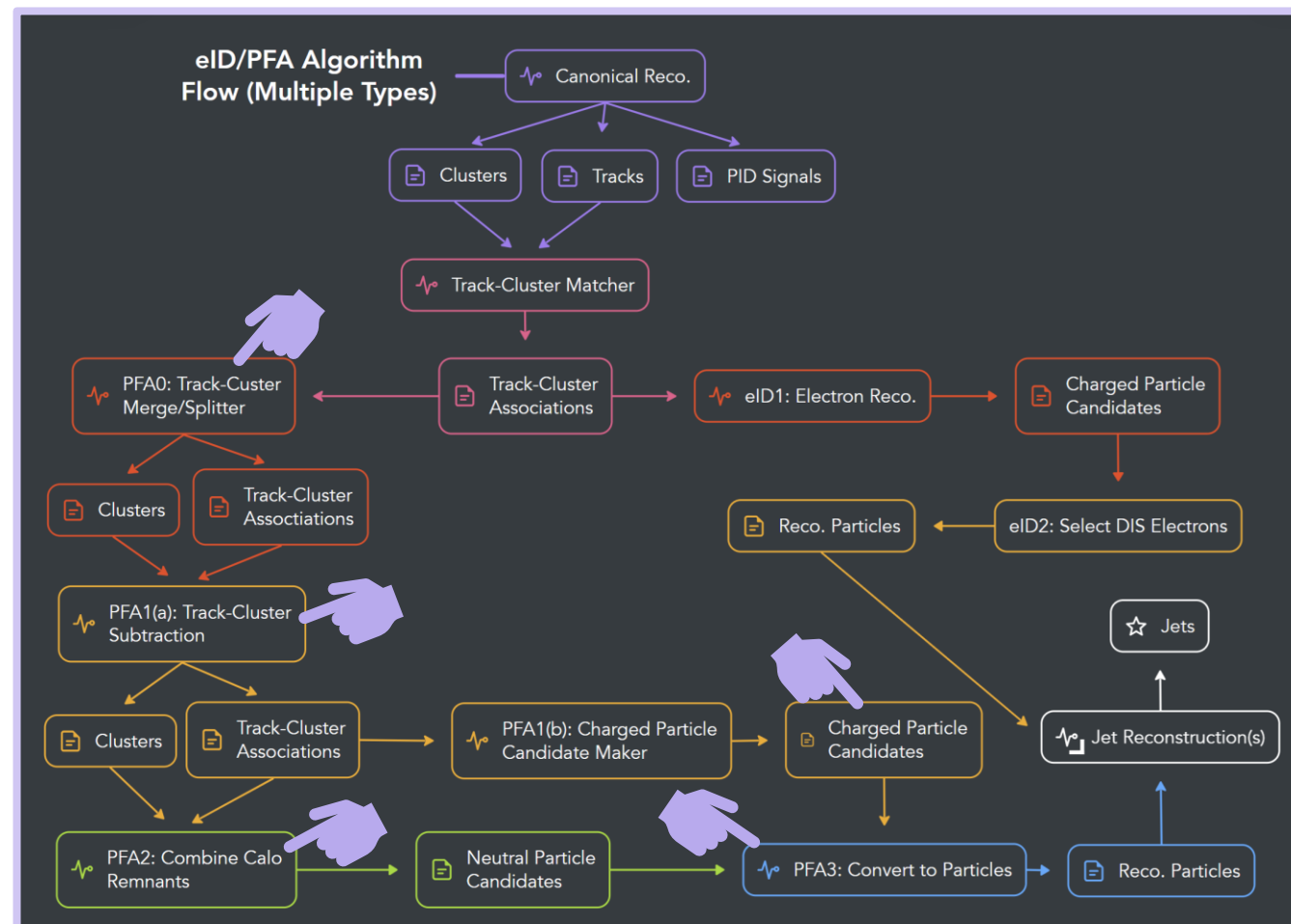# PF Status | Goal

o **Goal:** implement PF baseline (*PF Alpha*) by 1st half of this year
  - ☞ **Right:** schematic of the proposed sequence of types/algorithms
  - – Baseline items marked by 👉

o Discussed status as of 2025 at the Frascati CM
  - – **Summary:** some work there, but lots to go!
  - – For more discussion, see slides in Jet/HF Parallel Session here

o **Note:** diagram also illustrates potential interface between jet reconstruction & eID

PF Status | Summary

Items on Critical Path	Status
PFA0: Update Merge/Splitter	Under review[a]
PFA1(a): Track-Cluster Subtractor	PR ready[b]
Charged/Neutral Candidates	Draft PR open[c]
PFA1(b): Charged Candidate Regressor	To-Do
PFA2: Remnant Combiner	To-Do
PFA3: Particle Converter	To-Do

Items Not on Critical Path	Status
Track-Cluster Matcher	In progress
Cross-Calo Topocluster Maker	Needs discussion

o **Goal:** implement PF baseline by 1st half of this year
  ☞ **Upper left:** items on critical path towards this

o **Developments since Frascati CM:**
  1) **[02.06.2025]** PFA0 PR opened and under review
  2) **[02.23.205]** PFA1(a) PR ready to open after PFA0 merged
  3) **[02.27.2025]** Held 1st PF SubWG meeting
  4) **[03.11.2025]** Draft PR for candidate types open

o **Notes:**
  a) Rebased to accommodate EICrecon#1734
  b) Modulo any further changes to merge/splitter (depends on PFA0)
  c) Data model change: will need to schedule discussion in S&C meeting

PF Status | 1st "Sub WG" Meeting

Component	Parameter Tuning	Benchmarking
Track-Cluster Matcher	In progress	To-Do
PFA0: Merge/Splitter	Some done[a]	To-Do[b]
PFA1(a): Subtractor	To-Do	To-Do
PFA1(b): Chrg. Regressor	To-Do	To-Do
PFA2: Rem. Combiner	To-Do	To-Do
PFA3: Neu. Regressor	To-Do	To-Do
CC Topocluster Maker	In progress	To-Do

○ **Notes:**
  a) Some parameter tuning done for initial implementation
  b) Benchmarking can build off existing plugin used for testing

○ Kicked off PF "Sub WG" with meeting on 02.27.2025
  – Will hold meetings as-needed
  – Notes will always be in Reco WG doc!

○ **Topics discussed:**
  – Details of algorithms
  – Division of labor
    › Especially in tackling "non"-development work (e.g. table in left)
  – Ideas for (and current limitations to) cross-calorimeter topoclustering

○ **Huge thanks new workforce!** 🙏
  – Olaiya Olokunboyo (NHU)
  – Subhadip Pal (CTU)
  – David Ruth (NHU)
  – Peter Steinberg (BNL)

PF Status | EICrecon Development Tasks/Timeline

Item	PR/Issue	Assignee	Target	Notes
Track-Cluster Matcher	EICrecon#1694	Tristan P. (Lehigh)	Late-Mar.	
PFA0: Update Merge/Splitter	EICrecon#1699	Derek A. (ISU)	March	Review in-progress!
PFA1(a): Track-Cluster Subtractor	EICrecon#1627	Derek A. (ISU)	Mid-Mar.	PR ready to open
Charged/Neutral Particles Candidates	EDM4eic#104	Derek A. (ISU)	April	Draft PR open
PFA1(b): Charged Candidate Regressor	To-Do	Derek A. (ISU)	April	
PFA2: Remnant Combiner	To-Do	Derek A. (ISU)	April	
PFA3: Particle Converter	To-Do	Derek A. (ISU)	May	
Cross-Calo Topocluster Maker	EICrecon#1561	Tristan P. (Lehigh)	April	Needs discussion

o **Above:** tasks from slide 2 but with assignees + targets
- Idea is push on development work, benchmarking will follow

o **Note:** existing merge/splitter allows for work to continue on critical path without track-cluster matcher
- Will wire in matcher once it's ready