Digital Thread Testing
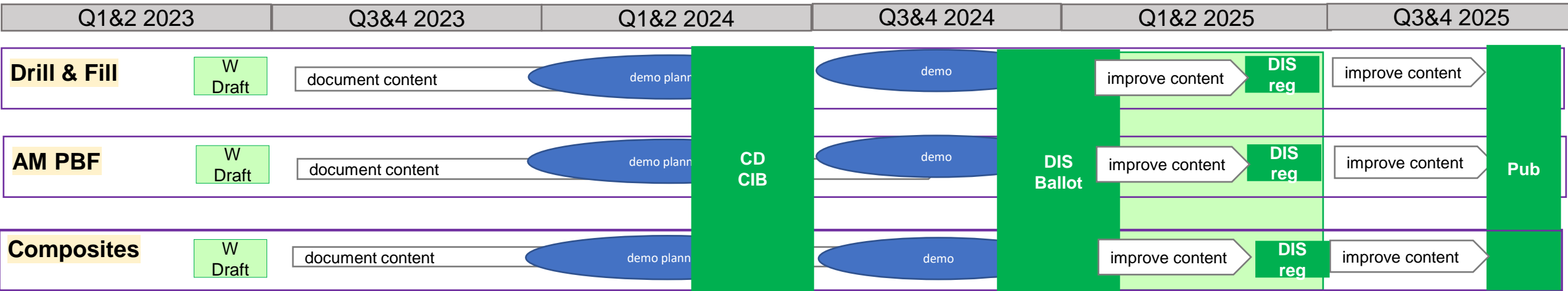
Dr. Martin Hardwick
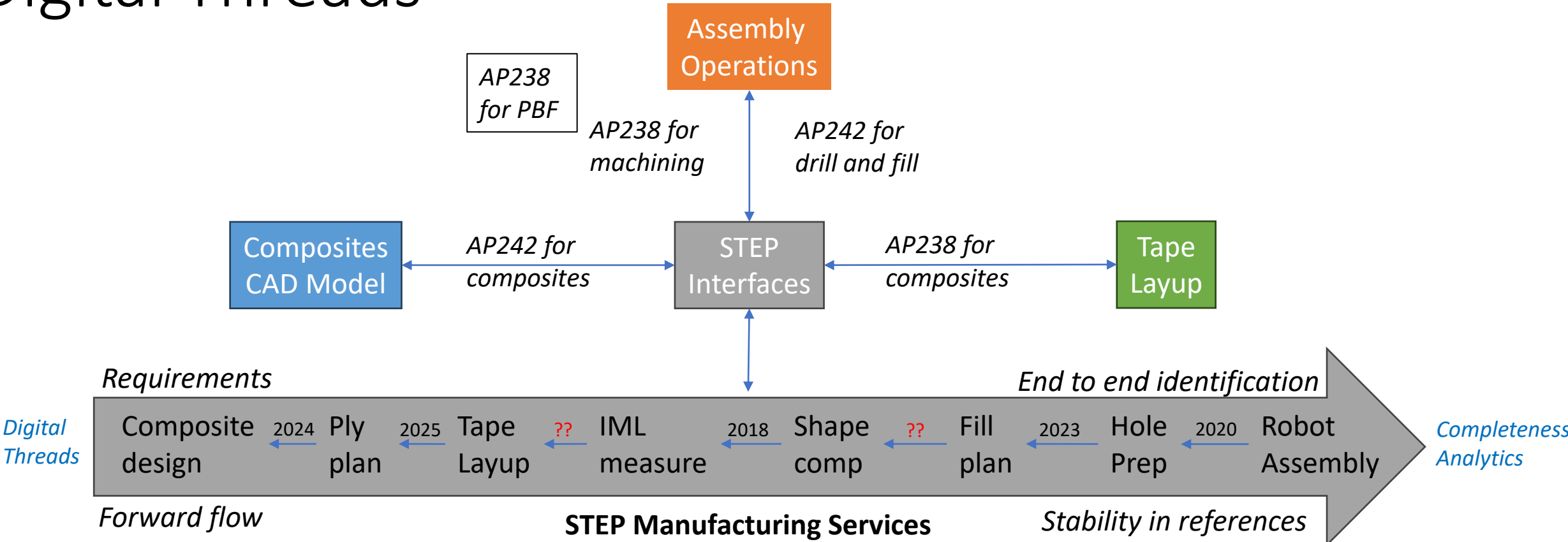
Convenor ISO Digital Manufacturing

AP238 E4 – Model Based Manufacturing

	Q1&2 2023	Q3&4 2023	Q1&2 2024	Q3&4 2024	Q1&2 2025	Q3&4 2025

Drill & Fill — W Draft — document content — demo plann — CD CIB — demo — DIS Ballot — improve content — DIS reg — improve content — Pub

AM PBF — W Draft — document content — demo plann — CD CIB — demo — DIS Ballot — improve content — DIS reg — improve content — Pub

Composites — W Draft — document content — demo plann — CD CIB — demo — DIS Ballot — improve content — DIS reg — improve content — Pub

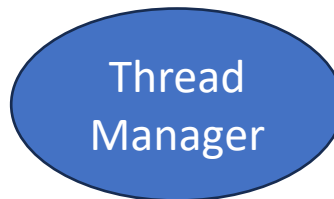|			
Drill & Fill	Model based assembly to reduce weight	W Draft	EXPRESS definition of requirements
AM PBF	Additive and subtractive for shape management	CIB Ballot	Mapping tables
Composites	Accurate tape layup at reduced cost	DIS reg	English descriptions (final form)

Digital Threads

Do we need a thread manager?

- Principles
    1. Functionality to make a UUID for an entity in a model
    2. Functionality to convert a UUID to a model and entity id
    3. Functionality to merge threads during manufacturing

Add UIID for model and eid

Thread Manager

Get model and eid for UUID

find UUID in a thread
remove UUID from a thread
merge and split threads