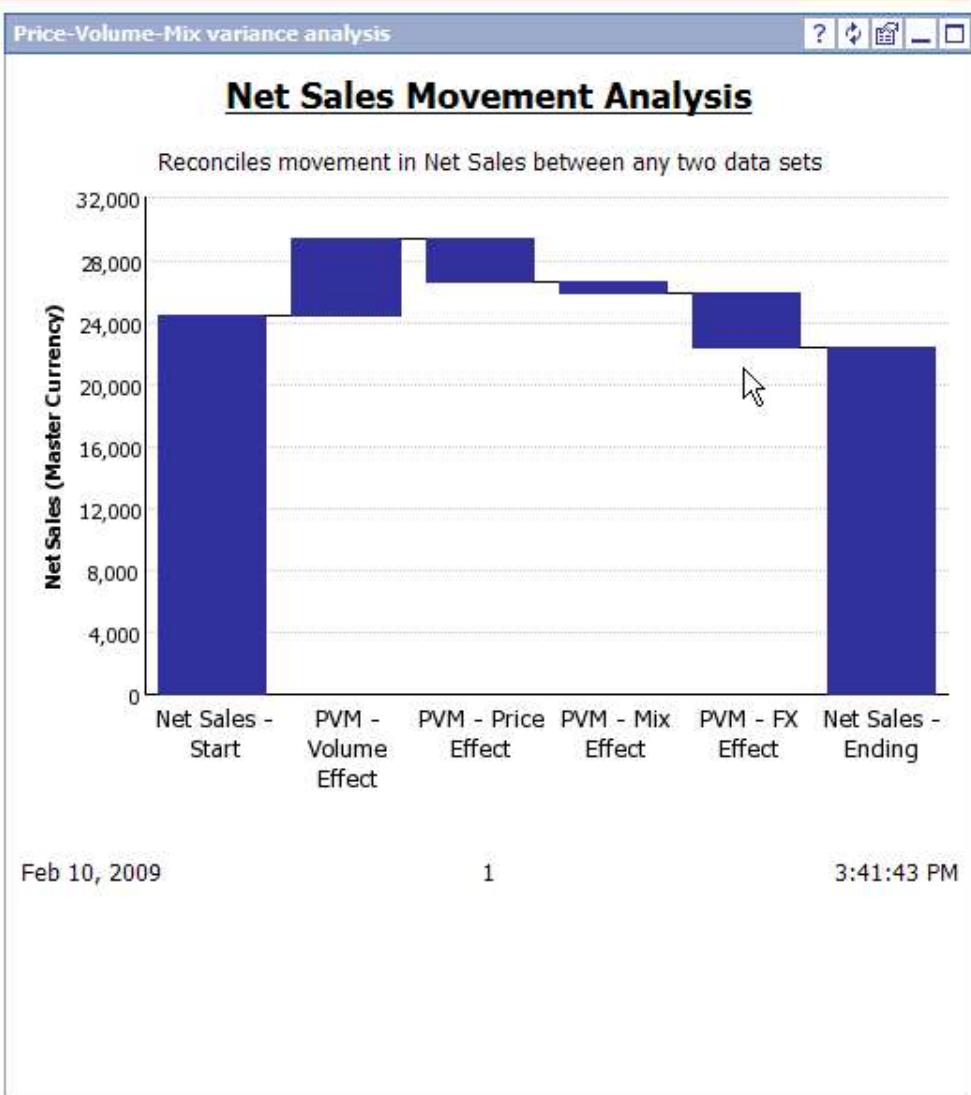**Customers** DE - Distributor ⩔
Months Mar-09 ⩔
Products Prepared Whole Meals ⩔

	Dec-08 Forecast	Jan-09 Forecast	PVM Effects
Sales Quantity	4200	5040	
Price - Local Currency	4.50	4.00	
Price - Master Currency	5.82	4.44	
Currency	EUR	EUR	
FX Rate	0.773	0.900	
PVM - Volume Effect			4890
PVM - Price Effect			-2717
PVM - Mix Effect			-773
PVM - FX Effect			-3450
Net Sales - Local Currency	18900	20160	
Net Sales - Master Currency	24450	22400	

	Exchange Rate
Budget	0.900
Scenario 1	0.600
Scenario 2	0.900
Scenario 3	0.800
Oct-08 Forecast	0.900
Nov-08 Forecast	0.773
Dec-08 Forecast	0.773
Jan-09 Forecast	0.900

Price-Volume-Mix variance analysis

? ⟳ ⊞ _ ▢

Net Sales Movement Analysis

Reconciles movement in Net Sales between any two data sets

Feb 10, 2009   1   3:41:43 PM

Local intranet   🔍 100% ▾

Cognos®
software

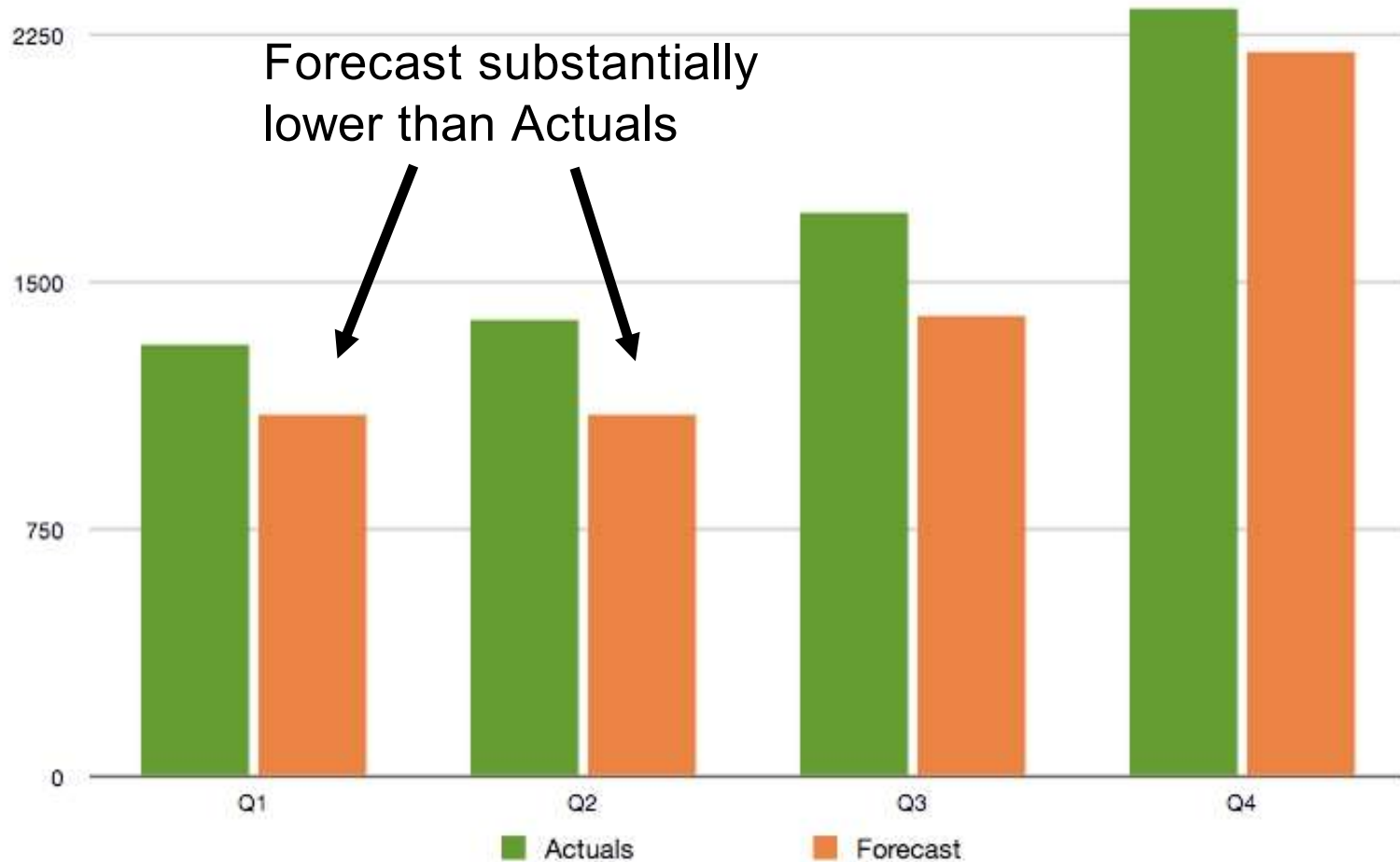# Taking the first steps - A **simple** recipe

Make the leap! Easy?

I know the destination. But which road do I need to take?

Jump start your own implementation

1. Understand where you are

2. Build the business case

3. Establish quick success

Step 1: Use your existing data to identify patterns....

Forecast substantially lower than Actuals

2250

1500

750

0

Q1   Q2   Q3   Q4

Actuals   Forecast

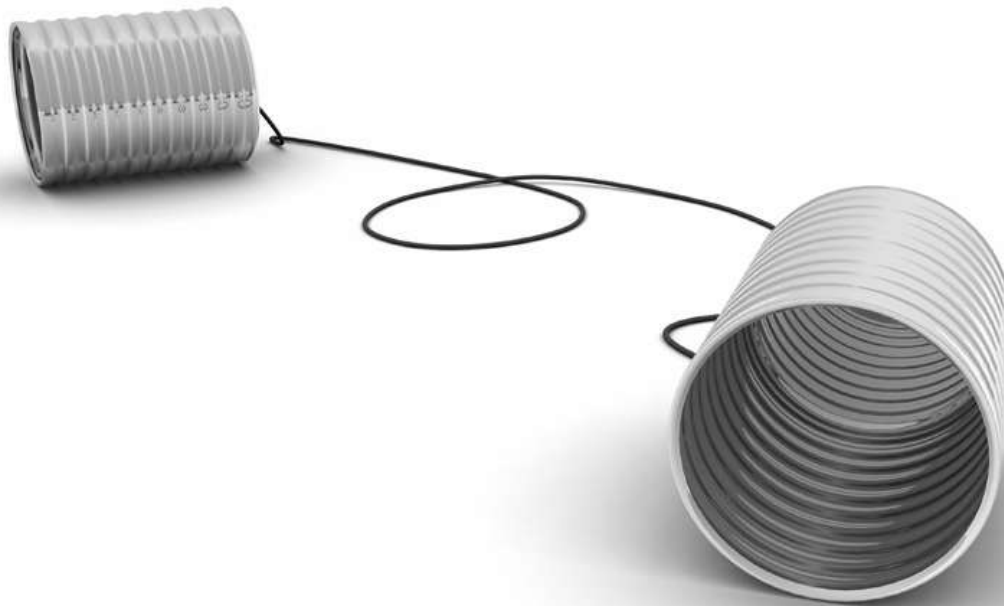# ....and start assessing your current process

Forecast Accuracy

Cycle Time

Confidence Levels

Step 2: Communicate the results to build consensus...

...and use the data to build the business case

- Where are you?

- Where should you be?

- What are the benefits?

Step 3: Get started and pick a well defined area

…and make a leap through Automation with Cognos

TRANSFORMATION
(Optimization)

AUTOMATION

1 ADDRESS Initial Needs

2 DRIVE Best Practices

3 EXTEND Enterprise-Wide

4 ADVANCE Performance Management

Cognos. software

We are here to help you: Cognos Innovation Center

Customer Community

Thought Leadership

David Axson, Sonax Group

Jeremy Hope, BBRT

David Norton, BSCOL
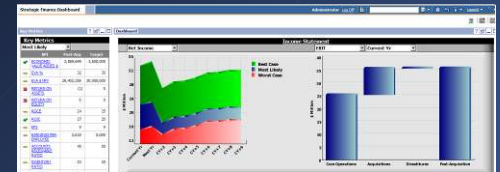
Steve Lukens, IBM GBS

Wilfried Lux FH St. Gallen

Innovation Center Experts

=

Valueable Output

Blueprints
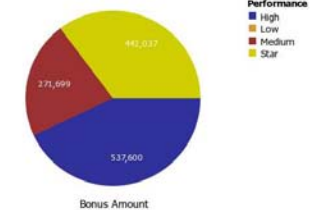
SHIFTING SANDS: FOCUSING FINANCE IN THE 21ST CENTURY

COGNOS PLAN-TO-PERFORM BLUEPRINTS

BEYOND FINANCE

leadership

Best Practices

COGNOS INNOVATION ROUNDTABLE
THURSDAY, MARCH 23, 2006
WESTIN RESORT & SPA
WHISTLER, BRITISH COLUMBIA
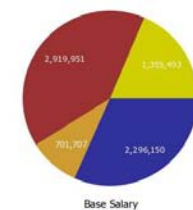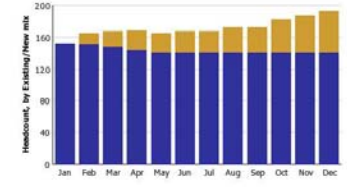
Events

Do you know the Blueprints?

Pre-configured processes and models ...

... providing Best Practices in action.

From customers for customers: Blueprints

Ideas & Requirements

Community

Blueprint Release

Innovation Center Expert Team

Test & validate

Thought Leaders

Indeed: ROI in a box

Documentation

Instructional
Video

Configuration
Files
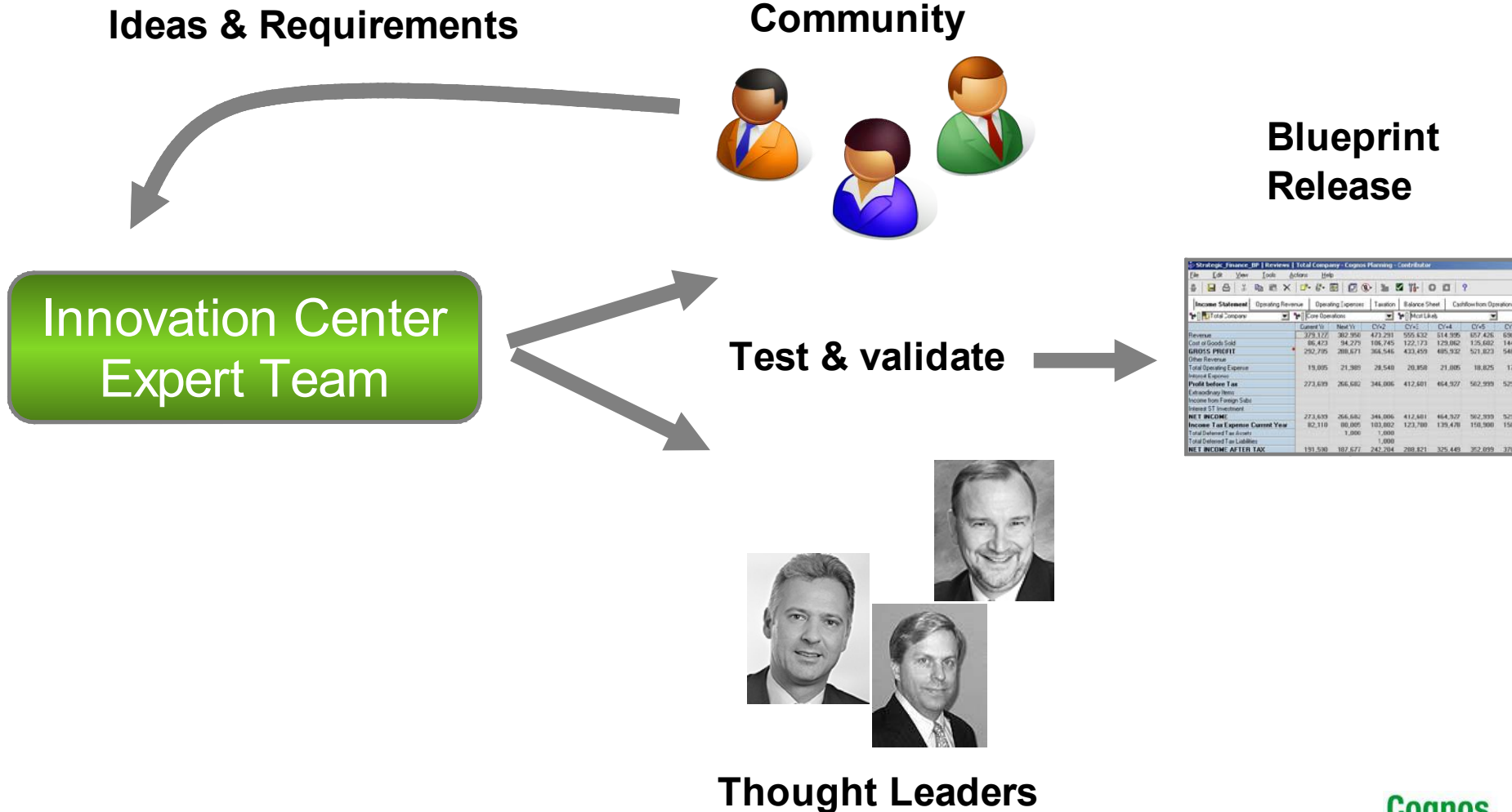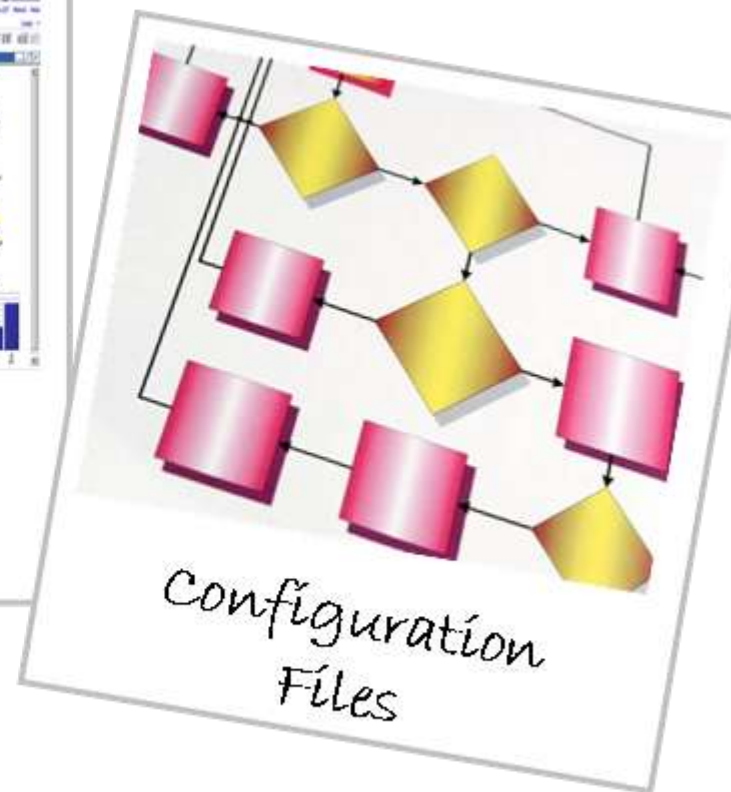
Blueprints provide value to our customers
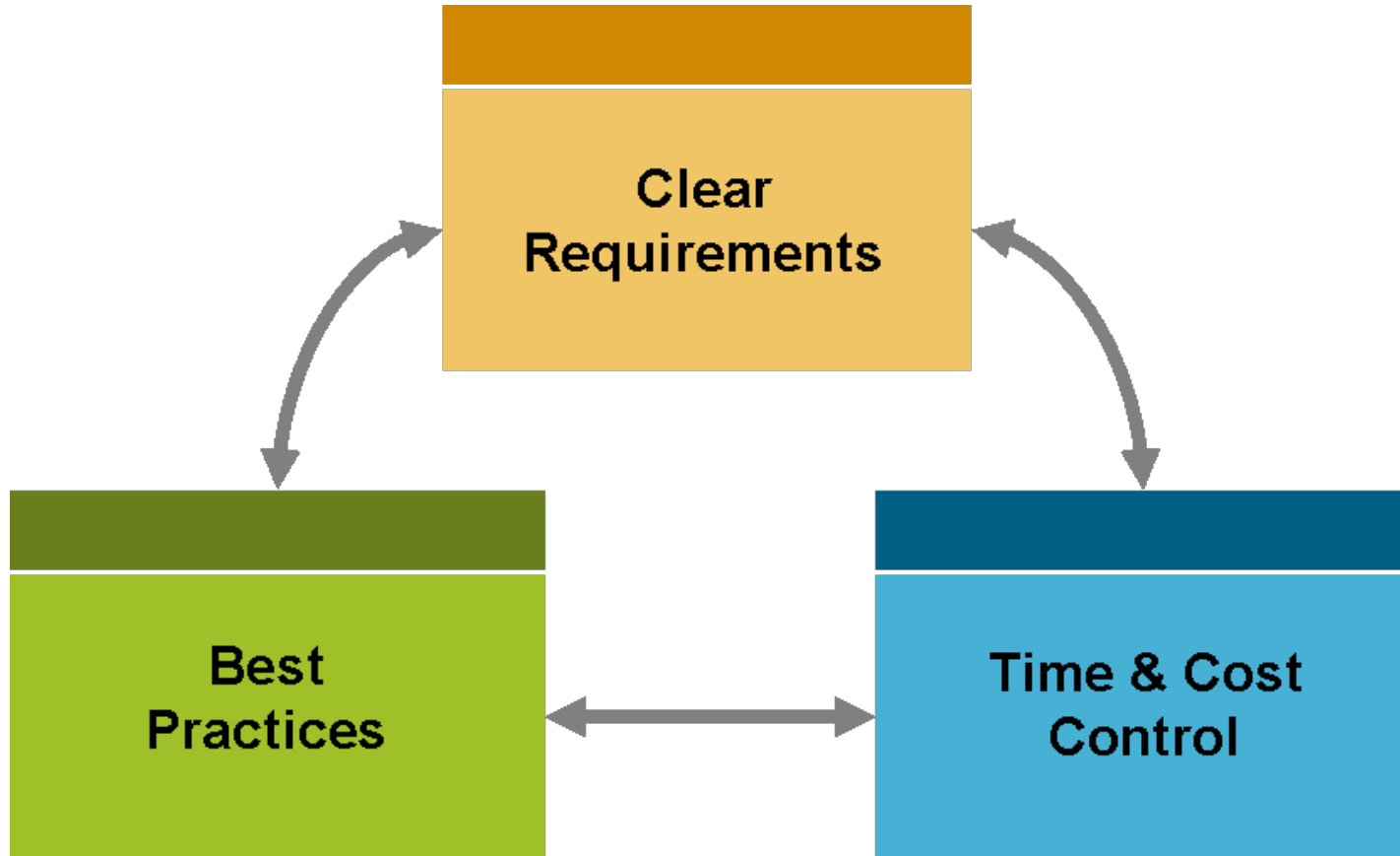
Offering deep industry functionality

Financial Services

- Branch Performance
- Corporate Banking Customer Segment
- Retail Banking Customer Segment
- Risk Adjusted Profitability
- Relationship Pricing - Commercial Banking
- Insurance Product Profitability

Retail

- Financial Workbench and Scorecard
- Store Development
- Store Operations (P&L)
- Strategic Merchandise
- Strategic Promotion & Marketing

Life Sciences

- Clinical Trials
- Clinical Trial Enrollment
- Clinical Trial Resource Planning
- Sample Optimization
- Sales Quota Allocation
- Integrated Brand Management

Manufacturing

- Sales and Operations Planning
- SOP Workbenches:
  - Baseline
  - Distribution
  - Executive Review
- Trade Promotion Management

Public Sector

- Earned Value Management
- Municipal Performance Management
- Program Objective Memorandum
- Enrollment and Tuition Planning for Higher Education
- Salary Planning and Position Control for Higher Education

Other

- Upstream Oil & Gas

Cognos. software

Ubiquitous: The functional Blueprints

Pre-configured solution building blocks that:
- Pool collective best-practice knowledge
- Accelerate time-to-value
- Increase project success rate

FINANCE

Reports
- Income Statements
  Balance Sheet
- Cash flow
- Financial Ratios

Market Demand

Revenue Plan

SALES

Sales Planning & Forecasting

OPERATIONS, MARKETING, ETC.

Cap Ex

Strategic Finance

HUMAN RESOURCES

Capital Expenditure Planning

Operating Expenses

Workforce Planning

Depreciation Expenses

Expense Planning & Control

Headcount & Compensation Expenses

FUNCTIONAL SOLUTIONS

- **Strategic Finance**
- **Integrated Financial Statements**
- **Strategic Long Range Planning**
- **Risk Analysis**
- **Sales Planning & Forecasting**
- **Sales Compensation Planning**
- **Workforce Planning**
- **Expense Planning & Control**
- **Allocations**
- **Capital Project Planning**
- **Discretionary Capital Expenditure**
- **Initiative Planning**

Cognos. software

Boosting your IBM Cognos Controller projects

- *Management and Financial Reporting Blueprint*

- *Group Consolidation and Corporate Reporting Blueprint*

- *Internal Controls Blueprint*

Cognos. software

A **strong** value proposition for you!

www.cognos.com/innovationcenter

Download Blueprint	Upload Configuration	Inspect & Get Inspired
5 minutes	**15 minutes**	**Unlimited**

Cognos.
software

A Few Final Thoughts

Build the business case around four drivers

Efficiency

Process Quality + **Staff Productivity**

= **Value**

Effectiveness

Risk Mitigation + **Decision Quality**

Cognos. software

Process quality

METRICS	ACCEPTABLE	BEST PRACTICE
Plan completion	8 – 12 weeks	< 8 weeks
Forecast completion	< 3 days	< 1 day
Forecast accuracy	+/- 3%	+/- 1%

Staff productivity

METRICS	ACCEPTABLE	BEST PRACTICE
Staff leverage	50%	75%
Manager support	1 : 5	1 : 10
Value added	1 : 1	1 : 1.5

Cognos.
software

Risk mitigation

METRICS	ACCEPTABLE	BEST PRACTICE
Plan achievement	Within 5% of target range	Within target range
Benefit realization	75%	90%

Decision quality

METRICS	ACCEPTABLE	BEST PRACTICE
Revenue growth	At peer average	#1 or #2
Earnings growth	At peer average	#1 or #2
Manager satisfaction	50% "Top 2 Box"	75% "Top 2 Box"

Rolling forecasts – a silver bullet?

Potential benefits

- **Consistent time horizon**

- **Provides a baseline for future plan periods**

- **Captures the longer term impact of external and internal changes**

- **Reduces reliance on a frequently obsolete budget**

Potential challenges

- **Do not have universal applicability**

- **No guarantee of improved accuracy over traditional plans and budgets**

- **Need to match desire for detail with predictive capability**

- **Potential conflict with annual targeting and incentives**

Cognos. software

If you like what you saw today

- Connect with our local IBM Cognos team and get started

- Go to our website and become a member:

www.cognos.com/innovationcenter

cicpm@us.ibm.com

If you want to discuss the topic further

@davidaxson
@ibmcognosicemea

#rfcst