

TEMPLATE

Internal Tool ROI Calculator

Quantify the business impact of your citizen development program. This template provides formulas, benchmarks, and a structured framework to calculate time saved, cost avoided, and productivity gained.

CitizenDevelopers.app

How to Use This Calculator

This template guides you through a structured ROI calculation for your citizen development program. Fill in the highlighted fields with your organization's data. Where you don't have exact numbers, use the industry benchmarks provided. Present the results to leadership as part of your business case.

Tip: Be conservative with your estimates. It is better to under-promise and over-deliver. Leadership will trust numbers that are defensible, not aspirational.

Part 1: Current State Assessment

Fill in these values to establish your baseline. Use data from the past 12 months.

Metric	Your Value	Benchmark	Notes
Number of internal tool requests/year		50–200	Count IT tickets tagged as "internal tool" or "automation"
Average time to deliver an internal tool		3–6 months	From request submission to production deployment
Average cost per custom-built tool		\$50K–\$150K	Include: developer salary, PM time, testing, maintenance
IT backlog: pending tool requests		30–100+	Current queue of unresolved internal tool requests
Hours/week spent on manual processes		15–40 hrs	Per department — data entry, reporting, approvals
Shadow IT incidents in past 12 months		10–30	Ungoverned tools discovered by IT or security
Average developer hourly cost (fully loaded)		\$75–\$150/hr	Salary + benefits + overhead / productive hours
Number of departments requesting tools		4–8	Departments that have submitted tool requests

Part 2: Cost Savings Calculation

Calculate the direct cost savings from citizen-built tools vs. traditional development.

A. Development Cost Savings

Line Item	Formula	Your Calculation
Tools built by citizen devs/year (est.)	$A = \text{___} \text{ tools}$	
Avg cost per tool (custom dev)	$B = \$\text{___} \text{ per tool}$	
Avg cost per tool (citizen dev)	$C = \$\text{___} \text{ per tool}$	Typically \$2K-\$15K (platform + training)
Cost savings per tool	$D = B - C = \$\text{___}$	
Annual development cost savings	$E = A \times D = \$\text{___}$	

B. IT Backlog Reduction Value

Line Item	Formula	Your Calculation
Current backlog tickets	$F = \text{___} \text{ tickets}$	
Tickets resolvable by citizen devs	$G = F \times 0.40 = \text{___} \text{ tickets}$	40% is conservative estimate
Avg developer hours per ticket	$H = \text{___} \text{ hours}$	Typically 40-200 hours per tool
Developer hourly rate	$I = \$\text{___} / \text{hour}$	
Backlog reduction value	$J = G \times H \times I = \___	

C. Productivity Gains

Line Item	Formula	Your Calculation
Manual hours saved/week (per dept)	$K = \text{___} \text{ hours/week}$	
Number of departments	$L = \text{___}$	
Average employee hourly cost	$M = \$\text{___} / \text{hour}$	Salary + benefits + overhead
Weeks per year	$N = 50 \text{ weeks}$	(accounting for holidays)
Annual productivity savings	$O = K \times L \times M \times N = \___	

Part 3: Total Investment

Calculate the total cost of running the citizen development program.

Cost Category	Year 1 Estimate	Year 2 Estimate	Notes
Platform license fees			Per-user or per-app pricing from your vendor
Training costs (internal)			20 hours × trainer rate × number of cohorts
IT governance overhead			10–20% of one IT FTE for oversight
Program manager (partial FTE)			25–50% FTE in Y1, may increase in Y2
External consulting (if any)			Often \$0 if using playbooks like this one
Infrastructure / integrations			SSO setup, API gateway, monitoring tools
Total Investment			Sum of above

Part 4: ROI Summary & Executive Dashboard

Combine all calculations into a single executive summary. This is your leadership presentation slide.

ROI Component	Annual Value	Formula Reference
Development cost savings		E from Part 2A
IT backlog reduction value		J from Part 2B
Productivity gains		O from Part 2C
Total Annual Benefits		E + J + O
Total Annual Investment		From Part 3
Net Annual Value		Benefits - Investment
ROI Percentage		(Net Value / Investment) × 100
Payback Period		Investment / (Benefits / 12)

Benchmark: Well-run citizen development programs typically achieve 200–400% ROI in Year 1, with payback periods of 3–6 months. The ROI compounds in Year 2+ as training costs decrease and the number of citizen-built apps scales.

Part 5: Worked Example

A realistic example for a mid-size company (500 employees, 5 departments) launching citizen development:

Metric	Value	Calculation
Tools built by citizen devs (Year 1)	12 apps	
Avg custom dev cost avoided	\$80,000	Mid-range enterprise estimate
Avg citizen dev cost per app	\$8,000	Platform (\$3K) + builder time (\$5K)
Development savings	\$864,000	$12 \times (\$80K - \$8K)$
IT backlog tickets resolved	25 tickets	40% of 62 pending tickets
Avg hours per ticket	80 hours	
Developer rate	\$100/hour	
Backlog savings	\$200,000	$25 \times 80 \times \$100$
Manual hours saved/week	8 hours	Per department average
Departments	3	Pilot + 2 expansion departments
Employee hourly cost	\$50/hour	
Productivity savings	\$60,000	$8 \times 3 \times \$50 \times 50 \text{ weeks}$
Total Annual Benefits	\$1,124,000	$\$864K + \$200K + \$60K$
Total Annual Investment	\$185,000	Platform + training + governance
Net Annual Value	\$939,000	
ROI	508%	$\$939K / \$185K$
Payback Period	2 months	$\$185K / (\$1.124M / 12)$

Part 6: Monthly KPI Tracking Dashboard

Track these KPIs monthly to demonstrate ongoing value. Present this dashboard to your executive sponsor monthly for the first year.

KPI	M1	M2	M3	M4	M5	M6
Active citizen developers						
Apps in production						
IT tickets deflected						
Hours saved (total)						
Cost avoided (\$)						
User satisfaction (1–10)						
Security incidents						
Governance compliance %						

Presentation Tips

- Lead with business outcomes, not technology. Executives care about hours saved, costs avoided, and backlog reduced — not which platform you chose.
- Use conservative estimates. If your ROI looks too good to be true (>500%), sanity-check your inputs.
- Show the trend, not just the snapshot. Monthly improvement curves are more compelling than static numbers.
- Include qualitative wins. Employee satisfaction quotes, reduced frustration, faster cross-team collaboration.
- Compare to alternatives. What would it cost to hire additional developers instead?

This template is maintained by CitizenDevelopers.app. Subscribe to our newsletter for updates and additional resources.