

One ODM, two schedules: what the ODM must staff, week by week

Two native project schedules as saved on the as-of date (month 0), no leveling applied, headcount estimated per task class

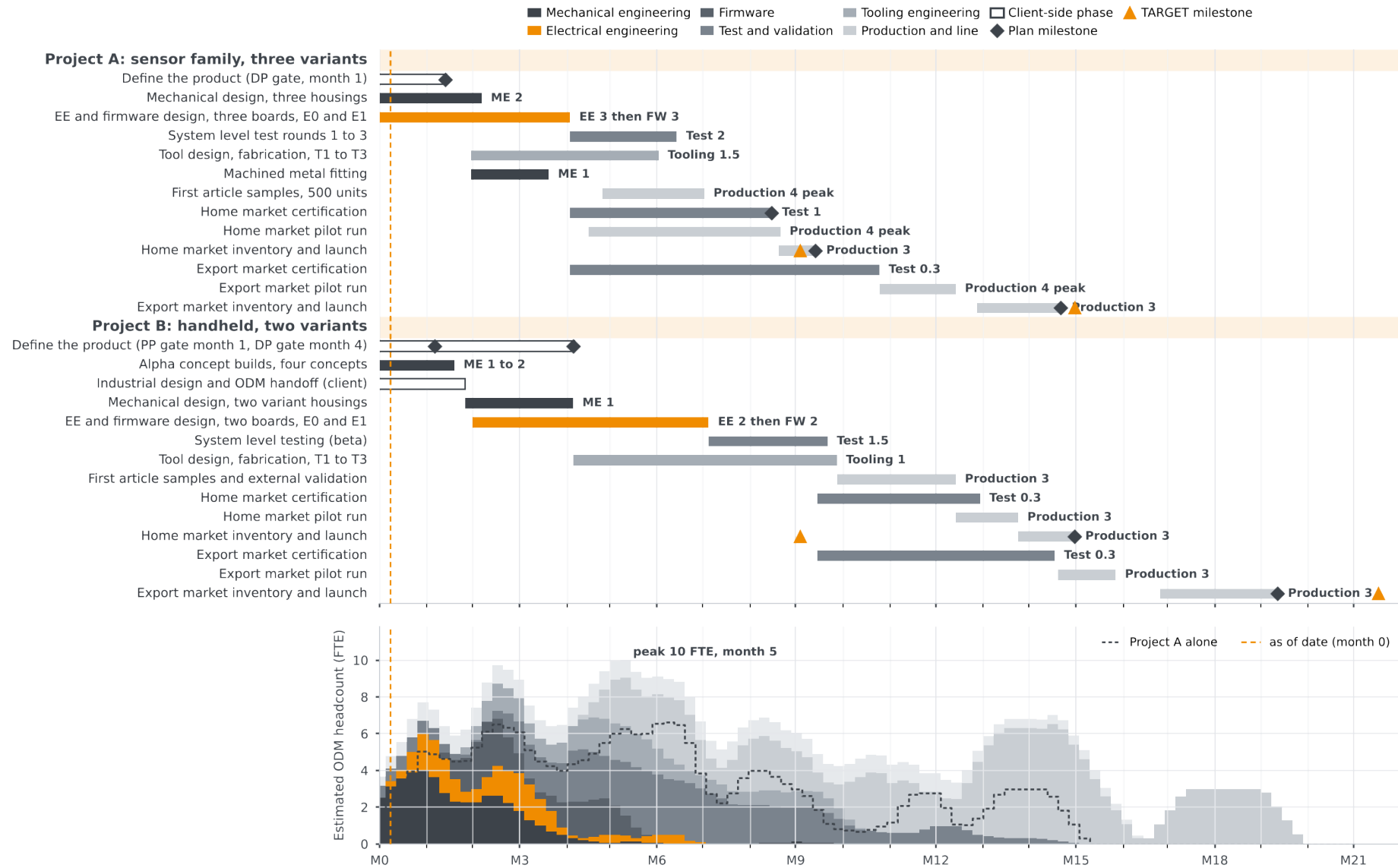


Figure 1. Top: the workstreams in each native schedule that consume ODM capacity, with the headcount each one needs at its peak. Bottom: estimated ODM FTE by resource type for both projects combined, weekly, shown as a four-week average; the dashed line is Project A alone. Orange triangles are the TARGET milestones the plans carry; both home market targets sit in month 9. The time axis counts months from the as-of date. Assumptions and sources on page 3.

Where the two plans collide by resource type

Project A in slate, Project B in orange; dashed line is the number of engineers the plans name for that type

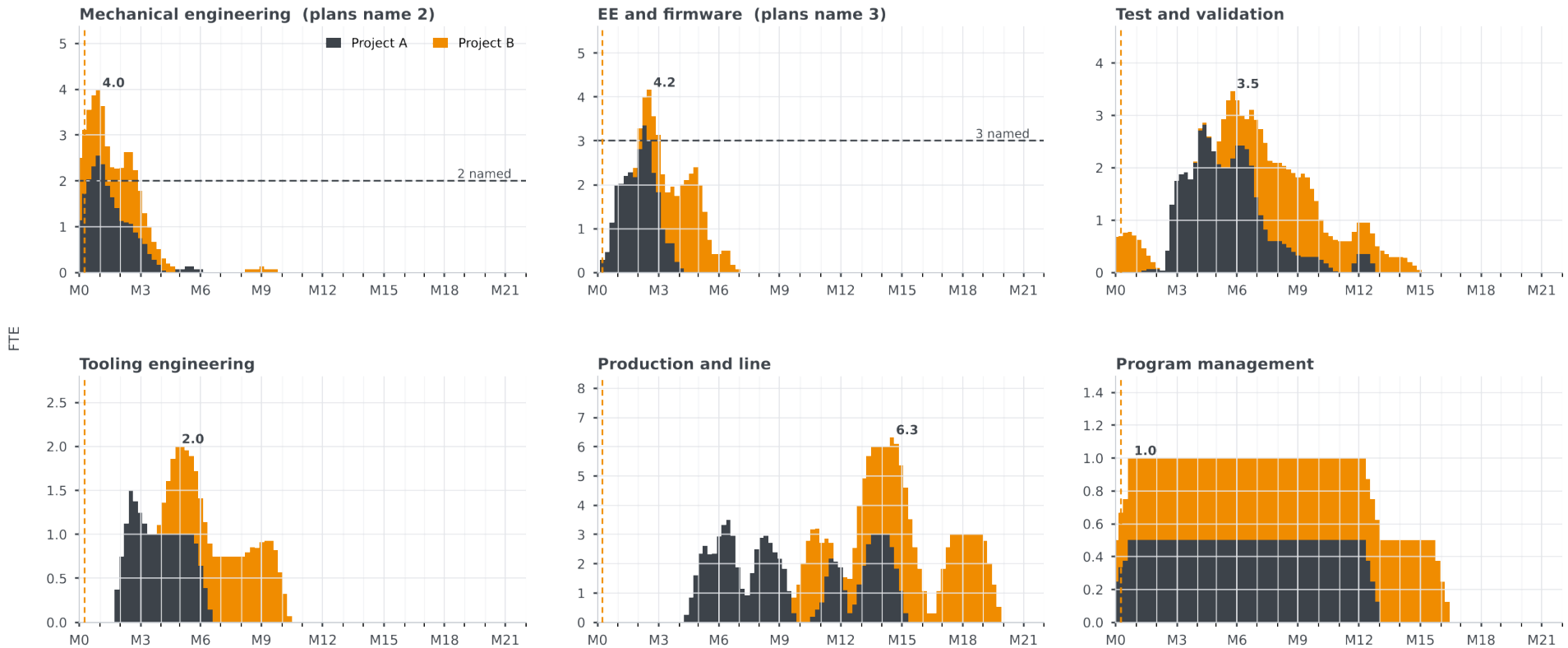


Figure 2. Same model as Figure 1, split by resource type and project. Tooling, test and production have no named capacity in the files; all three roll up to one ODM program owner.

1

EE and firmware is the collision that matters

The plans ask for 4.2 EE and firmware engineers across weeks 8 to 12 against three named in the files. Project A has three boards in E0 firmware and debug while Project B starts layout on both of its boards. The client's own resourcing review reached the same conclusion by inspection; this model puts the size and the dates on it: five weeks, 1.2 FTE short.

2

Mechanical engineering is squeezed now, not later

ME demand peaks at 4.0 FTE in month 1 against two named engineers and stays above two until the end of month 2: three Project A housings, the Project B alpha builds and Project B housings share the same eight weeks. After month 5 ODM ME load falls to near zero. The pinch is short and already under way.

3

Production stacks in months 12 to 16

Project A export pilot and inventory, Project B first article samples, home market pilot and home market inventory all land between months 12 and 16, peaking at 6.3 line FTE in month 14. This is schedulable work. It needs a line allocation agreement with the ODM, not more engineers.

4

Tooling is a lead-time problem, not a headcount problem

ODM tooling engineering never exceeds 2.0 FTE, in months 4 to 5 when both tool programs overlap. Each program carries 65 days of fabrication at the toolmaker. Project B tool design starts the day its DP gate closes, so any DP slip moves tooling, first article samples and the home market launch one for one.

How the headcount was estimated

Every leaf task owned by the ODM in either schedule was classed into one resource type and given an FTE loading; the week's demand is the sum of overlapping tasks

Resource type	Tasks counted	FTE rule applied	Basis
Mechanical engineering	Housing geometry, surfacing, design for tooling, 3D review, drawing release, machined fitting, alpha concept builds, T1 and T2 trials	1.0 per product chain; 0.3 while CNC vendor cuts; 0.5 per alpha build	Project A runs two housing chains with two named owners; Project B one chain
Electrical engineering	Schematic, PCB size, layout, design review, PCB sample, component mount, debug support	1.0 per board chain; 1.5 for the two-day design review; 0.2 while the fab house builds samples	Three Project A boards with three named owners; two Project B boards with one
Firmware	Design tool firmware, debug firmware	1.0 per board chain	Same owners as the EE tasks in both files
Test and validation	Sample test, system level verification, SL test rounds, beta, pre-test, cert unit verification, external lab liaison	1.0 per chain; 2.0 for SL rounds; 1.5 for beta; 0.3 while an external lab tests	Round sizes from task durations and counts
Tooling engineering	Tool design, fabrication oversight, T1 to T3 trials and modifications	Project A 1.5 design, 1.0 fabrication; Project B 1.0 and 0.75; 1.0 per trial	Three housing part sets versus two
Production and line	Material and fixture preparation, FAS build, pilot build, calibration, OQC, saleable inventory	4.0 on a build, 2.0 on calibration, 1.0 on inspection or preparation, 3.0 on an inventory run	500 first article units; pilot quantities not yet set in the file
Program management	Coordination across every ODM task	0.5 per active project	Flat allowance, not derived from tasks

Table 1. Loading rules. A task's FTE is spread across the calendar days it spans; a week's value is the sum of every task active that week.

What the model leaves out

Client-owned tasks: industrial design, UI and UX, manuals and packaging, marketing, finance, certification planning. They appear on the Gantt as hollow bars where they gate ODM work and carry no ODM load.

External parties: the CNC vendor, PCB fab house, toolmaker and test labs are counted only as the ODM time needed to manage them.

Leveling: both schedules are taken as saved. Nothing has been pushed to fit the named roster, so the histogram shows demand, not a plan.

Schedule facts the files carry

Both home market TARGET milestones fall in month 9. Project A plans its home market launch ten days past target. Project B plans its home market launch 180 days past target; the recompute puts its upstream work at negative float to that target from design for tooling onward.

The client's own resourcing review models a fully staggered alternative that moves the Project B home market launch out by about three further months. This brief does not re-plan. It shows what the two saved plans ask of the ODM so that the staffing decision is taken with numbers in hand.

Neither file carries a status date. Dates are read as of the last save, which this brief calls month 0; ask the planner to set a status date at each update.

Sources

Project A native schedule (394 tasks, 430 links, 11 baselines). Project B native schedule (157 tasks, 159 links, 4 baselines). The client's internal resourcing review of the same two plans. Client, ODM and product identities removed; dates expressed as months from the as-of date.