

Dynamic Signal Routing: 4 Versions (Comparison + Best Pick)

Version 1 - Linear Pipeline

[Business+Engineering Inputs] -> [Signal Detection] -> [Scoring] -> [Complexity Band] -> [Branching] -> [Delivery+]

Version 2 - Plugin Swimlanes

QE Change Tracking ----> Crew Signal Normalization ----> Crew Scoring/Complexity ----> Branch Selection  
Engineering Inputs ----^ |  
Specialists Evidence <-----+  
Risk/Coverage + Review Findings -----> Re-score

Version 3 - Decision Tree

Unified Signal Set -> Compute Complexity 0-7 -> Score Band?  
0-2 => Fast Track  
3-4 => Expanded Track (+design +test-strategy)  
5-7 => Full Track (+ideate +test +full gates)  
Outcome -> New Risk Signals? yes => Re-enter; no => Complete

Version 4 - Convergence Hub + Scoring Internals + Adaptive Loop (BEST)

Input Sources -> Ingestion(crew+qe) -> Normalization -> Convergence Hub  
Convergence Hub -> Scoring Engine:  
Impact(0-3), Reversibility(0-3), Novelty(0-3)  
Complexity = impact + min(max(reversibility, novelty),2) + scope + coordination  
Convergence Hub -> Archetype Adjustment -> Complexity  
Complexity -> Branching: 0-2 Fast | 3-4 Expanded | 5-7 Full Adaptive  
Normalization -> Specialist Router -> engineering/qe/platform/product/jam/data/agent/c/delivery  
Branches + Specialists -> Execution + Gates -> Pass? yes Complete; no emit findings -> Convergence Hub

Comparison Matrix (score out of 5)

Criterion	V1	V2	V3	V4
Executive readability		5	3	4 4
Plugin responsibility clarity		2	5	2 4
Scoring transparency		2	3	3 5
Branching clarity		3	2	5 5
Feedback/adaptation clarity			1	3 4 5
Overall		13	16	18 23

Recommendation: Use Version 4 as canonical architecture diagram.