

# **Crawl, Walk, Run Approach: Developing a Mature Business Intelligence Capability**

Emtec Boot Camp Web Event – July 2011

# Agenda

- ⇒ Benefits/ Trends
- ⇒ Industry Analyst Viewpoint
- ⇒ Crawl- How & Where to Start
- ⇒ Walk- Information Delivery
- ⇒ Run- Building New BI Capabilities
- ⇒ Ride- Advanced BI Capabilities
- ⇒ Conclusion
- ⇒ Resources

# Developing a Mature BI Capability

## *Business Benefits*

- ❖ Permits large volumes of data, available from across the organization, to be leveraged to improve business performance by supporting important operational decisions and strategic business initiatives.
- ❖ Information Management allows organizations to make better decisions, faster:
  - Increase Revenues, Reduce Costs, Improve Profitability
  - Tracking Actual Expenditures to Revenues
  - Operational Efficiencies - Reduce Inventory
  - Measure (A&P) Marketing Effectiveness
  - Improve the Customer Experience
  - Integrate & Disseminate Information Across the Organization
  - Help the Organization Respond to Change

# Industry Analyst Viewpoint

Figure 1. Business Drivers (and Trends) for BI Investments



Note: n = 202  
Source: Gartner (September 2009)

Biggest driver behind BI investment is to speed decision making – especially important in recovering markets

37% of those surveyed indicated they would spend > \$1M on BI and infrastructure (down from 44% in 2009)

Budget Forecast for BI and Information Infra. SW Purchase

Budget for BI	2010	2009
\$10M or more	3%	4%
\$5M to less than \$10M	8%	11%
\$1M to less than \$5M	26%	29%
\$500K to less than \$1M	18%	14%
\$250K to less than \$500K	8%	8%
\$100K to less than \$500K	21%	19%

## Gartner conclusions:

- BI is at or near the top of IT spending
- Making better decisions, faster in a Post-recession marketplace
- High complexity is a barrier to widespread deployment
- High cost is a barrier for SMB businesses

Source: Gartner 2010

# Crawl, Walk, Run Approach to Developing a Mature BI Capability



- ❖ Discover / Validate / Assess
  - IT Developed Management Reports
  - Establish the BI Platform Environment
  - Focus on Adding Business Value
- ❖ Information Delivery
  - IT Provides Report Templates / Parameters
  - Building out the Data Infrastructure
  - Expanding the Business User Community
- ❖ Building New BI Capabilities
  - Dashboards / Content / Navigation
  - Mature BI Deployment & Support
  - Exec Users / Power Users / Report Consumers
- ❖ Advanced BI Capabilities
  - Enterprise-wide BI Deployment
  - BI Center of Excellence
  - Master Data Management / Data Governance

# **Crawl: How and Where to Start**

# Crawl: How and Where to Start



- ❖ Discover / Validate / Assess
  - IT Developed Management Reports
  - Establish the BI Platform Environment
  - Focus on Adding Business Value

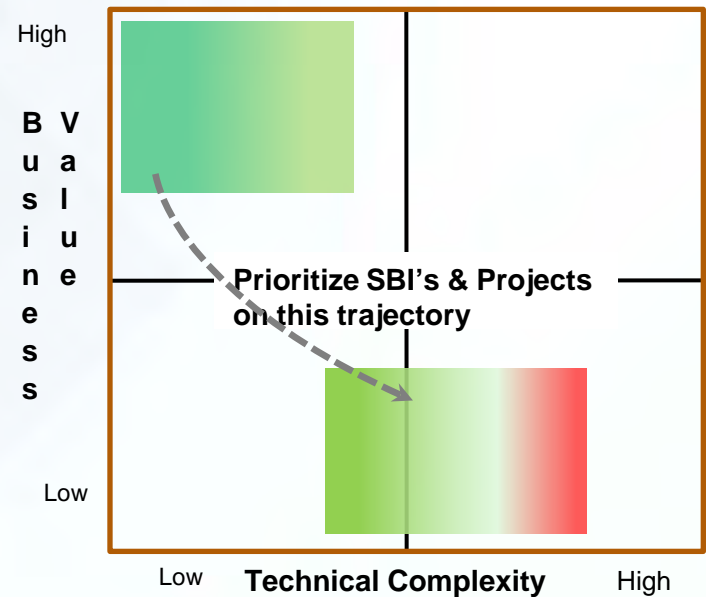
- ❖ *Typical Maturity Horizon is 3 to 6 Months*
- ❖ *Goals –*
  - Alignment with Strategic Business Initiatives
  - Establish the BI Platform and Data Infrastructure
  - Initiate & Complete First Projects



# Discover, Validate, Assess

## *Align Strategic Business Initiatives with BI Strategy*

- ❖ Drive out the Business Intelligence Strategy & Priorities
  - Interviews with Exec Leadership
  - Voice of the Customer
  - Other Sources of Corporate Information
- ❖ Evaluate Business Initiatives & Technical Complexity to Implement
- ❖ Strategic Business Initiatives are based on Iterative Deliverables
- ❖ Quantifiable Outcomes rather than Qualifiable





# Initial Emphasis on Reports

## *Ensure Report Accuracy & Time to Deliver*

- ❖ Phase 1 – Management Reports
  - Operational reports that resolve problem areas
  - Reconciliation - One version of the truth
  - Adopt a release level approach to incremental delivery
- ❖ Phase 2 – Parameterized Reports
  - Satisfies one of the reasons for acquiring the BI tool
  - Takes some pressure off IT to deliver reports
  - Exposes business users to “self-help” reporting
- ❖ Ensure Report Accuracy & User Adoption
  - Emphasize a strong repository design
  - Focus on report quality & completeness
  - Changing business user behavior is never easy



# Emtec Experience

- ❖ Too much Complexity
  - Report complexity
    - ...but the data infrastructure is not ready
- ❖ Avoid the temptation to “Boil the Ocean”
  - Don’t promise too much; take too long to deliver
    - ...scope creep from 8 reports to 60 reports
- ❖ Forgetting the Importance of User Adoption
  - Design & navigation are as important as content
  - Business user training & on-going support
- ❖ Technical spec’s over Business Functionality
  - Deliver business value (not cool Techie-stuff)
  - Incremental delivery



# Recommended Approach

## *Set realistic Goals & Timeline*

- ❖ *People: IT Collaboration with Business Users*
  - IT & Business Analyst collaboration
  - Changing Behaviors & User Adoption Training
- ❖ *Processes: Evolutionary change, Build on Success*
  - Formal process to Discover / Validate / Assess current state
  - Re-develop & add value to existing Reports
  - Transition from current to new BI Platform
- ❖ *Technologies: Architect BI Services for the Future*
  - Initial BI Platform deployment
  - Initial BI Repository design
  - Data Infrastructure is incomplete
  - Admin, Design & Developer Training

# **Walk: Information Delivery**

# Walk: Information Delivery



⇒ Discover / Validate / Assess



⇒ Information Delivery

- IT provides Report Templates / Parameters
- Building out the Data Infrastructure
- Expanding the Business User Community

⇒ *Typical Maturity Horizon is 3 to 6 Months*

⇒ *Goals –*

- Continue to align with Strategic Business Initiatives
- Enabling Business User access to information, not to raw data



# Focus on Information Delivery

- ❖ BI Platform becomes the Framework for all Reporting
  - Information access is through the Repository
  - Define standard business rules in the Repository
- ❖ Build on the Operational / Management Reporting foundation
  - “Local” analysis using XLS, data extracts through BI Platform
  - Power user Query & Analysis style reports
  - Report Menus- Drill-down & Drill-across reports
- ❖ Working towards a Data Infrastructure that is 100% trusted, not necessarily complete
  - Ensure DW data is accurate & timely
  - Structured on Dimensions that support BI Reporting & Analysis
  - Commence Data Quality initiatives



# Impacts on People, Processes & Technology

## *People*

- ⇒ Training Business Analysts as BI leaders
- ⇒ Changing Business User behavior
  - Every organization has early adopters & those who resist change
- ⇒ Adding value to the Business User experience

## *Processes*

- ⇒ Beginning of “self-help” Reporting & Analysis
- ⇒ Business Analysts provide Level 1 support

## *Technology*

- ⇒ Technical Training for BI Admin, Repository Design & Report Development
- ⇒ Commence Data Quality initiatives



# Emtec Experience

- ❖ Too much Complexity
  - Lack of familiarity with Access, Selection menus, Drop-down lists
    - ...follow a Windows design metaphor
    - ...perceived poor performance is a barrier to adoption
- ❖ Access to BI is “clean” & non-technical
  - Technical complexity is a barrier to adoption
- ❖ User Adoption remains an important consideration
  - Ongoing Business user training, align to new capabilities
- ❖ Dashboards need time & experience to mature
  - Phase 1 – IT understanding of what Business users want
  - Phase 2 – Build out structure with drill-down to detail
  - Phase 3 – Maturity - Models the business decision tree
    - ...Dashboards that business users really want



# Recommended Approach

## *Build Data Infrastructure and New BI Capabilities*

- ❖ *People* - Collaboration with Business Leaders
  - Business Analysts play a key role
  - User Communications, Adoption & Deployment support
- ❖ *Processes* – Building new Capabilities
  - Continue to Prioritize around SBI's
  - New Information in New formats
  - Accuracy, Timeliness & Completeness
- ❖ *Technologies* – Early stage of an Enterprise Information Architecture
  - BI Platform is the “Trusted” reporting platform
  - Data Infrastructure is 100% trusted

# Run: Building New BI Capabilities

# Run: Building New BI Capabilities



- ❖ Discover / Validate / Assess
- ❖ Information Delivery
- ❖ Building New BI Capabilities
  - Dashboards / Content / Navigation
  - Mature BI Deployment & Support
  - Exec users / Power users / Report consumers

- ❖ *Typical Maturity Horizon is 9 Months to 2 Years*
- ❖ *Goals –*
  - Reach new Business user communities
  - Deliver new information in new formats
  - Data Infrastructure matures to support new capabilities



# Focus on Building New Capabilities

- ⇒ Add new capabilities to the BI Platform
  - New tools are installed on the BI Platform
  - New capabilities will require additional data
  - Data Warehouse to Data Mart ETL processes
- ⇒ Deliver new content in new formats
  - Dashboard – Design & navigation are as important as content
  - Drill-down to operational information
  - Advanced analytics & forecasting
  - Budgeting & planning
- ⇒ Data Infrastructure that is 100% trusted
  - Production ETL, Data Quality processes
  - Mature Data Architecture & Data Analysis experience
  - Scales to meet peak processing periods



# Impacts on People, Processes & Technology

## *People*

- ⇒ Power users are self-sufficient – Generate reports & analysis
- ⇒ Widespread deployment implies “Low or No” training
- ⇒ Adding value to the Business User experience

## *Processes*

- ⇒ BI Project Management
  - Emphasis on UAT & validation of content
  - Non-disruptive Deployment planning is important

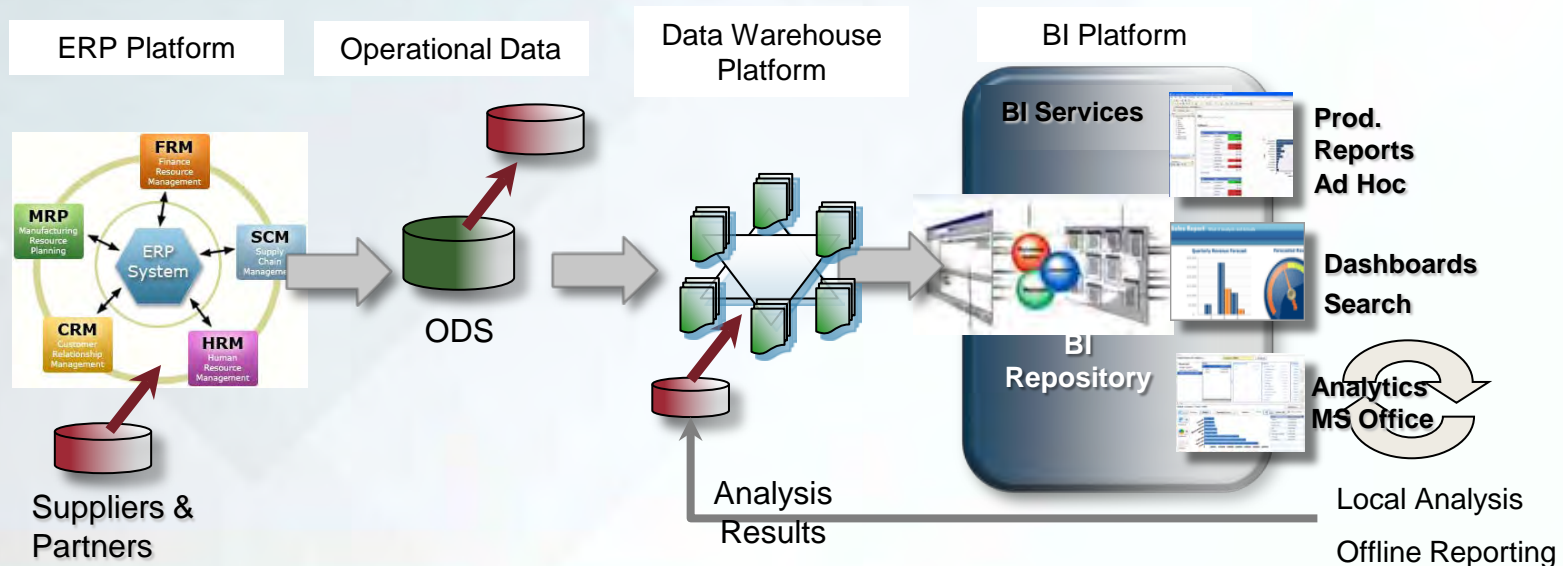
## *Technology*

- ⇒ ETL processes to Import partner or Industry data
- ⇒ Build interfaces to other systems / applications



# High Level Conceptual Architecture

- ⇒ BI Platform is built on a set of BI Services (SOA)
  - BI Platform & Repository are common to all Reporting Tools
  - Utilize XLS for Analytics within the BI Platform
- ⇒ Might “spin-off” Data Marts to support Dashboards & Analytics
- ⇒ Adopt formal ETL, Data Quality & Data Modeling processes





# Emtec Experience

## *In a Mature BI Environment*

### ❖ Why Business Benefits

- Responsive- To changing business needs
  - Prioritize around changing business needs
- Enable- Meets a wide range of business needs
- Trust - One version of the truth
- Flexibility- The right BI tool to meet the right set of requirements

### ❖ How IT Benefits

- IT as a BI Services Provider, builds templates, Technical assistance
- Administration & Deployment support
- Secure, Scalable, Supportable & Robust
- Support a Local, Regional or Global deployment
  - All Information delivered from a common BI Platform



# Emtec Recommendations

- ⇒ *People-* Achieving an Enterprise-wide Deployment
  - Ongoing Business user training- staff turn-over, and “worst practices” sneak in over time
  - Need Exec sponsorship to achieve a strategic deployment
- ⇒ *Processes-* Evolve & Maturity of the Organization
  - Formal Project Management where Data & BI work streams
  - Adopt Best Practices for Repository design & Report Navigation
- ⇒ *Technologies-* New BI tools to deliver new capabilities
  - New tools installed on common BI Services,
  - BI Services scale to meet peak processing loads
  - Production ETL processes to refresh Data Warehouse & Data Marts
  - Hire or train staff for new tools

# **Ride: Advanced BI Capabilities**

# Ride: Advanced BI Capabilities



- ❖ Discover / Validate / Assess
- ❖ Information Delivery
- ❖ Building New BI Capabilities
- ❖ Advanced BI Capabilities
  - Enterprise-wide BI Deployment
  - BI Center of Excellence
  - Master Data Management / Data Governance

→ *Typical Maturity Horizon is 2+ Years*

→ *Goals –*

- Organizational Maturity
- IT as Internal Consultants & Information Services Provider



# New Trends Impacting Business Intelligence

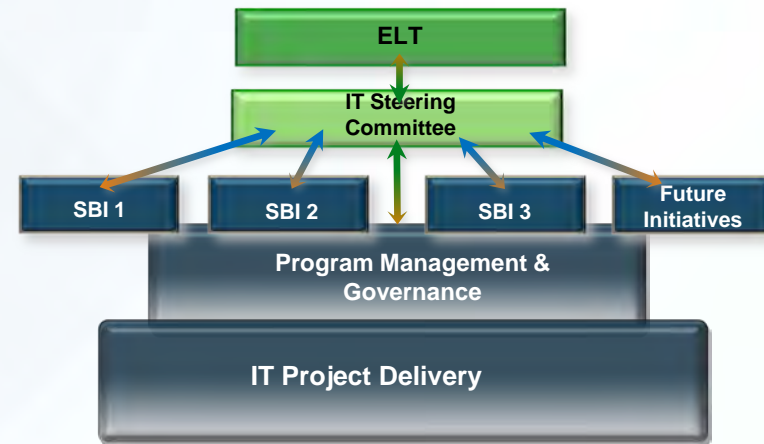
- ⇒ Mobility: BI on iPad & other Tablet Devices
- ⇒ Cloud Computing: On-Demand BI
- ⇒ More Powerful Analytics to Empower Business Users
- ⇒ (Advanced) Statistical Functions for Power Users
- ⇒ BI Applied to Social Networking

***“Buy for Parity: Build for Advantage”***

# Advanced BI Capabilities: People & Process



- ❖ Evolve the People & Processes
  - Begin to formalize roles, responsibilities & interactions
  - Evolve the structure over time
- ❖ Program Management & Governance
  - Develop standards and publish best practices
  - Authority to enforce compliance
  - Not overhead...  
...but necessary for the maturity to an Enterprise-wide BI Platform



# Advanced BI Capabilities: Technologies



## ❖ Technologies

- Mature Repository Design- Common business rules, user-enabled reporting, secure access to information
  - Probably multiple Repositories
  - Multiple channels for Information Delivery
- Enterprise-wide BI Platform & Data Infrastructure deployment
  - ERP or Application Integration
  - Portal & Single Sign-on Integration
- IT leadership for new Enterprise BI Capabilities
  - Data Mining / Data Discovery
  - External data interfaces
  - Master Data / Reference Data

# Advanced BI Capabilities: Impacts



- ⇒ SMB business might implement selectively
- ⇒ Large Organization Impact:
  - Exec Leadership support is required to achieve an Enterprise-wide deployment
    - PMO & Governance = Enablement, not Overhead,
    - Best Practices = Scale, Supportable, Secure & Robust
  - Necessary to achieve a deployment that spans divisions, geographies, etc.
  - Internal consultants to define Data Governance policies & Best Practices

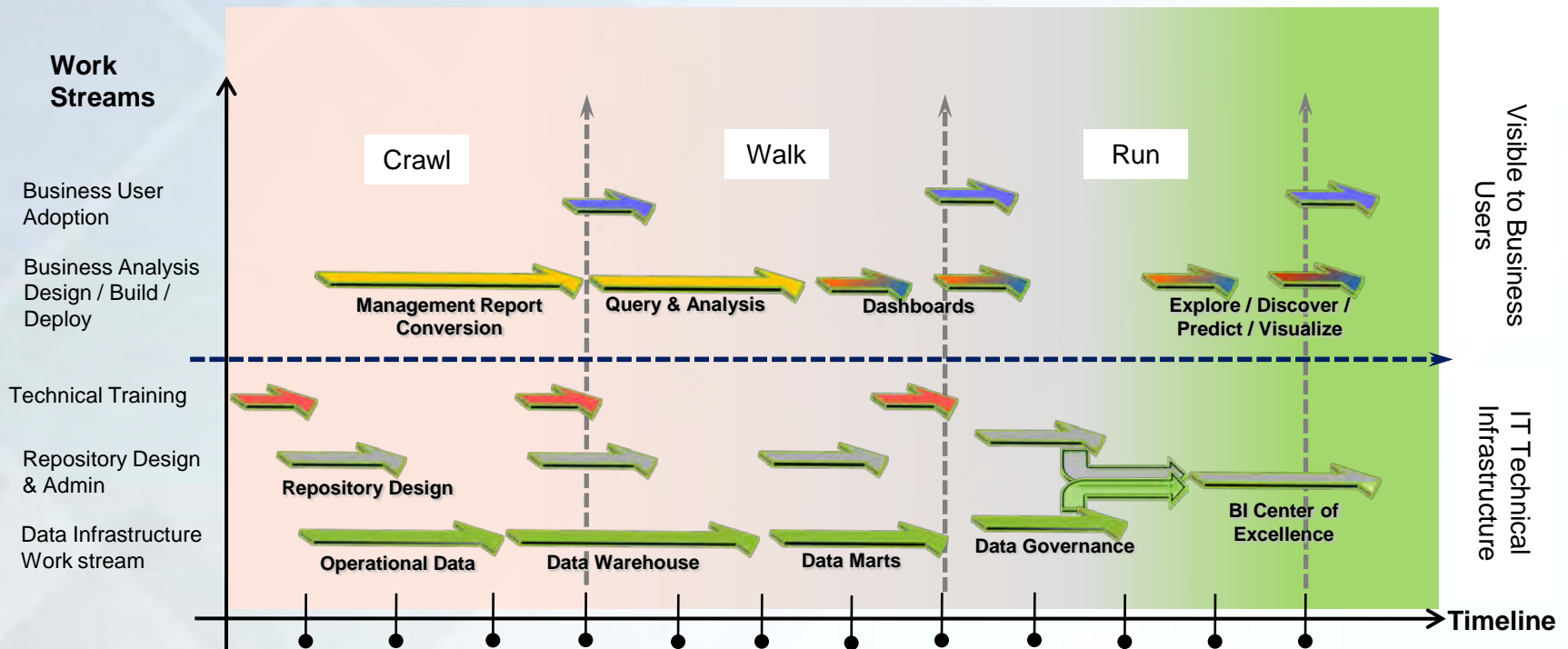


# Emtec Experience

- ❖ As the BI deployment scales:
  - Competing BI tools lead to fragmentation, too many exceptions
  - Standards are seen as an internal barrier
  - PMO & Governance aren't empowered to enforce standards
  - Disconnected Data Architecture & BI Architecture
    - ...Change Management because a change could impact 1,000's of Business users
  
- ❖ BI budget & tool acquisition is often driven by Business units:
  - Challenge to standardize on a BI Platform
  - Mergers, Acquisitions, Divestitures leads to a very dynamic BI environment
    - ...ERP applications are merged, BI Platforms seldom are

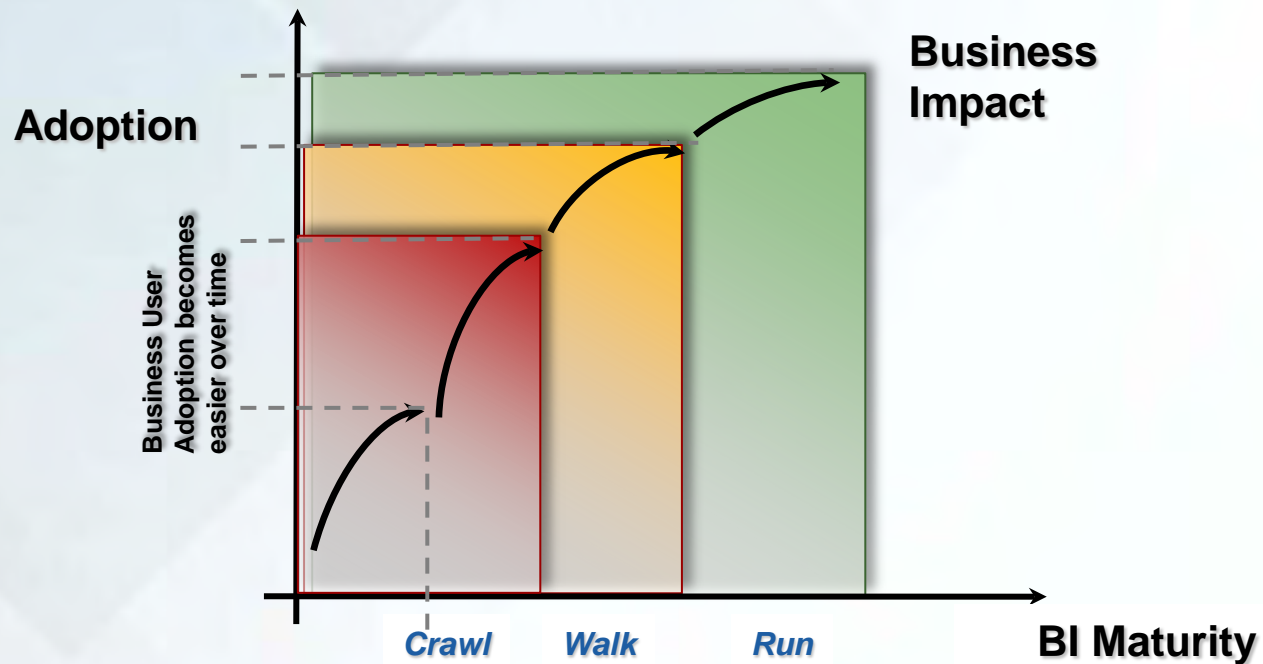
# Conclusions

# Profile of a BI Strategy



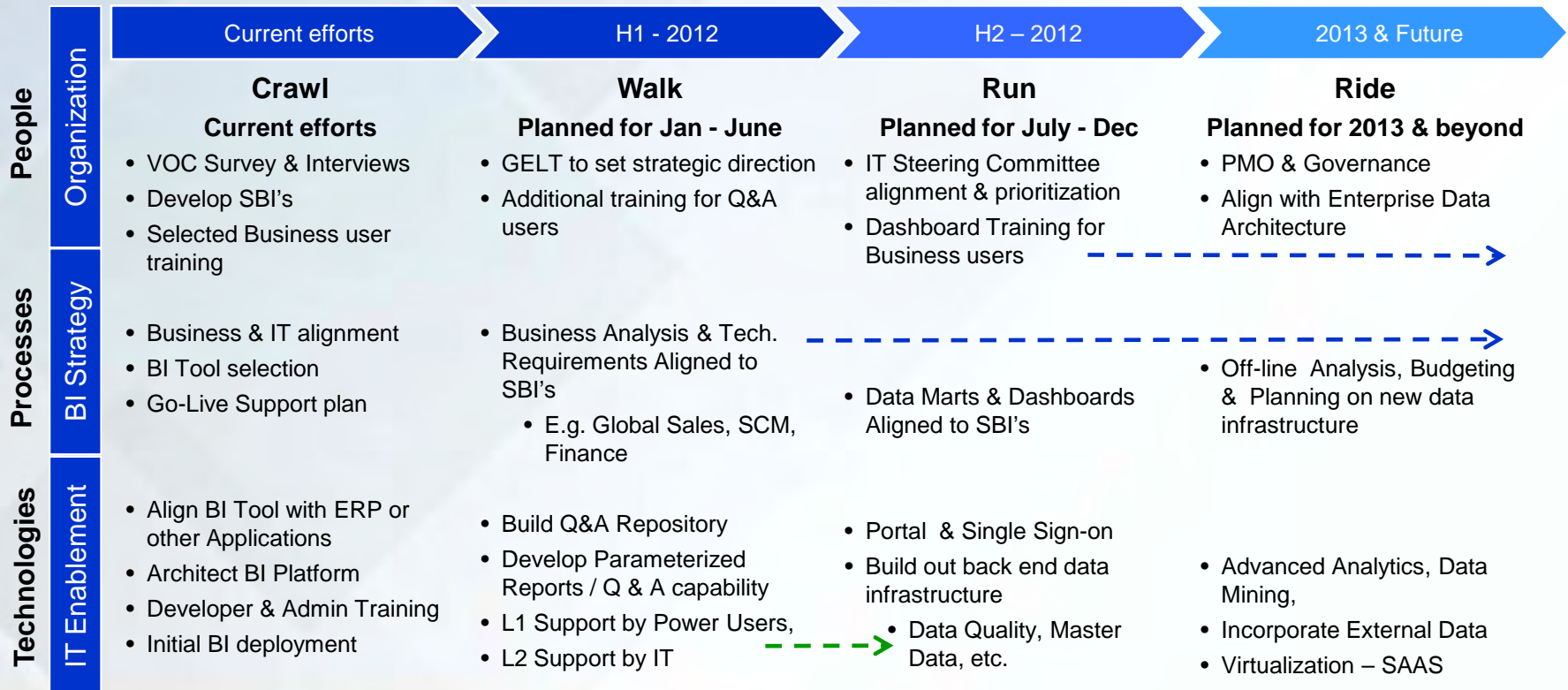
# Emtec Deployment Experience

- Business user Adoption & Impact of Change becomes easier as BI Maturity develops



# Emtec Planning Experience

*Structure & Coordination* - Matrix developed around People, Processes & Technologies



# Developing a Mature BI Capability



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# Available Resources

## ⇒ Industry Links

- [TDWI](#) (The Data Warehousing Institute)
- Regional User Groups & Conferences (Vendor Focused)

## ⇒ Emtec

- [Emtec Website](#)
- [Information Management Brochure](#)
- [Emtec Event Archive](#)
  - Crawl, Walk, Run Approach to Service Catalog- May 2011
  - Crawl, Walk, Run Approach to ITIL- Apr 2011
  - CMDB: Design for Success- Nov 2010
  - VBM: Measuring the Business Value of IT-Sept 2010

# Crawl, Walk, Run Approach – Developing a Mature BI Capability

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This Webinar is the first in our “*Crawl, Walk, Run*” IM series.  
Next event to be announced shortly!