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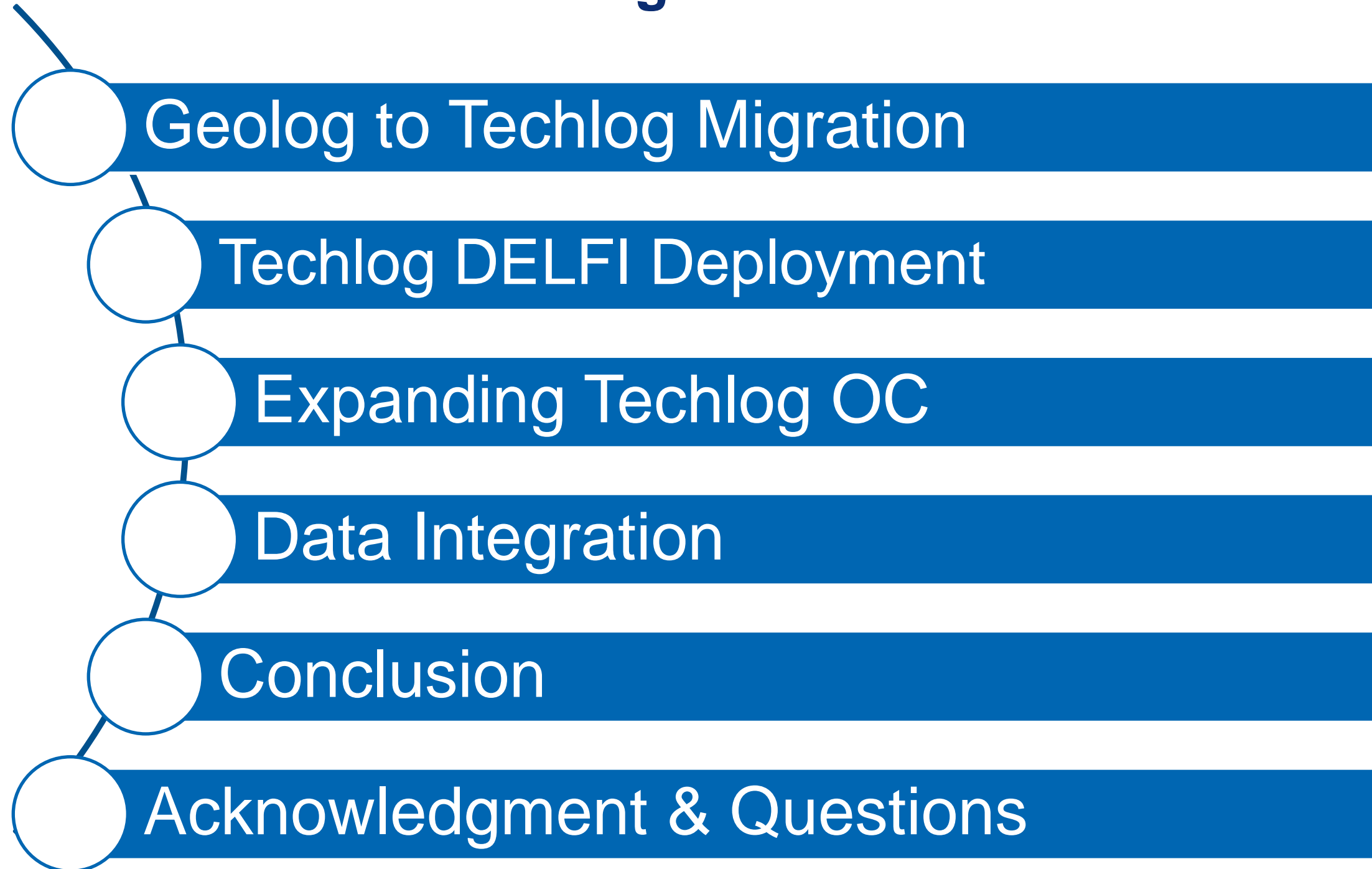
Chevron Techlog Journey

Geolog to Techlog Migration, Techlog DELFI Deployment, and Techlog Data Integration

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Agenda

- Geolog to Techlog Migration
- Techlog DELFI Deployment
- Expanding Techlog OC
- Data Integration
- Conclusion
- Acknowledgment & Questions
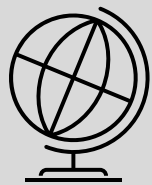
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Geolog to Techlog Migration Challenges
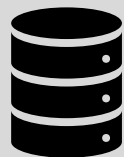
Challenges

Knowledge
- Rewrite apps/workflows in python and ocean, validate results
- Migrate new data types

Global Scope
- Standardize migration across multiple BUs globally

Large Volume of data
- ~1100 projects, 42.2 TB of data
- 10 months to meet cloud deployment plan

Solutions

Increase Knowledge
- Training and support by Schlumberger
- Collaboration between Chevron developers and SMEs to rewrite internal workflows in Techlog
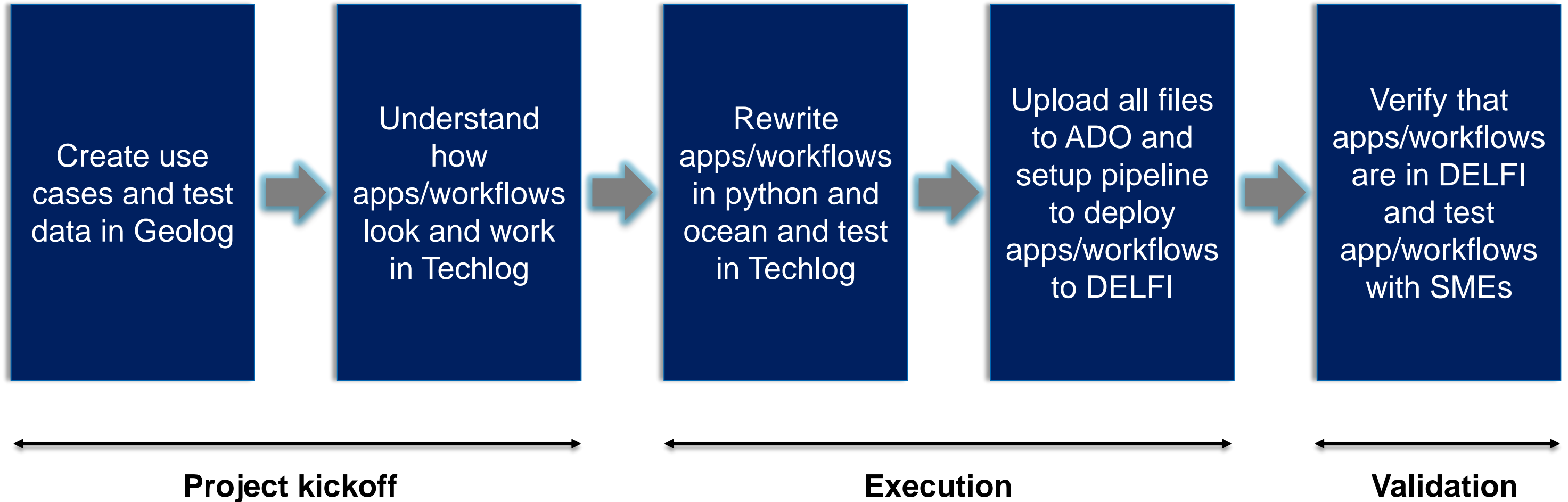
Proof of Concept
- PoC to validate migration requirements
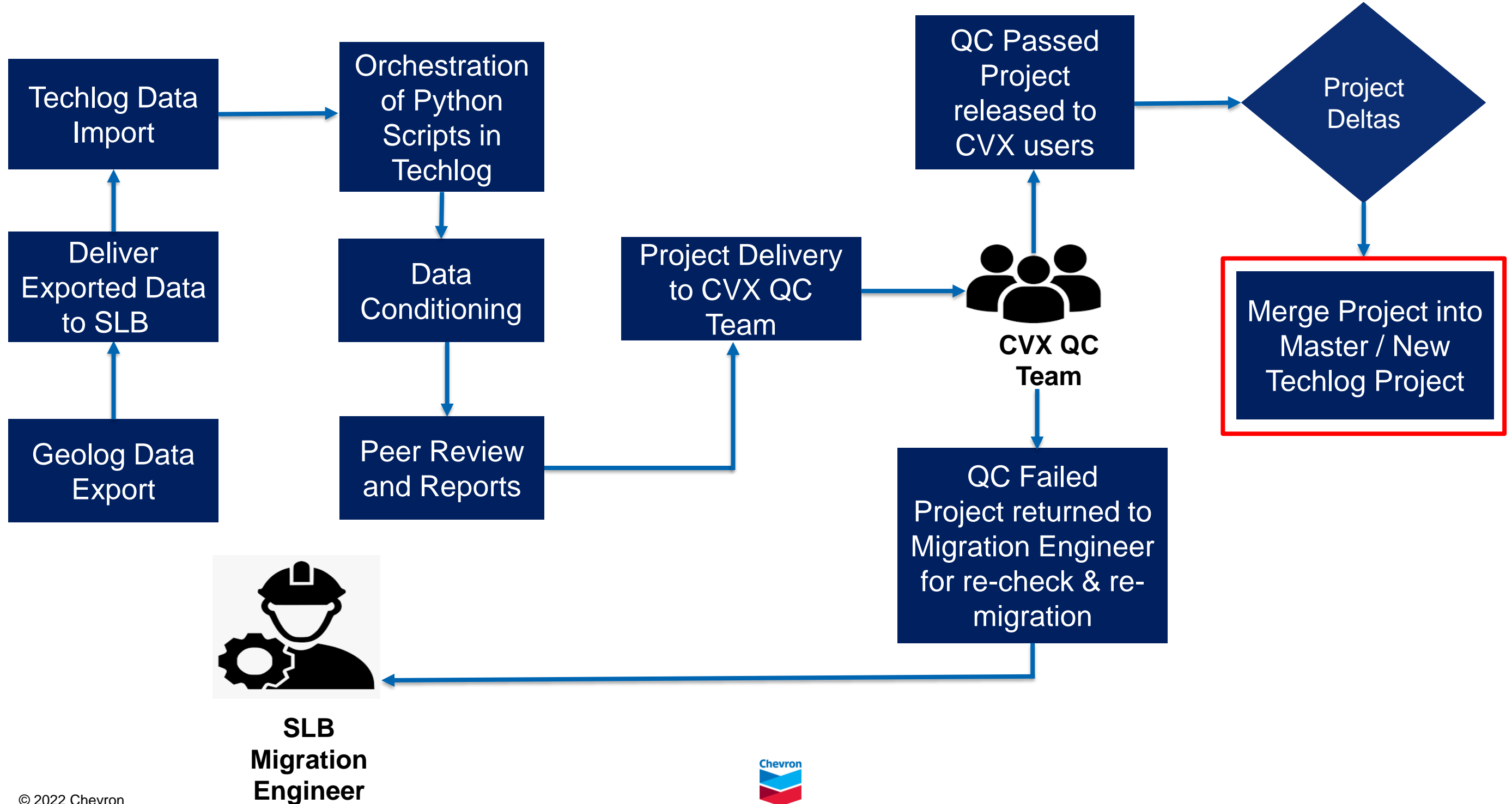- Development of python scripts and tools

Migration Factory
- Collaboration between Chevron and Schlumberger to establish migration process
- Schlumberger process automation

Geolog to Techlog in DELFI Workflow Migration - Chevron

| Create use cases and test data in Geolog | Understand how apps/workflows look and work in Techlog | Rewrite apps/workflows in python and ocean and test in Techlog | Upload all files to ADO and setup pipeline to deploy apps/workflows to DELFI | Verify that apps/workflows are in DELFI and test app/workflows with SMEs |

Project kickoff　　　　　　　　　　**Execution**　　　　　　**Validation**

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Geolog to Techlog Data Migration Factory

Techlog Data Transfer from on-premises to DELFI

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Techlog Migration Stats

Geolog to Techlog Migrated Projects per BU

Total number of projects = **1132**

42.4 TB

399, 334, 195, 44, 31, 20, 17, 17, 14, 14, 12, 9, 8, 7, 7, 4

Geolog to Techlog Migrated Workflow Files per BU

Total number of workflow files = **1037**

693, 75, 67, 26, 21, 19, 18, 17, 17, 14

BUs in Techlog on-prem and in DELFI

BUs in Techlog on Prem — 8

BUs in Techlog in DELFI — 13
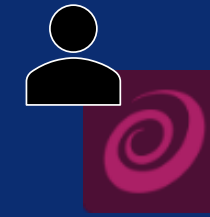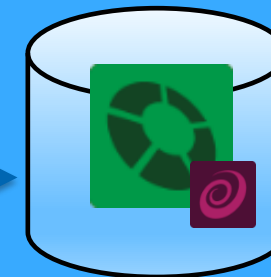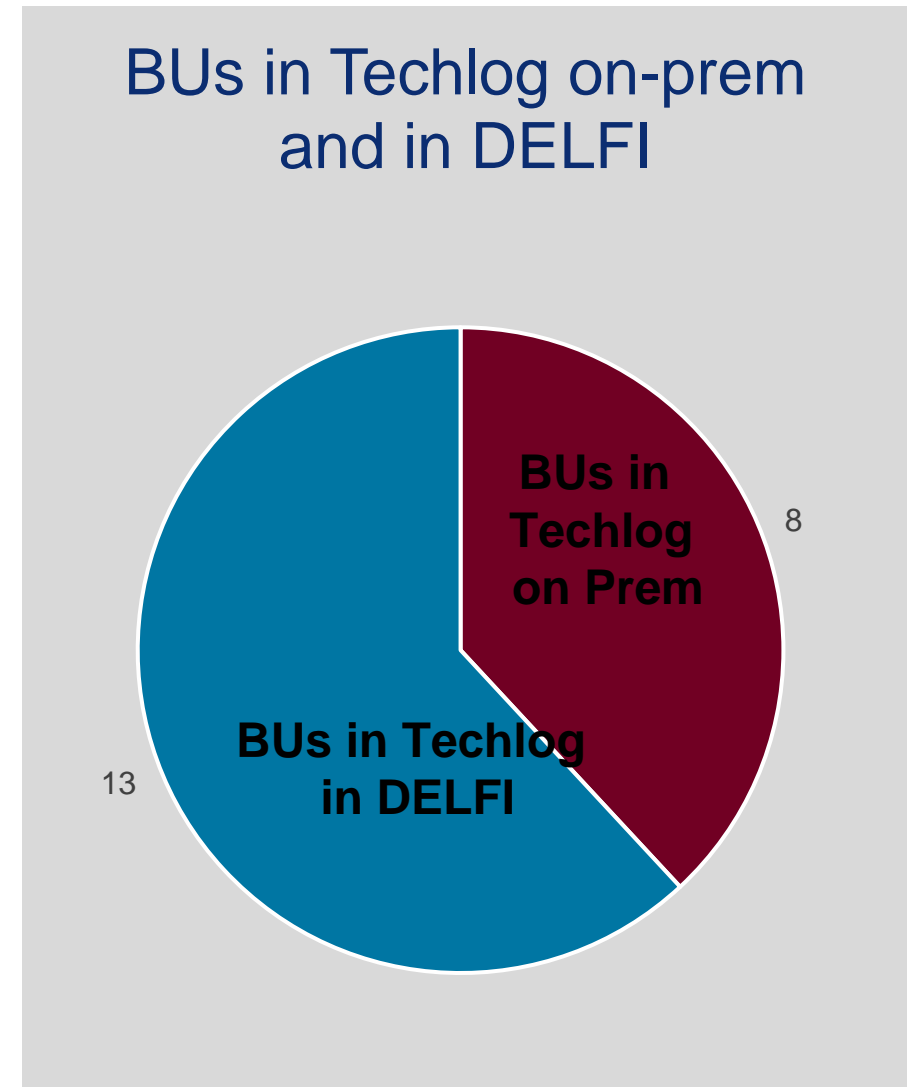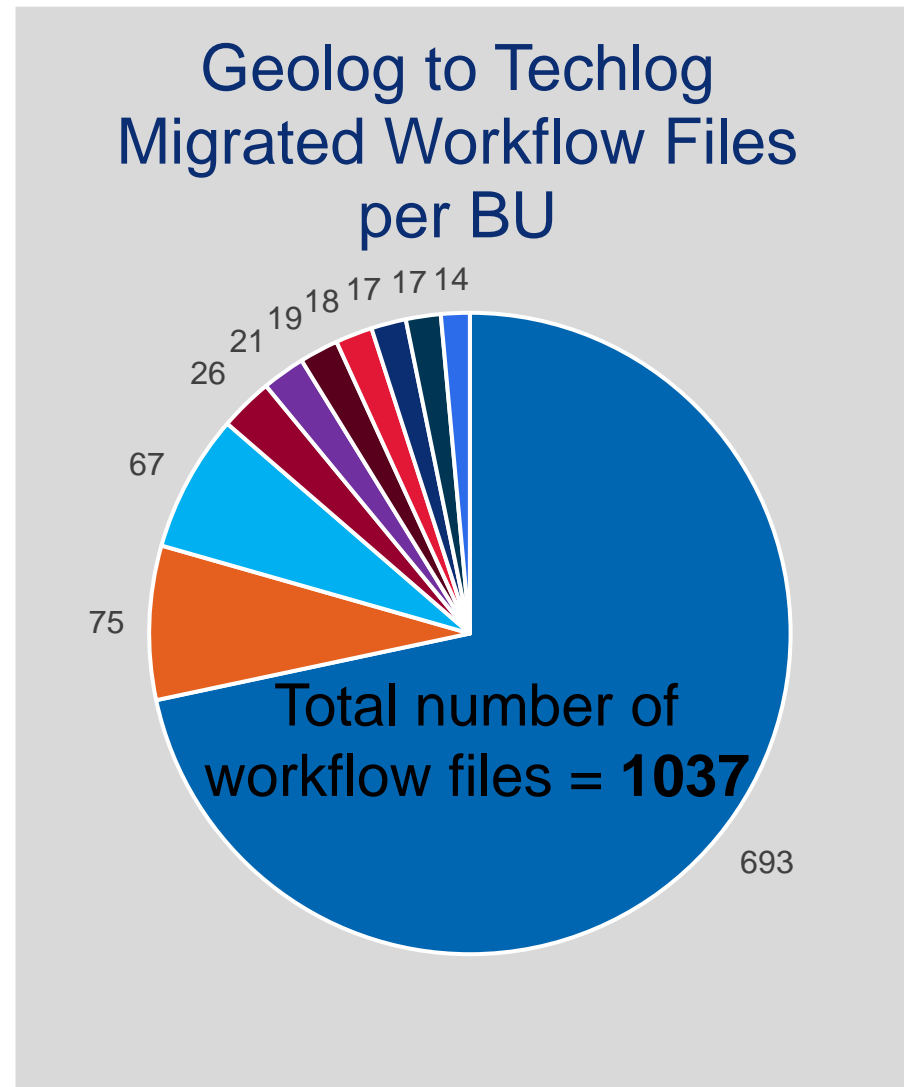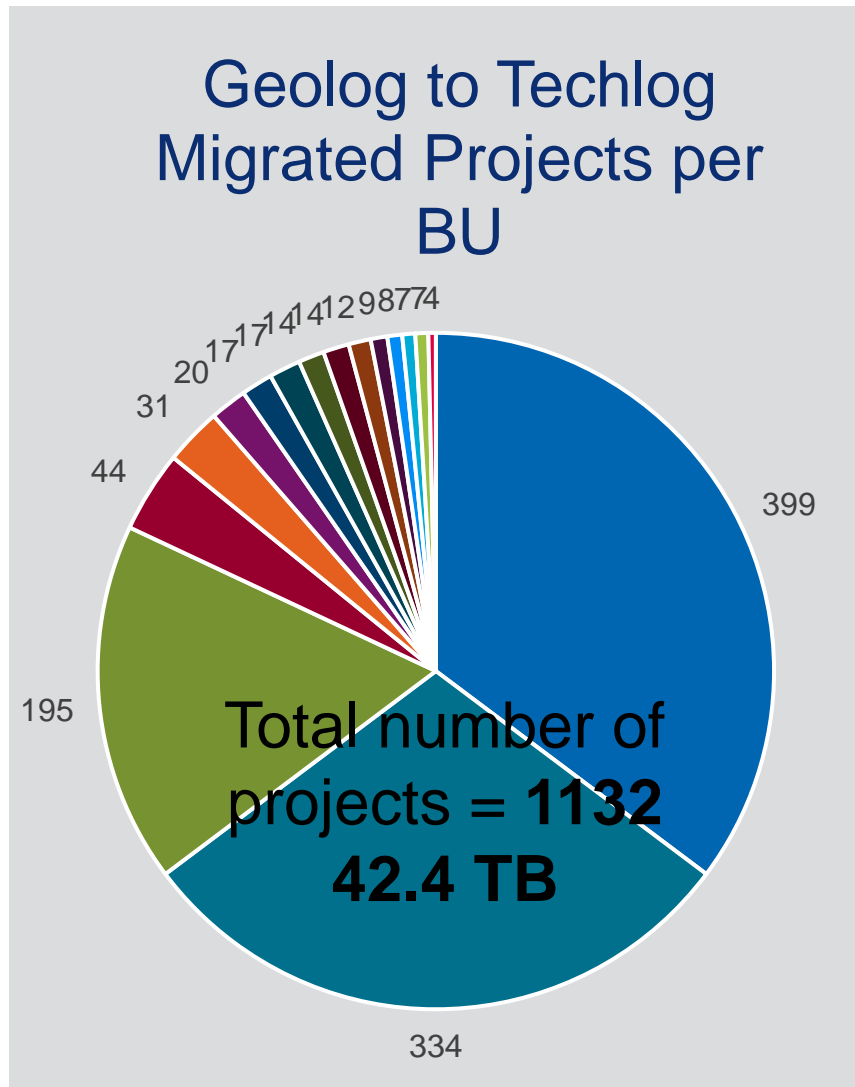
DEFLI Deployment & Post Migration Summary

Techlog Project Transfer into DELFI	→	Techlog Project Cleanup	→	Techlog Project Setup	→	Techlog Studio Transfer

- **Techlog Project Transfer into DELFI**
  - Identify remaining deltas
  - Migrate remaining deltas from Geolog to Techlog
  - Transfer Techlog projects to DELFI

- **Techlog Project Cleanup**
  - UWI clean up
  - Well / dataset duplicates clean up

- **Techlog Project Setup**
  - CRS Update
  - Established Well header transfer/standard-ization from Petrel
  - UWI validation

- **Techlog Studio Transfer**
  - Project(s) – Repository mapping
  - Well header validation
  - CRS validation

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Techlog Data Integration
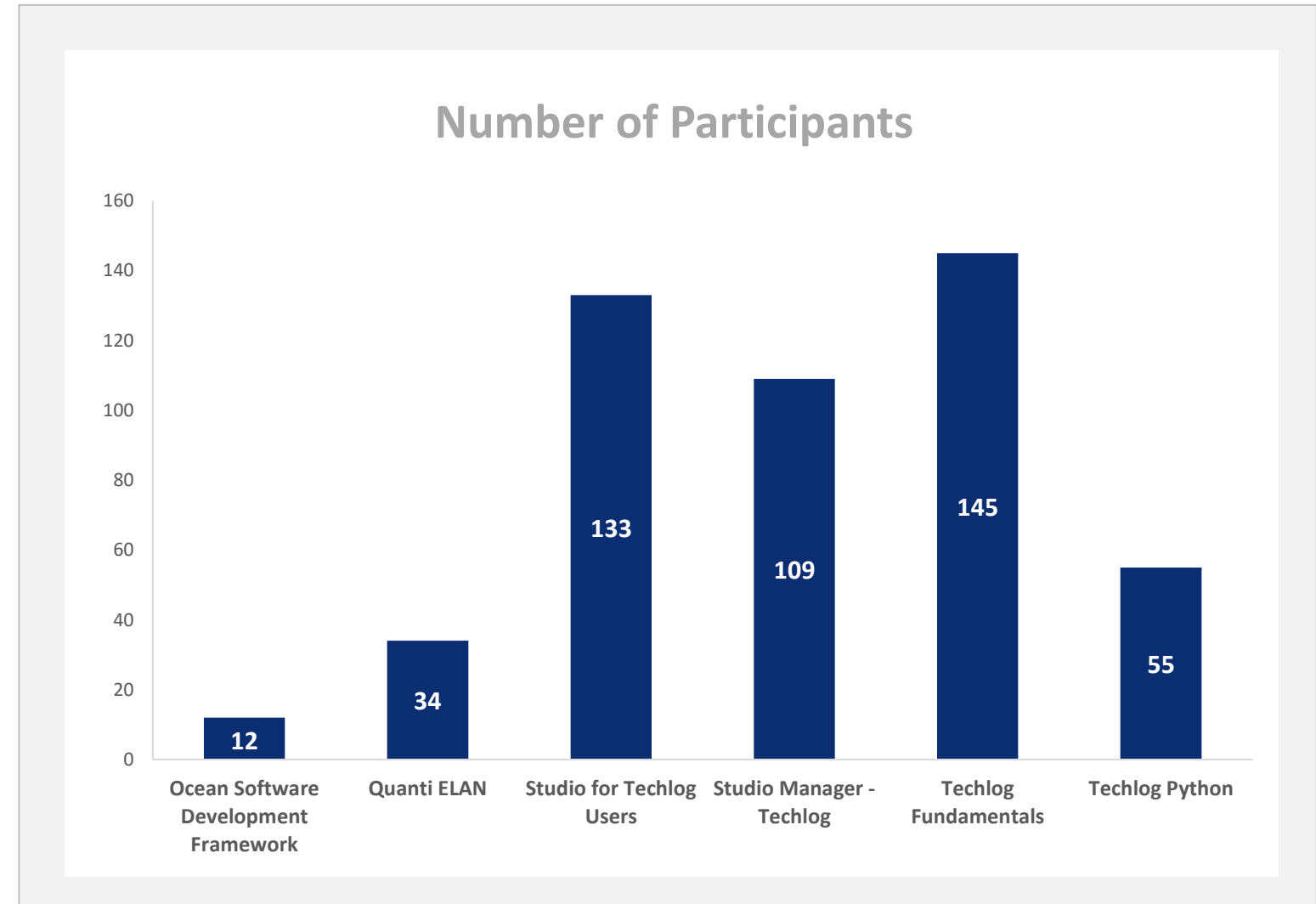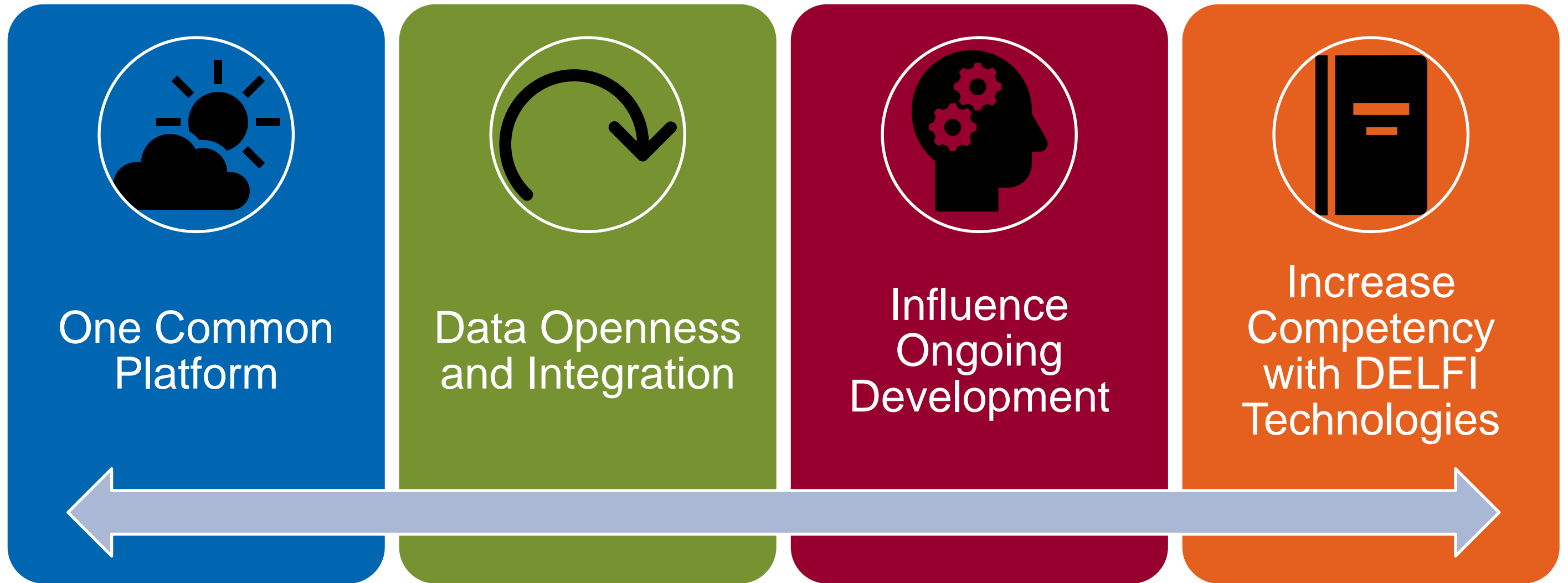
Training and Support

Pre-Deployment

- ## Customized Techlog training classes
  - › Techlog data model for all users
  - › Python and Ocean for programmers
  - › Advanced classes across different domains
  - › Studio Techlog for users and data managers
  - › Techlog hybrid courses delivered by Schlumberger and Chevron Subject Matter Experts
  - › A total of 43 classes delivered globally to date

Post Deployment

- ## Support
  - › 1-week dedicated bubble support to accompany deployment
  - › Onsite support for local business units
  - › Evergreen support through customer support channels

Number of Participants

Category	Number of Participants
Ocean Software Development Framework	12
Quanti ELAN	34
Studio for Techlog Users	133
Studio Manager - Techlog	109
Techlog Fundamentals	145
Techlog Python	55

DELFI Provides Opportunities and Value

One Common Platform

Data Openness and Integration

Influence Ongoing Development

Increase Competency with DELFI Technologies

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Conclusion

Leverage Techlog in DELFI to recognize opportunities and business value:

Leverage one common platform	Understand data integration tools	Increase Techlog and DELFI competencies	Influence ongoing development

Disrupt the technology, not the business:

Employ lessons learned from previous years of Techlog evaluation and Chevron long history around deployment and value driven decisions

Use best practices:

Stay aligned with Chevron strategy and with BU needs

Leverage Scaled Agile Framework (SAFe) and be flexible: learn, investigate, validate, and adjust quickly

Acknowledge challenges:

Software migration and digital transformation present challenges:

– Continue collaboration with Schlumberger and Chevron users to enhance Techlog software and develop user OC

– Continue working with Chevron users globally to leverage decades of user experience in petrophysics interpretation software to achieve full adoption

– Embrace constant change as technologies develop and adopt

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Acknowledgment & Questions

Big "Thank you!" for great teamwork and collaboration to many involved:

- Subsurface Petrophysics
- Subsurface G&G Ops and Geomechanics
- Subsurface Digital Platform
- Schlumberger
- Microsoft

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