# AMO Events AI-Powered Operational Blueprint

## 📊 Table of Contents

1. Overview
2. Stakeholder Roles
3. AMO Tech Stack + Hugging Face
4. Event Lifecycle Phases
5. Use Cases by Persona & Score
6. AI Agent Workflows (Mermaid)
7. Social Media Marketing Automation
8. Checklists by Phase
9. KPI Dashboards

## 1. ✨ Overview

This document outlines a scalable, intelligent AI blueprint for automating the AMO Events ecosystem using Hugging Face models, LangGraph, LangChain, n8n, and integrated event tech.

Goals: - Maximize revenue & engagement - Automate logistics - Personalize attendee journeys - Optimize marketing & sponsorships

## 2. 🧑‍🎓 Stakeholder Roles

| Persona | Primary Goals |
| --- | --- |
| Event Organizers | Plan, coordinate, and manage entire event flow |
| Sponsors | Activate brand presence, measure ROI |
| Attendees | Personalized experience, engagement |
| Venues | Setup, scheduling, and resource allocation |
| Exhibitors | Booth logistics and lead capture |
| Staff & Crew | Operations, check-in, and execution |
| Content Creators | Capture, edit, repurpose content |
| Media & PR | Interview scheduling, visibility |
| Executive Leadership | KPIs, reporting, strategic growth |
| Partners | Collaborate, activate ecosystems |
| AI Agents | Automate human workflows across tech stack |

## 3. 🚀 AMO Tech Stack + Hugging Face

| Tool | Functionality |
| --- | --- |
| Airtable | Centralized database & stakeholder record keeping |
| LangGraph | AI agent orchestration (multi-agent workflows) |
| LangChain | Build intelligent chains for LLM-based apps |
| Claude AI | Reasoning, generation, summarization |
| CopilotKit | UI components for human+AI collaboration |
| CrewAI | Task delegation across AI agents |
| Webflow | Public websites, forms, and landing pages |
| Stripe | Secure ticket/sponsor payment handling |
| WhatsApp | Real-time attendee communication via Twilio API |
| n8n | Event automation via webhooks |
| Supabase | Backend PostgreSQL + auth + pgvector |
| RelevanceAI | Semantic clustering, personalization |
| Flowise | Visual low-code builder for LLM-powered flows |
| HuggingFace | Event planning (Gemma), scheduling (Qwen Scheduler) |

## 4. 🌈 Event Lifecycle Phases

Each lifecycle phase is enhanced by AI-driven tools:

### Phase I. Inception & BD

* Market opportunity detection (HuggingFace + RelevanceAI)
* Proposal drafting (Claude + LangChain)
* Lead scoring (Supabase + LangGraph)

### Phase II. Planning & Design

* Cultural-aware planning (Gemma on HF)
* Layout & staffing (LangChain + Airtable)
* Compliance automation (Claude + LangGraph)

### Phase III. Sponsorship

* Lead generation (LangChain + HF dataset matching)
* Activation planning (Qwen Scheduler + Airtable)
* ROI tracking (Looker Studio)

### Phase IV. Marketing

* Content creation (HF + Claude + Buffer)
* Channel orchestration (n8n + WhatsApp + IG)
* Targeted campaigns (RelevanceAI + Braze)

### Phase V. Ticketing & CRM

* Dynamic pricing (LangChain + Supabase)
* Personalized CRM messages (Claude + WhatsApp)
* Attendee journey mapping (LangGraph + Airtable)

### Phase VI. Production & Ops

* Vendor logistics (CrewAI + n8n)
* Show runbook generation (Gemma)
* Staff deployment (Qwen Scheduler)

### Phase VII. Live Event

* QR check-ins (Supabase + WhatsApp)
* Incident resolution (AI routing agents)
* Session suggestions (RelevanceAI)

### Phase VIII. Post-Event

* KPI generation (LangChain + Looker)
* Sentiment analysis (Claude)
* Content repurposing (Gemma + Flowise)

## 5. 🌐 Use Cases & Scores

| Rank | Persona | Feature | Phase | Score |
| --- | --- | --- | --- | --- |
| 1 | Organizers | Cultural planning via Gemma | II | 95 |
| 2 | Organizers | Automated schedule w/ Qwen Scheduler | VI/VII | 93 |
| 3 | Staff & Crew | Check-in QR automation | VII.1 | 90 |
| 4 | CRM | Dynamic ticket pricing | V.1/2 | 88 |
| 5 | Venue | Smart layout generation | II.3 | 87 |
| 6 | Sponsors | Sponsor activation mapping | III.4 | 85 |
| 7 | Attendees | Personalized itinerary | VII.3 | 84 |
| 8 | Content Creators | Session curation tools | II.4 | 82 |
| 9 | Exhibitors | Booth scheduling | VI.5 | 80 |
| 10 | Leadership | Performance forecasting | VIII.3 | 75 |

## 6. 🛰 AI Agent Workflows (Mermaid)

graph TD  
 A[Gemma Plan Generator] --> B[Qwen Scheduler]  
 B --> C[Session/Staff Scheduler]  
 C --> D[Booth/Venue Mapper]  
 D --> E[Workflow Integrator (n8n)]  
 E --> F[Airtable / Supabase Records]  
 E --> G[Stripe Payment & Ticketing]  
 E --> H[WhatsApp Comm Layer]

## 7. 🌐 AI-Powered Social Media Marketing

| Tool | Function | Integration |
| --- | --- | --- |
| HuggingFace | Caption & post generation | Flowise + Postiz |
| Relevance AI | Audience segmentation | Braze + Buffer |
| Claude | Script & blog creation | Webflow CMS + Typeform |
| n8n | Channel orchestration | IG + WhatsApp + Email + SMS |

## 8. 🔹 Automation Checklists by Phase

### Phase II: Planning

* Collect cultural + guest info
* Feed to Gemma agent
* Layout auto-planned via LangChain
* Save to Airtable

### Phase IV: Marketing

* Generate 20 social captions via Claude
* Schedule in Buffer via n8n
* Segment audience (RelevanceAI)

### Phase V: Ticketing

* Set pricing tiers
* Enable dynamic AI pricing
* Assign WhatsApp ticket journeys

## 9. 📊 KPI Dashboard Layers

| KPI Category | Examples |
| --- | --- |
| Revenue | Gross ticket sales, sponsor income |
| Operational | Tasks completed, schedule delays |
| Experience | Attendee NPS, PR mentions, feedback stats |
| Technical Health | QR scan success rate, LLM agent uptime |
| Automation Impact | Tasks auto-completed, time saved |

Let me know when you’re ready for Stage 2: Deep Integration Guides and Agent Prompts.