

Fishbone (Ishikawa 6M) Worksheet

A generic worksheet for D4 brainstorming. The fishbone lists candidate causes; D4 still needs verification. Each candidate must be tested with data before it is written as the root cause.

1. Problem (the fish head)

Complaint / 8D no.		Part number / name	
Effect (from D2, measurable)		Team / date	

Copy the effect from D2: what is wrong, how much, since when. Not a cause, not 'quality problem'.

2. Candidate causes by category (6M)

Category	Candidate causes (one per line)	Linked to a D2 fact? (which)
Man (people)		
Machine		
Method		
Material		
Measurement		
Mother Nature (environment)		

Write specific, checkable candidates ('nozzle temperature drifts above setpoint on line 2'), not labels ('machine', 'operator'). Cross out candidates that the Is / Is-Not facts in D2 already exclude.

3. Verification of candidates

#	Candidate cause	Test / evidence planned	Who / when	Result	Status (confirmed / ruled out / open)

A cause is confirmed only when the evidence explains the defect, including where it does not occur, for example by switching the effect on and off. Votes and opinions are not verification.

4. Next step

Confirmed occurrence cause(s)		Why it was not detected (escape)	
Carried into 5 Whys? (Y/N, ref.)		Checked by (name, date)	