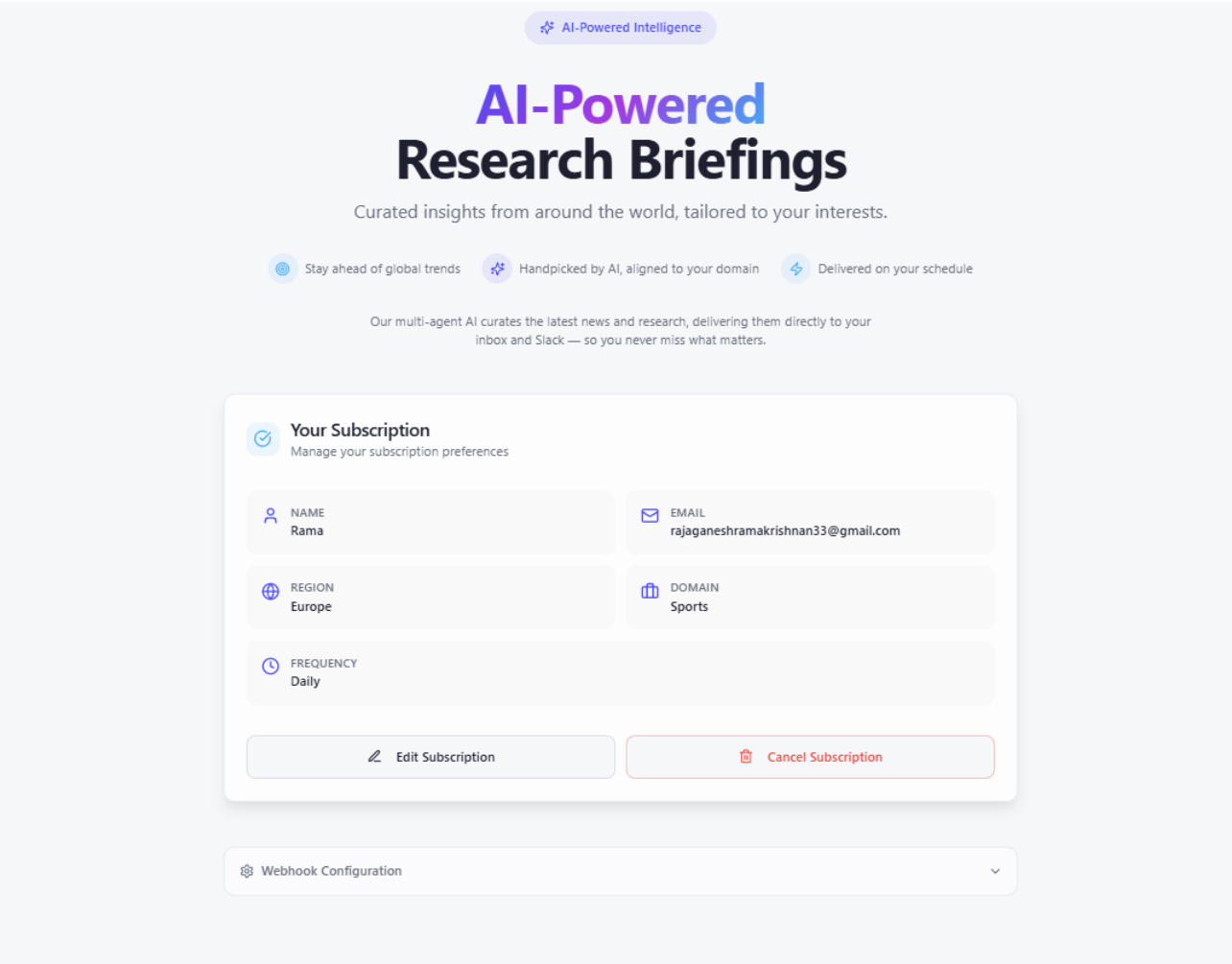


User Documentation: AI-Powered Newsletter Subscription System

The Newsletter Subscription System allows users to subscribe to curated, AI-generated newsletters tailored to their interests, domain, and frequency preferences. Each user can subscribe, update, or unsubscribe from one personalized newsletter. All subscription details are securely stored in Google Sheets, which serve as the central database for automated scheduling, content generation, and delivery.

1. Front-End Interface

The front-end application acts as the user-facing portal where subscribers can manage their preferences and subscription status.



AI-Powered Research Briefings

Curated insights from around the world, tailored to your interests.

- Stay ahead of global trends
- Handpicked by AI, aligned to your domain
- Delivered on your schedule

Our multi-agent AI curates the latest news and research, delivering them directly to your inbox and Slack — so you never miss what matters.



Edit Your Subscription

Configure your personalized AI research briefings

User Name

Rama

Email ID

rajaganeshramakrishnan33@gmail.com

We'll only use this to send your briefings.

Region

Select a region

Please select a region

Frequency

☒ Daily ☐ Weekly

Daily for fast-moving domains, weekly for deeper summaries.

Domain

Select a domain

Please select a domain

Reset

Update Subscription

Webhook Configuration

Features:

- Subscribe: Create a new subscription by entering Name, Email, Region, Domain, and Frequency.
- Edit Subscription: Modify domain, frequency, or region preferences.
- Unsubscribe: Remove subscription and stop newsletters.

User Input Fields:

- Full Name: Subscriber's name (Required)
- Email: Unique user identifier (Required & Unique)
- Region: Dropdown (Africa, North America, South America, Asia, Europe, Australia, Global)
- Domain: Dropdown (Crime & Security, Political, Health & Education, Science & Technology,

Business & Economy, Sports)

- Frequency: Daily / Weekly (Required)

Note: One active subscription per user. Duplicate emails are automatically rejected.

2. Data Storage

All user data is stored in Google Sheets, ensuring a centralized and easily accessible database for n8n workflows.

Google Sheet Columns:

- Full Name
- Email
- Region
- Domain
- Frequency
- Subscribed Date
- Status
- Last Sent Date

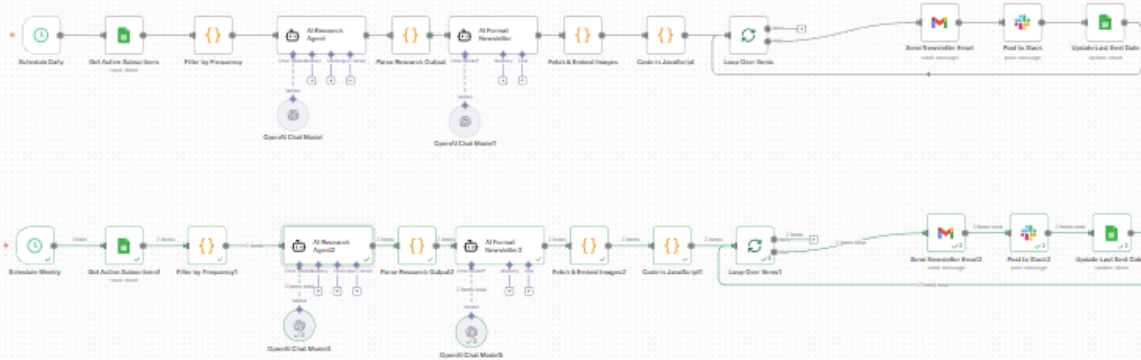
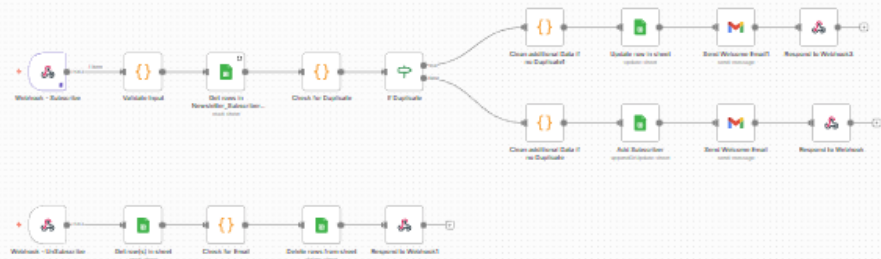
3. Automated Scheduler System

Two schedulers manage automation:

- Daily Scheduler: Executes every 24 hours for 'Daily' subscribers.
- Weekly Scheduler: Executes once per week for 'Weekly' subscribers.

If no subscribers exist, the workflow stops automatically.

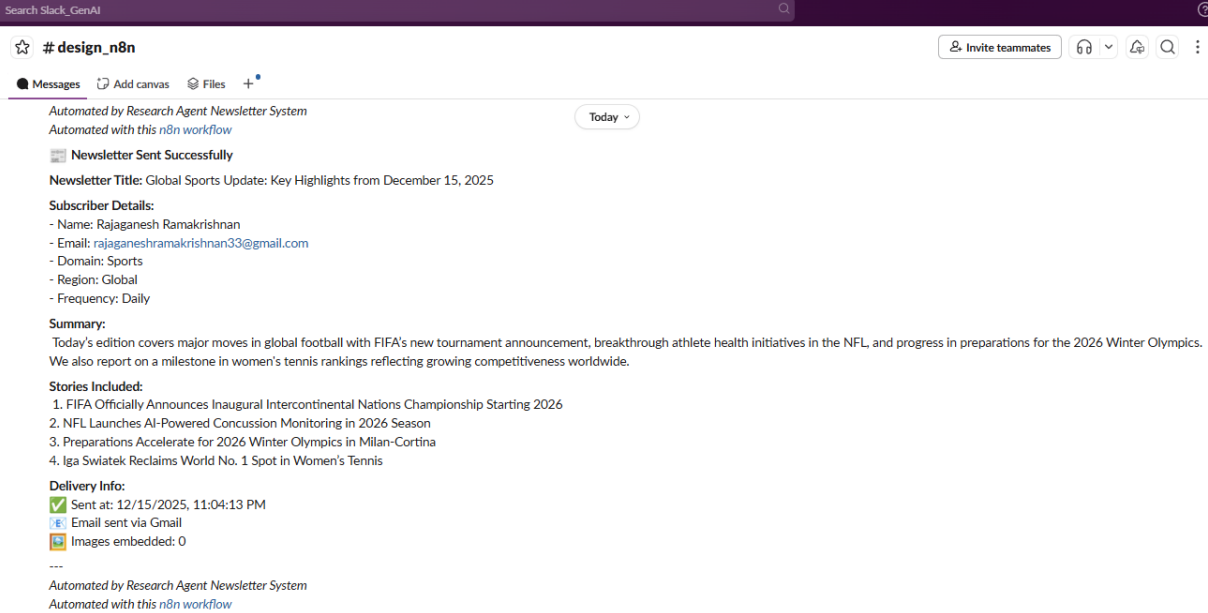
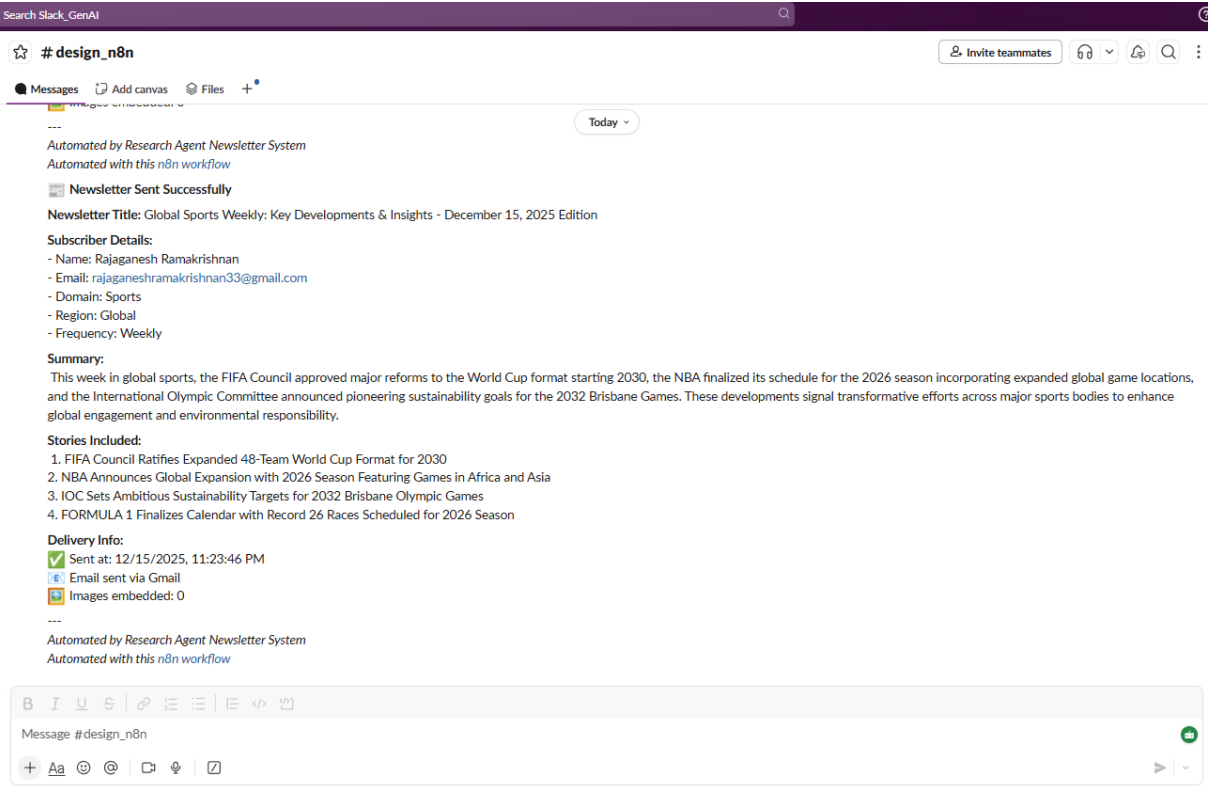
4. Workflow Logic Overview (n8n Automation)



Workflow Steps:

1. Get Active Subscribers
2. Filter by Frequency
3. Process each subscriber via Split In Batches
4. AI Research Agent gathers domain-specific news
5. AI Formatter generates readable newsletters
6. Unsplash API embeds images
7. Gmail sends email
8. Slack posts confirmation
9. Google Sheet updates Last Sent Date

Slack Notifications and Error Handling shown below:



5. Research & Content Generation Standards

Core Principles:

1. Use primary sources first.
2. Verify all claims using independent outlets.
3. Rate confidence levels (High, Medium, Low).
4. Identify bias or conflicting information.
5. Never fabricate or assume missing data.

6. Example Newsletters



Welcome Aboard!

Hi Rajaganesh Ramakrishnan,

Thank you for subscribing to your personalized **Science & technology** newsletter! We're excited to keep you informed with curated, fact-checked news from **Asia**.

Here's what you can expect:



Curated Content: Hand-picked stories from authoritative sources



Fact-Checked: Every claim verified across multiple independent sources



Daily Delivery: Fresh insights delivered to your inbox



Expert Analysis: Perspectives from industry leaders

Your first newsletter will arrive soon. In the meantime, feel free to reach out if you have any questions.

You're receiving this because you subscribed to our newsletter **Science & technology for Asia**.



Asia's Cutting-Edge Science & Tech Advances: December 15, 2025

Weekly Digest • Monday, December 15, 2025

Hello undefined,

This week, Asia reinforced its leadership in quantum computing commercialization, advanced its green hydrogen infrastructure, and launched the continent's most powerful supercomputer. Breakthroughs in AI-driven medical diagnostics also promise transformative healthcare impacts region-wide.



China Deploys First Commercial Quantum Internet Network in Guangdong

China's Ministry of Science and Technology announced the operational launch of the Guangdong Quantum Network, the first region-wide quantum internet system supporting secure communications and data transfer.



China Deploys First Commercial Quantum Internet Network in Guangdong

- Network completed in early December 2025 connects government, research, and financial institutions.
- Utilizes quantum key distribution (QKD) ensuring unprecedented cybersecurity.
- Deployment marks Asia's first commercial quantum internet at scale.

Source: Chinese Ministry of Science and Technology official report - <https://www.most.gov.cn/quantum2025> (in Chinese)

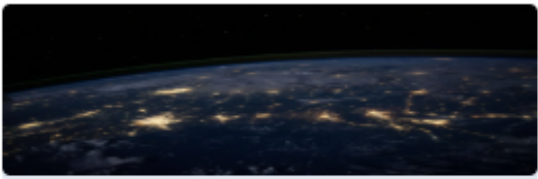
Confidence: High

Asia Tech Frontiers: Breakthrough Innovations and Scientific Advances - December 15, 2025

Weekly Digest | Monday, December 15, 2025

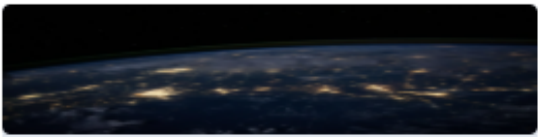
Hello undefined,

Today's edition highlights groundbreaking developments in Asia's quantum computing race, advances in sustainable battery technology, and a landmark AI healthcare regulatory framework. These stories underscore Asia's expanding leadership in next-gen technologies and responsible innovation.



China Unveils World's First 512-Qubit Quantum Computer Chip

Chinese researchers at Tsinghua University have announced a 512-qubit superconducting quantum processor, doubling the capacity of the previous largest chip and marking a significant milestone for Asia's quantum computing capabilities.

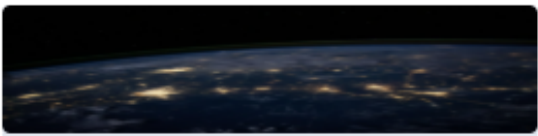


South Korea Launches Commercial Pilot for Solid-State Battery Production

- Pilot production integrates novel ceramic electrolyte that is safer and more durable than conventional lithium-ion counterparts.
- Targeting electric vehicle and grid storage sectors with first shipments planned for late 2026.
- Project validated and supported by South Korea's Ministry of Science and ICT, with detailed plans published in their official release.

Source: Samsung Newroom

Confidence: High



Japan Implements Pioneering AI Regulation Framework for Healthcare Applications

- Guidelines require explainable AI models and post-market surveillance to quickly address adverse events.
- Stakeholder consultations indicated strong support from domestic AI developers and healthcare providers.
- This framework sets a new global precedent and could become a model for regulatory bodies worldwide.

Source: Japan Ministry of Health official announcement

Confidence: High

7. Domain-Specific Source Guidelines

AI/ML: arXiv, OpenAI, MIT Tech Review

Finance: SEC filings, Bloomberg

Health: WHO, CDC, Nature

Crime & Security: Reuters, Police Reports

Political: Govt sites, AP, BBC

Science & Tech: IEEE Spectrum, ResearchGate

Business & Economy: Economist, HBR

Sports: ESPN, The Athletic

8. Security & Maintenance Notes

- Google Sheet credentials restricted.
- API keys for OpenAI, Unsplash, Slack, and Gmail must remain valid.
- No personal data shared externally.
- Regular credential updates recommended.