





Making collaboration pay – an NCCTP conference
CICA, Construct I.T.
Constructing Excellence and IT Construction Forum
15 November 2005, London



Mervyn Richards
MR1 Consulting Ltd
Avanti Consultant



Avanti

- **Avanti** is an
 - ‘Approach to collaborative working’.
 - ‘Taking what we know and making it work’.
 - ‘Working with live project teams’
- **Avanti** is
 - developing ‘A Standard Method and Procedure’ for ICT enable Collaborative working and a ‘Design Management Procedure’



Why Collaborate?

- **Collaboration has many advantages**
 - Mitigates Risk
 - Client
 - Design Team
 - Constructor
 - Best Profit for All
 - Greater Return on Investment
 - Repeat Business

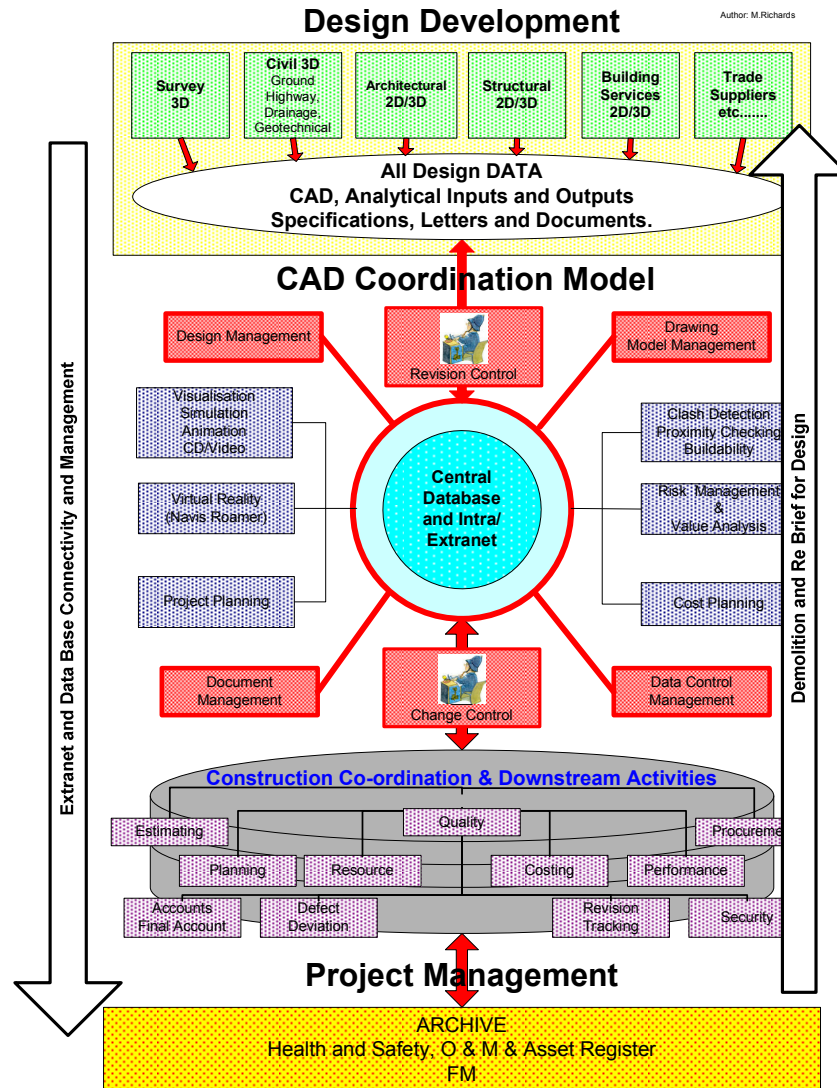


A standard methodology

- Previous successful collaborative projects have shown that
 - Projects can be delivered
 - To a greater quality for price
 - Delivered on time
 - To budget
- Success is achieved when everybody on the project works to an appropriate and consistent set of standards and procedures

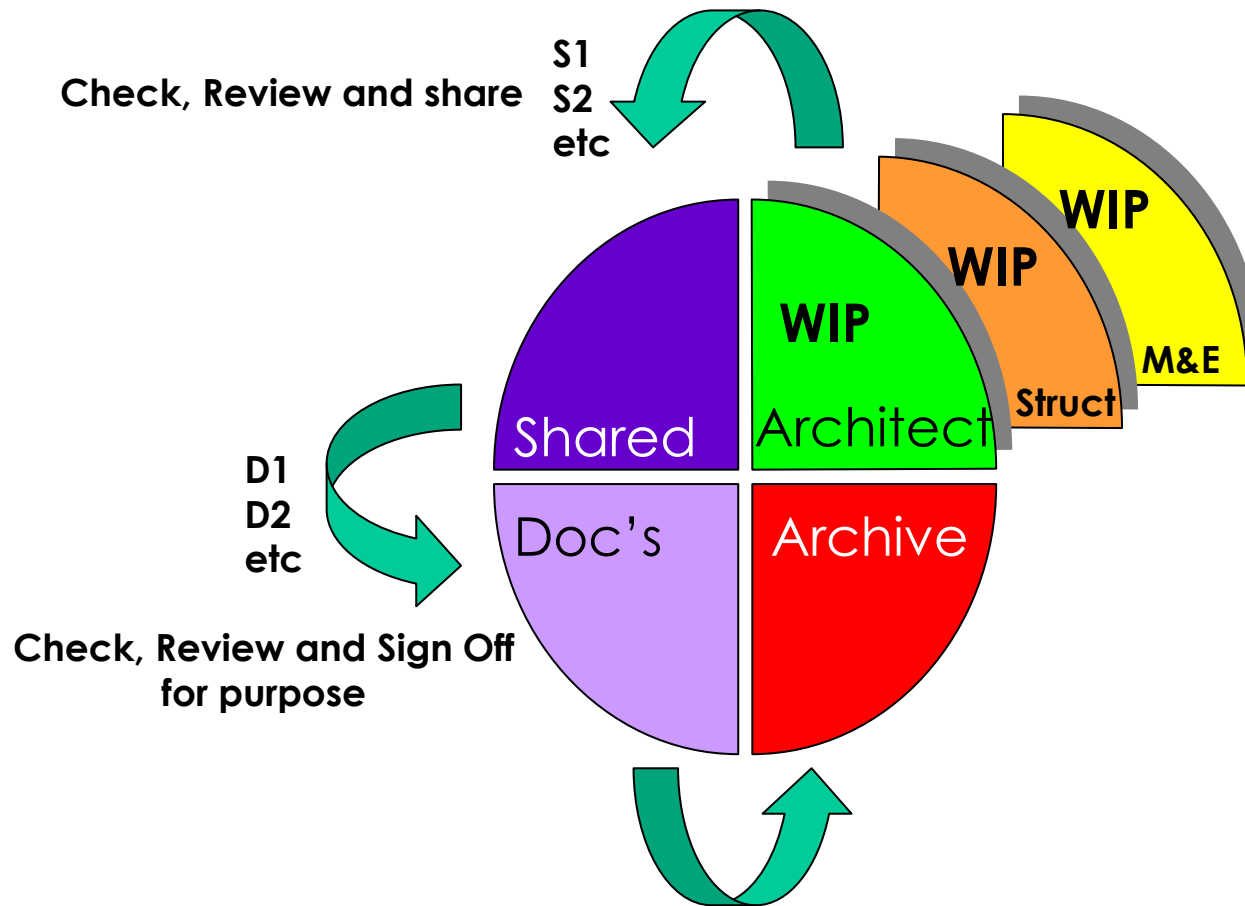


Common Data Environment





Common Data Environment





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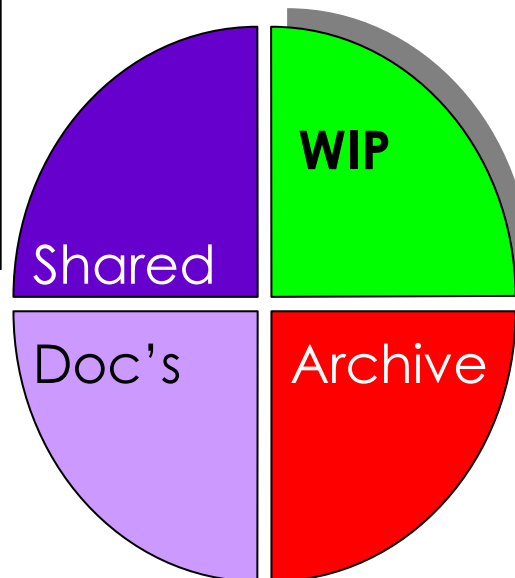
Verified Design Data

Shared with the project development Teams.

- Status: reliable design data.
- Purpose: for coordination
- Comment & information
- Ongoing design development.
- **Major versions**

Co-ordinated and validated design output

- **Published** for use by the total project team.
- Fit for a stated purpose.
 - Procurement, construction,
 - Manufacturing.
 - Completed works and as built



Non Verified Design Data

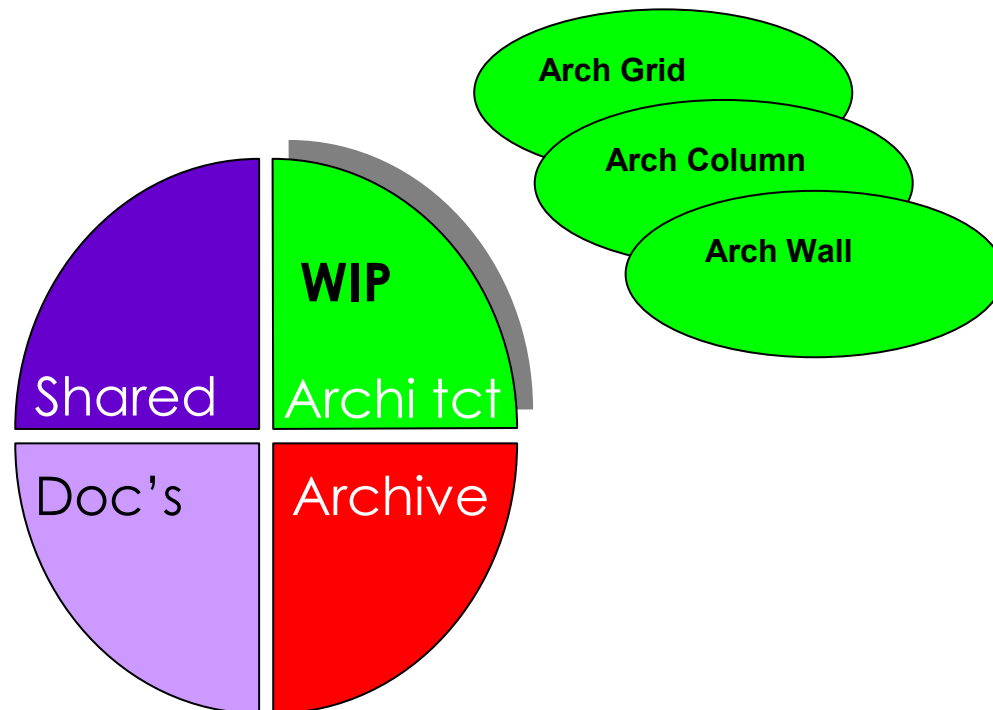
- Drafts
- Development concepts
- Shared with project in-house team
- **Minor versions**

Project History maintained for Legal/Knowledge Preservation.

- Record
- Superseded
- Cancelled
- Change
- O&M
- As Built

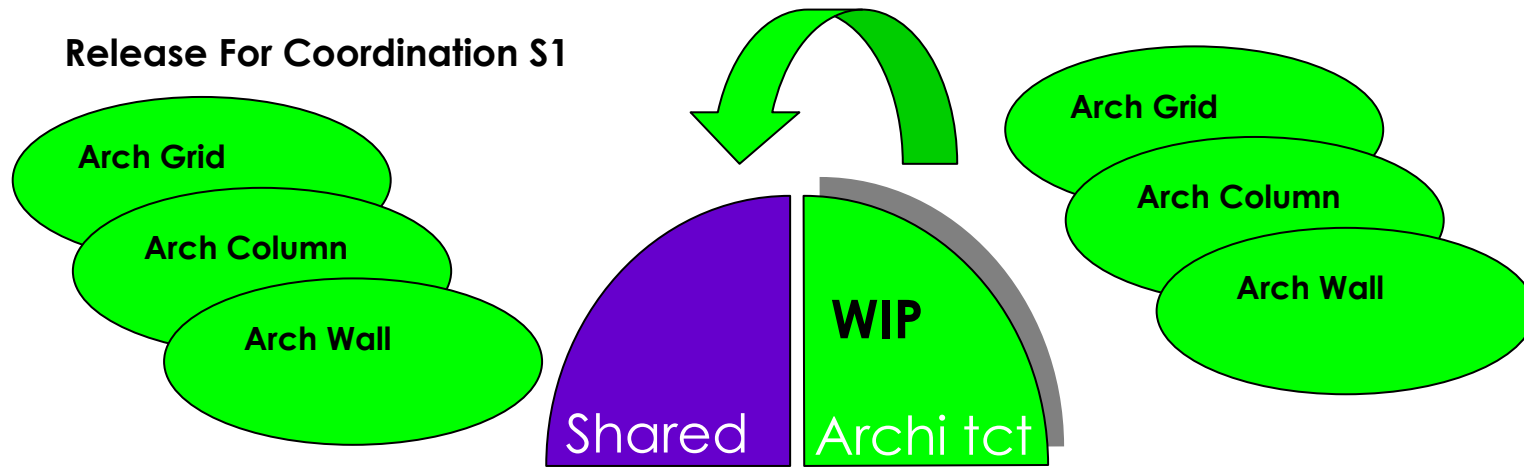


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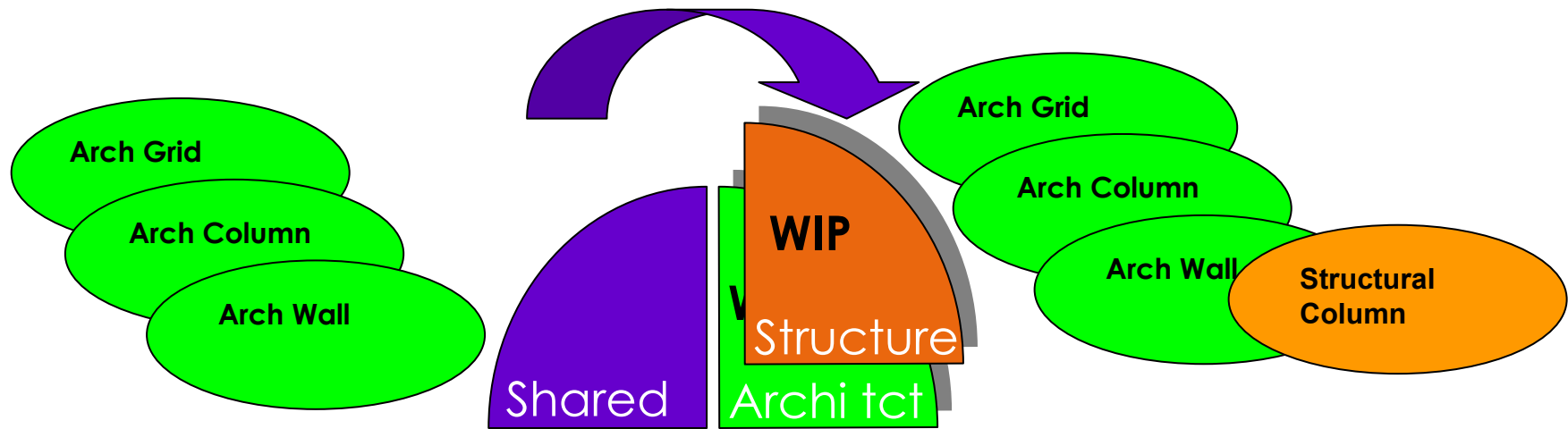


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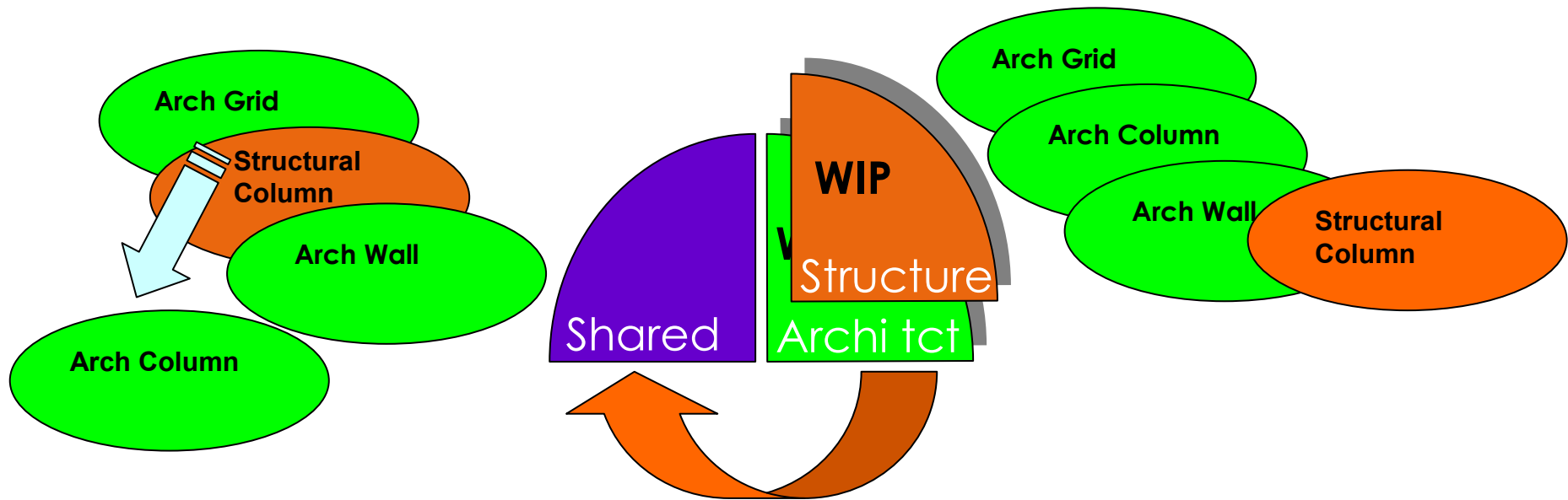


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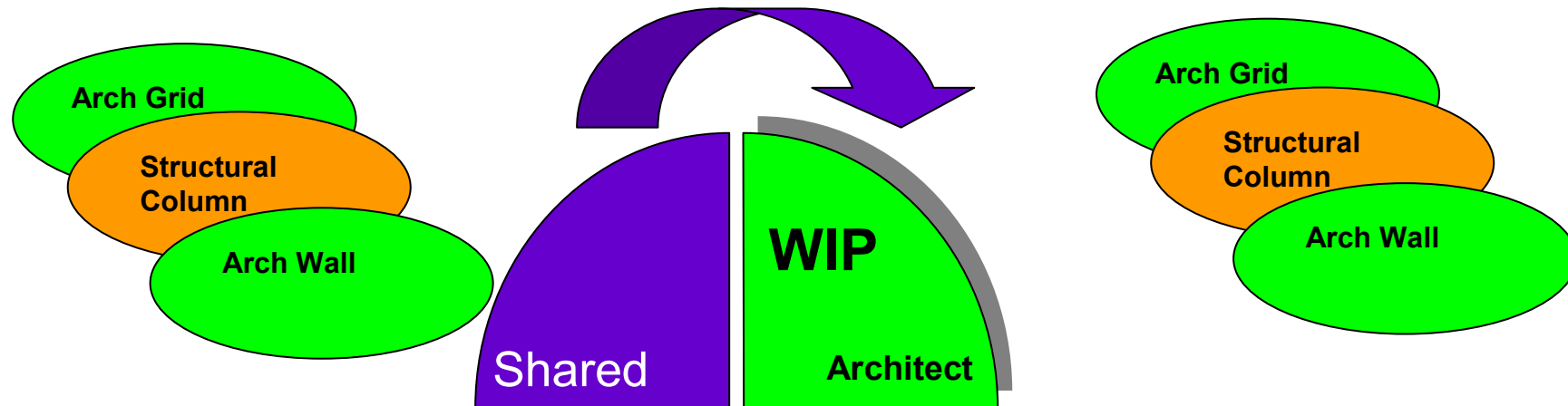
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Release For Coordination S1

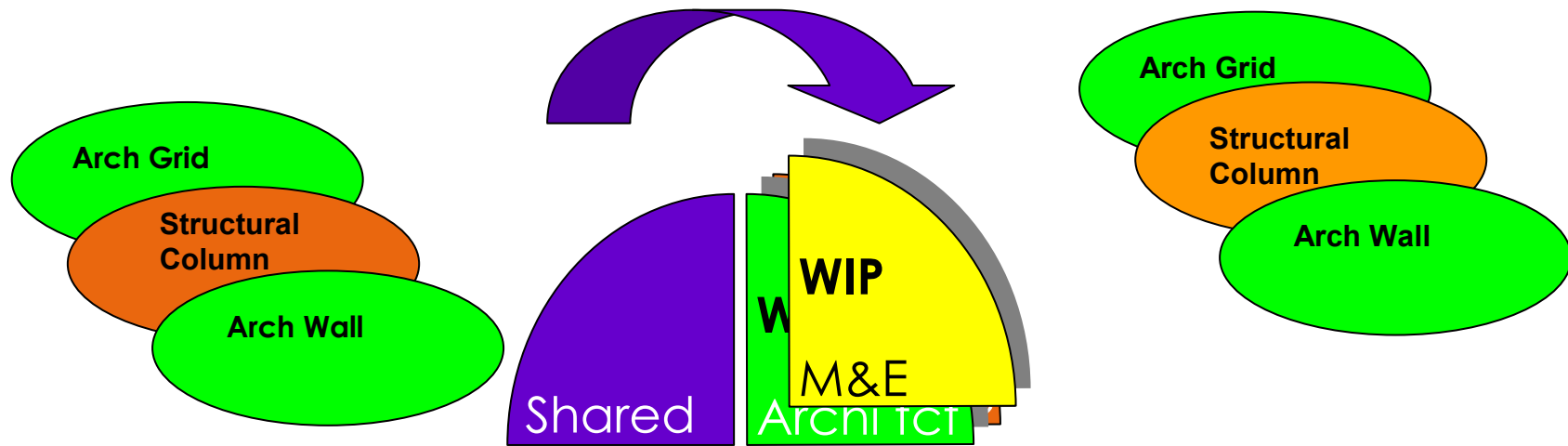


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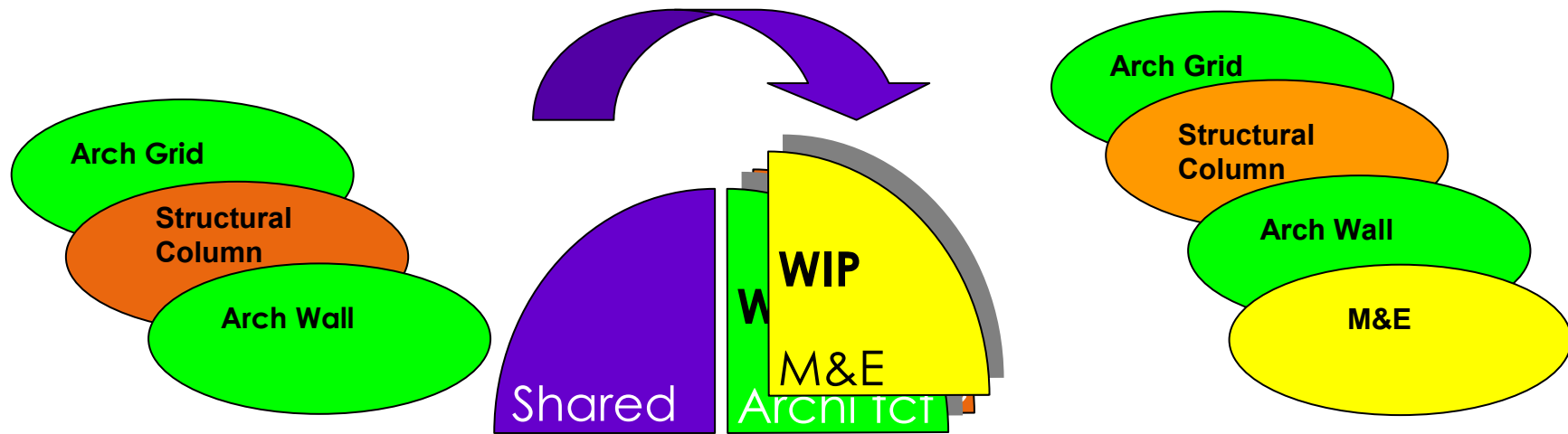


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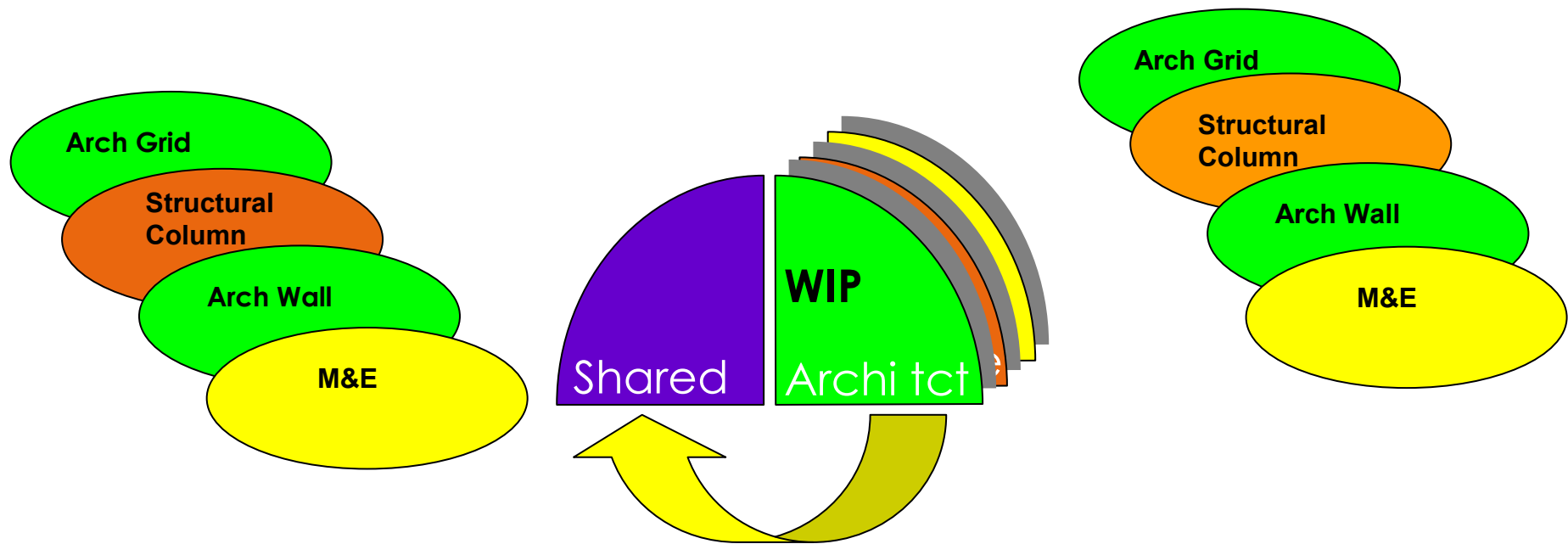


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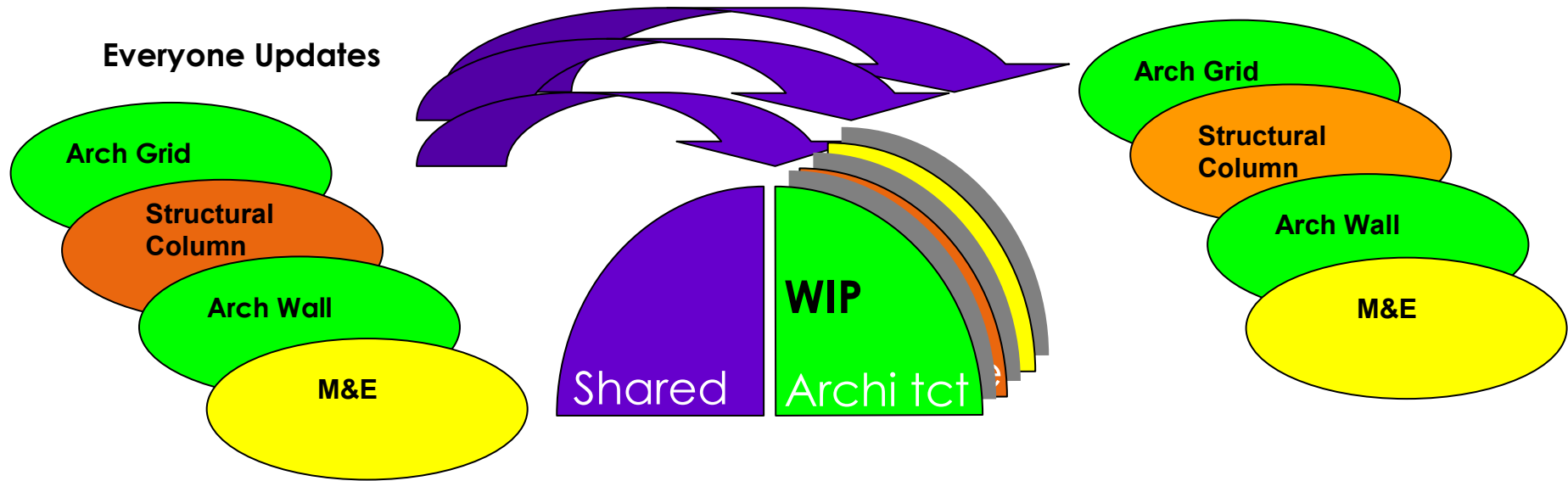
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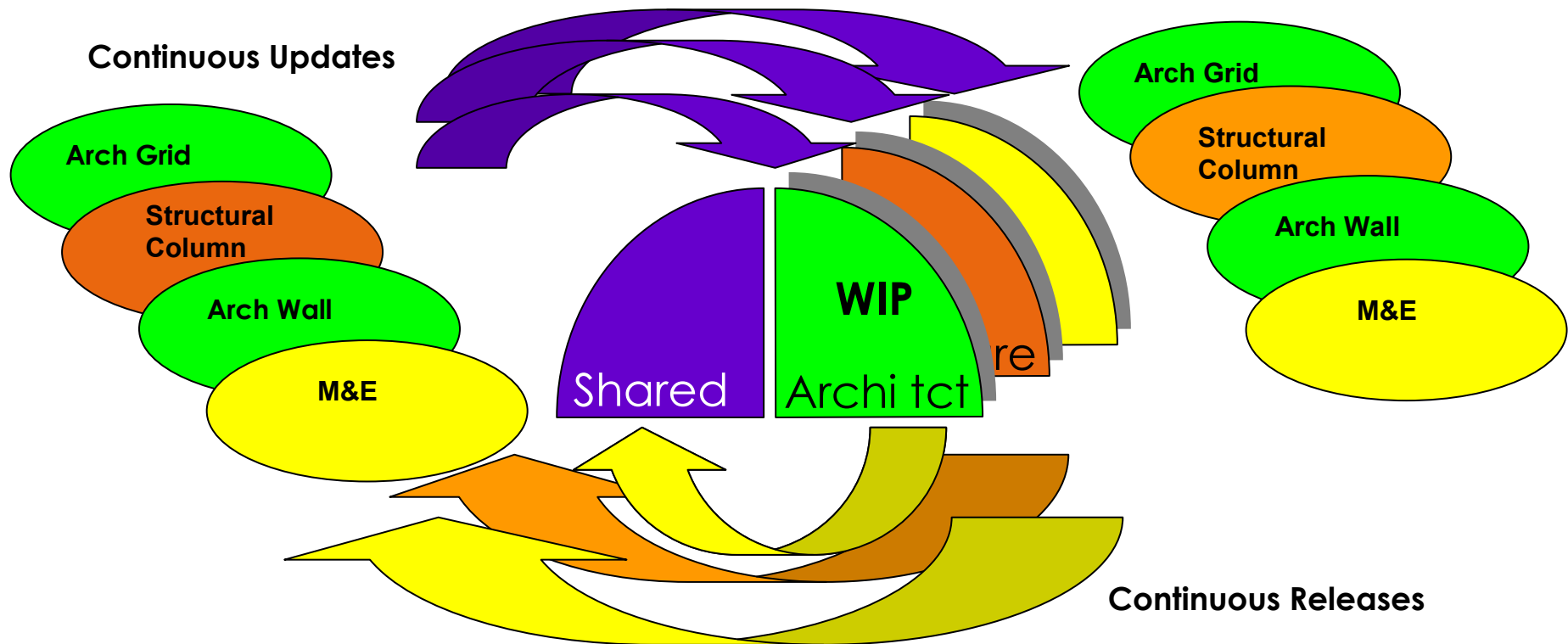


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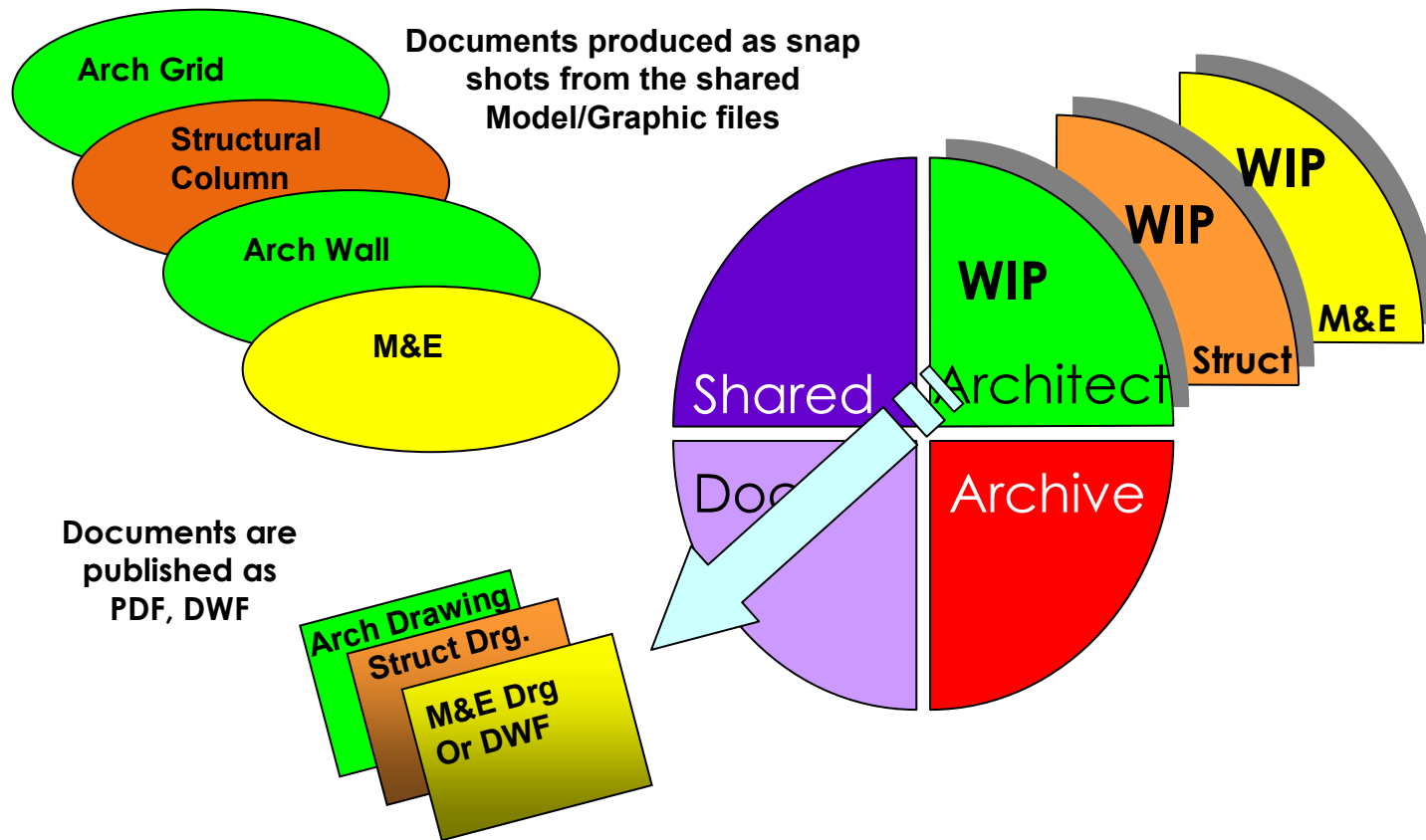


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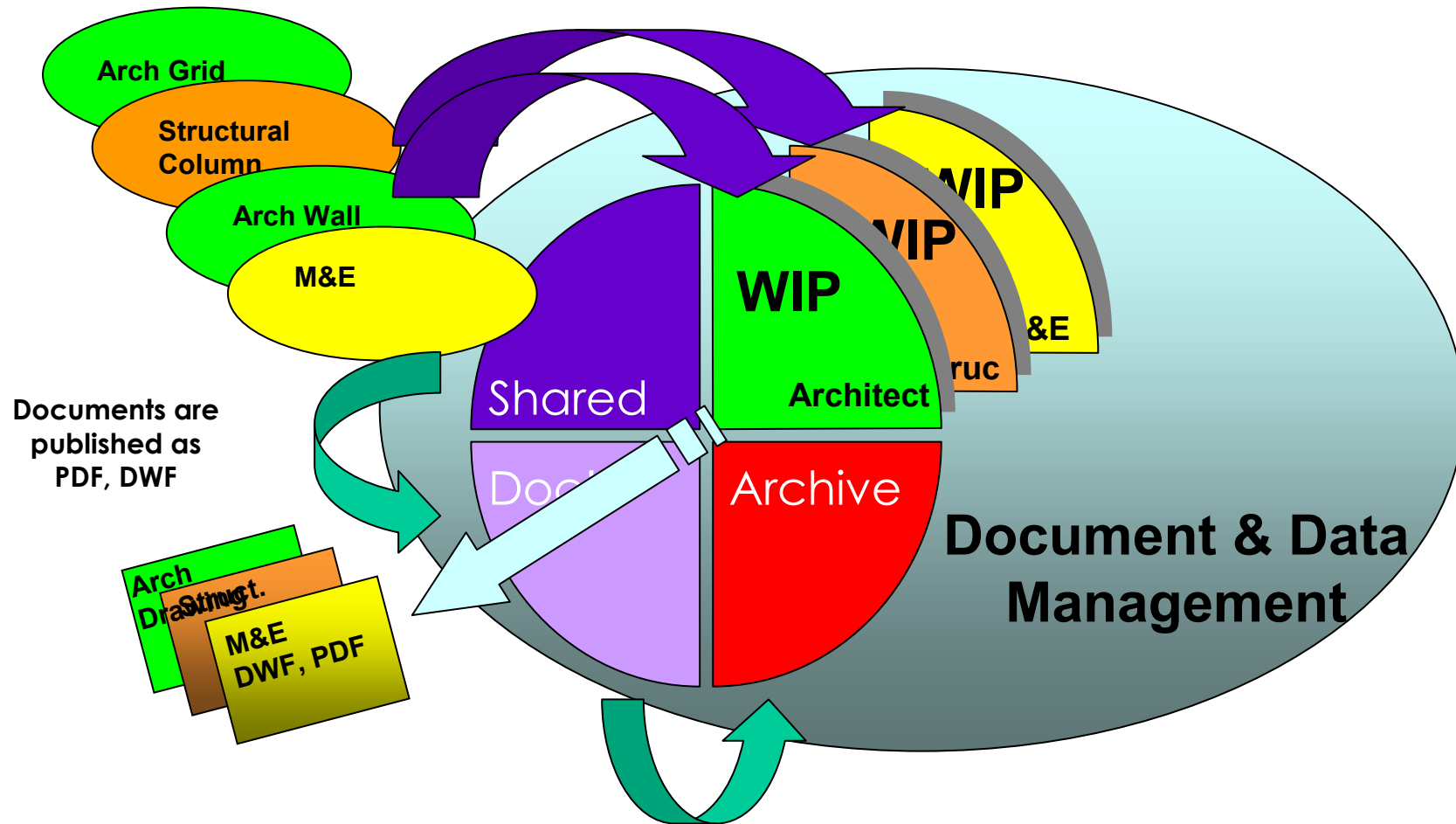


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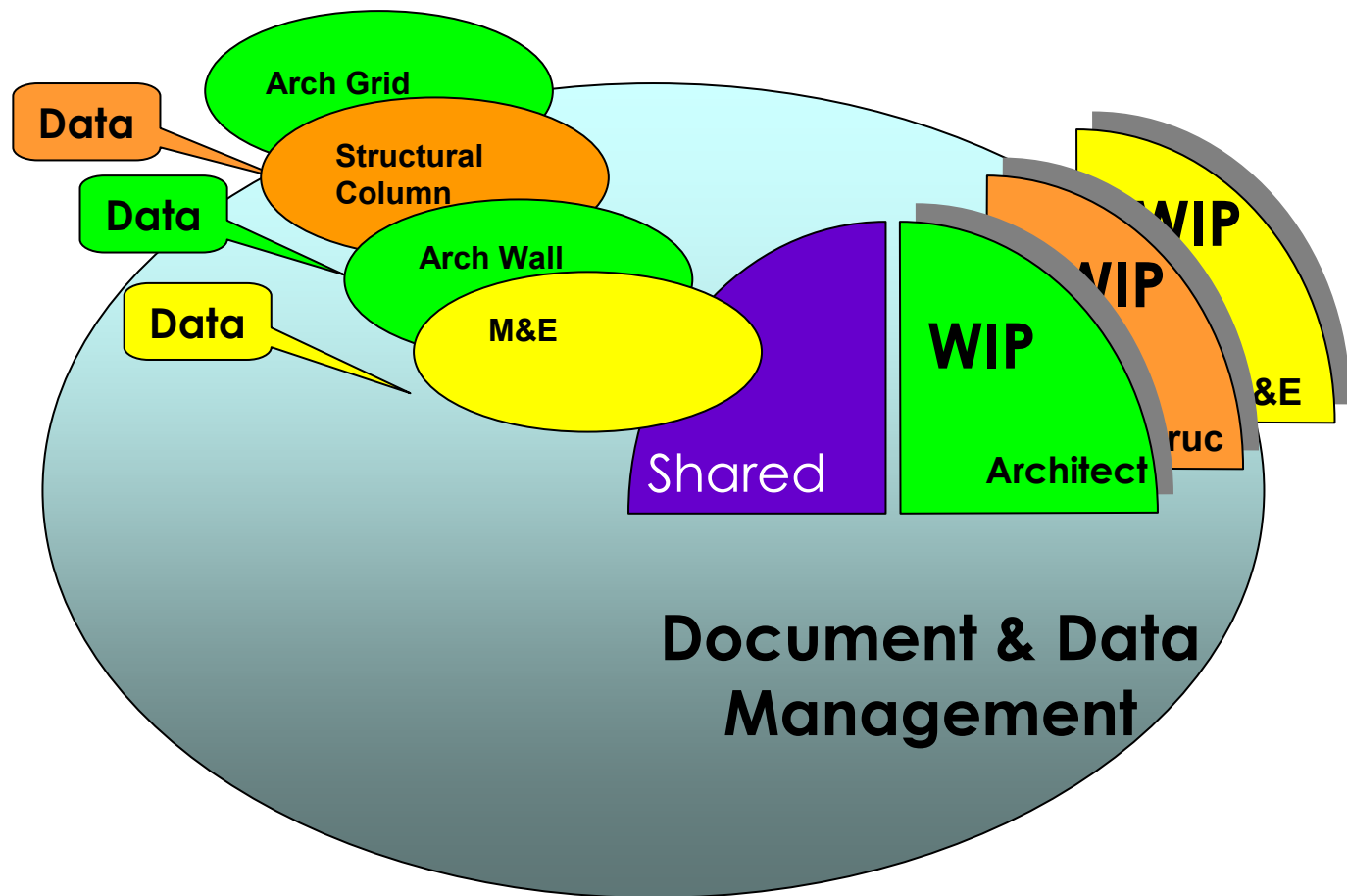
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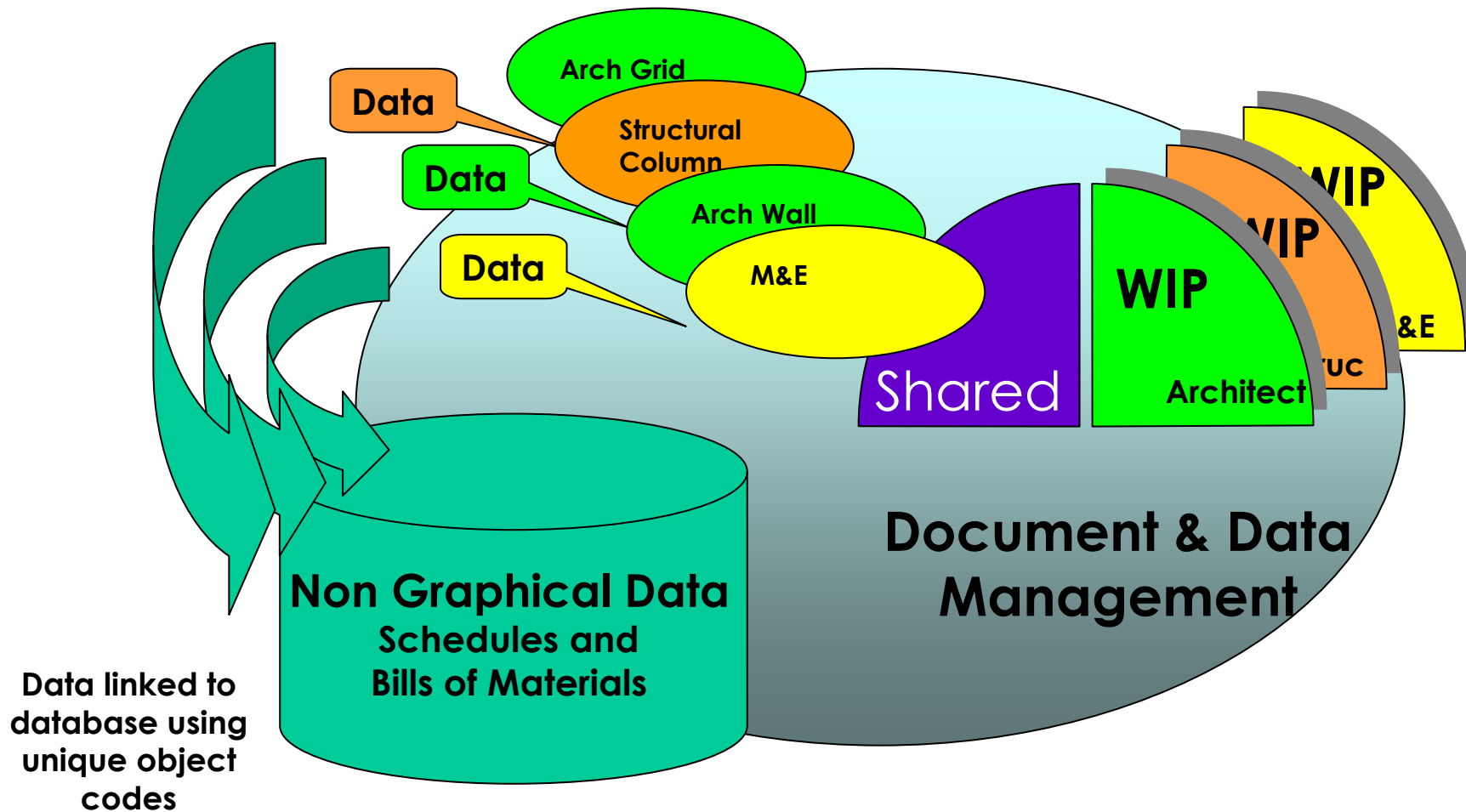
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Data attached to objects as property sets and asset codes





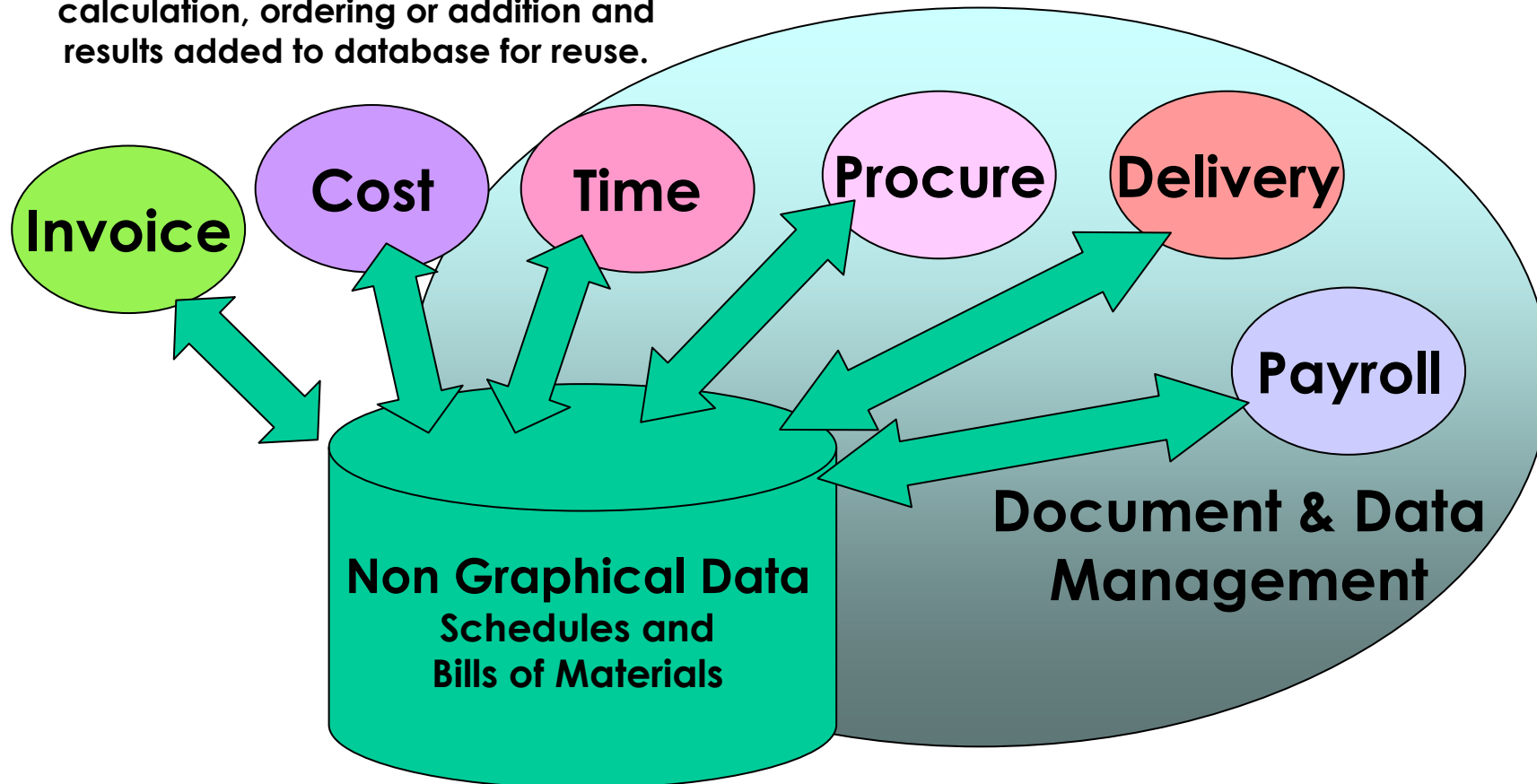
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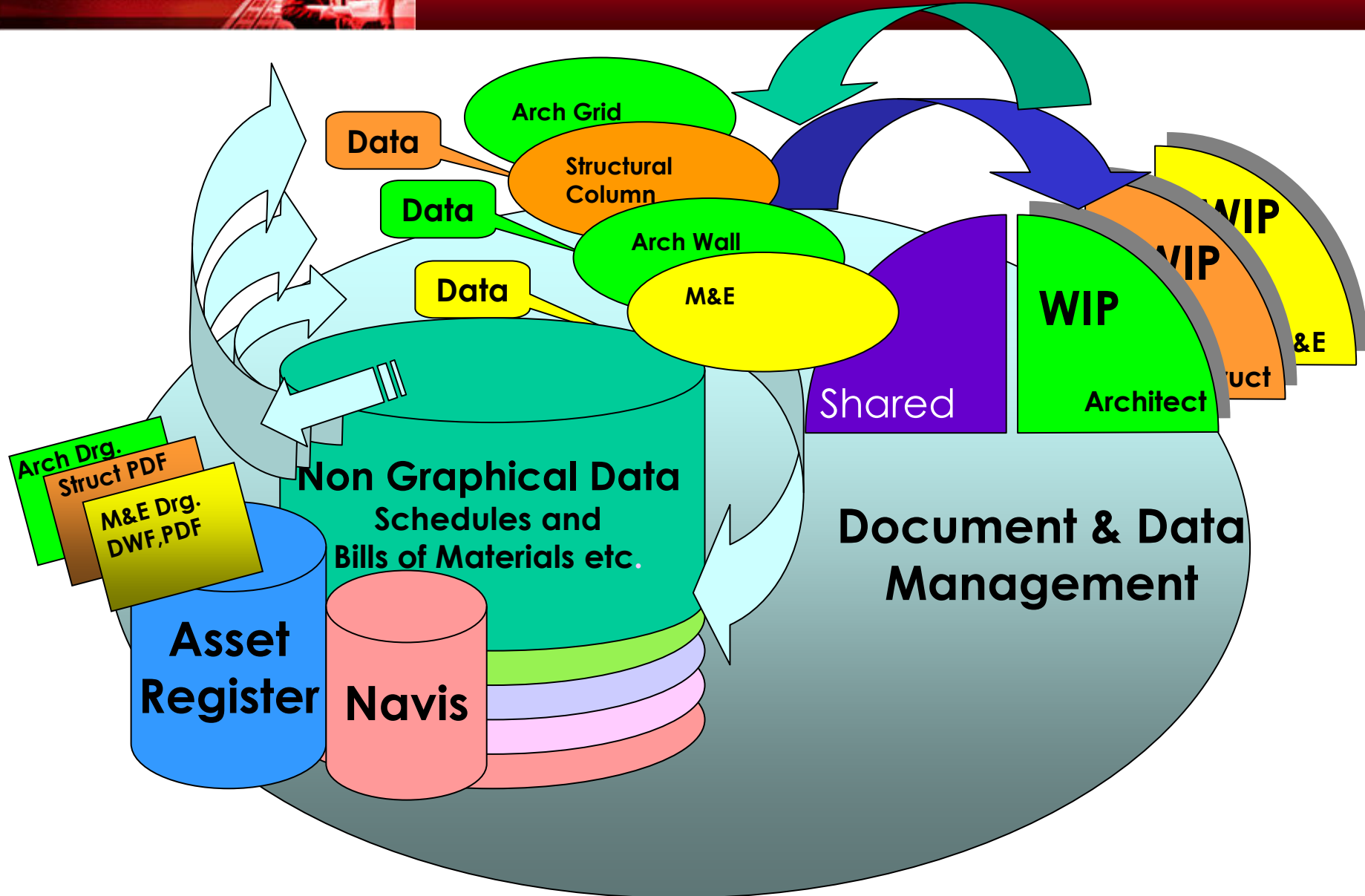
Common Data Environment

Database information extracted for further calculation, ordering or addition and results added to database for reuse.





Common Data Environment





A standard methodology

- Consistent standards are required to achieve:
 - Data formats
 - A structure for reuse
 - Shared by everybody, open and trusted
 - Appropriate management workflows
 - A managed delivery through a Common Data Environment (Extranet)



Extranets

- Project extranets must be:
 - Simple to use
 - Look and feel
 - Provide a consistent methodology
 - Manage new business workflows effortlessly
 - Check for compliance to the agreed standards
 - Give constant feedback on project performance



Minimum marketable capabilities

- Minimum marketable requirements:
 - The core for all project extranets must comply with a set of industry standard workflows
 - Standard across all suppliers systems
 - Platform interoperability
 - Cross transfer to other providers systems
 - Transferability of history and workflows



Extranets

- A minimum marketable system allows for:
 - Flexibility for expansion
 - The ability for the provider to differentiate themselves through additional features
- Add value to the project through a move to:
 - Data management not just documents
 - Project management ability



Extranets

- **Everybody on the team must have access to the data**
 - Allow the non CAD enabled design and construction managers to browse the drawings or the 3D model.
 - Also browse non graphical data



Minimum requirement

- **Extranet capability to:**
 - Collect, manage and disseminate current up to date data.
 - Manage document distribution
 - Secure ownership of data
 - Design development from unauthorised construction use
 - Construction contractual documents
 - Maintain a history of sharing
 - Deliver the O&M, H&S, CDM, FM asset



Minimum requirement

- **Extranet capability to:**
 - Automatic upload of the data, drawing and document master programme
 - Pre register all document, drawings and model delivery milestones
 - Provide the project design and construction programme
 - Provide delivery reports
 - Delivered on time against each milestone
 - Non delivered



Metadata

- **Recognise document attributes**
 - Document titles
 - Model file Identifiers
 - Document Identifiers
 - Statuses
 - Revision history
- Allow for mass/block uploads
- Check for compliance to project standards



Design and construction

- **Extranet capability to:**
 - Manage the design sign off workflows
 - Manage the client sign off.
 - 'Fit for construction documentation development' workflow
 - 'Fit for Construction' workflows
 - Report progress
 - Compile Work Packages
 - One drawing/document in many packages
 - Automatic delivery of updated drawings to work packages
 - Report update deliveries

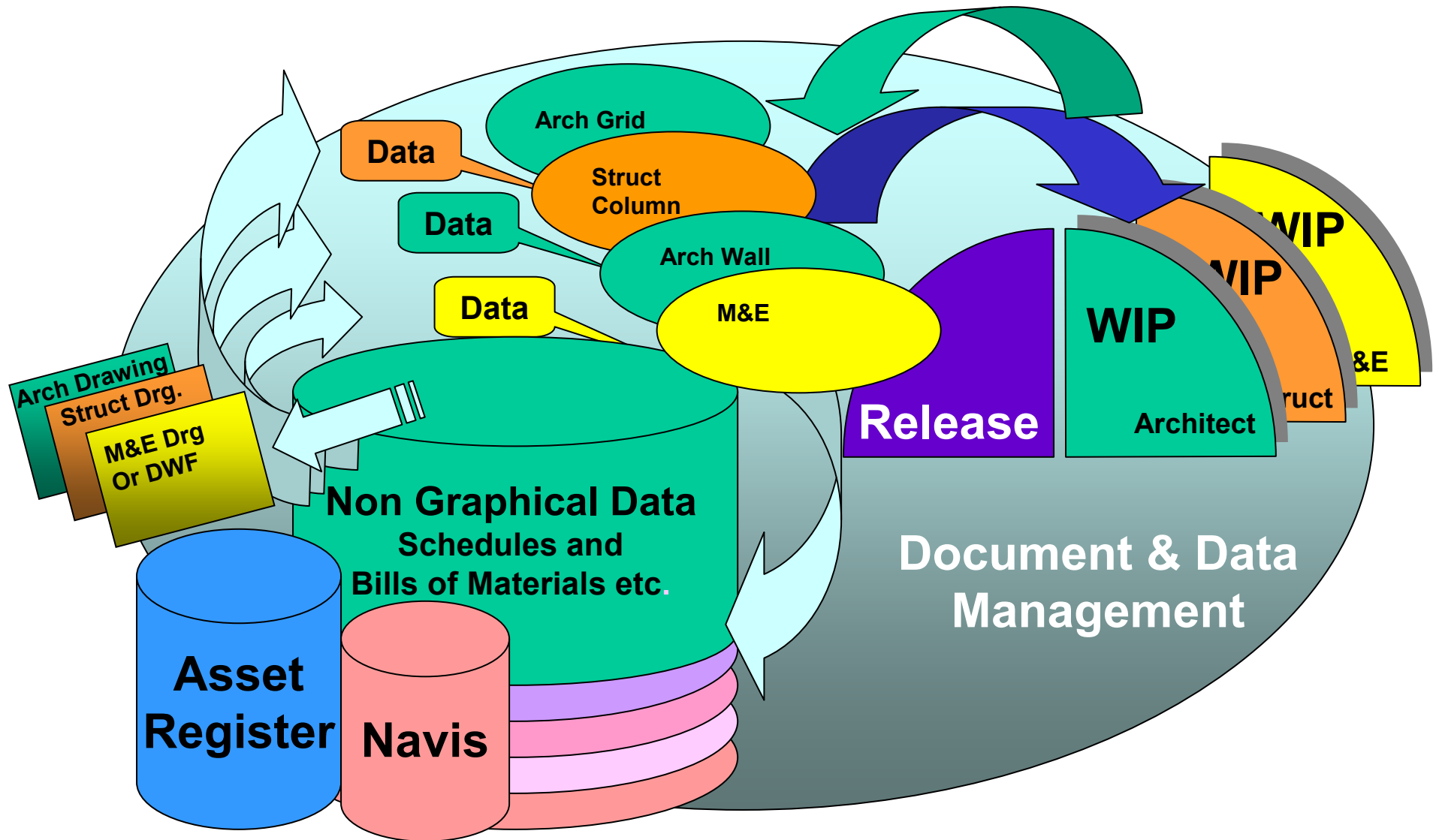


Health and safety etc.

- **Extranet capability to:**
 - Provide HS, OM, FM, CDM templates
 - Provide for template population
 - Report shortfalls in document delivery
 - Manage the final delivery of O&M documents



Common Data Environment





Workshop discussion

- **Questions and discussion**
 - 30 mins

