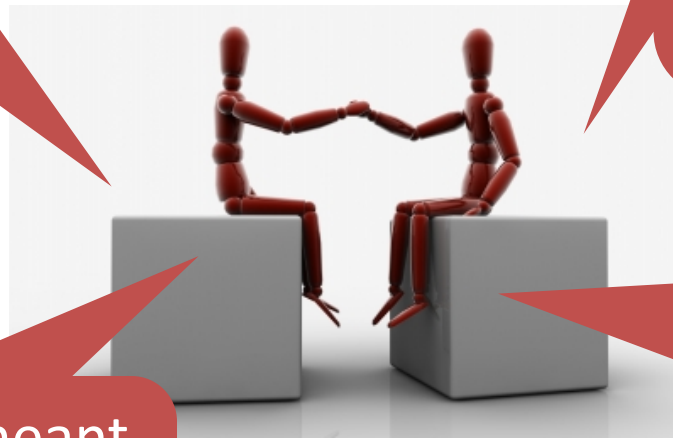


Introduction to PLM and Model-based Definition

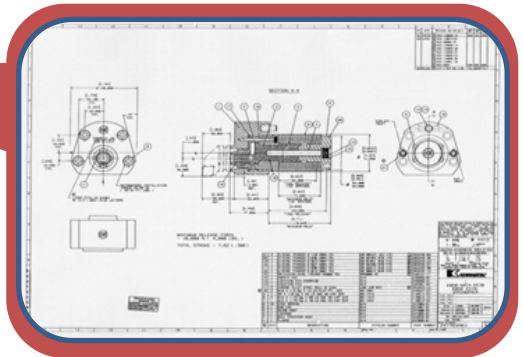
Where have we been on the collaboration journey?

Communications often in serial fashion

You trusted the data because you trusted the person that generated the data



Collaboration meant face-to-face communication



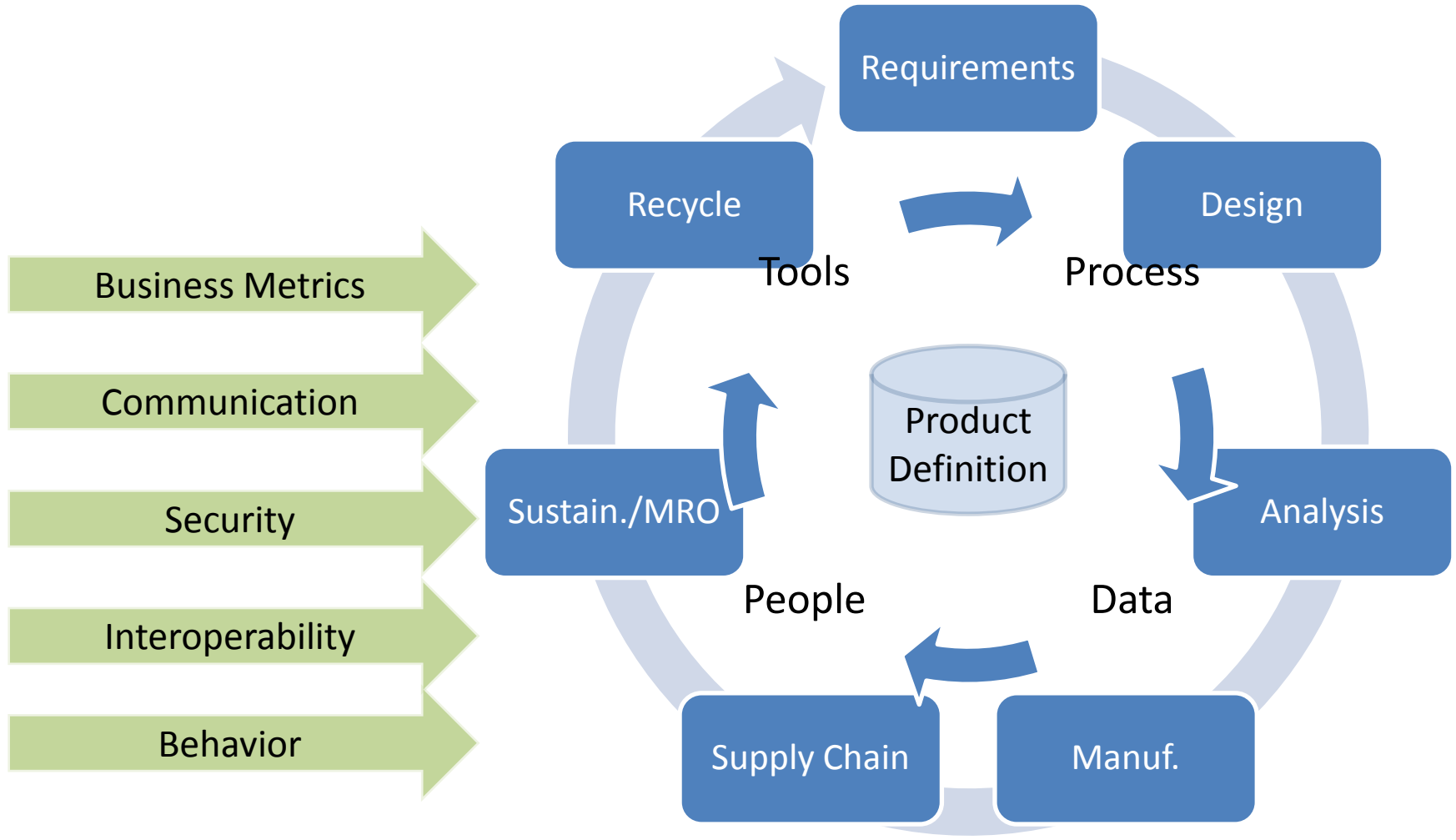
What is PLM?

- A business approach
- Interconnected set of digital systems
- Enable collaboration and innovation
- Master authoritative digital product definition

How long have we been doing PLM?

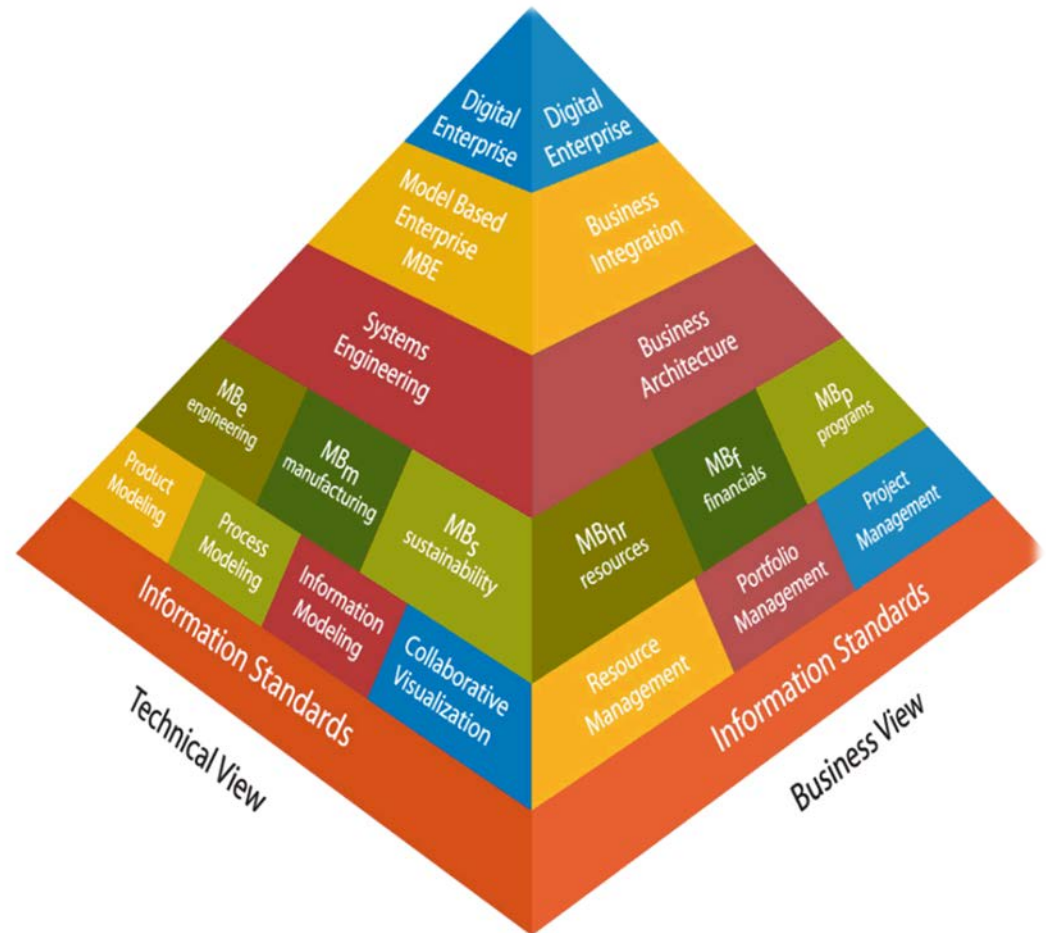
- For as long as we have been developing and producing products...

What is PLM?



The Model-Based Enterprise

- The foundation for a **model-based enterprise** is provided by a **model-based product definition**
- The product model functions as a central repository for all technical and business product definition data
- Drives all product and facility development processes and activities throughout the product lifecycle



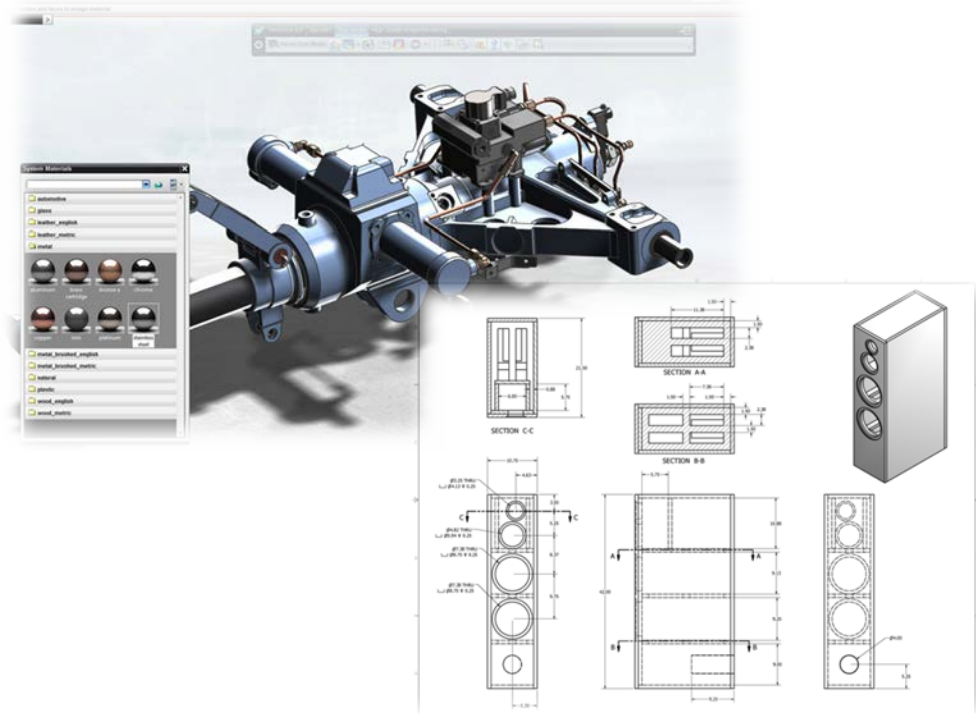
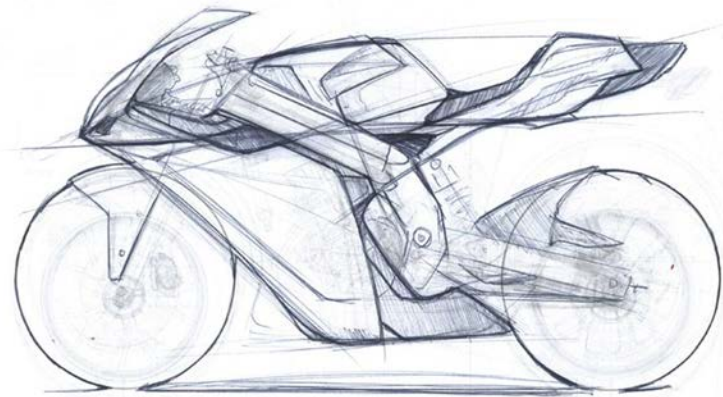
What is a Model?

The **model** is a digital representation of the product data necessary to define a product; this digital representation is dynamically repurposable and varies with the organizational role of the consumer of the data



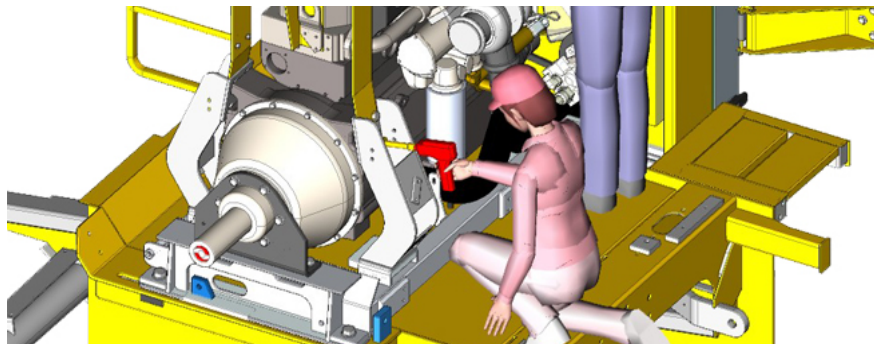
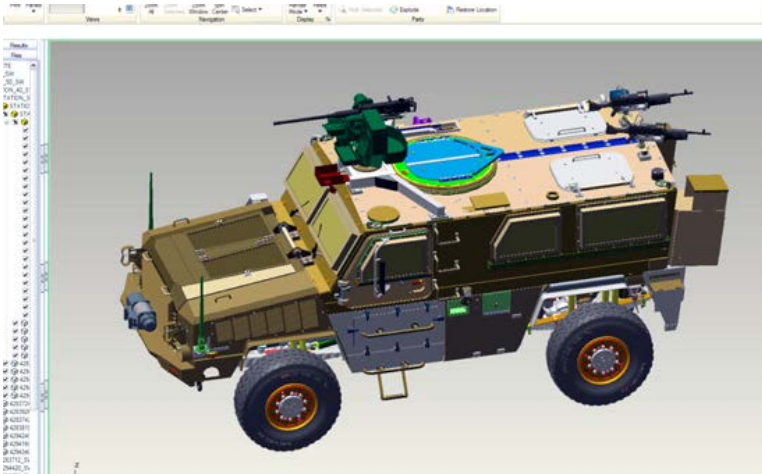
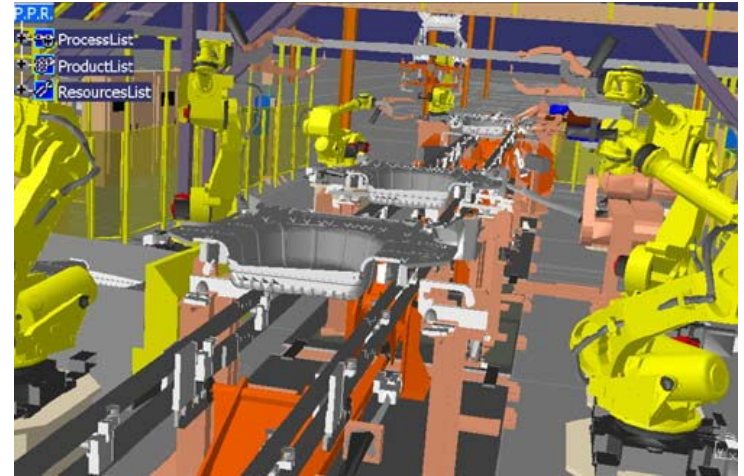
Defining the Author

The **author** is the originator of the digital product representation or any other derivation of the digital product definition



Defining the Consumer

The consumer is the end user of the digital product representation or any of its derivations; the form that the consumed data takes varies with the organizational role of the consumer.



Where are we headed?

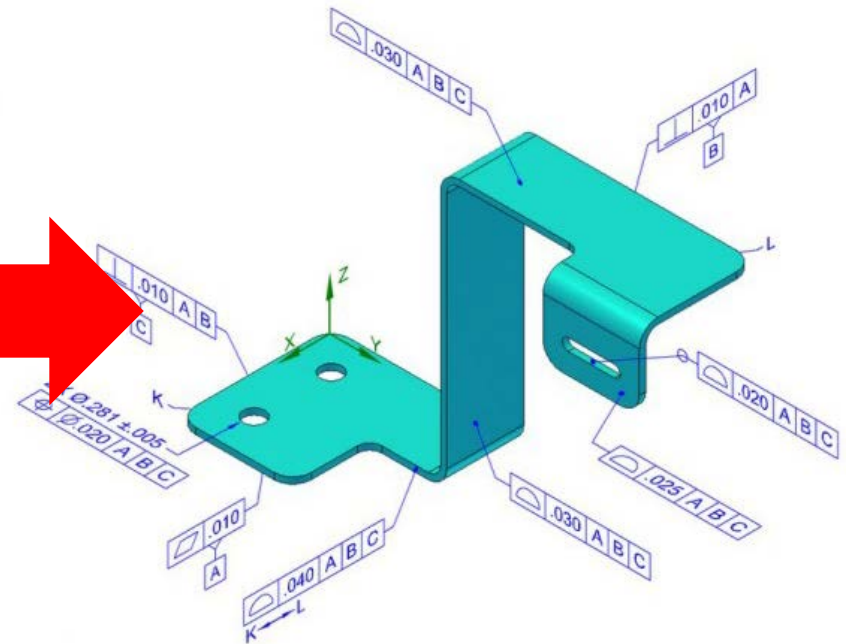
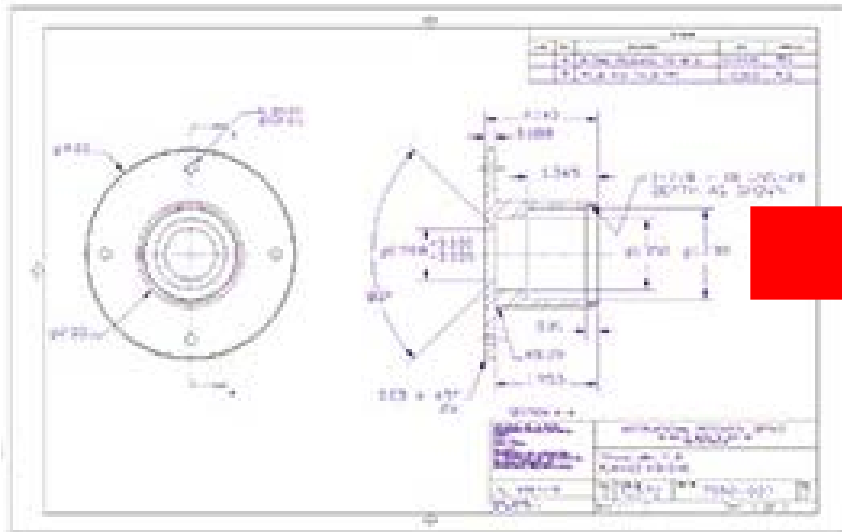
The **3D digital definition** becomes the *conduit* in a standards-based communication process.

The *model* is the basis for a **secure, authoritative** source of product definition.



You come to *trust the process* that generates product data (as the person may be unknown).

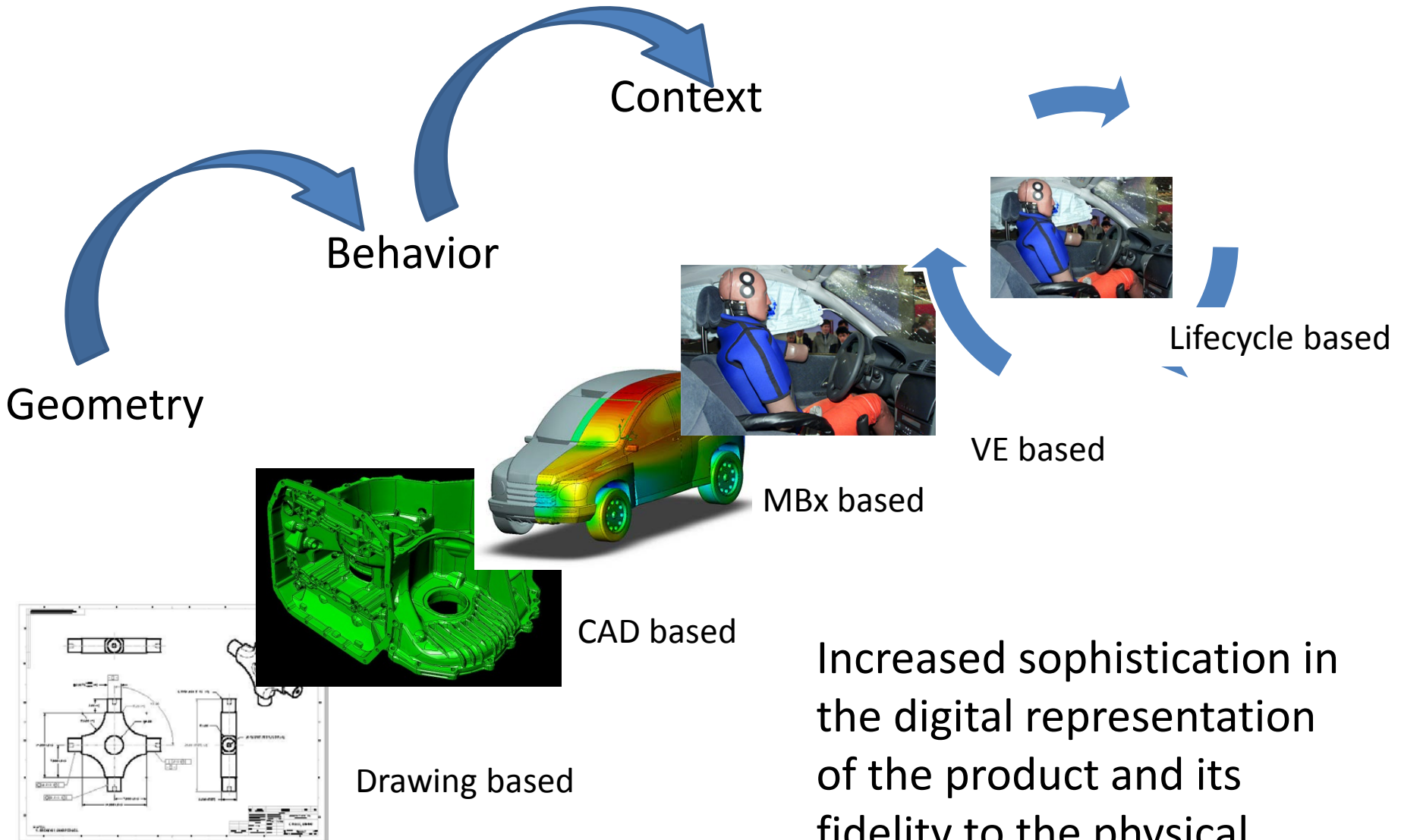
What does MBD mean?



3D-MBD & 3D GD&T™ - Annotated Axonometric View

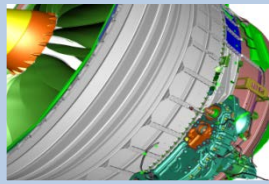
For many people, it is a matter of whether they are an author or a consumer.

Evolution of Product Representations



Increased sophistication in the digital representation of the product and its fidelity to the physical world.

Deploying PLM and Enabling Innovation



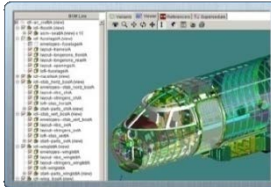
Design Processes

Reduces unnecessary work through leveraging standards



Manufacturing Processes

Leverages PLM, SDM, ERP, and MES to maximize value



Collaboration Processes

Increases information content accuracy and flow



Sustainment Processes

Potential for real-time data to enhance decision making

Importance of PLM

- Data control
- Collaborative environment
- Common product structures
- Enhanced profitability
- Enhanced data quality → information transparency
- Better customer support
- Product value maximized over the lifecycle

What does the future hold?

- Continued leveraging of the CAD model as the carrier of product information → 3DMBD as normal
- Increased use of standard /lightweight collaborative formats derived from 3D master product definition
- The integration of PLM, ERP and SCM
- The emergence of mobile computing and ability to deliver relevant data
- Increased cycles = increased innovation → leveraging of opportunity
- Mitigating risk, promoting predictability

Thank you!
Questions?