

Virtual Round Robin

A square icon with rounded corners, featuring a blue background and a white border. The word "Nuclear" is written in white, sans-serif font. The background of the icon shows a grayscale image of a nuclear reactor core.

Nuclear

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Assessing Performance in a Brave New World

Been there, done that...

Assessing humans

- Labor intensive
 - └ Subsets of data
 - └ Expensive to implement improvements
- Industry metrics

Different approaches

No AI

Human

AI-Assisted

Human + Machine

+

Machine

Fully Autonomous

Needs assessment

Machine

Multiple Levels

- “Automatic”
 - └ Full datasets
 - └ Easier to implement improvements
- Industry metrics, not ML metrics

Assessing machines

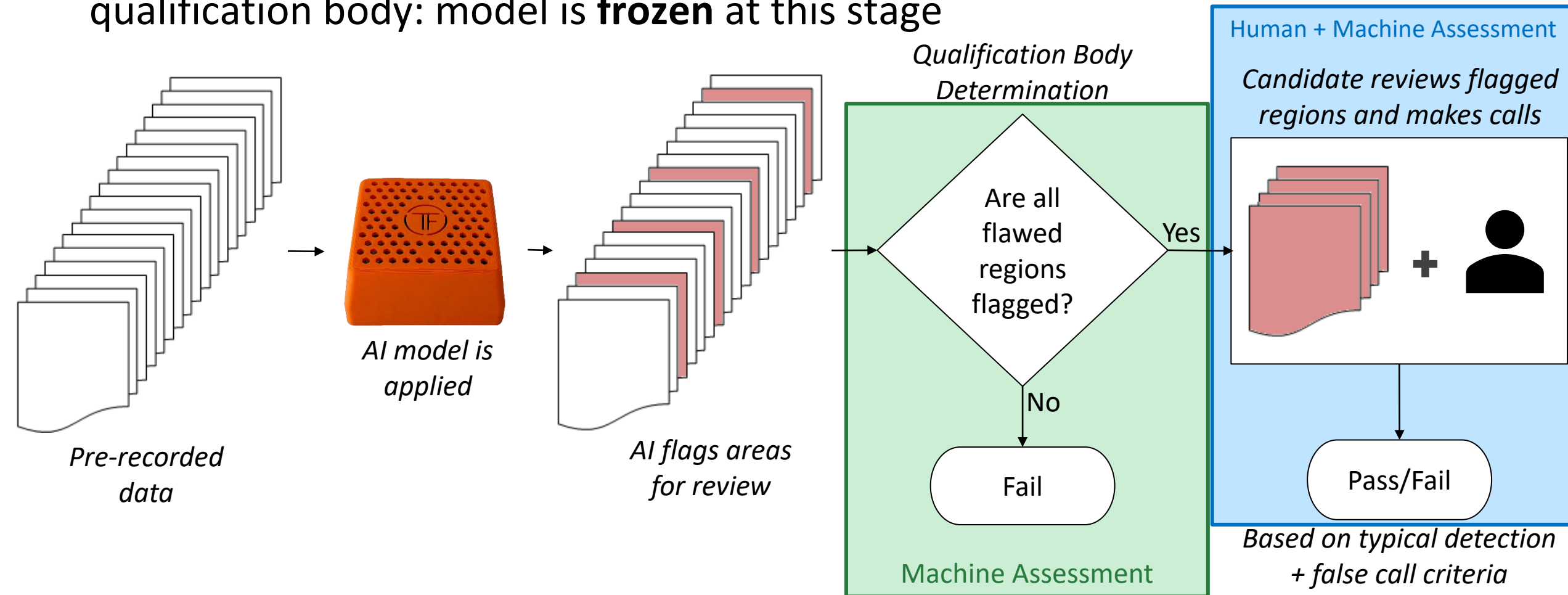
Doing it now...

Not necessarily subjected to same requirements if AI-assisted



What initial qualification *may* look like

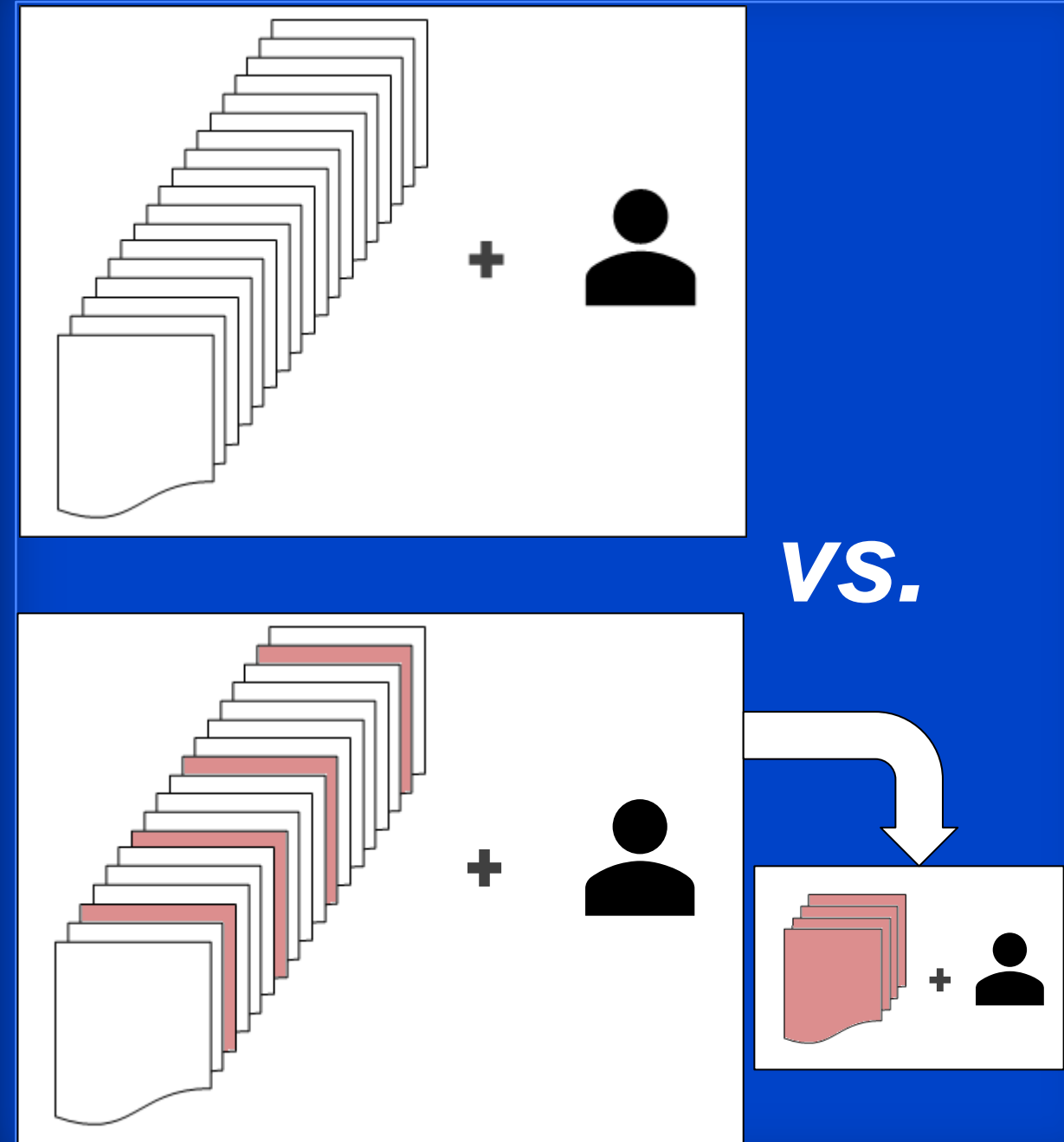
- Procedure would be updated to include a defined process for the AI evaluation
- AI algorithms for qualification would be developed and provided to the qualification body: model is **frozen** at this stage

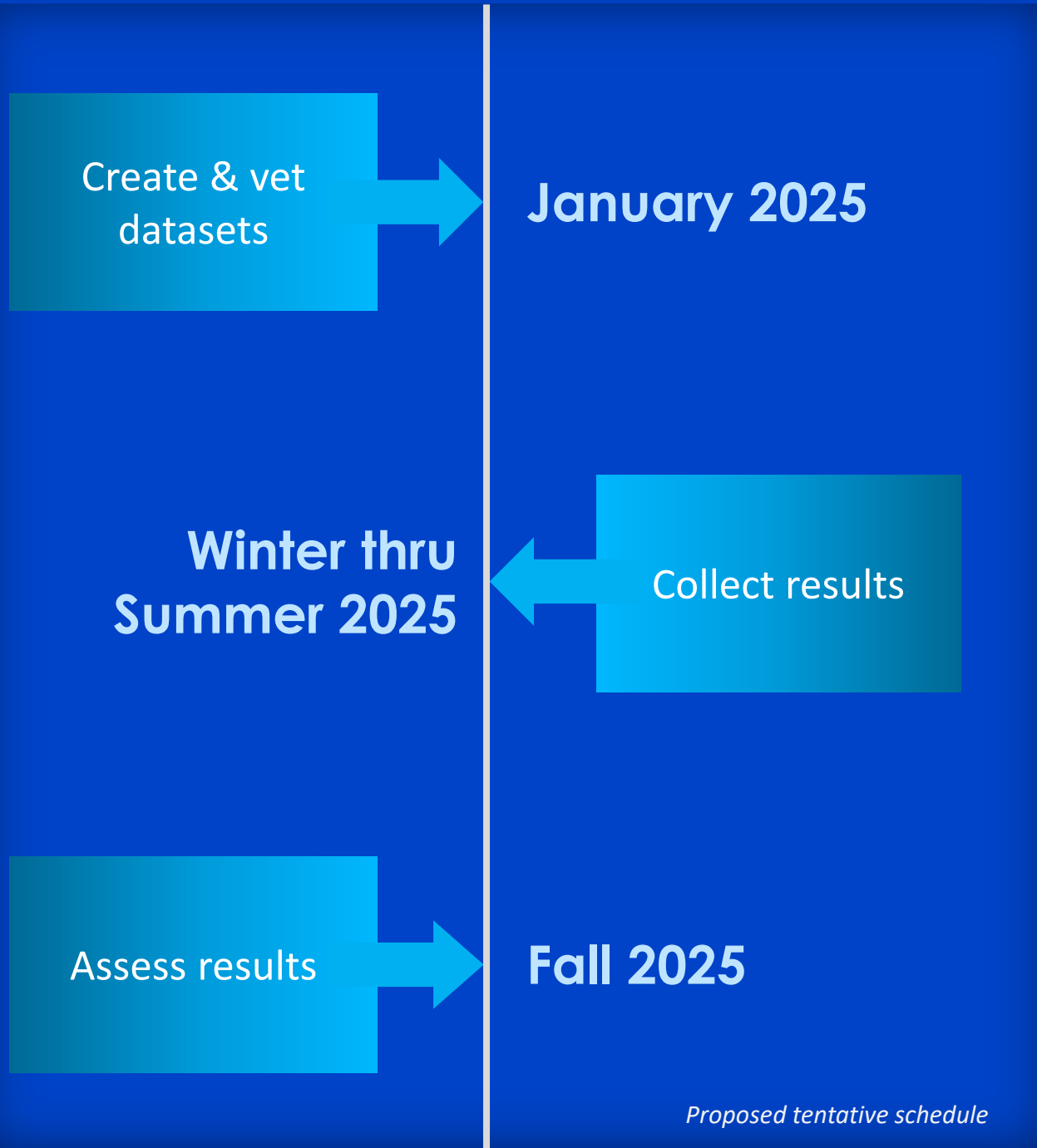


Virtual Round Robin: AI-Assisted Analysis

- Assessment of ***AI + inspector***
 - NOT the AI model
- Target/scope:
 - DMW
 - EPRI-ENC-DMW-PA-1 ([3002010407](#))
- Logistics
 - ☁️ Participants download datasets from portal
 - Datasets *with & without* AI-assistance
 - ☁️ Participants submit answers to portal
- ***Seeking volunteer participants***

* Proposed tentative schedule





Proposed Approach

- Virtual data:
 - *Canvas*: field-removed DMWs
 - *Seed flaws*: from open PDI inventory
 - EPRI to review/vet files
 - UVDData format
 - ~60 flaws
- Voiced interest to volunteer from:
 - Utilities
 - Inspection vendors
 - Research groups
- Features
 - Record analysis time
 - Possibly different experience levels



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