



# WhamTech M&A Tool

## Based on WhamTech SmartData Fabric®

***Drive maximum value - realization, reduced unknowns and discovered upside  
Accelerate discovery to insights to outcomes™***

September 2018

## Seven main goals for M&A



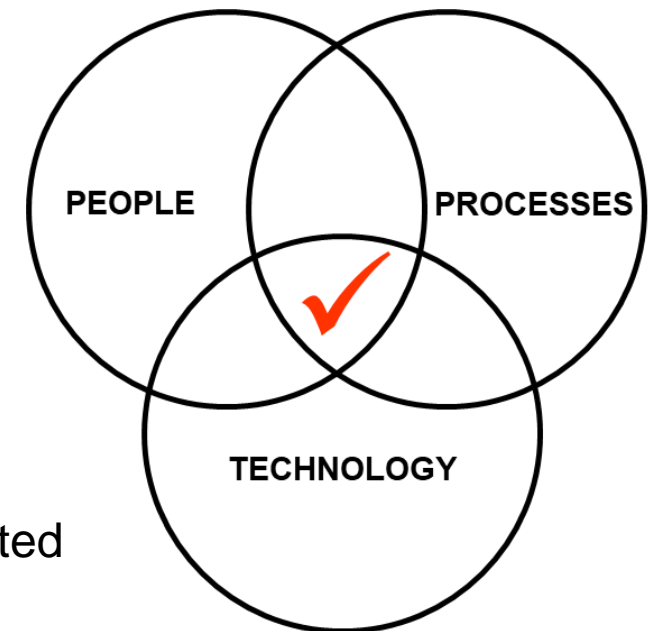
# Seven main goals for M&A

The main goals can vary across industries, but can be generalized as follows:

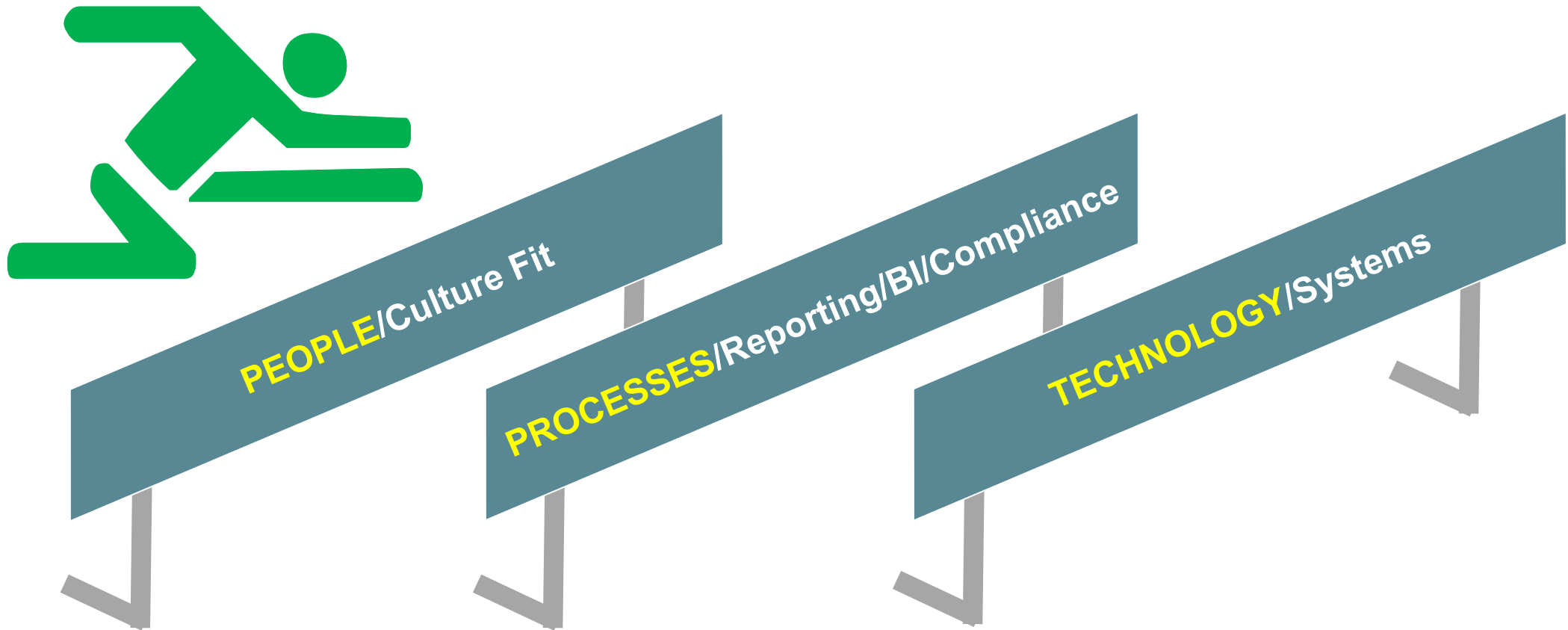
1. **Enter, expand or exit markets** – enter new markets, leverage distribution channels, expand the number of customers or patients, offer more services, displace/acquire competitors or components of competitors, exit losing markets or move up the value chain
2. **Gain new customers** – leverage additional distribution channels
3. **Gain key employees** – technologists, management and/or sales, defined skillsets or technicians
4. **Optimize costs** – economies of scale, leverage procurement channels, reduce combined administration, consolidate suppliers, negotiate better terms and contracts, reduce waste, improve and automate processes, or apply best practices, e.g., optimize processes or reduce fraud/theft
5. **Gain new capabilities** – equipment and types of equipment, technologies, processes, facilities, suppliers or distribution channels
6. **Address capacity issues** – accommodate additional customers, patients and clients, in existing or additional facilities, consolidate resources, divest underperforming assets or increase utilization of expensive equipment
7. **Lower risk exposure** – improve cybersecurity, manage information assets more effectively, identify and reduce liabilities or reduce locations risks

# Summary

- M&A is a massive market of \$4.7 Trillion worldwide<sup>1</sup>, with \$175 Billion (a 146% increase over the previous year) in US Healthcare alone<sup>2</sup>, in 2017
- 70% to 90% of M&A efforts either fail completely or fail to meet expectations<sup>3</sup>
- The main hurdles that cause failure and need to be overcome for success, i.e., failure to integrate and leverage:
  - People
  - Processes
  - Technology
- WhamTech and technology partners offer industry-specific M&A tools that, while a technology breakthrough to accelerate IT integration, is also able to accelerate the integration of people and processes to:
  - Realize the expected value of the M&A
  - Reduce unknowns
  - Discover upside
- Generally, false assumption that each company being merged has fully integrated its own people, processes and technology
  - The M&A Tool also provides an opportunity to address each company's own integration challenges



# Three main hurdles to overcome for successful M&A



## Hurdles to overcome: PEOPLE/Culture Fit

- Poor management communication
- Loss of good management/employees<sup>4</sup>
- Resistance to/unwillingness to accept rapid changes in processes and technology
- Culture fit

**OUTCOME => A decline in morale and productivity = A loss in M&A value**

## Hurdles to overcome: PROCESSES/Reporting/BI/Compliance

- Driving need to combine processes for operations, reporting, BI and regulatory compliance
- Regulatory compliance a major issue to avoid expensive infractions of general regulations, e.g., Sarbanes-Oxley and GDPR, and industry-specific regulations, e.g., HIPAA in healthcare and Dodd-Frank in banking
- New processes take time to learn, in the meantime, errors, loss in productivity and loss of new opportunities

**OUTCOME => A decline in operational efficiency, an increase in manual processing and delays in implementing changes = A loss in M&A value**

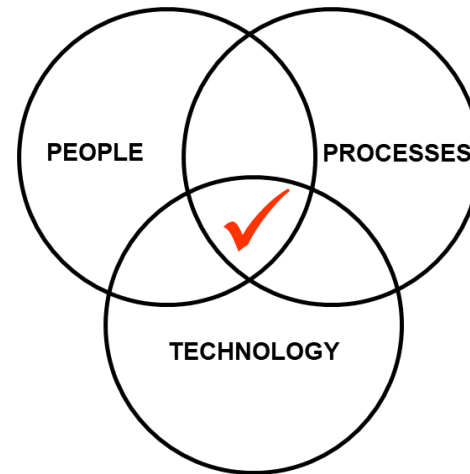
## Hurdles to overcome: TECHNOLOGY/Systems

- For M&A to succeed and lower the other integration hurdles of people and processes, integration of technology/systems is essential – the success or failure of M&A in the short, medium and long-term depends on it
- Initially, reports, BI and analytics need to be run across the merged companies
  - First, to assess the prevailing status
  - Second, to plan future integration of management/employees, processes and technology
  - Third, to support implementing integration of people, processes and technology
- Many mergers force one company to adopt systems used by the other, or they both adopt one system new to each, requiring painful transition-migration for either approach
- Basic requirement to obtain single customer/patient/supplier/material and other views of data that exist in diverse multiple systems

**OUTCOME => Unrealistic budgets and durations, confusion, indefinite delays and prevents the integration of the other hurdles of people and processes from being lowered = A loss in M&A value**



The GOOD NEWS is that while the WhamTech M&A Tool is based on TECHNOLOGY integration, it also lowers the hurdles for PEOPLE and PROCESSES integration



# Value proposition of the M&A Tool key areas

- **Discovery**

- Devices/servers
- Data sources
- Data
- Metadata

- **Technology integration**

- Rapidly provision on Cloud, on-premise or both/Hybrid Cloud
- Leave data where it resides
- Address upfront data management, data governance and master data management
- Leverage existing Active Directory(ies) and Role-based access control (RBAC)
- Data security from source to consumption
- Data source monitoring and event processing
- Support interoperability with write-back to data sources

- **People integration**

- Identify key management/employees early
- Initially, allow people to work as they are used to

- **Processes integration**

- Buy time to analyze existing processes
- Enable new workflows at both data-level and process-level
- Run operations-oriented reports, BI and analytics

- **Financial alignment**

- Standardized reporting
- BI, including near-real-time dashboards
- Compliance, including GDPR

- **Audit**

- Data traceability
- User activity
- App usage

- **Intangible value**

- Enterprise ontology/information model
- Single views of customer/patient/supplier and other master data-based views
- Data visualization
- Defer major system investment decisions

# Summary of the M&A Tool components (1 of 2)

- Data Sources – Any type and anywhere, incl. mainframes, RDBMSs, files, Web, email and unstructured, on-premise, data center, third-party or in the Cloud – any Cloud
- Data Indexing – Basis for all subsequent processes that provides the ultimate metadata
- Data Discovery – Essential for data security and compliance, as well as building data inventory
- Data Security – Not an option, indexing key to securing, data masking, tokenization and encryption
- Data Quality – As data read from sources, it is cleansed, transformed and standardized – same optionally applies to results data
- Data Governance – Built and maintained from bottom-up/edge-in, all info obtained from SDF processes
- Data Access Control – Active Directory(ies) integration, Identity Authentication Management (IAM), Role-based Access Control (RBAC) and Row-level Security (RLS)
- Data Access – Mainly through federated adapters with indexes – full control over data management, master data management and query performance

## Summary of the M&A Tool components (2 of 2)

- Data Relationships – Within and across data sources, incl. PK-FK info and entity-to-entity matching
- Master Data Management – Essential key to almost every other process, incl. reporting, BI, analytics, CRM, BPM, etc., and single views of customers/patients/suppliers and other master data-based views
- Data Delivery – Extremely fast data routing using, readers, transformers and writers, and machine-learning
- Virtual Graph Database – aka virtual triple store using simple SQL (no complex SPARQL) to generate entity-based graphs – enables rapid analysis of complex data
- Virtual Link Analysis – using simple SQL to perform complex link analysis that supports fraud detection and similar operations, e.g., social media analytics, social network analysis, etc.
- Data Visualization – highly interactive OEM graph/link visualization that generates SQL interrogation of backend SDF-integrated data sources

# M&A Tool main features/differentiators (1 of 2)

A tool based on using SDF for Cloud Data Lake, on-premise or both/Hybrid Cloud, and can be used in the short, medium and long-term post-merger to rapidly:

- Enable access to, and build a standardized view of, essential data across the merged companies to accelerate the speed of integration of people, processes and technology
- Build and maintain an enterprise-wide knowledge base of IT resources and data
- Leverage and complement existing IT systems, applications and tools
- Deploy industry-specific M&A Tools, e.g., healthcare, insurance and banking
- Use industry-standard views for processes, e.g., HL7 and FHIR REST APIs simultaneously in healthcare, ACORD in insurance and BIAN in banking
- Address the key areas needed to realize the expected value of the M&A, reduce unknowns and discover upside

## M&A Tool main features/differentiators (2 of 2)

A tool based on using SDF for Cloud Data Lake, on-premise or both/Hybrid Cloud, and can be used in the short, medium and long-term post-merger to rapidly (continued):

- Implement initial discovery phase, support ongoing operations, and replicate/broaden existing workflows and develop new workflows at both the data-level and process level
- Implement new capability layers on top of legacy/existing architectures, e.g., data and microservices/REST APIs
- Create enterprise-wide reporting, BI and analytics management through a virtual or
- Close the loop between discovery to insight to outcomes
- Optionally, analyze email communications using virtual graph database and link analysis to match email communications to the organization diagram and ranked subjects and documents important to the business – reveals many insights.
- (Not rapidly) retain the M&A Tool for longer term operations, e.g., leverage investment in existing systems and integrate with other/new systems

# Supports M&A integration activities, first 90 days (1 of 2)

- Leverage widely-used open source network discovery tool to gain an understanding of devices/servers on the network that contain data sources – also, applications drivers, users, etc.
- Discover, profile and match data across multiple disparate data sources using a standard data model to generate a standard data view, e.g., HL7 and FHIR REST APIs simultaneously
- Automate as much as possible – future use of machine learning
- Leverage existing data governance, metadata management, ETL and master data management
- Create or update enterprise-wide distributed data governance, metadata repository and master data management
- Generate indexes and link discovered data, including entities
- Review options for indexes and indexes views, e.g., pre-aggregations, calculations and joins
- Create/adopt and map a standard data view/enterprise information model (EIM)
- Generate initial reports and visual representations of information
- Run BI reports/dashboards



## Supports M&A integration activities, first 90 days (2 of 2)

- Run consolidated reports
- Review applications and data sources for decision on retain, phase out, replace or transition-migration strategies
- Work with strategic and business decision-makers to identify and prioritize the need for existing and new applications and data sources/views

**OUTCOME =>** An accelerated overview of the business and lines of business, important clients/patients, products and vendors, and information needed for medium and longer-term strategies



# Supports M&A integration activities, post-90 days

- Implement longer-term strategies formulated earlier
- Refine master data views of data for analytics and other uses, e.g., single patient view/longitudinal patient records (LPRs) for pay-for-performance claims processing, care pathways and genomics/precision medicine analytics
- Refine Link Indexes and develop solutions around them, e.g., link analysis, fraud detection, drug use/misuse/loss, liability exposure, compliance and other analytics
- Determine type and level of support for expanding, maintaining and repurposing the M&A Tool and other component infrastructure
- Can be sold, leased or offered as data/platform/software as a service (DPSaaS)
- Merge acquired enterprise data and processes with acquirer enterprise's data and processes

**OUTCOME => An accelerated strategies implementation to minimize hurdles, maximize in-depth understanding of the combined enterprise, and leverage to meet or exceed merger expectations**

## M&A Tool components

- Cloud Data Lake, on-premise or both/Hybrid Cloud
- High volume, high rate data source readers, writers and transformers
- Change Data Capture (CDC)
- SmartData Fabric®
- Industry Standard Data Views (based on Standard Data Models)
- Industry standard reports, BI dashboards and analytics
- Data workflows
- BPM workflows
- API Catalog

# References

1. <https://www.statista.com/statistics/267369/volume-of-mergers-and-acquisitions-worldwide/>
2. <https://revcycleintelligence.com/news/healthcare-merger-acquisition-deal-value-increased-145-in-2017>
3. <https://www.forbes.com/sites/forbestechcouncil/2017/10/19/the-three-reasons-why-tech-ma-deals-fail-to-deliver-value>
4. <https://www2.deloitte.com/content/dam/Deloitte/jp/Documents/human-capital/hcm/jp-hcm-hr-retention.pdf>



# The End