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# Why defense programs deliver late

## 9 causes. 9 navy cases.

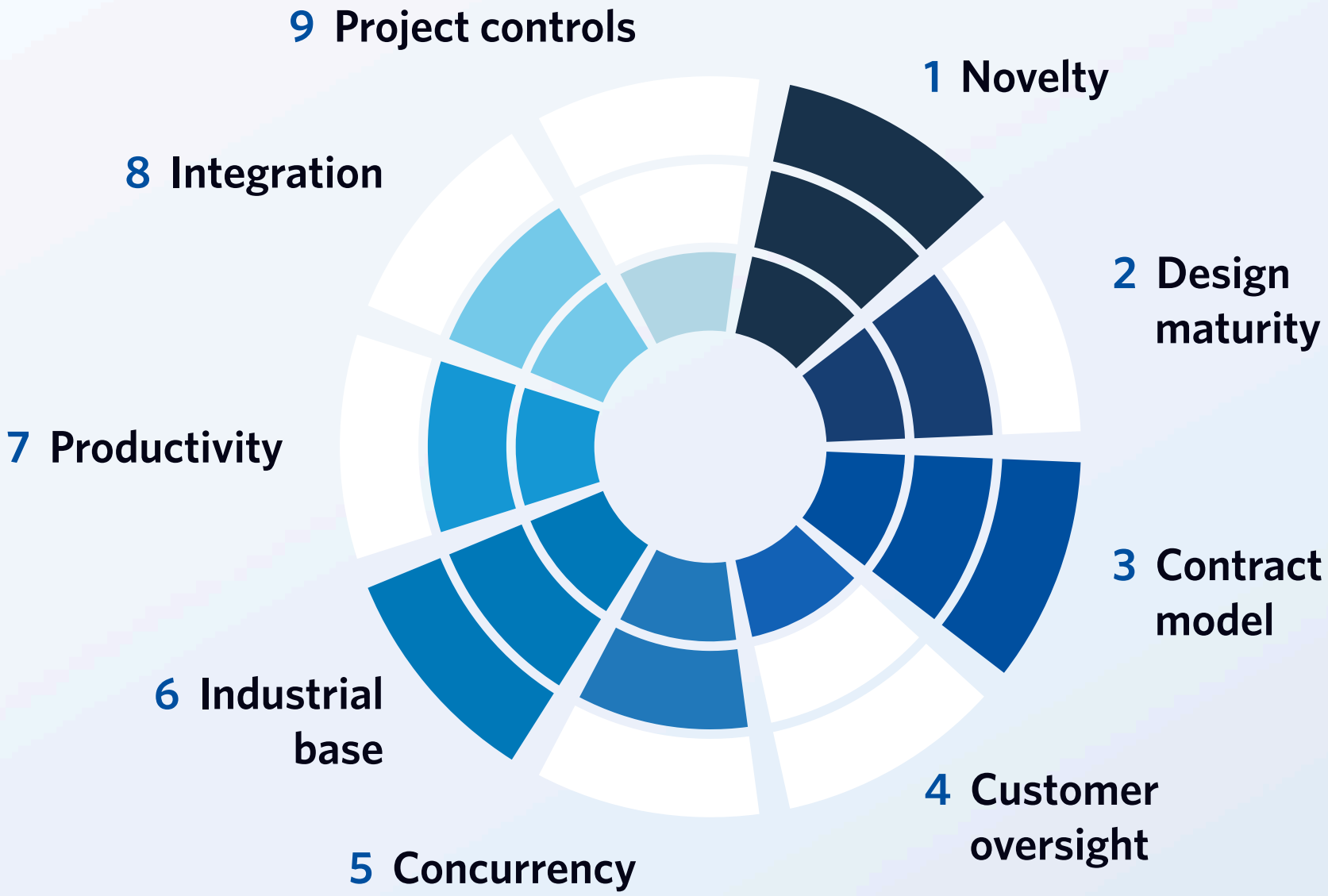
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Overview

# Where naval schedules break

9 criteria. Each follows with 1 documented case.



**Problem 1 of 9** | **Novelty**

# Too much is new at once

A new platform, new systems and maximum requirements in the same program.

**Example** | **UK Type 45 destroyer**

about 80%

of its systems were new. The in-service date slipped by 36 months.

Source: UK National Audit Office, 2009

**Problem 2 of 9** | **Design maturity**

# The commitment comes before the design is stable

Contract, fixed price or start of construction fall before design and technology are mature.

**Example** | **US frigate FFG 62**

under **15%**

of the ship still matches its parent design. The plan was 85%. Delivery of the first ship moved from April 2026 to April 2029.

Source: US Congressional Research Service, 2026

Problem 3 of 9 | Contract model

# A fixed price leaves the schedule risk open

The contract fixes the price of work that is still development. The financial risk moves to the contractor.

Example | UK Astute submarines

only 5%

risk contingency in the 1997 maximum-price contract, cut from £451m in the bid to £133m. Complex projects normally carry 10 to 15%. Boat 1 was delivered 57 months late.

Source: RAND, 2011, citing UK National Audit Office, 2009

**Problem 4 of 9** | **Customer oversight**

# The customer steers from a distance

Little insight of its own. The customer accepts dates it cannot check.

**Example** | **US Columbia-class submarine**

**6** months

of buffer came from cutting the planned build from 84 to 78 months, without a schedule risk analysis. By October 2023 it was gone. The lead boat is now expected 12 to 16 months late.

Source: US GAO, 2023 and 2024; US Congressional Research Service, 2024

Problem 5 of 9 | Concurrency

# Development and production run in parallel

Design, testing and series production overlap to protect the date. Rework follows.

Example | US aircraft carrier Gerald R. Ford

## 13 technologies

were still in development when construction went ahead. The Navy accepted the carrier over 2 years late, and still before it was complete.

Source: US Government Accountability Office, 2018

Problem 6 of 9 | Industrial base

# The industrial base is overloaded

Suppliers deliver late or lack capacity, and many have no alternative.

Example | US submarine suppliers

about **70%**

of the suppliers of critical submarine components have no competitor.

Source: US Congressional Budget Office, 2026

Problem 7 of 9 | Productivity

# Engineering and production need more hours than planned

A first ship and a new team reach less output per hour than the plan assumes. Revised drawings turn into rework in production.

Example | Australian Hobart-class destroyers

## 1.60 dollars

were spent to produce 1.00 dollar of estimated work in 2013. Detail drawings averaged 2.75 revisions. The 3 ships were 15 to 21 months late.

Source: Australian National Audit Office, 2014

Problem 8 of 9 | Integration

# The delay surfaces in integration and acceptance

The critical path runs through the combat system and the subcontractors.

Example | German frigate F125

## 32 months

of delay against the contract date. Defects in the combat system blocked acceptance.

Source: German Federal Ministry of Defence, armaments report 2018

Problem 9 of 9 | Project controls

# Project controls show the delay too late

Progress is counted in documents, not field measurements. Early warnings get explained away, and the buffer is promised back.

Example | German frigate F126

**0** months

of deviation were reported in April 2024. The program was terminated on June 24, 2026.

Source: German Federal Ministry of Defence, 2024 and 2026

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## What it means

# Complexity needs structure.

The full paper covers the detailed analysis and the implications for naval newbuild programs.

**Contact us for the full paper:**

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