

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

Version 1 - Linear Pipeline

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

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/agentic/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.