

# 1.0 Scope of Work: Instantly.ai Workflow Stabilisation

## Introduction

Build My Story operates a set of Instantly.ai–driven workflows in n8n that process outbound lead activity and synchronise data across Instantly.ai, Airtable, and other internal systems.

These workflows support a distributed lead lifecycle, with lead state updated across multiple systems as contacts move from outreach to replies and conversion events. As a result, the workflows must be resilient to partial failures, duplicate events, and out-of-order execution.

**Currently, the system suffers from:**

- Inconsistent error handling
- Silent or partial failures where workflows complete but intended outcomes do not occur
- Duplicate event processing leading to duplicated or conflicting data
- Fragmented logging with limited visibility into failures

**The objective of this scope is to stabilise the Instantly.ai workflows by:**

- Adding error handling to all execution paths
- Safely handling duplicate events
- Introducing clear, centralised logging for failures
- Sending Google Chat notifications for all failures
- Refactoring workflows where needed to reduce complexity

All work must be performed on duplicated workflows only, without impacting live data transfer. Existing credentials and secret keys must not be modified.

Contractors may refactor or reorganise workflows as needed, provided behaviour is preserved and changes are tested before review.

**This scope applies specifically to the Instantly.ai workflow folder, including:**

- Instantly.ai webhook receivers
- Lead lifecycle control workflows
- Event-specific sub-workflows
- Associated Airtable and logging interactions

## 2.0 System Overview & Source of Truth

Build My Story's outbound lead system is event-driven and distributed across multiple tools, each with a clearly defined role.

### Instantly.ai — Outbound Outreach and Event Source

Instantly.ai is used exclusively for cold outbound email outreach.

#### It is responsible for:

- Sending outreach emails
- Managing outreach campaigns
- Emitting webhook events when lead activity occurs (e.g. replies, status changes)

### Airtable — Lead Intelligence, Attribution, and Reporting

Airtable is the primary system for lead intelligence and campaign-level reporting. Because Airtable data is used directly for reporting and decision-making, duplicate events or missed updates materially break business visibility.

#### It is responsible for:

- Maintaining a single record per outbound lead
- Recording reply and conversion events
- Associating every lead and event with an Instantly.ai campaign ID
- Airtable is the authoritative source for campaign attribution and conversion metrics.

#### Airtable is not a CRM and must not contain:

- Duplicate lead records
- Sales pipeline state

### Pipedrive — CRM for Qualified Leads (Limited Scope)

Pipedrive is used as the CRM system only after a lead demonstrates meaningful intent.

#### Pipedrive is triggered only when:

- A lead fills out a form or signs up for a Build My Story account

### Source of Truth Summary

System	Primary Responsibility
Instantly.ai	Outreach execution and event emission
Airtable	Lead intelligence, attribution, reporting
Pipedrive	CRM for qualified leads
n8n	Orchestration, error handling, and reliability

## 3.0 Lead Lifecycle Overview and Supporting Systems

This section describes the intended lifecycle of an outbound lead, from initial outreach through reply and conversion events.

### High-Level Lead Flow

The intended lifecycle of an outbound lead is as follows:

#### 1. Outbound Outreach

- Leads are contacted via cold email campaigns in Instantly.ai.
- Each lead belongs to a specific Instantly.ai campaign, identified by a unique campaign\_id.

#### 2. Lead Reply

- A recipient may reply to the outreach email.
- When a reply occurs, Instantly.ai sends a webhook to n8n.
- The workflow must retrieve and persist the associated Instantly.ai campaign ID.

#### 3. Reply Handling

- All replies (positive and neutral) must be recorded in Airtable as reply events.
- Positive replies must create or update a lead record in Airtable shown as "positive".
- Duplicate replies must not create duplicate records.

#### 4. Initial Response Sent

- When Build My Story responds to a positive reply, the lead's status is updated in Instantly.ai.
- Instantly.ai emits a webhook which updates the corresponding lead and campaign data in Airtable.

#### 5. Website Activity

- The lead may browse the Build My Story website.
- If the lead submits a form, the lead's status is updated in Airtable and the lead may be introduced into Pipedrive via a separate workflow.

#### 6. Sign-Up

- If the lead signs up for an account, this is also reflected in Airtable.
- If the lead signs up, this event is recorded in Airtable and used for campaign-level reporting.

## 4.0 Scope: Instantly.ai Workflow Inventory and Objectives

This section defines the Phase 1 workflows in scope. Each workflow description outlines its intended purpose and expected outcome.

The goal of this phase is to simplify and consolidate the Instantly.ai workflows, reduce duplication, and ensure that failures are always detected, logged, and surfaced, even when a workflow execution technically succeeds. This phase intentionally focuses on a small number of workflows to validate approach and quality before expanding scope.

### For avoidance of doubt:

- Airtable is the primary system for lead control and reporting
- Pipedrive is out of scope for most of this phase
- Workflow success is defined by business outcomes, not execution completion

### 4.1 Instantly.ai — Main Webhook Receiver (Planned for Consolidation)

#### Goal

Receive webhook events from Instantly.ai and act as the initial ingestion point for outbound lead activity.

#### Current Intent

This workflow is expected to be merged into, or replaced by, the Instantly Lead Lifecycle Controller.

#### What this workflow must do (until consolidated)

- Accept webhook payloads from Instantly.ai
- Validate and normalise incoming event data
- Route events based on `event_type`
- Forward events to the lifecycle controller or appropriate downstream logic

#### Key outcomes

- No Instantly.ai event is dropped silently
- Unsupported or unknown event types are logged and flagged"
- Each event either follows a valid execution path or results in a logged failure

## 4.2 Instantly Lead Lifecycle Controller

### Goal

Act as the central orchestration workflow that manages lead lifecycle transitions and ensures Airtable and Instantly.ai remain consistent.

### What this workflow must do

- Receive events originating from Instantly.ai
- Determine the correct lifecycle action based on event type and context
- Coordinate updates between Airtable and Instantly.ai
- Trigger specialised sub-flows only where necessary
- Enforce deduplication rules for leads, campaigns, and events
- Detect and surface both technical failures and logical failures

### Key outcomes

- Lifecycle transitions are deterministic and repeatable
- Duplicate webhook events do not create duplicate data
- Airtable remains free of duplicate leads and campaigns
- All failures result in logged records and notifications

## 4.3 Subcampaign Updates from Airtable

### Goal

Synchronise lead status changes from Airtable back to Instantly.ai.

### What this workflow must do

- React to Airtable-driven lifecycle changes
- Update lead status in Instantly.ai accordingly
- Log all outbound updates for traceability
- Prevent update loops between Airtable and Instantly.ai

### Key outcomes

- Lead status remains consistent across systems
- Bi-directional updates do not create infinite loops
- All external updates are logged and auditable

## 5. Error Handling, Deduplication, and Logging Requirements

A workflow is not considered successful unless the intended business outcome occurs and is observable.

### 5.1 Error Handling Standards

- All workflows must handle errors on every execution path.
- No failure may be silent.
- Partial or logical failures must be treated as failures.
- Failures must be logged even if downstream steps are skipped.

### 5.2 Logical Failures vs Technical Failures

- Workflows must detect and surface both technical failures (execution or API errors) and logical failures (missing or incomplete business outcomes).

### 5.3 Deduplication

- All workflows must be idempotent.
- Duplicate webhook events must not create duplicate records.
- Replayed events must result in a safe no-op with a logged outcome.
- Each inbound event must be uniquely identifiable.

### 5.4 Logging Requirements

Logging must be implemented at two levels:

#### Business Event Logging (Airtable)

- Replies
- Status changes
- Form fills
- Sign-ups
- Campaign associations

These logs support reporting and analytics and must remain accurate and deduplicated.

#### Execution and Error Logging (n8n)

- As our current setup

Logging must occur even when workflows short-circuit or terminate early.

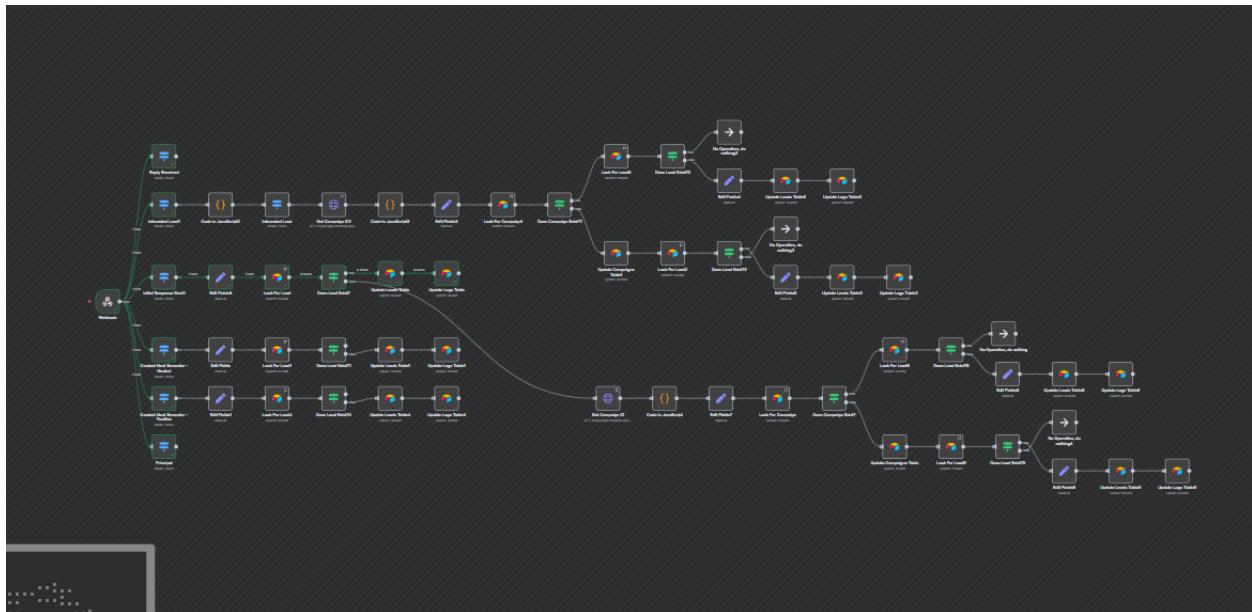
## 5.5 Notifications (Google Chat)

- All failures must trigger a Google Chat notification.
  - Notifications must include workflow name, failure summary, and timestamp.

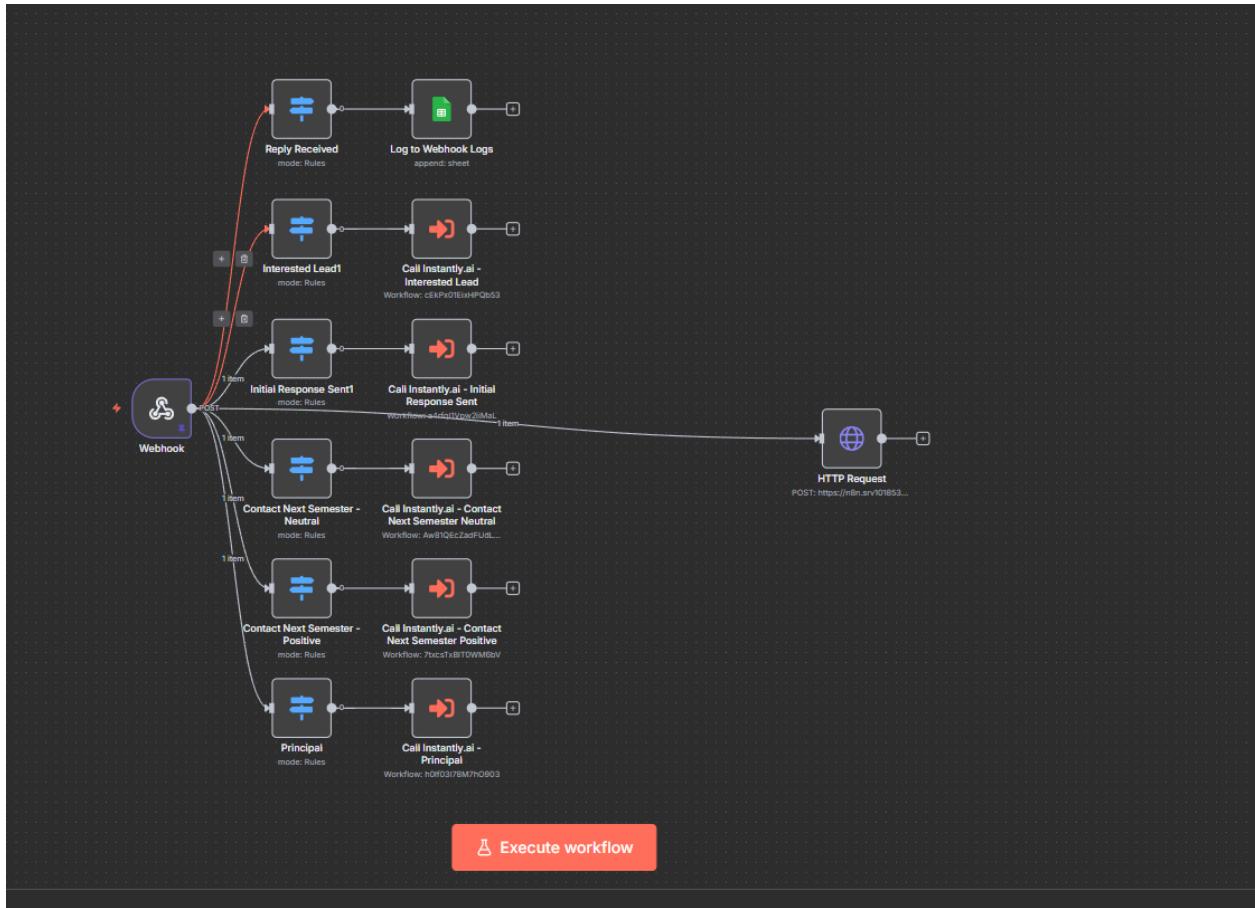
## 5.6 Success Criteria

A workflow is considered complete only when:

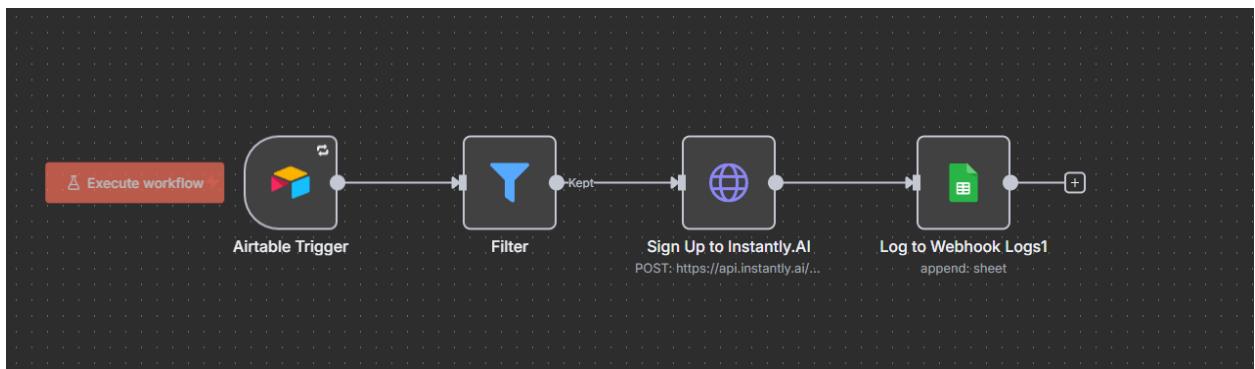
- All execution paths are protected by error handling
  - Duplicate events are safely handled
  - Failures are logged and surfaced immediately
  - Business outcomes are verifiable via Airtable data
  - No silent or partial failures remain



## Instantly Lead Lifecycle Controller



Instantly handler and router -> to be combined with the above one



Subcampaign form airtable