PTC® Live Global

CUST 119 Raytheon Panel: PTC Windchill Administration for 25K Users

- **A technology and innovation leader specializing in defense, security and civil markets throughout the world**

- **2014 sales: >$22 billion; 61,000 global employees**

- **Headquartered in Waltham, MA**

- **Businesses**

Integrated Defense Systems (IDS)
Headquarters in Tewksbury, MA

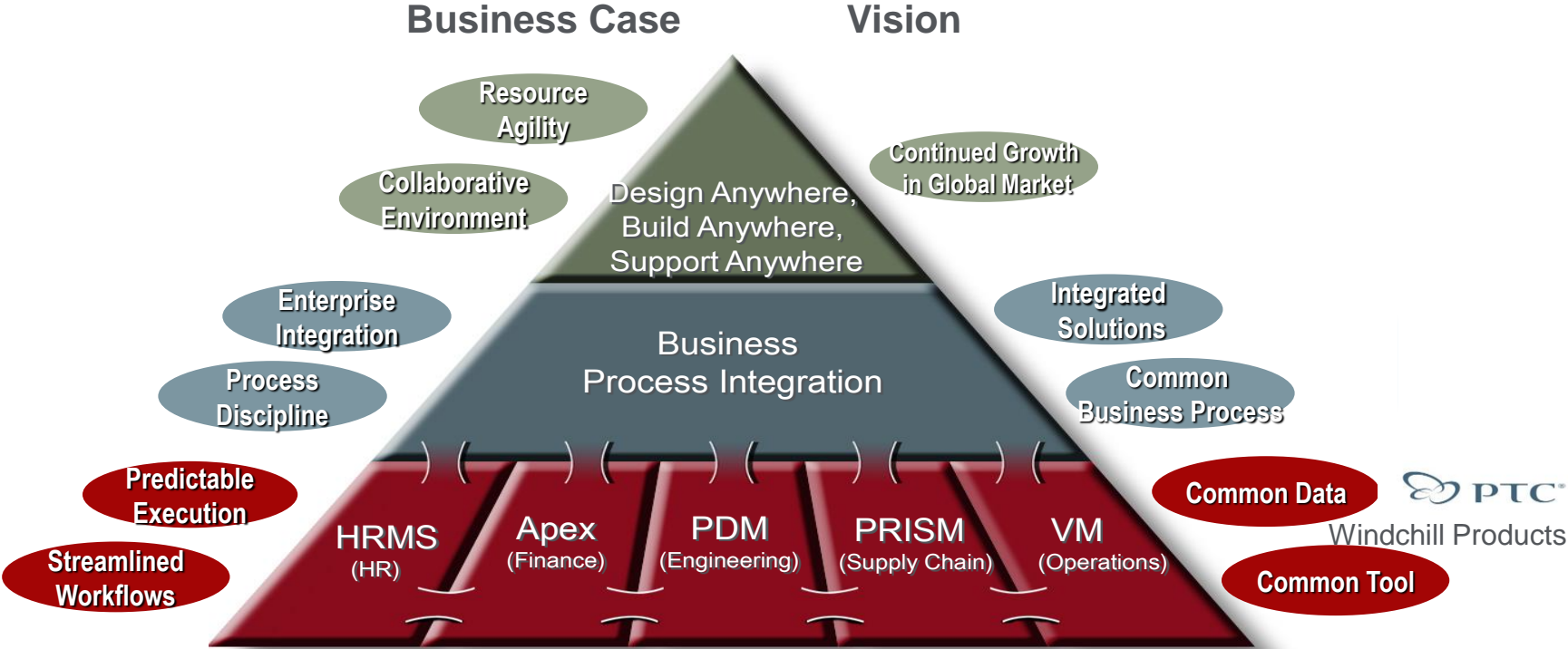**Intelligence, Information and Services (IIS)**
Headquarters in Dulles, VA

Missile Systems (MS)
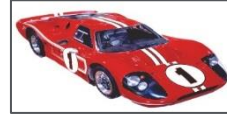Headquarters in Tucson, AZ

Space and Airborne Systems (SAS)
Headquarters in McKinney, TX

- **Phased Deployments**
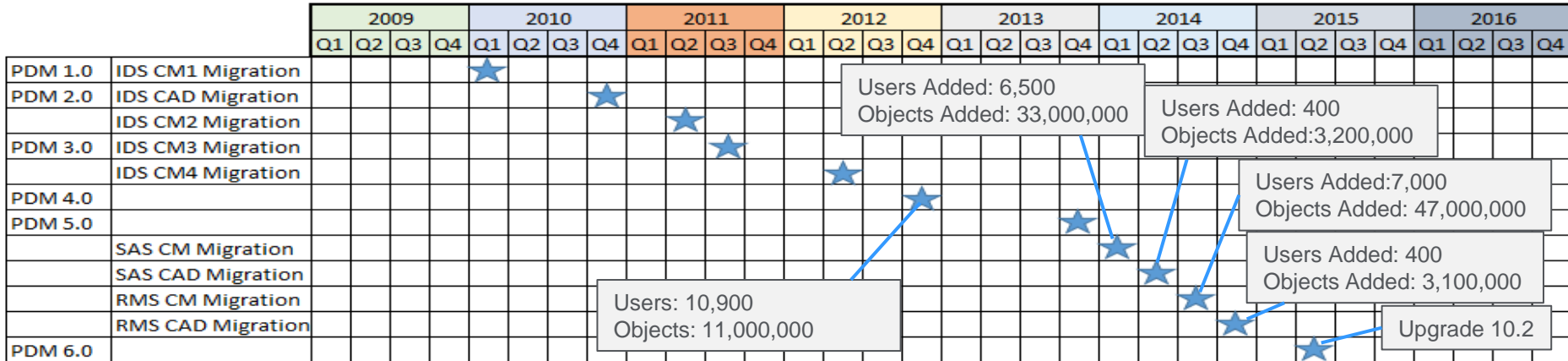 - Adding Capabilities and Integrations
  - Migrating Data From Legacy CM Systems
  - Reducing IT System Complexity

- **Challenges**
  - Maturing Across Multiple Business Deployments
  - Coordination and Balancing the Needs of the Business Using the Tool Against Those of the Business Deploying the Tool

Like changing the tires on a moving race car!!

		2009				2010				2011				2012				2013				2014				2015				2016			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
PDM 1.0	IDS CM1 Migration					★																											
PDM 2.0	IDS CAD Migration								★																							
	IDS CM2 Migration									★																						
PDM 3.0	IDS CM3 Migration										★																					
	IDS CM4 Migration												★																			
PDM 4.0															★																	
PDM 5.0																			★													
	SAS CM Migration																	★														
	SAS CAD Migration																			★												
	RMS CM Migration																					★										
	RMS CAD Migration																								★							
PDM 6.0																								★								

Users Added: 6,500
Objects Added: 33,000,000

Users Added: 400
Objects Added: 3,200,000

Users Added: 7,000
Objects Added: 47,000,000

Users Added: 400
Objects Added: 3,100,000

Users: 10,900
Objects: 11,000,000

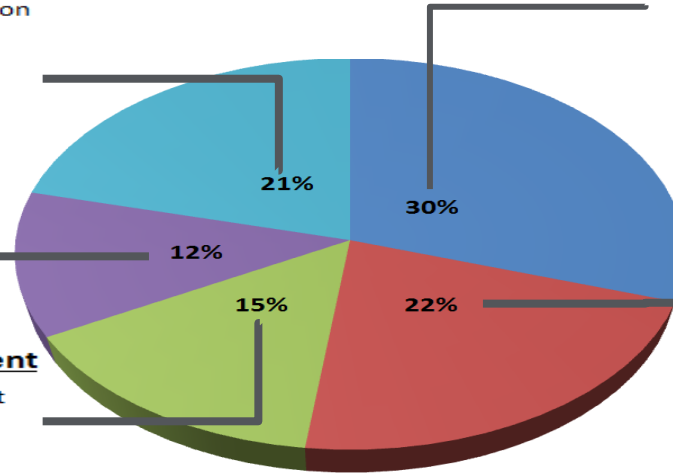Upgrade 10.2

Communication and Alignment

- Multi Business Unit requirements alignment
- Local and Enterprise capability and migration efforts
- Supplier/contractors
- Multiple tracking/management tools and processes
- Dynamic documentation/mapping
- Resource planning and schedules

Validation and Verification

- Migration quantity vs quality
- Volume of data to manually validate
- Defect/error tracking tool management

Hardware/ETL/Environment Alignment

- Enterprise and Local environment alignment
- Local environment horsepower
- Parallel capability design changes
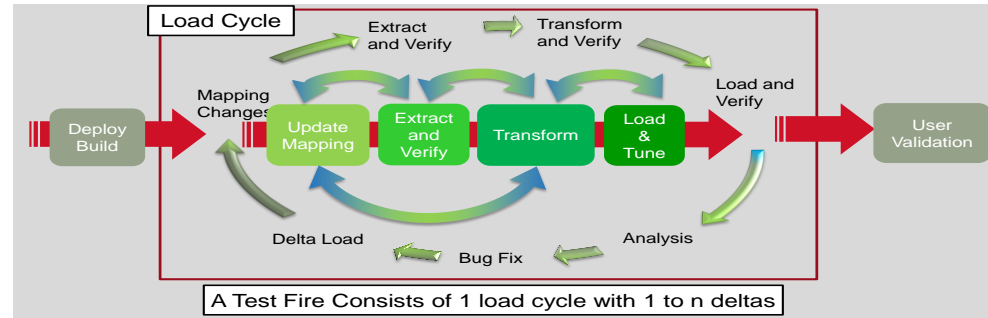- Limited resources for concurrent activities

Data Cleansing

- Unstable data (dynamic)
- Integration Designs without regard to legacy data condition
- Missing/ Unresolved/ Circular References
- Illegal/Invalid Characters
- Data Cleansing Sequence
- Test and Production Environment data alignment
- Manual vs Automated cleansing

Collisions

- Local Object Collisions
- Enterprise Object Collisions

Pie chart values: 30%, 22%, 15%, 12%, 21%

RTN Largest Data Migration:

- 99.8% Success Rate!
- >47 million records migrated
- >14TB of content data
- >87k collisions reconciled
- >27% reduction in extract-transform-collision processing time

Load Cycle

Extract and Verify | Transform and Verify

Mapping Changes | Load and Verify

Deploy Build → Update Mapping → Extract and Verify → Transform → Load & Tune → User Validation

Delta Load | Bug Fix | Analysis

A Test Fire Consists of 1 load cycle with 1 to n deltas

- **PTC Windchill Bulk Migrator (WBM) supports loading security labels**

- **Migration Team <u>Must</u> understand the implications of the labels**

- **There are many options to consider**
  - How well do you know your legacy data?
  - What are your company policies?
  - What are your customer requirements?
  - Do you apply most restrictive or open?
  - Do you apply a one size fits all approach?

- **Every Decision will make a difference**
  - Best Path: know your data and set the values correctly
  - Second path: bulk apply labels known subsets of data
  - Last resort: Apply a default "unknown" or "undetermined" label

- **Test, Test, and Test some more…..**
  - Set up test users that map to the labels and all possible combinations
  - Do Not only test with administrator accounts

- **Just when you thought you had it all right…..**

- **Common Issues:**
  - Users don't have access to data they had access to in the legacy system
  - Your contractors don't have access to any "Company Data"
  - Users not in the correct Group(s)
  - Missing Agreement Objects (Yes, These can be Loaded)
  - Batch Processing of User Roles vs "Live Update" (Performance hit during peak hours)
    - Critical to get in place correctly prior to "Go live" needs end user involvement in the decision process

- **Be ready to "mass change" if migrated values are incorrect**

- **Options:**
  - Brute force – Manual Updates
  - Delta WBM Load

- Your feedback is valuable

- Don't miss out on the chance to provide your feedback

- Gain a chance to win an instant prize!

- Complete your session evaluation now

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