

01

Input

What problem are we solving? What data do we actually have available?

Customer profile: contract type, tenure, tariff plan, region.

Usage data (6 mths): data GB/mth, call minutes, SMS volume, roaming.

Service events: #complaints, avg. wait time, resolution time, NPS score.

Payment behaviour: late payments, direct debit yes/no.

■ Not available: social media data, competitor pricing — do not use.

✓ Go/no-go: model goes live only when accuracy ≥ 78% on 6-month holdout validation set.

05

Alternative routes

Can a simple rule or checklist already deliver 80% of the value?

Existing rule: 'contract < 30 days + open complaint = call proactively' already catches 31% of churners.

Scorecard on 5 variables (tenure, complaints, data decline, payment, NPS): 68% accuracy.

AI delivers +12pp above scorecard → added value proven. Scorecard retained as fallback.

Black Box

Complex processing — details come later

Gradient boosting model (XGBoost) trained on 24 months of historical customer data.

Feature engineering: dozens of variables incl. usage, complaint history & payment behaviour.

Monthly batch scoring via Azure ML pipeline. Model retraining every 90 days.

Threshold: churn score ≥ 0.72 triggers action.

07

Black Box boundaries

Describe the boundaries! What must be explainable to customers, doctors, regulators,...? What can stay under the hood?

Customer has the right to an explanation of why they are flagged as a churner (GDPR Art. 22).

Agents receive top-3 reasons in plain language: 'Less data usage', 'Open complaint', 'Contract expires within 60 days'.

Algorithm logic remains internal: feature weights, thresholds and model architecture are commercially confidential.

No automated decision-making: a human always decides on the retention approach.

02

Output

What do we want to achieve? Which insights, decisions or actions?

Churn score per customer: 0.00 – 1.00 (probability of leaving within 90 days).

Segment: High risk (≥ 0.72), Medium (0.45–0.71), Low (< 0.45).

Top-3 churn reasons per customer in plain language for the agent.

Weekly export list for CRM: name, score, segment, reasons, recommended retention action.

03

Value validation

If this works, what changes concretely in the business?

Retention team focuses on 2,400 vs. 18,000 customers/week. Conversion rate rises from 14% to expected 29%. Break-even at 620 extra retained customers/year (€236K). Year 1 target: 1,800 retained customers = €684K net.

04

Success metrics

Which KPIs define success? Not AUC — what changes concretely in the business?

Churn rate drops from 2.8% to 2.3% within 6 months. Retention conversion rises from 14% → ≥ 25%. Cost-per-retained-customer drops below €130. Agent NPS on tool: ≥ 7/10 after 90 days of use.

06

Minimal complexity

What is the simplest solution that is 'good enough'?

Batch scoring (weekly), no real-time API needed. Output via Excel export to CRM — no integration in phase 1. 2 segments (high/low) sufficient — no 10-point scale. First 3-month pilot with 1 region, then roll-out.