



# Strategic Storytelling & Digital Strategy for Astronomy Outreach Centres

Strategic proposal for positioning, community building, and data-informed communication

[This portfolio was initially developed as part of a public-sector application. It has since been adapted for open use and science outreach purposes.]

By Begoña Penón

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# Introduction



This portfolio is not just a collection of past projects — it's a call to action.



A vision for how passion for the cosmos can spark community, cultivate shared knowledge, and create unforgettable public experiences.

Each section reflects applied strategies for positive engagement, real-world examples of community-building success, and a practical roadmap for what science communication can achieve when it caters to human curiosity.

It is also a professional orbit I want to keep charting: where digital creativity meets purpose, and astronomy connects people not only to the stars, but to each other.

# Content SUMMARY



## Community Building

Engagement strategies for science ambassadors.



## Technological Innovation

Eclipse as a collective astronomical experience.

## Eclipse Strategic Framework



## Measuring Impact

Data-driven approach to measure community transformation.



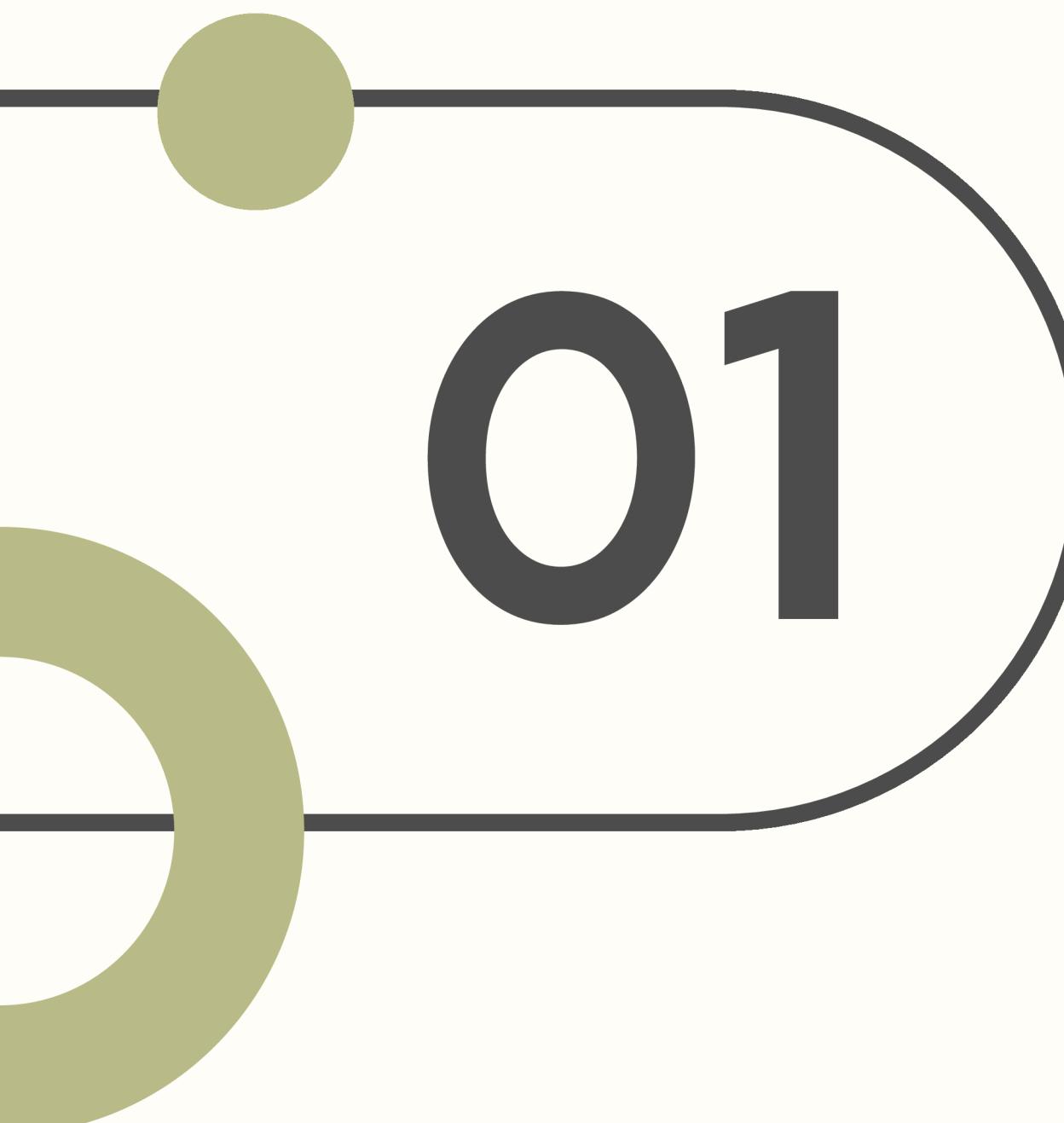
## Implementation Timeline

Visionary proposals for the Outreach Centre.

## High-Impact Proposals



Timeline for implementing the proposals.



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## Community-Building Success Stories



# CHARITY WALK – TURNING PARTICIPANTS INTO AMBASSADORS

## The Challenge

How do you spark genuine online engagement for Scotland's largest charity walk, with over 15,000 yearly participants?



## The Strategy

- Virtual Roadies: A personalised response system for every story participants shared
- Live interaction: Weekend team available in real time to reply and support mentions
- Positive gamification: Friendly competitions and giveaways to build collective excitement
- Community narratives: Every step became part of a larger shared story

## The Outcome

- A self-sustaining community that connected beyond the event
- A celebratory atmosphere that transcended digital boundaries
- Returning participants who brought new faces year after year
- Recognition as a benchmark in meaningful engagement

## Relevance for Astronomy Outreach Centres

This same energy can fuel the 2026 Eclipse initiative — building an international community of sky-watchers who feel part of something truly memorable.



# EDUCATION FOR TRANSFORMATION (ELECTRIC MOBILITY)



## The Concept

Public, non-commercial learning spaces to democratise access to knowledge about electric vehicles.

## The Approach

- Hands-on experiences: Educational test drives and interactive guides
- University collaboration: Training programmes for professionals
- Pedagogical content: Technical specs translated into clear, relatable benefits
- Learning community: A 400,000+ audience committed to sustainable transition

## Key Insights

- In-person educational experience sparks trust and excitement
- Physical venues + digital strategy = transformative experiences
- Complex technologies become accessible through the right narratives

## Relevance for Astronomy Outreach Centres

The Outreach Centre is the perfect Innovation Hub — a space where astronomy becomes tangible, thrilling, and community-driven.



# TECHNICAL COMMUNICATION WITH EMOTIONAL IMPACT



## The Art of Translation

- Transforming technical specifications into engaging feature stories
- Designing interactive calculators to make abstract concepts more tangible
- Crafting 60-second explainer videos that simplify information without losing its essence

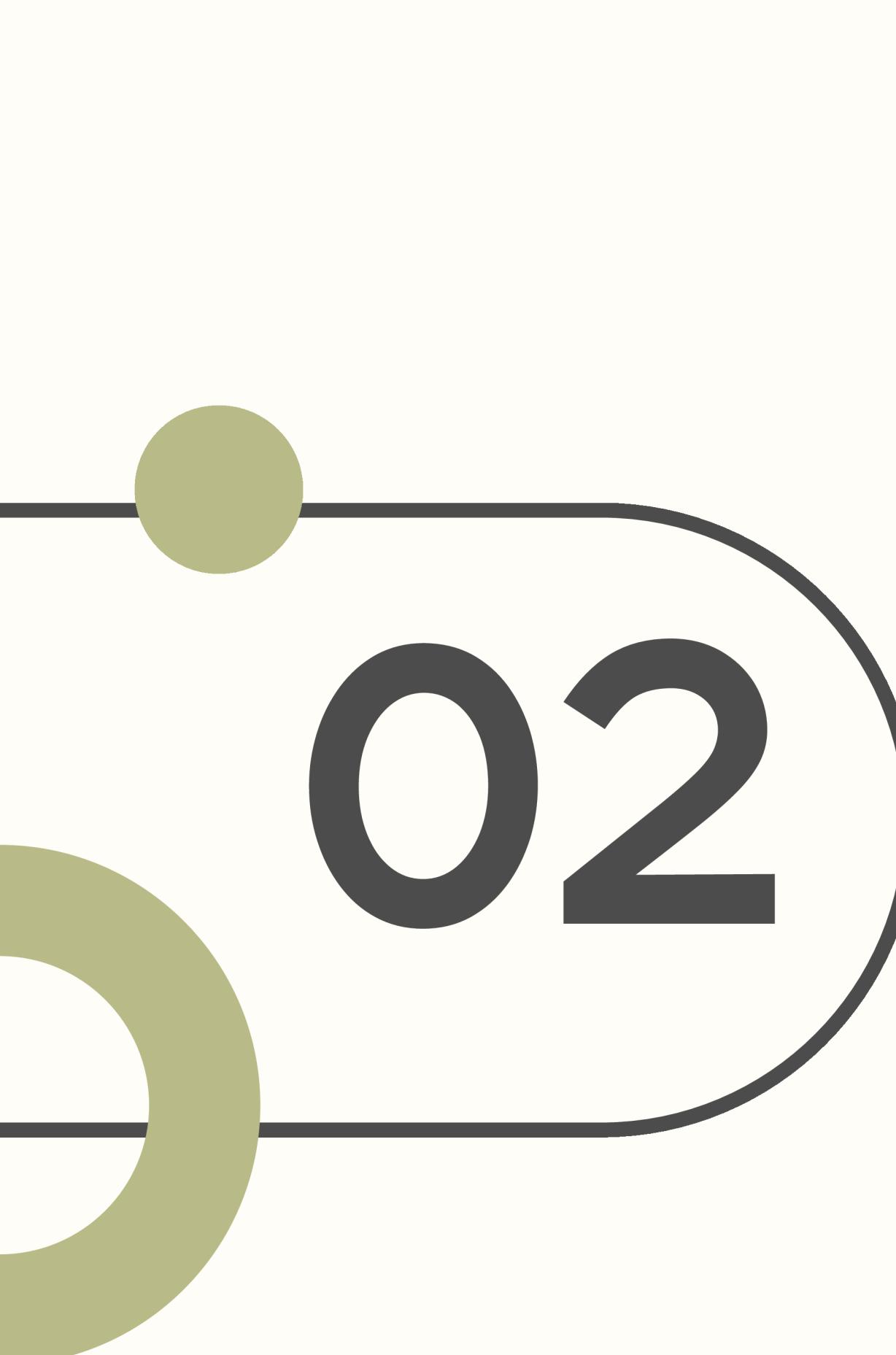
## Measurable Results

- +40% increase in time spent on technical content
- +300% engagement spike in posts focused on specifications
- -60% reduction in repetitive technical inquiries

## The Takeaway

Every astronomical data point is a doorway into a story about the universe.

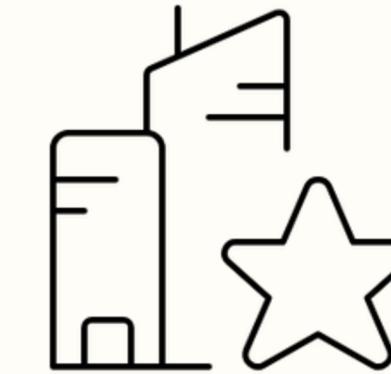
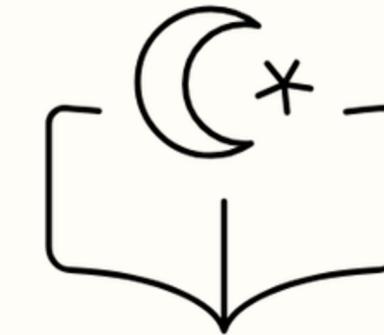
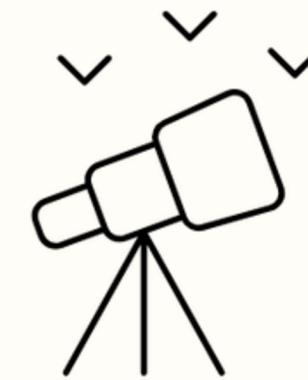
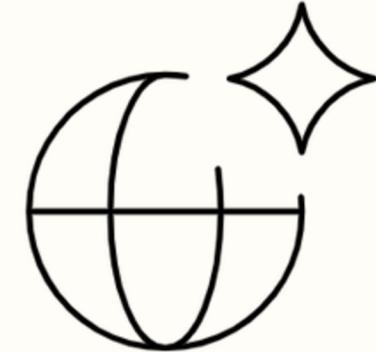
My role is to find the right key for each audience — turning complexity into clarity, numbers into wonder, and information into meaningful connection.



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# Eclipse 2026 – Strategic Framework

# A RARE OPPORTUNITY



## *Global visibility*

The region gains international media attention.

1

## *Astronomy tourism*

Thousands of visitors are attracted from around the world.

2

## *Educational momentum*

There is widespread interest in astronomy concepts.

3

## *Long-term legacy*

The Research and Outreach Centres are positioned as global references.

4



# COMMUNICATION ROADMAP PRE-ECLIPSE: 18-MONTH TIMELINE



## **Phase 1: Building Anticipation (Jan 2025 – Aug 2025)**

- Monthly series: “Cosmic Countdown”
- Collaborations with regional educational institutions
- Launch of the first class of “Cosmic Ambassadors”
- Partnerships with local and national media outlets

## **Phase 2: International Momentum (Sep 2025 – Mar 2026)**

- Joint campaigns with other planetariums
- Multi-language content tailored for global audiences
- Welcoming programme for amateur astronomers
- Coordination with NASA/ESA to amplify messaging

## **Phase 3: Event + Legacy (Apr 2026 – Dec 2026)**

- Real-time multiplatform coverage of the Eclipse
- Full documentation of the public experience
- Transformation of visitors into long-term ambassadors
- Impact analysis and post-Eclipse strategic planning

This approach turns the Eclipse into a collective astronomical experience — one that resonates far beyond the event itself and positions the Outreach Centre as a global connector between science, curiosity, and public participation.



# "THE COSMIC EMBASSY" – A COMMUNITY-LED PROGRAMME



## **The Concept**

A network of trained volunteers who act as trusted links between the Research Centre and their communities, turning curiosity into connection, and science into shared experiences.

## **Ambassador Profiles**

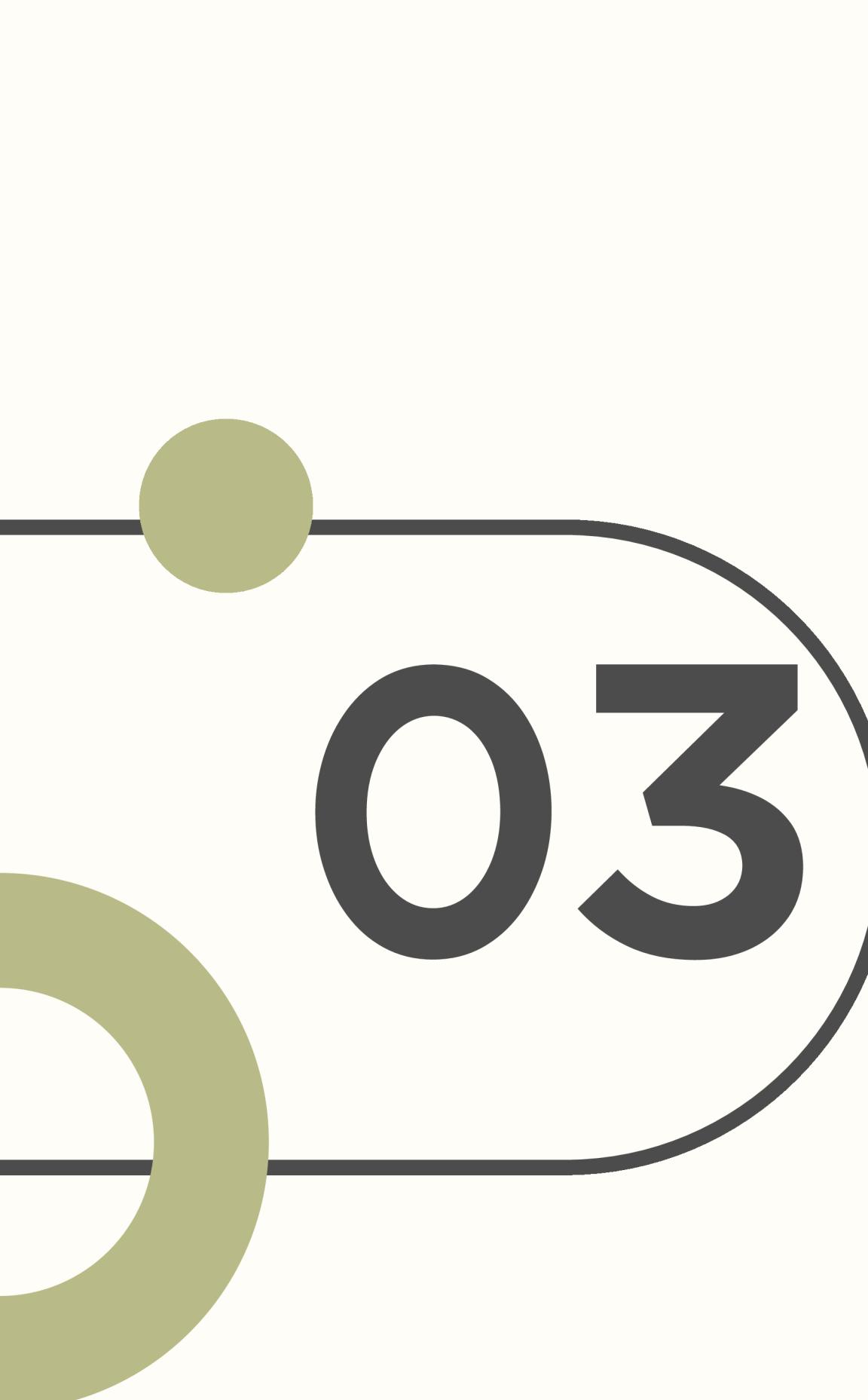
- Educators: Teachers who bring astronomy into their classrooms
- Visitors: Visitors of all ages, inspired by their visit to the Outreach Centre and eager to learn more
- Active retirees: Curious minds with time and interest to dive deeper
- Students: Young voices who inspire their peers
- Professionals: Workers who can bring astronomy into their industries and workplaces

## **Training Programme**

- Monthly workshops at the Outreach Centre (in-person + online)
- Tailored educational materials for each ambassador profile
- Exclusive online community space for sharing ideas and best practices
- Official certification as "Cosmic Ambassador"
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## **Activities Led by Ambassadors**

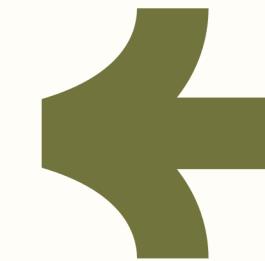
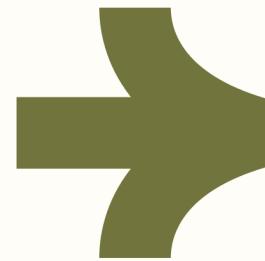
- Talks in schools and local associations
- Organisation of community observation events
- Content creation for social media and local networks
- Support during special events hosted by the Research Centre



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Technological  
Innovation in  
Service of Curiosity

# “INTERACTIVE COSMOS” – BRINGING DATA TO LIFE



## Data Visualiser

- A web-based interface that lets anyone explore galaxies
- Interactive filters reveal cosmic features across different wavelengths
- Narrative overlays explain what's being viewed in real time

## Cosmic Analogy Generator

- AI-powered tool that transforms complex astronomy concepts into relatable comparisons
- Automatically adapts to user age and background knowledge
- Curated analogy bank verified by scientific staff

## Cosmic Chronometer

- Interactive timeline of astronomical scales
- “Time travel” from the Big Bang to today
- Embeds celestial events in human historical context

# SMART AUTOMATION FOR OUTREACH

## Python Script in Progress

```
python

# Ejemplo: Analizador de Engagement Astronómico
def analizar_contenido_astronomico(posts_data):
    """
    Identifica qué tipos de contenido astronómico
    generan mayor comprensión y emoción
    """

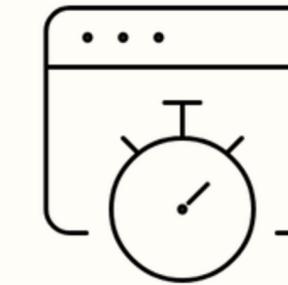
    categorias = ['descubrimientos', 'educativo', 'visual', 'interactivo']
    engagement_por_categoria = {}

    for categoria in categorias:
        posts_categoria = filtrar_por_categoria(posts_data, categoria)
        engagement_promedio = calcular_engagement(posts_categoria)
        tiempo_permanencia = calcular_tiempo_permanencia(posts_categoria)
        preguntas_generadas = contar_preguntas_comentarios(posts_categoria)

        engagement_por_categoria[categoria] = {
            'engagement': engagement_promedio,
            'permanencia': tiempo_permanencia,
            'curiosidad_generada': preguntas_generadas
        }

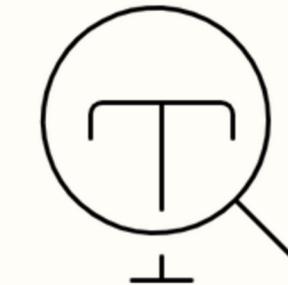
    return generar_recomendaciones(engagement_por_categoria)
```

## Features of an AI tool



**Publishing optimiser**  
This feature automates the best timing for educational posts.

1



**Content predictor**  
This feature highlights topics with the highest engagement potential.

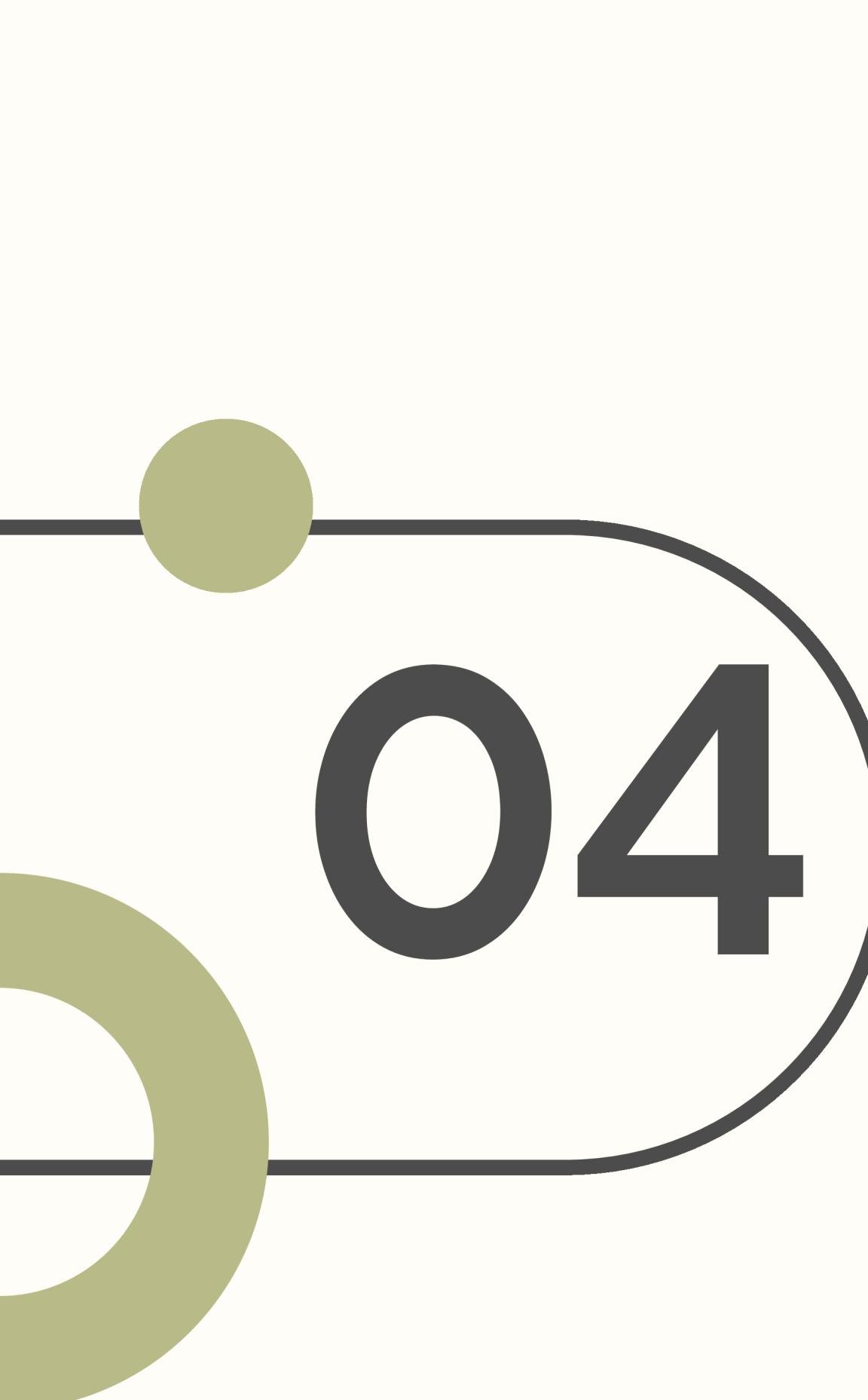
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**Personalised messaging**  
This feature adapts communication based on user interaction history.

3

This suite of tools turns abstract science into hands-on cosmic exploration — blending digital imagination with educational precision, and making astronomy not just understandable... but unforgettable.



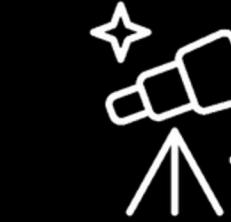
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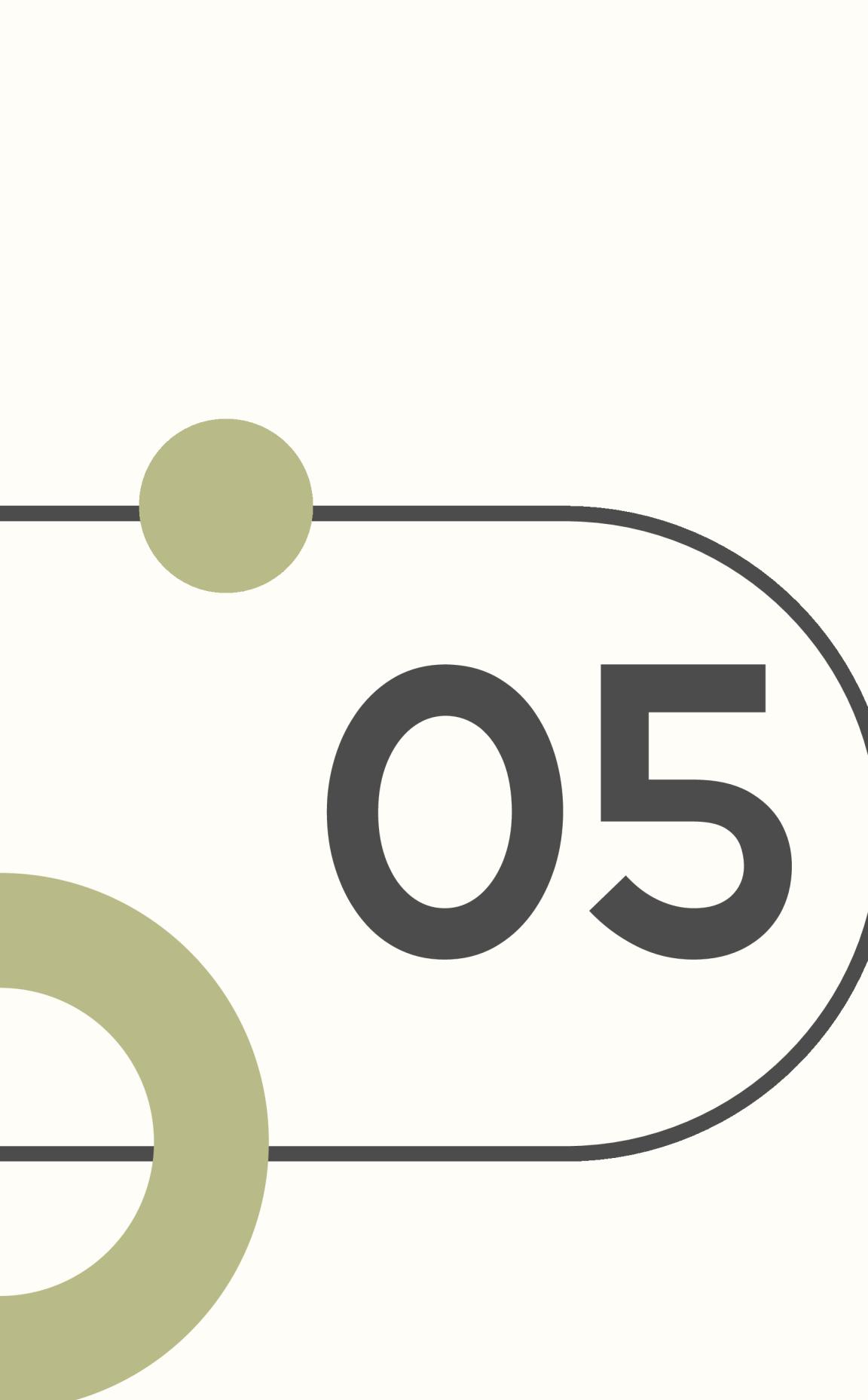
Multi-platform  
strategies for  
Diverse Audiences

# AUDIENCE CONNECTION MATRIX

Audience	Main Platforms	Best Formats	Outreach Centre Example
 <b>Visitors</b>	Instagram + YouTube	Interactive stories + 5–10 min videos	“Adventures in Galactica” – family experiences
 <b>Educators</b>	LinkedIn + Outreach Centre’s website	Downloadable articles + teaching resources	“Cosmic Classroom” – educational kits
 <b>Secondary students</b>	TikTok + Instagram	Short videos + challenges	“Astro-Challenges” – hands-on experiments
 <b>Amateur astronomers</b>	YouTube + Twitter	Deep-dive videos + informative threads	“Monthly Data Drop” – discovery analyses
 <b>Scientific community</b>	LinkedIn + ResearchGate	Popular science papers + infographics	“Outreach Centre Explains” – research translation

# EDITORIAL CALENDAR— “COSMOS IN CONNECTION”

Weekly Routine				Special Events			
							
<b>Discovery Mondays</b> Latest research and finds.	<b>In Your Words Wednesdays</b> Visitor stories and testimonials.	<b>Cosmic Fridays</b> Curious facts and mind-expanding analogies.	<b>Homie Sundays</b> Astronomy activities to enjoy at home.	<b>Stargazing Nights</b> Live coverage of stargazing events for enthusiasts.	<b>Research Releases</b> Immediate and audience-friendly translations of research releases.	<b>Guest Visits</b> Warm, human-centered interviews with visiting scientists.	<b>Astronomy Milestones</b> Region-specific storytelling about astronomy milestones.



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## Measuring Impact – Beyond Likes and Shares

# KPIs FOR TRANSFORMATIONAL LEARNING

## Level 1: Initial Connection

- Educational content reach vs. entertainment reach
- Time spent on technical explanations
- Shares with personal commentary (not automated reposts)
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## Level 2: Active Understanding

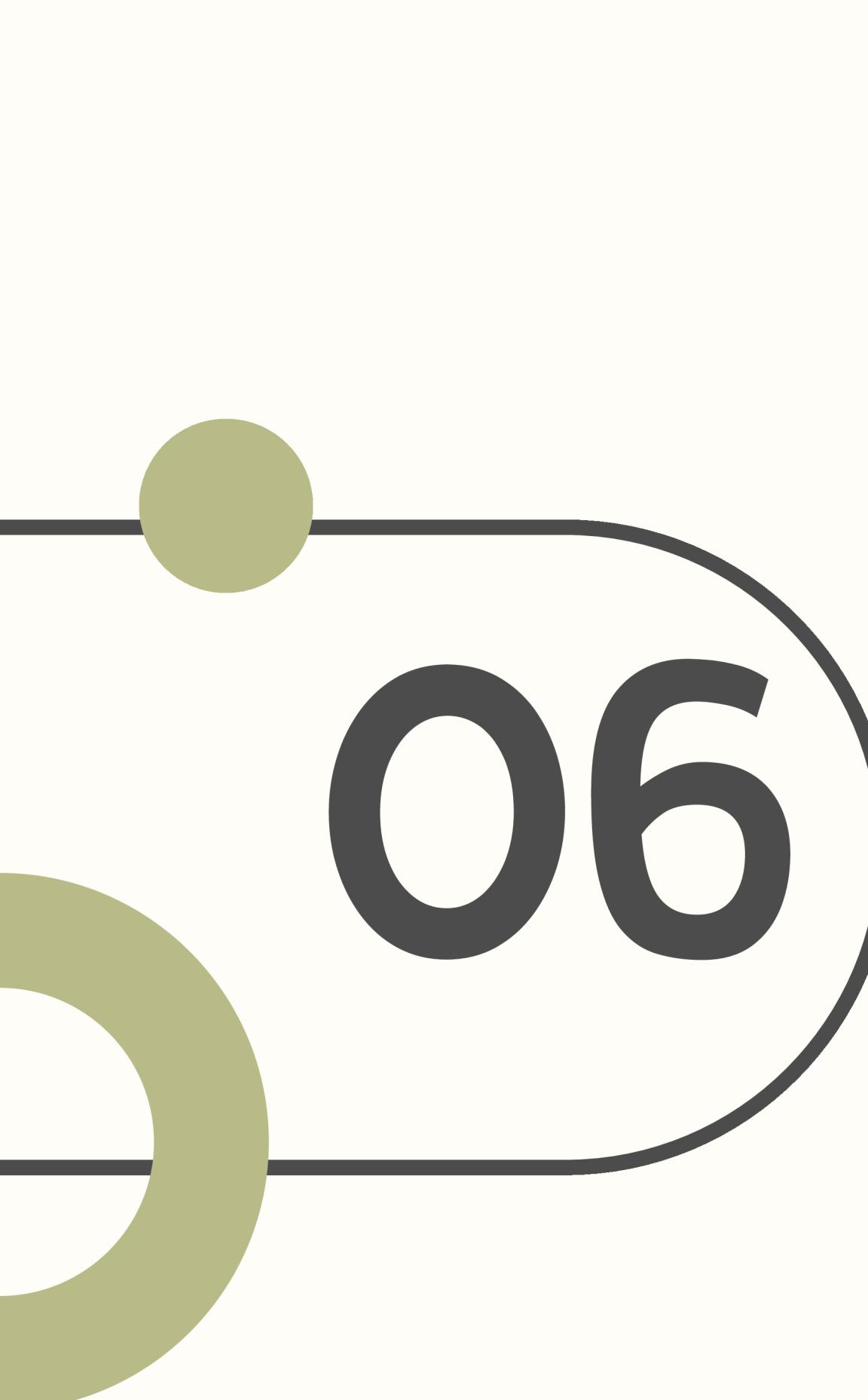
- Questions raised in comments (genuine curiosity indicator)
- Audience rephrasing of concepts in their own words
- Requests for deeper information on specific topics
- 

## Level 3: Community Transformation

- Enrolments into the Cosmic Ambassadors programme
- Visits to the Outreach Centre generated through social media
- Audience-created content inspired by the Centre
- Astronomy activities implemented in schools

# "COSMIC IMPACT" DASHBOARD – INNOVATIVE METRICS

Characteristic	Description
 Curiosity Index	Ratio of questions per view
 Inspiration Factor	Audience-generated content after engagement
 Scalable Learning	Number of educators adopting materials
 Astronomical Footprint	Geographic expansion of community



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## High-Impact Proposals

# "GLOBAL OUTREACH CENTRE" – A DIGITAL MUSEUM

## Immersive Online Experiences



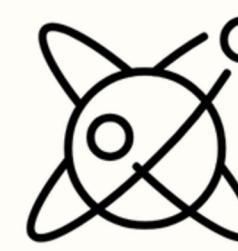
### Narrated Tours

Virtual walkthroughs of exhibits adapted for different ages.



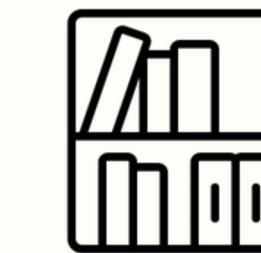
### Virtual Observatory

Live telescope feeds are provided for remote audiences.



### Cosmic Lab

Interactive simulations of astronomical phenomena are available.



### Cosmic Library

Educational resources and lesson plans can be downloaded.

## Use cases



### Schools

Schools can use virtual tours when unable to visit in person.



### Visitors

Virtual tours help visitors from outside the area prepare for trips.



### Limited mobility

Virtual tours are helpful for audiences with limited mobility.



### Remote training

Virtual tours are useful for remote training for educators.

# "RESEARCH CENTRE INSPIRES" – MENTORSHIP PROGRAMME IN ASTRONOMY

## Human Connection Programs



### Mentoring Students

Research Centre scientists mentor local students. This fosters interest in scientific fields.



### Coffee with Scientist

Monthly informal sessions called "Coffee with a Scientist". These sessions promote open discussions.



### Adopt a Project

Students lead follow-up projects on real research. This provides hands-on experience.



### Alumni Network

An alumni network supports students in STEM careers. It offers guidance and networking opportunities.

# TERRITORIAL BRANDING STRATEGY

## Positioning



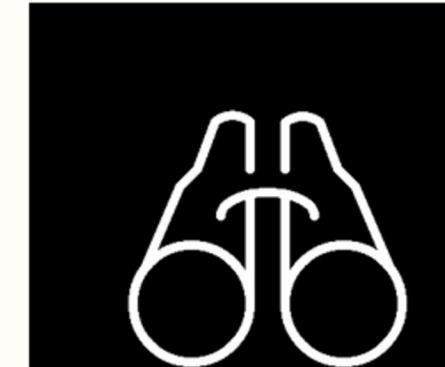
### Host county

The host city is known as the "Astronomy Capital of Spain".



### Host region

The host region is described as "A Community that Looks to the Stars".



### Host country

The host country is an international leader in inclusive astronomy outreach.

## Strategic Alliances



### Tourism Boards

Regional tourism boards can create astronomical travel routes.



### Schools

Schools can form partnerships with international observatories.



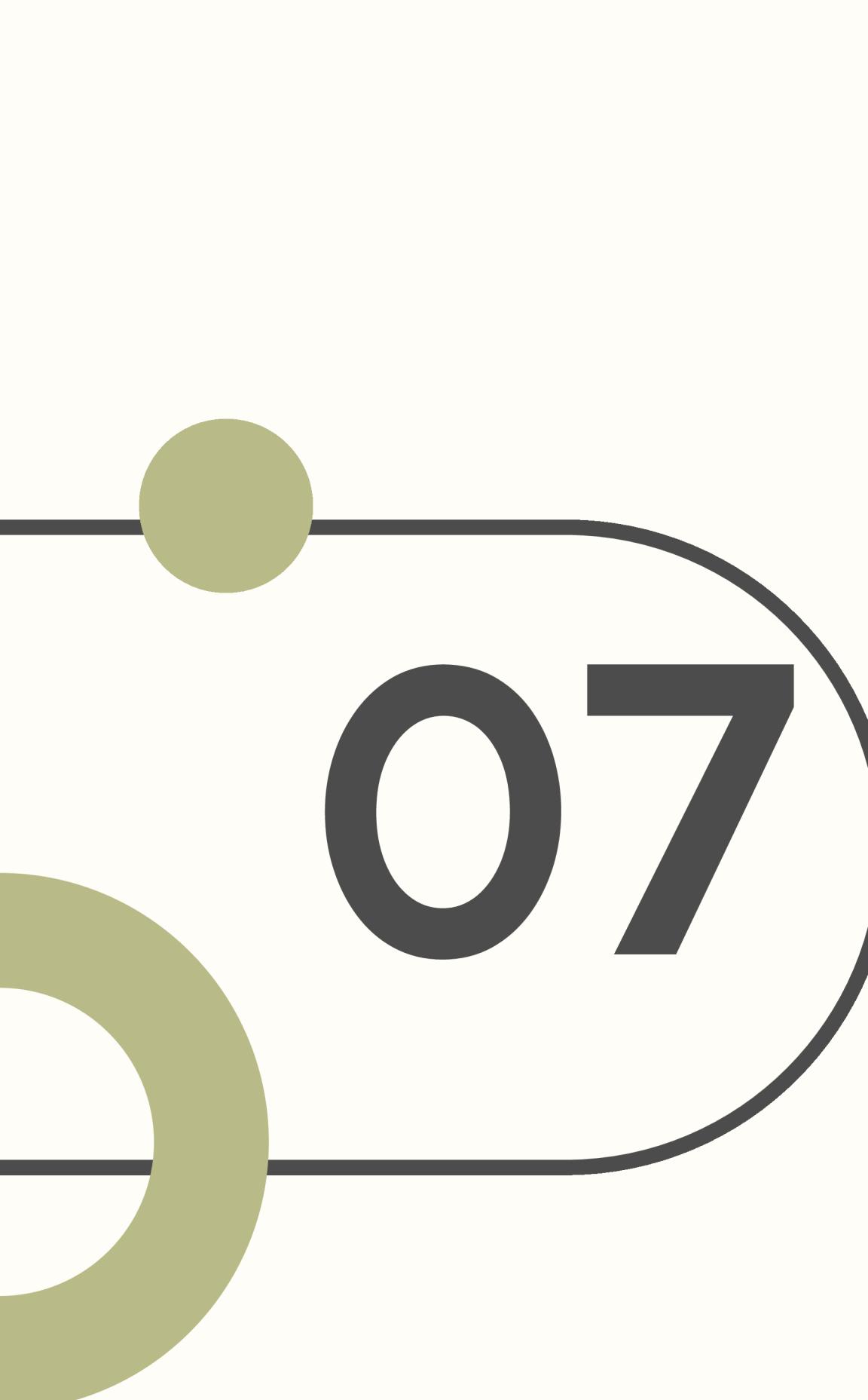
### Local Media

Local media can publish a weekly astronomy feature.



### Businesses

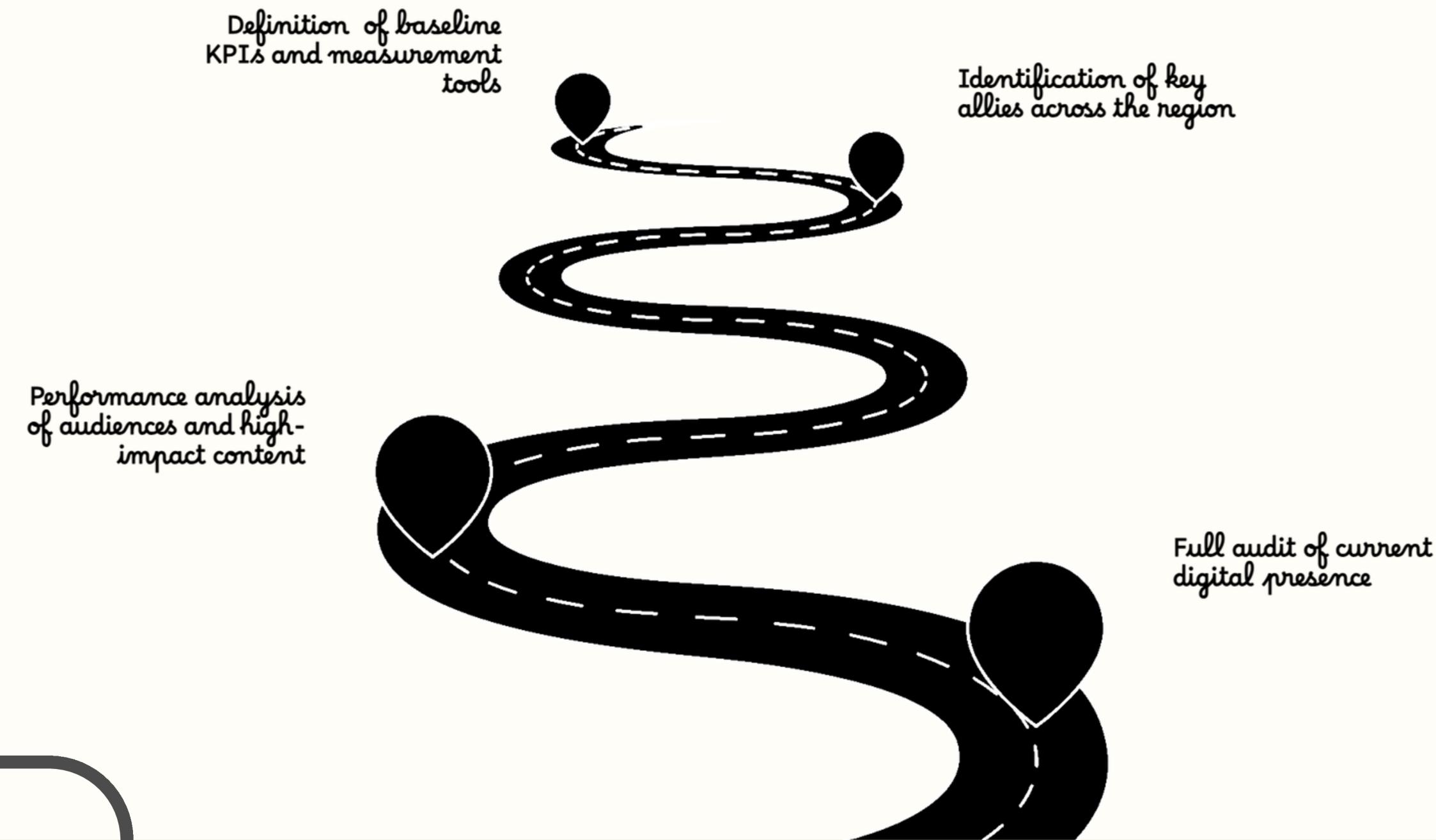
Businesses can participate in a "Companies Who Gaze Skyward" outreach programme.



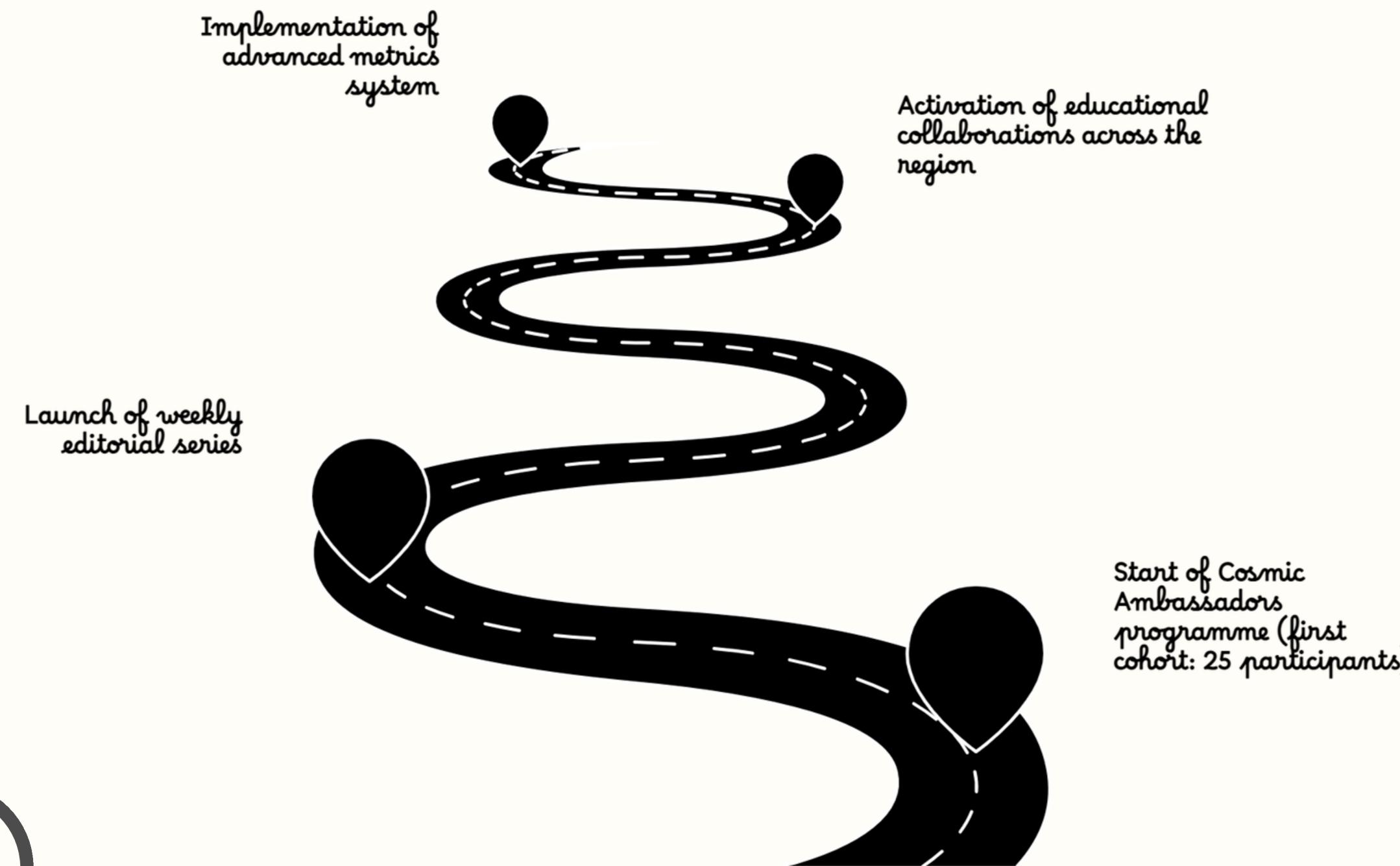
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# Implementation Timeline

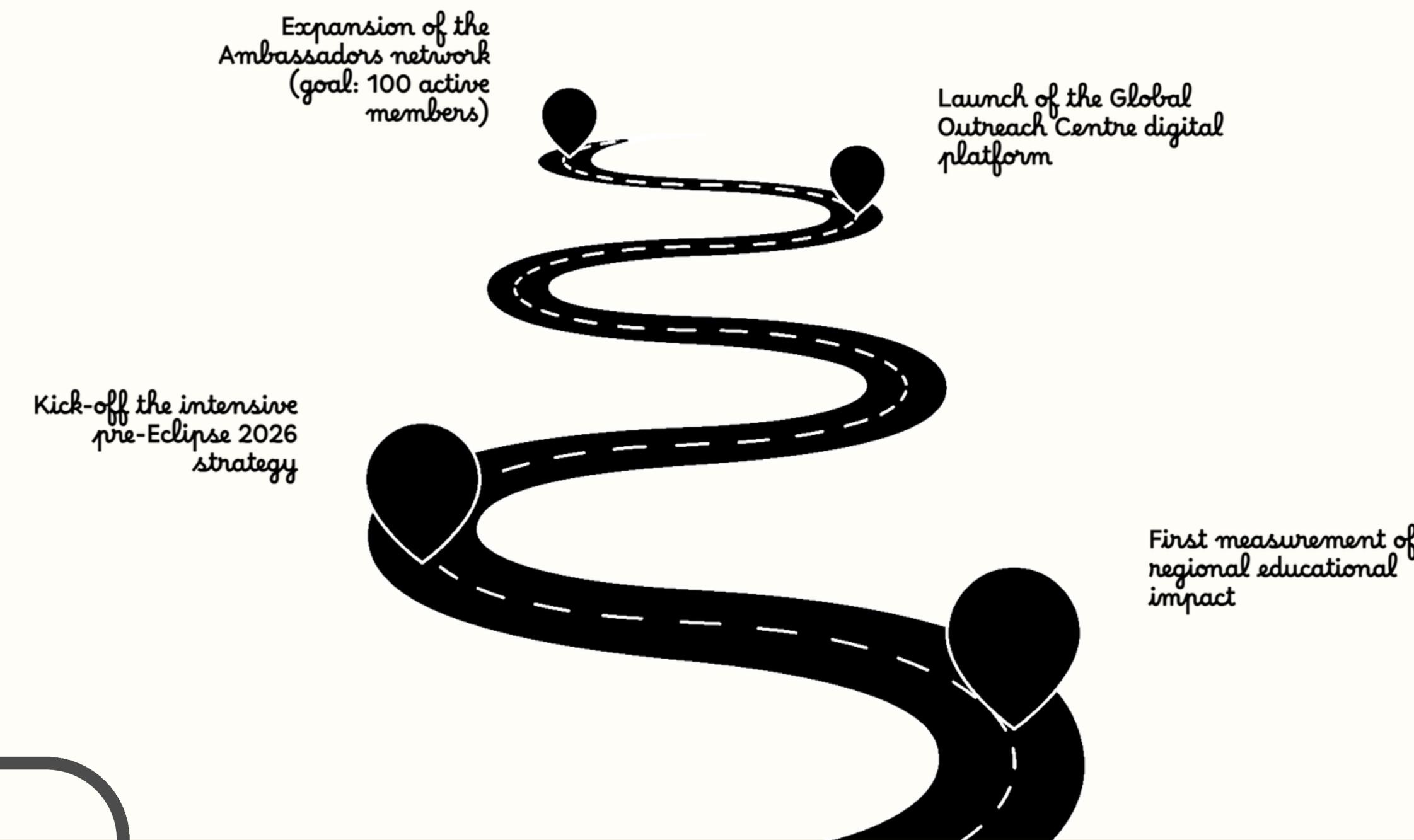
## First 30 Days: Diagnostic and Foundations



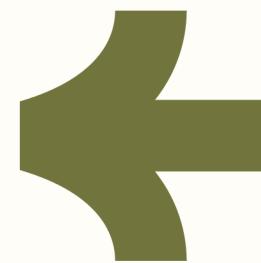
## First 90 Days: Strategy Launch



## First Year - Community Building



# Epilogue



## **Communicating the Cosmos Is Inspiring Lives**

Every girl who peers through a telescope at the Outreach Centre might become the astrophysicist who discovers distant exoplanets.

Every woman who joins a stargazing night could turn into a lifelong ambassador of scientific knowledge. Every female student who grasps the scale of the universe may find the courage and curiosity to pursue a future in STEM and help shape the world through science.

My purpose at the Research Centre is clear:  
To turn every astronomical discovery into a seed of inspiration.

Every data point into a memorable story.

Every visitor — especially every girl with wonder in her eyes — into a Cosmic Ambassador.

Astronomy is not only a science. It is a gateway to awe. A bridge between people and the vastness we share. This portfolio was never intended to impress; it was meant to invite. Science must be explored, but it must also be explained. That is the path I choose to follow.