



# Climate Interactive Simulation Tools

AI-Driven Data Analytics and Algorithms for C-ROADS, En-ROADS, and  
STELLA: Future-Oriented Curriculum in Climate Change Mitigation and Green  
Skills

**Powered by Jose Soares**

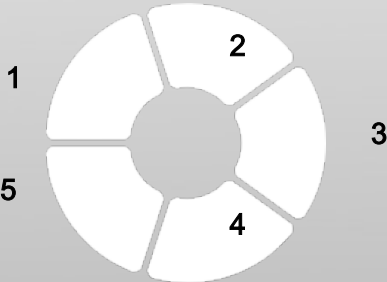
AI@GREEN Erasmus+ Initiative - European Collaborative Project



# En-ROADS Climate Simulator

## Cross-sector climate solutions

Integrated modeling of energy, transportation, industry and land use policies with real-time feedback on emissions impact



## Sea level rise analysis

Regional sea level projections linked to global temperature outcomes and ice sheet dynamics

## Energy price impacts

Dynamic analysis of carbon pricing, subsidies and technology cost curves on energy transition pathways

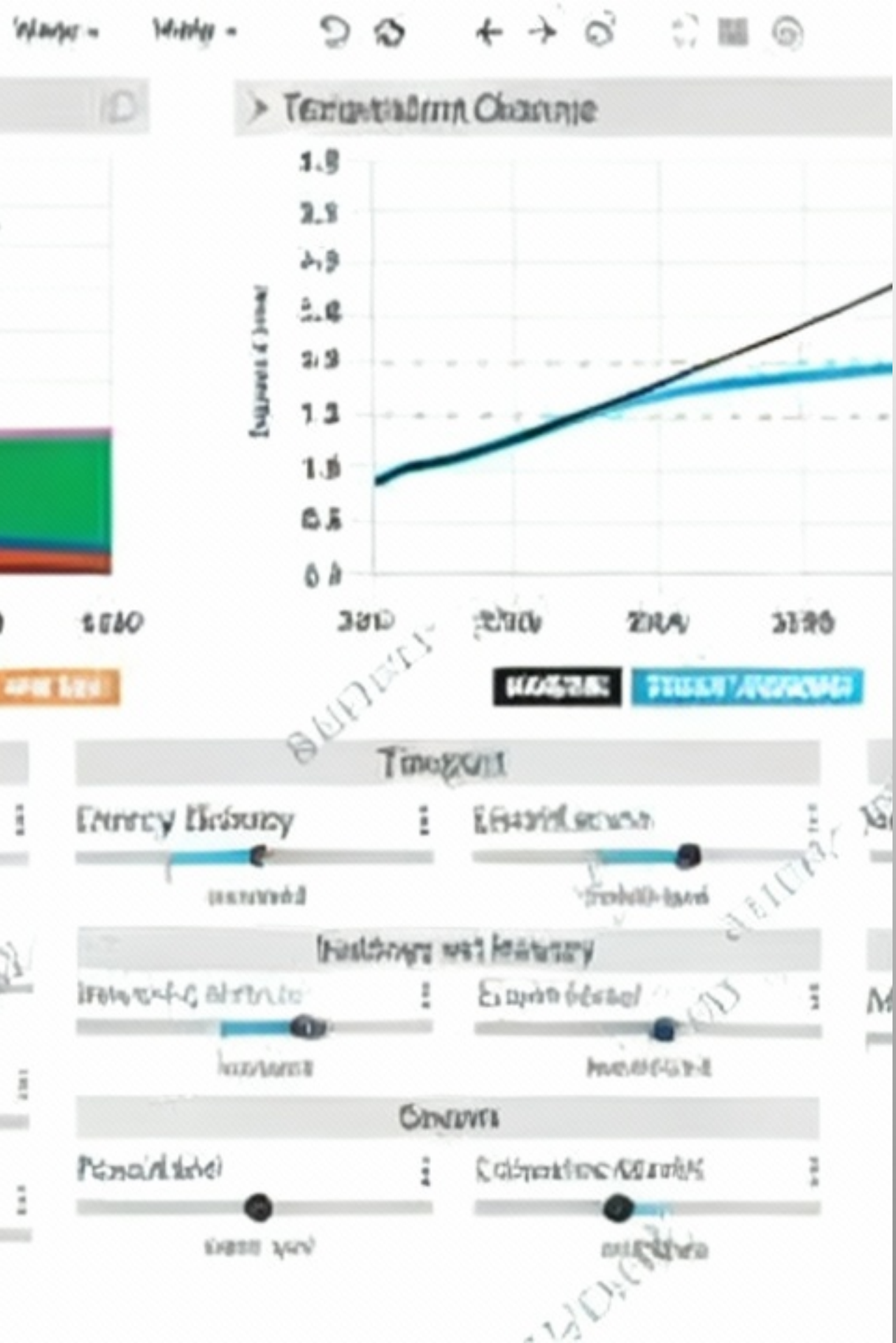
## Temperature projections

Multi-model ensemble forecasting with probabilistic temperature outcomes under different policy scenarios

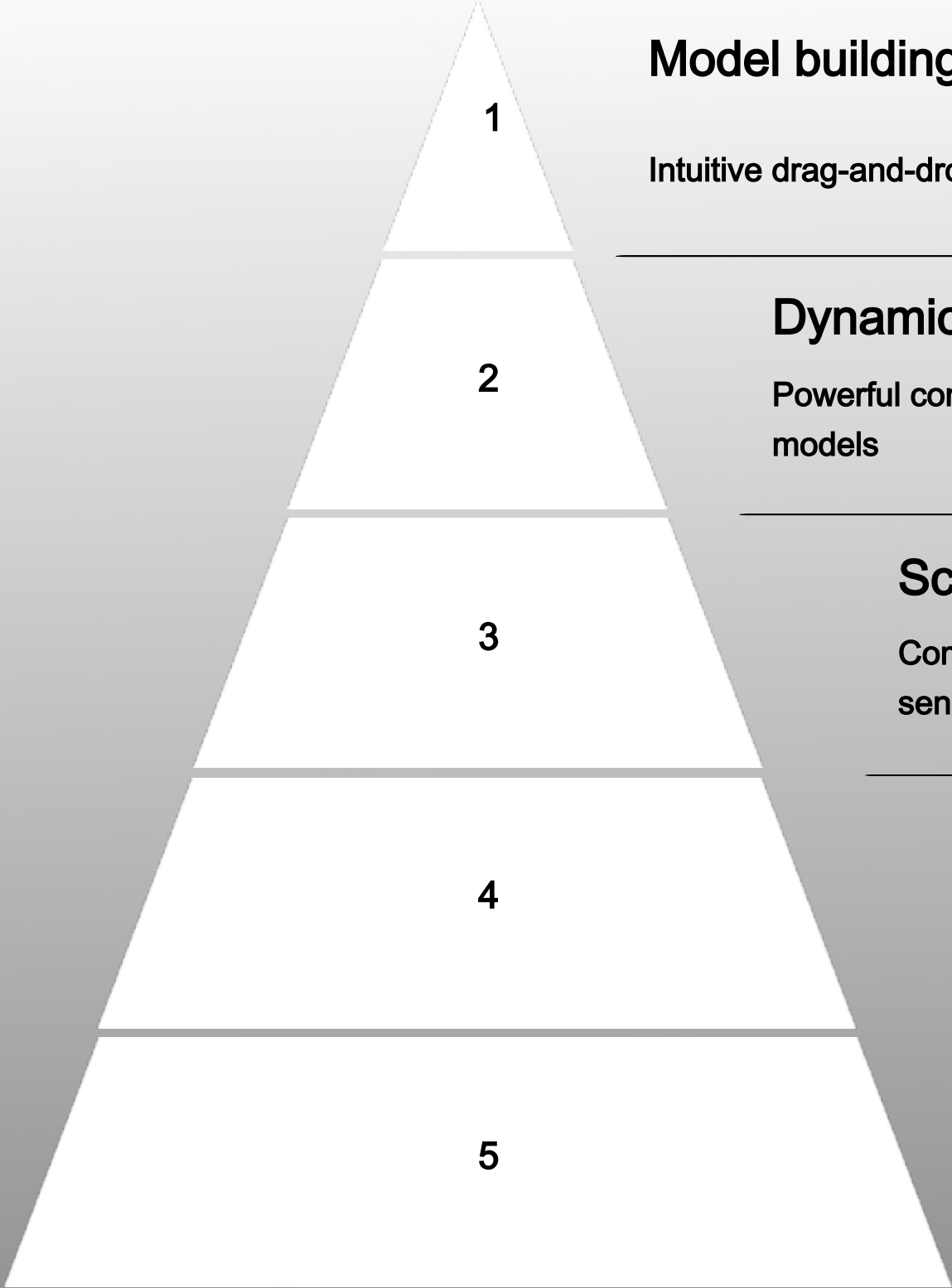
## Air quality modeling

Co-benefits assessment showing PM2.5 and ozone reductions from climate mitigation strategies

Comprehensive approach: The simulator integrates 18 key policy levers with 100+ interlinked variables, providing policymakers with immediate visual feedback on climate intervention impacts.



# STELLA System Dynamics Platform



## Model building interface

Intuitive drag-and-drop interface for constructing system dynamics models with stocks, flows, and feedback loops

## Dynamic simulation engine

Powerful computational engine that solves complex differential equations underlying system dynamics models

## Scenario testing capabilities

Comprehensive tools for running multiple policy scenarios and comparing outcomes through sensitivity analysis

## Data visualization tools

Advanced graphing and dashboard features for analyzing and presenting simulation results

## Educational templates

Pre-built model templates covering common system dynamics applications across various disciplines

# Climate Interactive Platform Impact Metrics

**358K+**  
Global Users

**166**  
Countries

**95%**  
Accuracy Rate

**130+**  
US Congress

## Data Analytics

Advanced algorithms process climate data to provide real-time insights for policy makers and educators worldwide.

- Real-time scenario processing and analysis capabilities
- Machine learning enhanced prediction accuracy models
- Integrated assessment model calibration and validation

## Algorithm Integration

System dynamics models enhanced with AI techniques provide sophisticated climate modeling and decision support systems.

- Dynamic policy impact modeling and assessment
- Cross-sector interaction simulation and forecasting
- Uncertainty quantification and sensitivity analysis methods

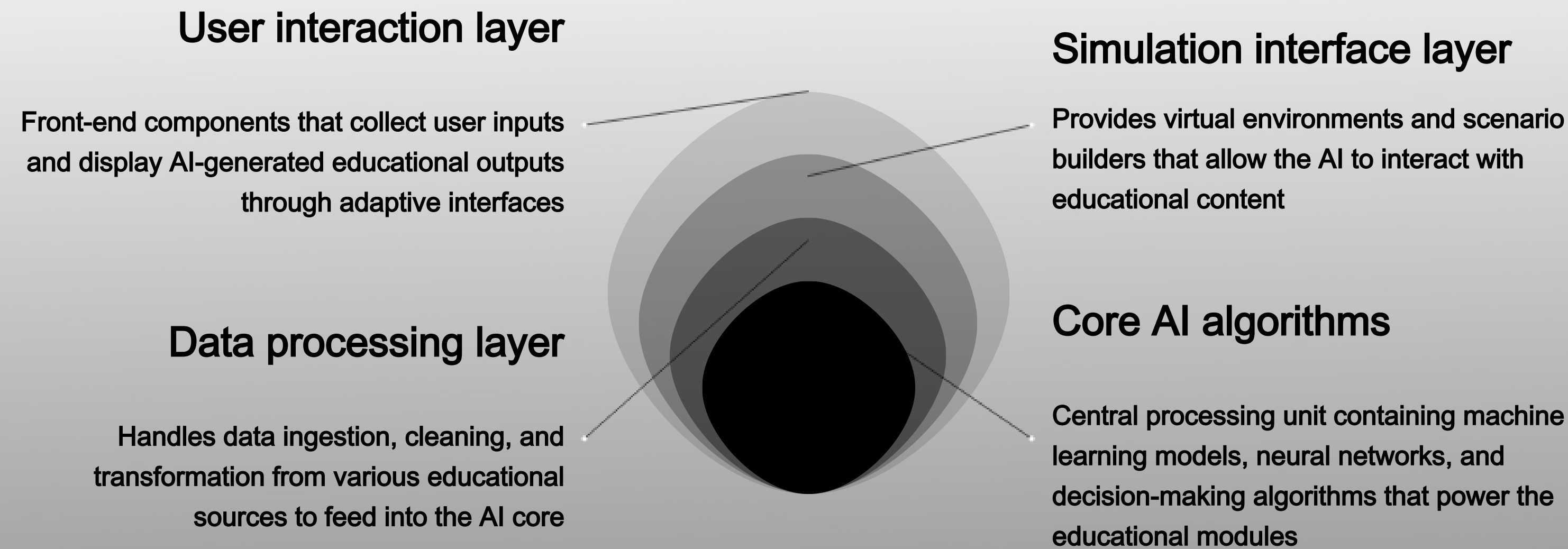
## Educational Impact

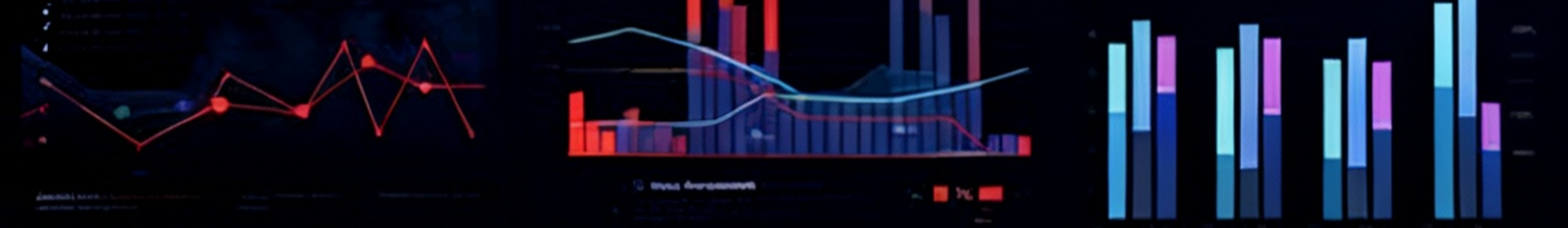
Interactive learning experiences transform climate education through hands-on simulation and experiential learning approaches.

- Enhanced student engagement through interactive modeling
- Real-world policy scenario testing and evaluation
- Collaborative learning through simulation gaming environments



# AI-Driven Educational Modules Architecture





# Data Analytics Capabilities

## Data collection

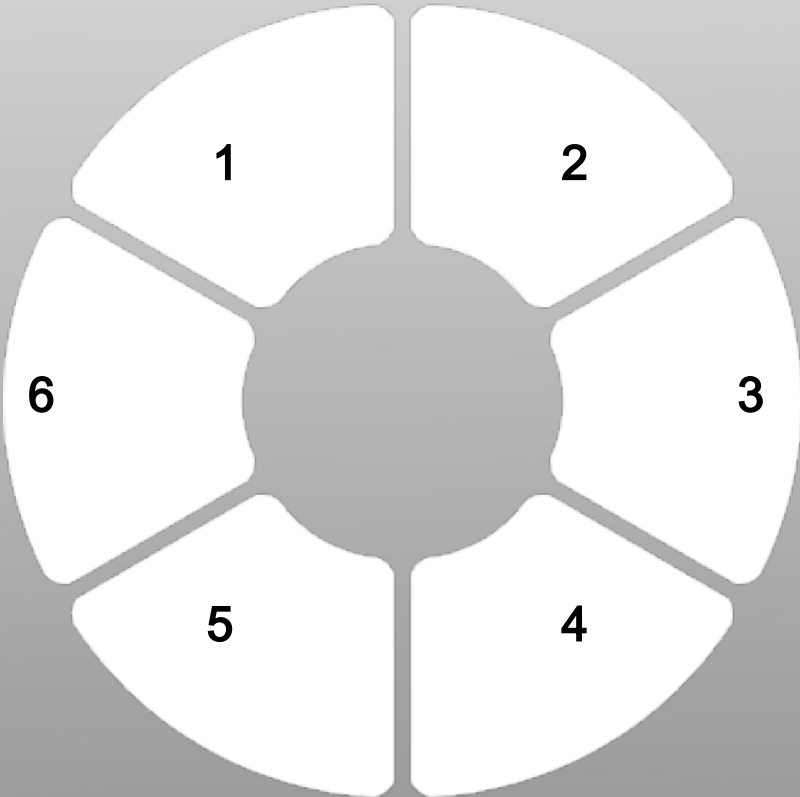
Comprehensive data gathering from multiple sources including IoT devices, APIs, and enterprise systems

## Decision support

Actionable insights and recommendations powered by AI-driven analytics

## Predictive modeling

Machine learning models for forecasting and scenario simulation



## Processing algorithms

Advanced algorithms for data cleaning, transformation and feature engineering

## Visualization tools

Interactive dashboards with real-time data rendering and custom charting options

## Analysis methods

Statistical analysis, clustering, and pattern recognition techniques

# Machine Learning Integration in Climate Modeling

## Data preprocessing

Cleaning and preparing raw climate data for machine learning analysis, including handling missing values and normalization

## Feature engineering

Extracting meaningful climate patterns and creating predictive features from preprocessed datasets

## Model training

Developing machine learning algorithms to learn from climate features and establish predictive relationships

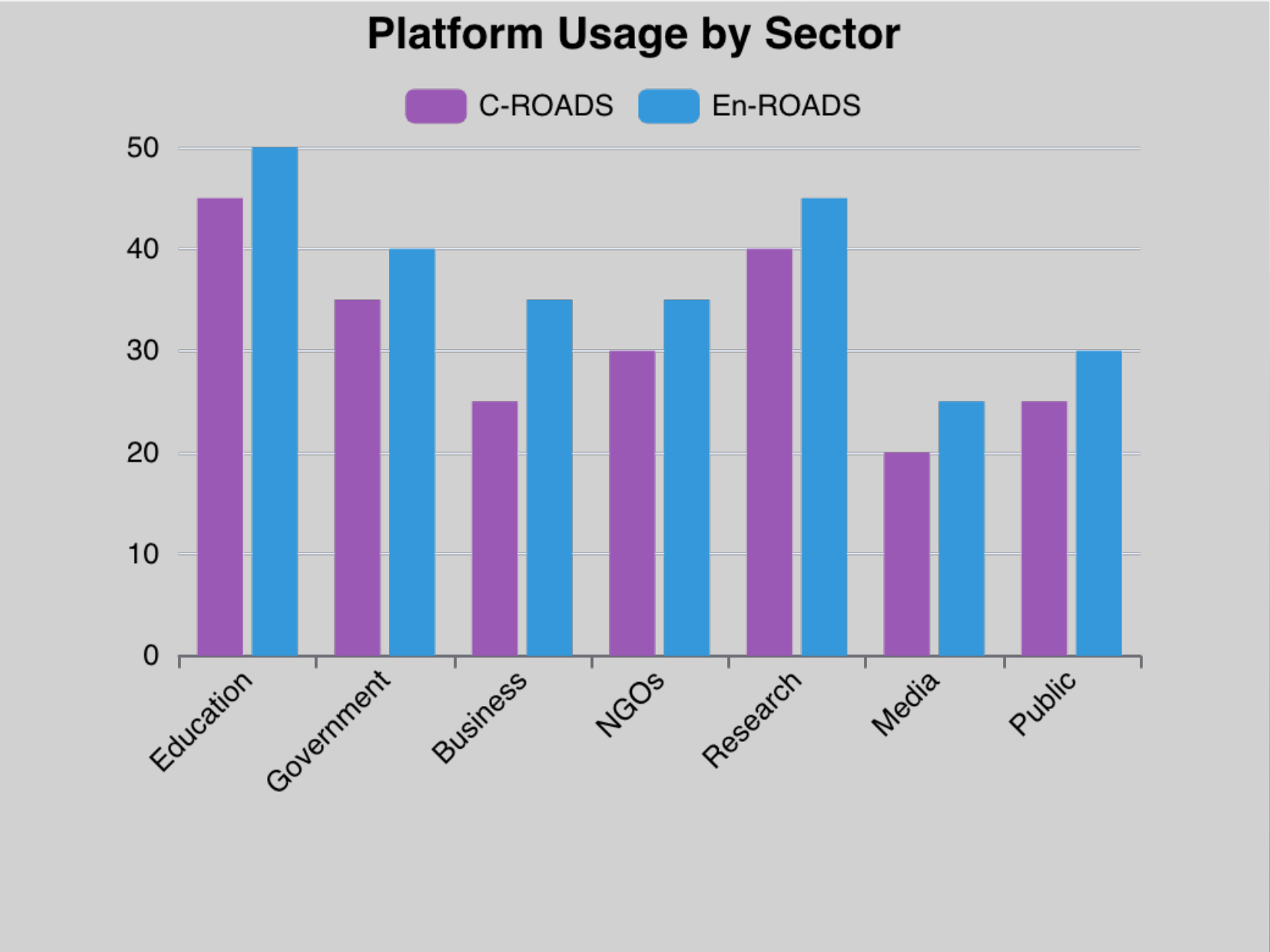
## Validation testing

Evaluating model performance against historical climate data to ensure accuracy and reliability

## Deployment implementation

Integrating validated ML models into operational climate prediction systems for real-world applications

# Climate Simulation Platform Usage Analytics



## Educational Impact

Universities and schools worldwide use these simulators to enhance climate education and student engagement.



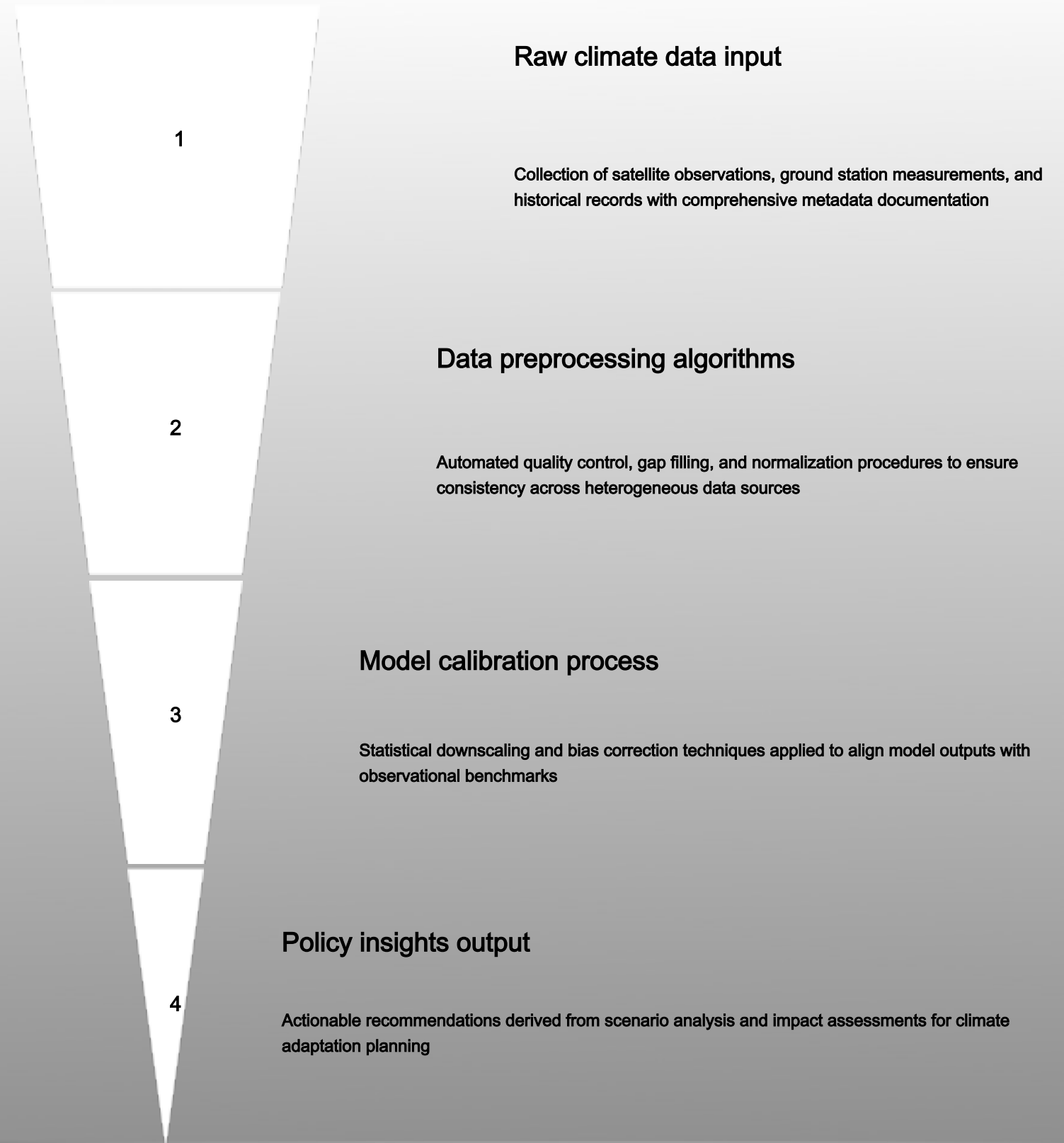
## Policy Support

Government agencies leverage these tools for evidence-based climate policy development and decision making.



*Compendium 2018 - 2022*

## Climate Data Processing Pipeline



# Stakeholder Engagement Framework

## Stakeholders

**Policymakers**  
Collaborative policy development and regulatory framework alignment

**Civil society**  
Community engagement and grassroots implementation support

**Business leaders**  
Industry partnerships and workforce development collaborations

## Engagement

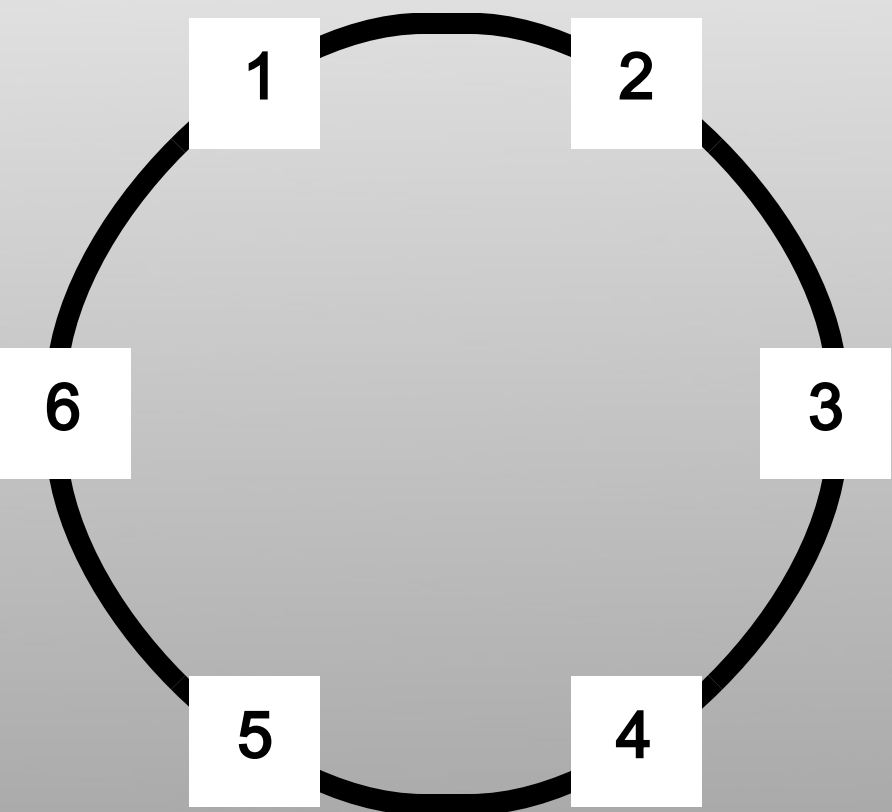
Joint curriculum design and professional development programs

## Outcomes

Active participation in learning initiatives and feedback mechanisms

## Support

Knowledge sharing and evidence-based decision making support





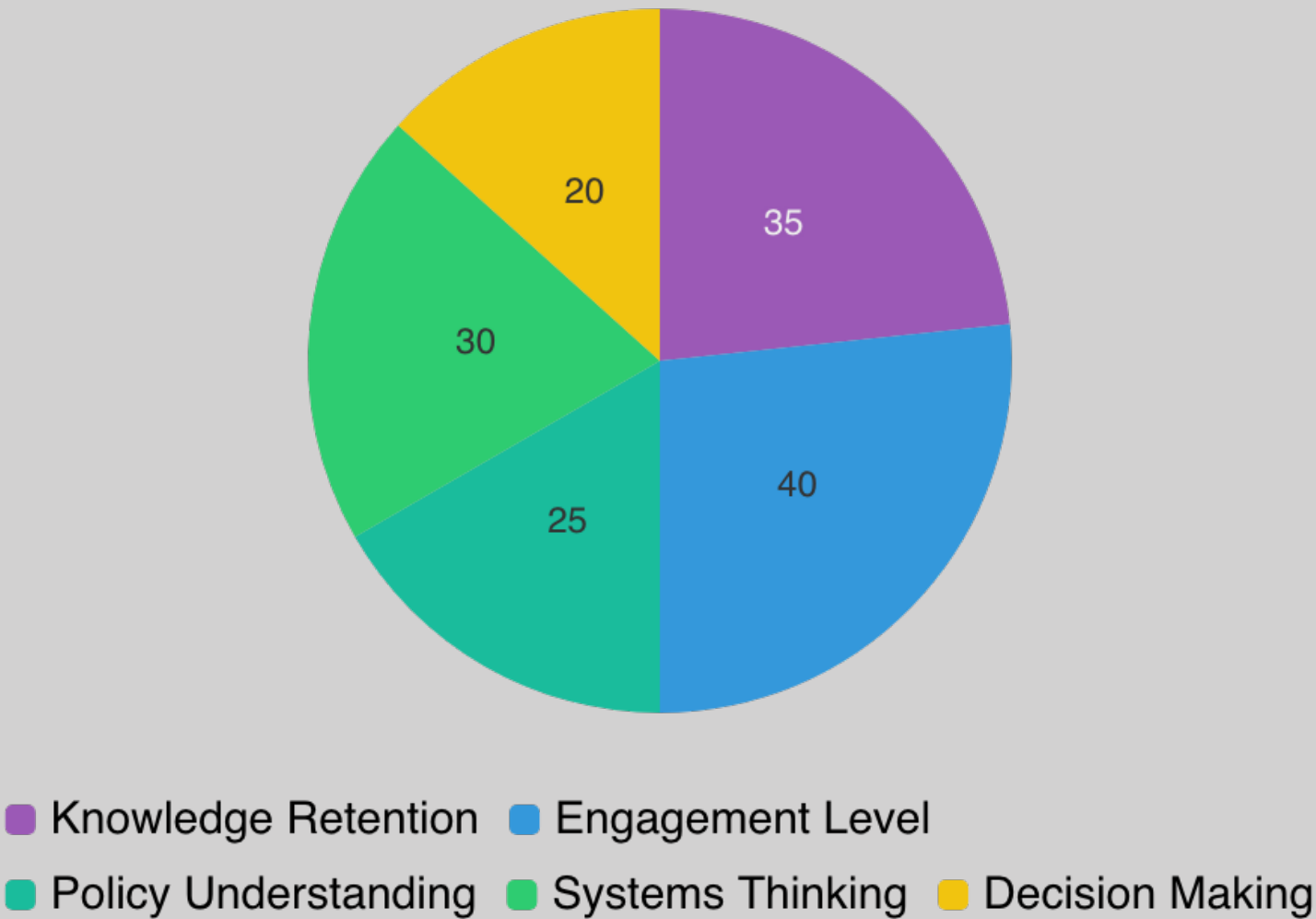
# Climate Learning Outcomes Assessment

## Educational Effectiveness

Interactive climate simulations significantly improve student understanding of complex climate systems and policy interactions. Studies show enhanced engagement and knowledge retention when using simulation-based learning approaches.

Students using climate simulators show 40% higher engagement and 35% better comprehension of climate policy complexities.

Learning Outcome Improvements

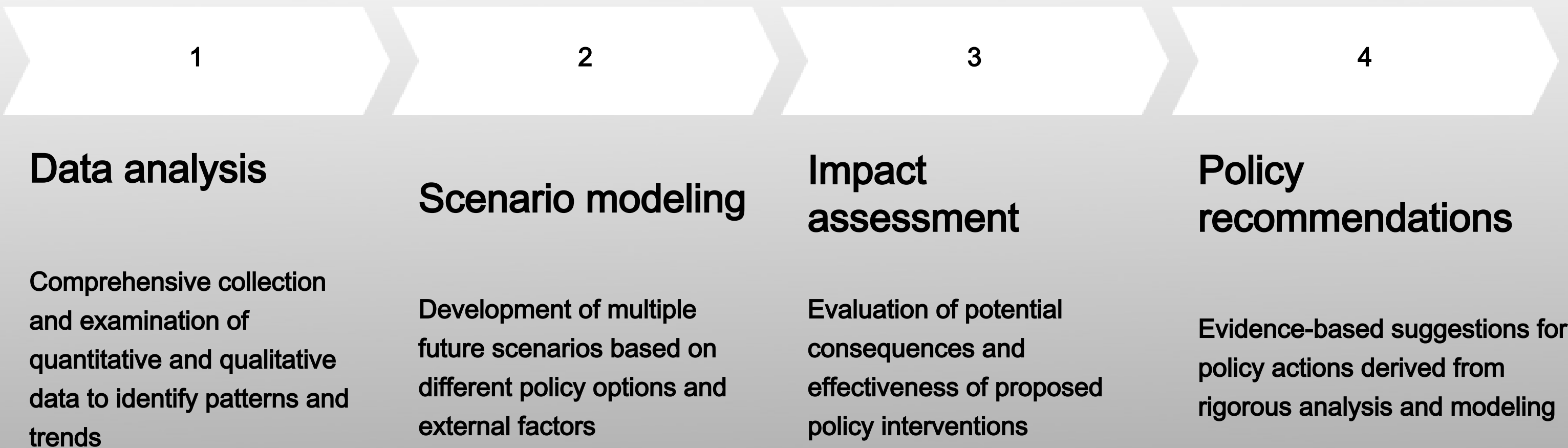


# Climate Learning Progression

1	<b>Basic climate awareness</b>  Foundational understanding of climate science principles and environmental impacts
2	<b>Policy understanding</b>  Comprehension of international agreements and local climate policies
3	<b>Systems thinking</b>  Ability to analyze interconnected ecological, economic and social systems
4	<b>Decision making skills</b>  Developing critical evaluation frameworks for sustainable choices
5	<b>Climate action planning</b>  Practical skills for designing and implementing mitigation/adaptation strategies



# Policy Insights and Decision Support



Emphasize evidence-based policy development through systematic integration of research findings and stakeholder input

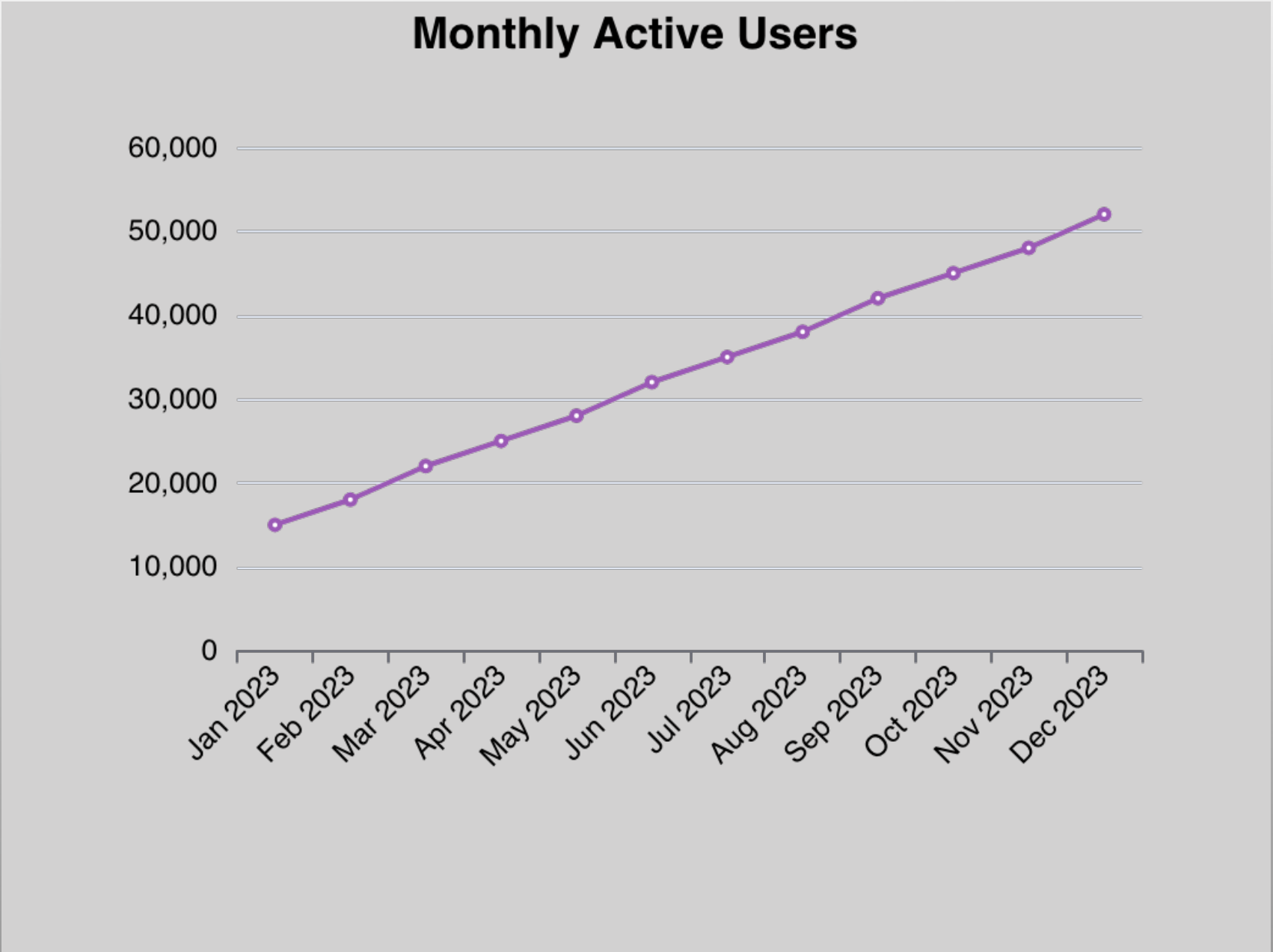
# Climate Simulation Engagement Trends

## Usage Analytics

The climate simulation platforms have shown exponential growth in user engagement across educational institutions, government agencies, and policy organizations worldwide. This demonstrates the critical need for accessible climate modeling tools.

**275%**

Growth Rate





# Climate Modeling Process

## Model design

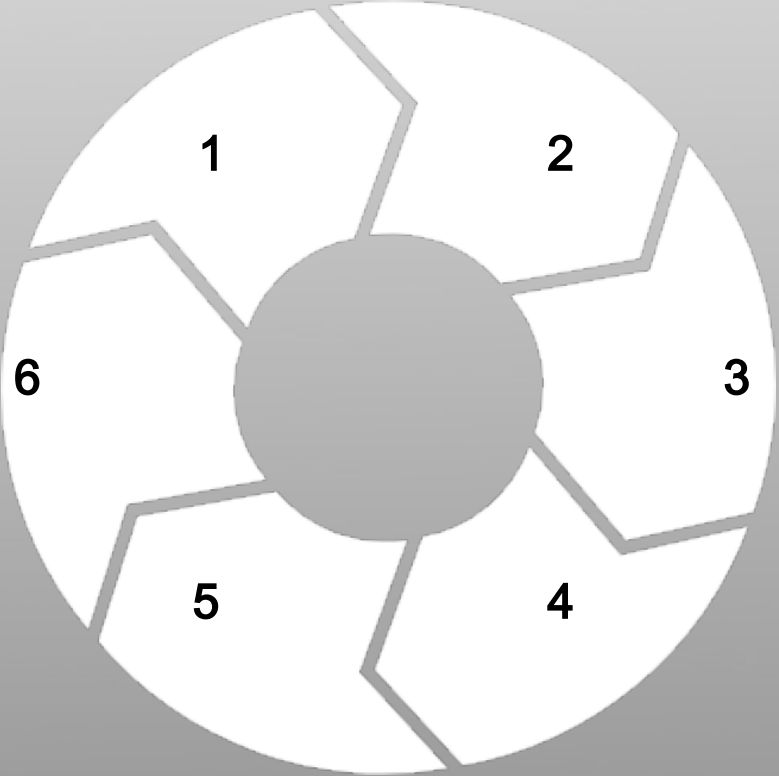
Developing the conceptual framework and mathematical representations of climate systems

## Implementation feedback

Incorporating real-world observations to refine and improve model accuracy

## Policy evaluation

Assessing potential impacts of climate policies based on model projections



## Parameter setting

Configuring initial conditions and physical constants for simulation scenarios

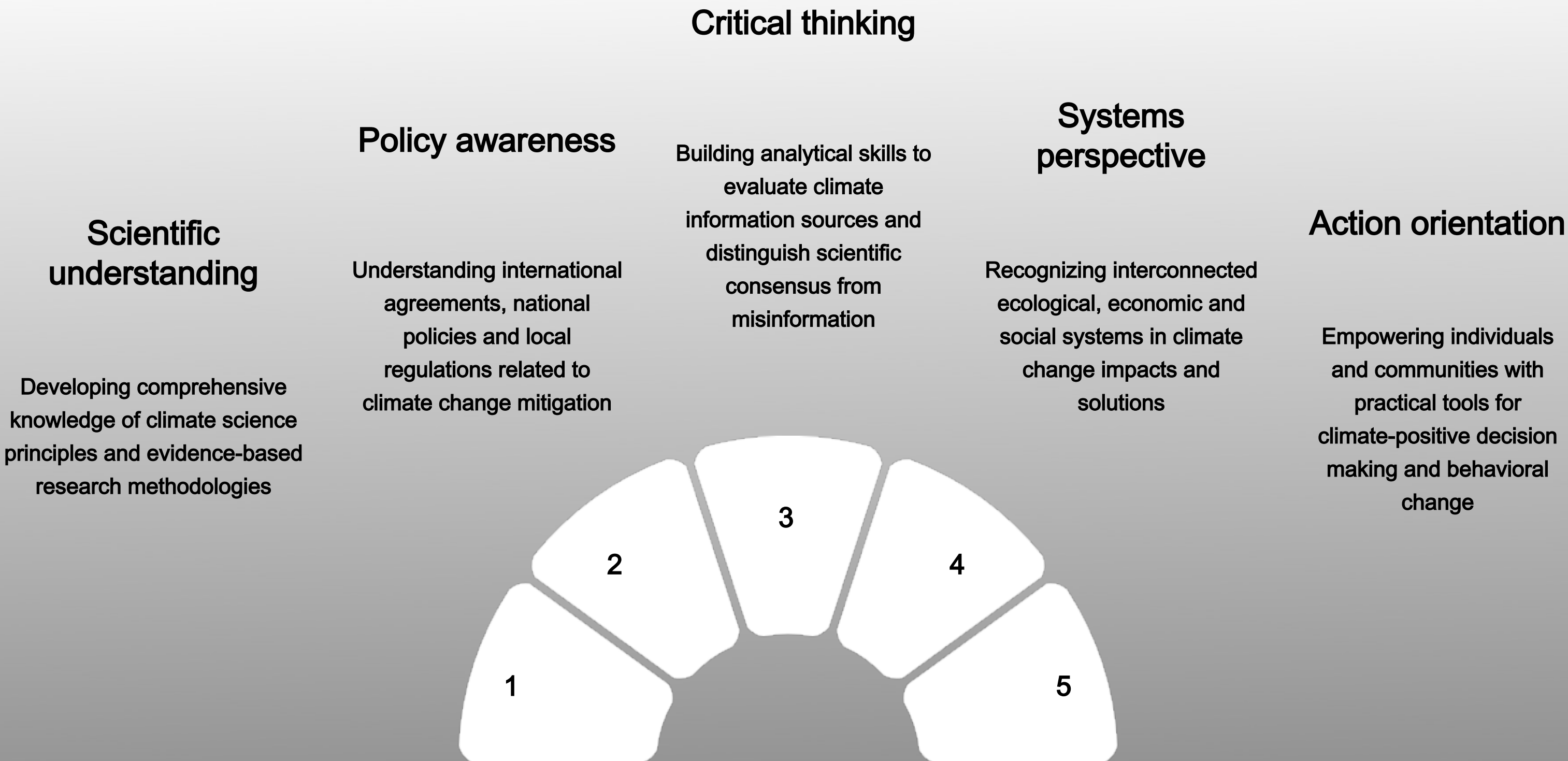
## Scenario testing

Running simulations with different climate change projections and policy assumptions

## Results analysis

Evaluating model outputs against observational data and statistical benchmarks

# Climate Literacy and Empowerment Objectives







# Educational Accessibility



## Inclusive learning design

Curriculum developed with universal design principles to accommodate diverse learning styles and abilities



## Accessible interfaces

Technology platforms featuring screen reader compatibility, keyboard navigation and adjustable display settings



## Multilingual support

Content available in 12 core languages with real-time translation capabilities for global classrooms



## Global curriculum integration

Learning materials incorporate case studies and examples from diverse cultural and geographical contexts

# Key Performance Indicators (KPIs) Framework

Comprehensive metrics system to measure effectiveness of climate simulation tools in educational and policy contexts, focusing on student engagement, learning outcomes, and resource utilization across different stakeholder groups.

KPI Category	Metric Type	Target Value	Current Performance	Improvement Rate
Student Engagement	Session Duration	45 minutes	42 minutes	8.5%
Learning Outcomes	Knowledge Retention	85%	78%	12.3%
Resource Utilization	Platform Accessibility	99%	96%	3.2%
Policy Impact	Decision Quality	High	Medium	15.7%
Global Reach	User Diversity	Global	166 Countries	25.4%
Technical Performance	Response Time	<2 seconds	1.8 seconds	10.2%

# Comprehensive Performance Monitoring

- 1

## Student engagement metrics

Track real-time participation, interaction rates, and activity completion to measure student involvement and identify engagement patterns
- 2

## Learning outcome assessments

Evaluate knowledge retention, skill acquisition, and competency development through standardized tests and performance benchmarks
- 3

## Resource utilization tracking

Monitor allocation efficiency of educational materials, technology tools, and instructor time to optimize operational effectiveness
- 4

## Impact measurement tools

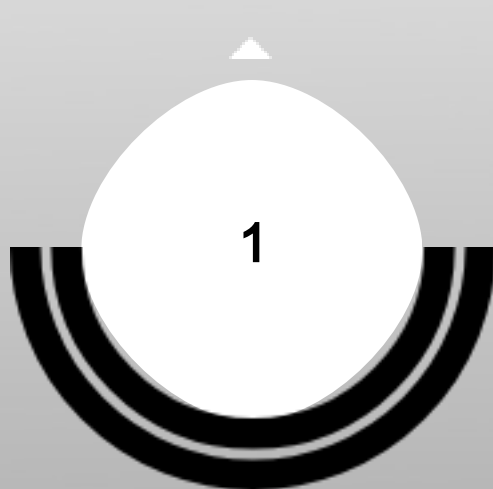
Analyze long-term educational outcomes, program effectiveness, and institutional performance indicators for strategic decision-making



# Data Privacy and Security Protocols

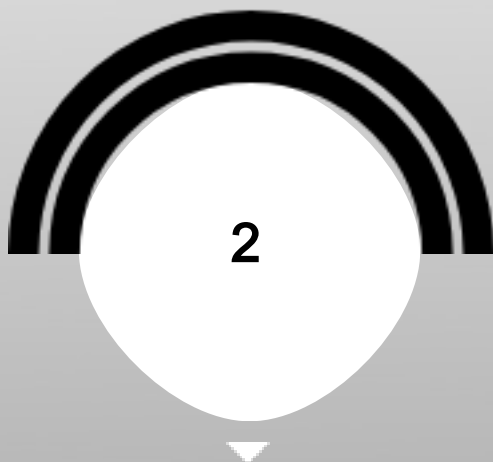
## Data encryption implementation

Deploy end-to-end encryption for all sensitive data transfers and storage as part of our comprehensive security framework



## Access control systems

Implement role-based access controls with multi-factor authentication as a core component of the security framework



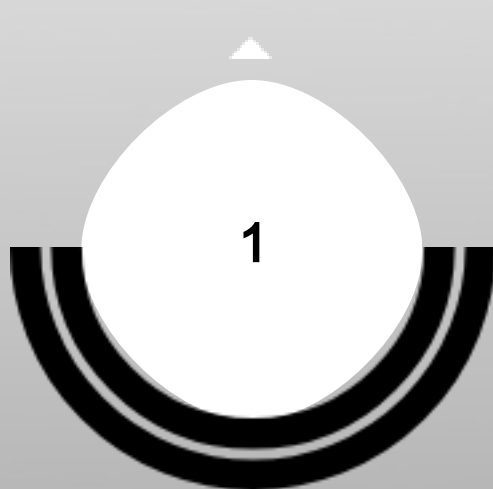
## Compliance monitoring

Continuous automated checks against evolving regulations to maintain security framework effectiveness



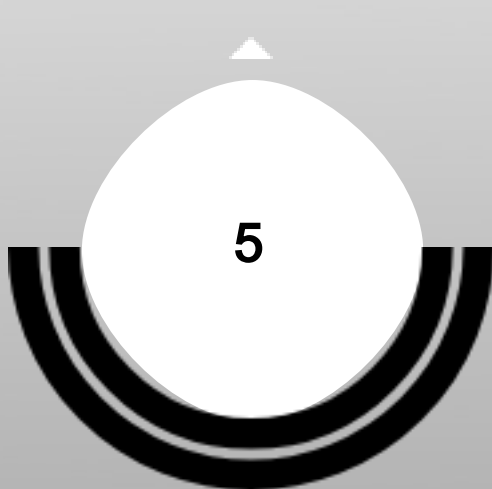
## User consent management

Establish granular consent controls and preference centers to ensure compliance with global privacy regulations within our security framework



## Audit trail mechanisms

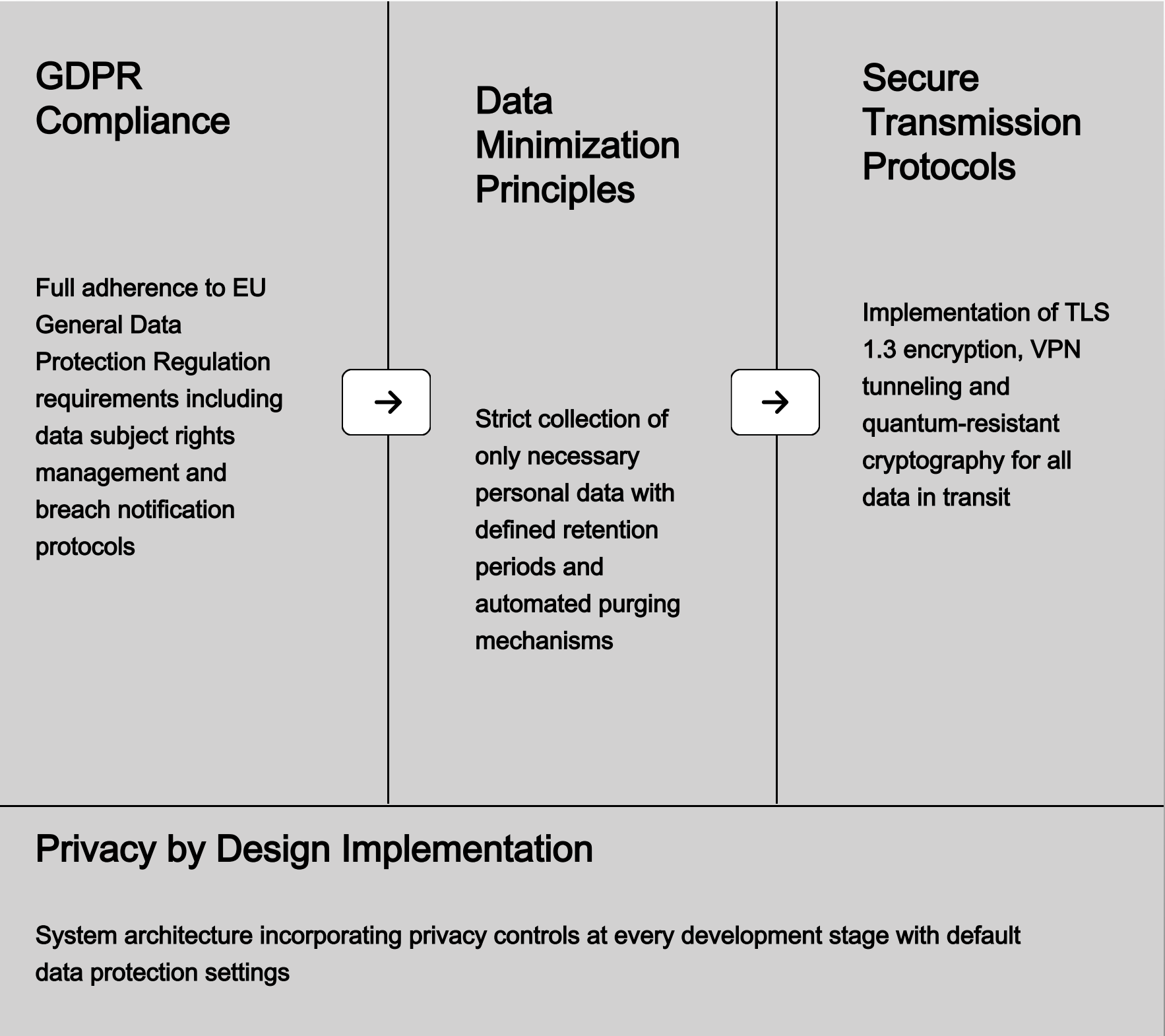
Develop comprehensive logging systems to track all data access and modifications, reinforcing the security framework







# Data Protection Measures



# AI Algorithm Integration Framework

## Machine learning models

Advanced statistical models that improve through experience and data exposure

## Optimization algorithms

Mathematical procedures for finding the best solution from all feasible solutions

## Natural language processing

Technologies enabling computers to understand, interpret and generate human language

## Computer vision systems

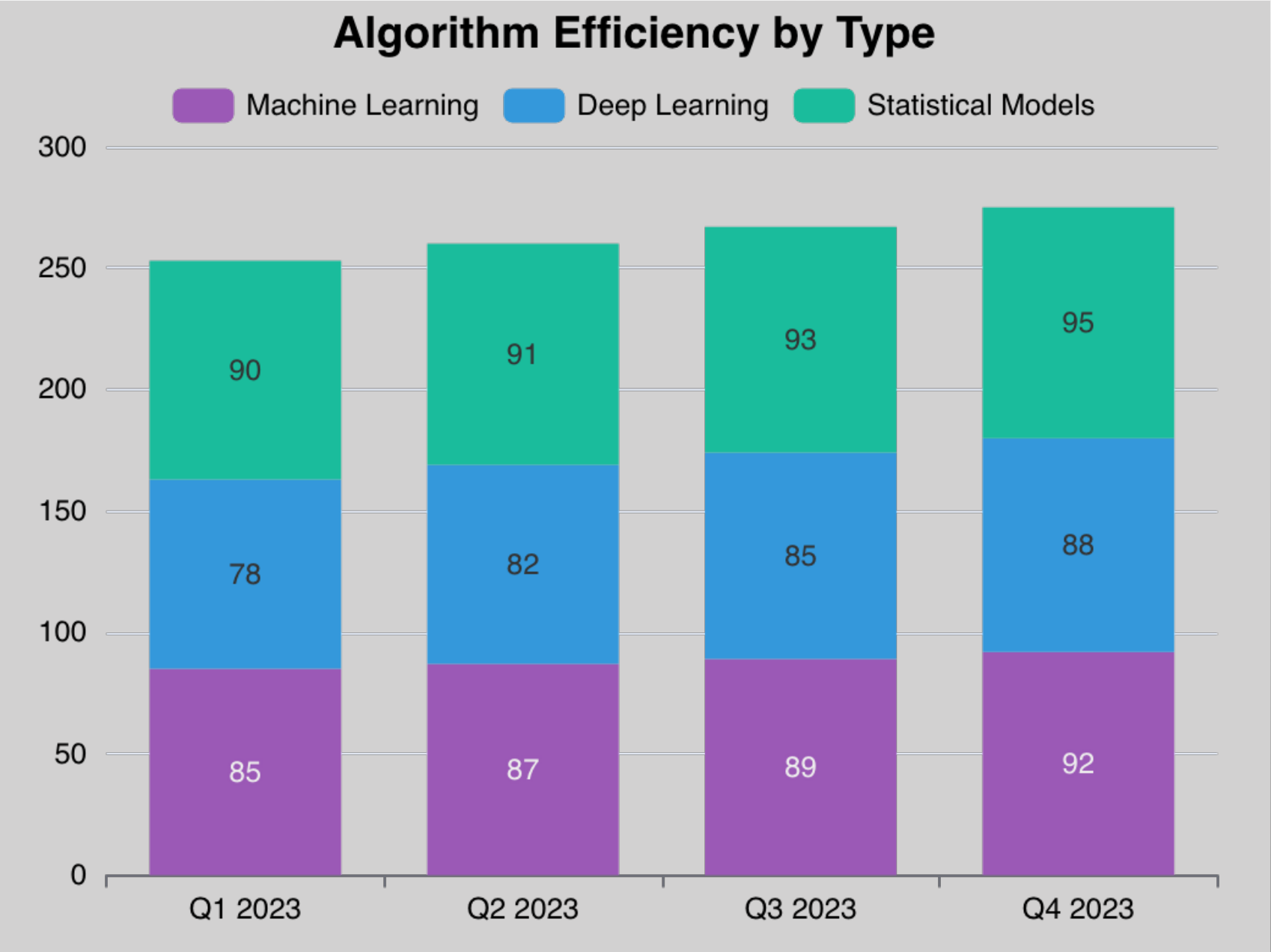
AI systems that derive meaningful information from digital images and videos

## Predictive analytics

Statistical techniques analyzing current and historical facts to predict future events



# AI Algorithm Performance Analysis



## Algorithm Insights

Advanced AI algorithms integrated into climate simulation platforms show consistent performance improvements across all quarters. Machine learning models demonstrate strong growth in accuracy and efficiency.

- Machine Learning: Consistent 92% accuracy in climate predictions
- Deep Learning: 88% efficiency in complex scenario modeling
- Statistical Models: 95% reliability in trend analysis



# AI Development Workflow

## Data preprocessing

Cleaning and transforming raw data into structured format for machine learning algorithms

## Model training

Using processed data to train machine learning algorithms and develop predictive models

## Validation testing

Evaluating model accuracy and generalization using separate test datasets



## Feature extraction

Identifying and selecting relevant characteristics from the dataset to improve model performance

## Hyperparameter tuning

Optimizing model configuration settings to achieve best possible performance metrics

## Production deployment

Implementing trained models into operational systems for real-world applications

# Green Skills Curriculum Development

## Skill identification

Systematic mapping of emerging green competencies across industries, identifying core technical and transversal skills required for sustainable development

## Curriculum design

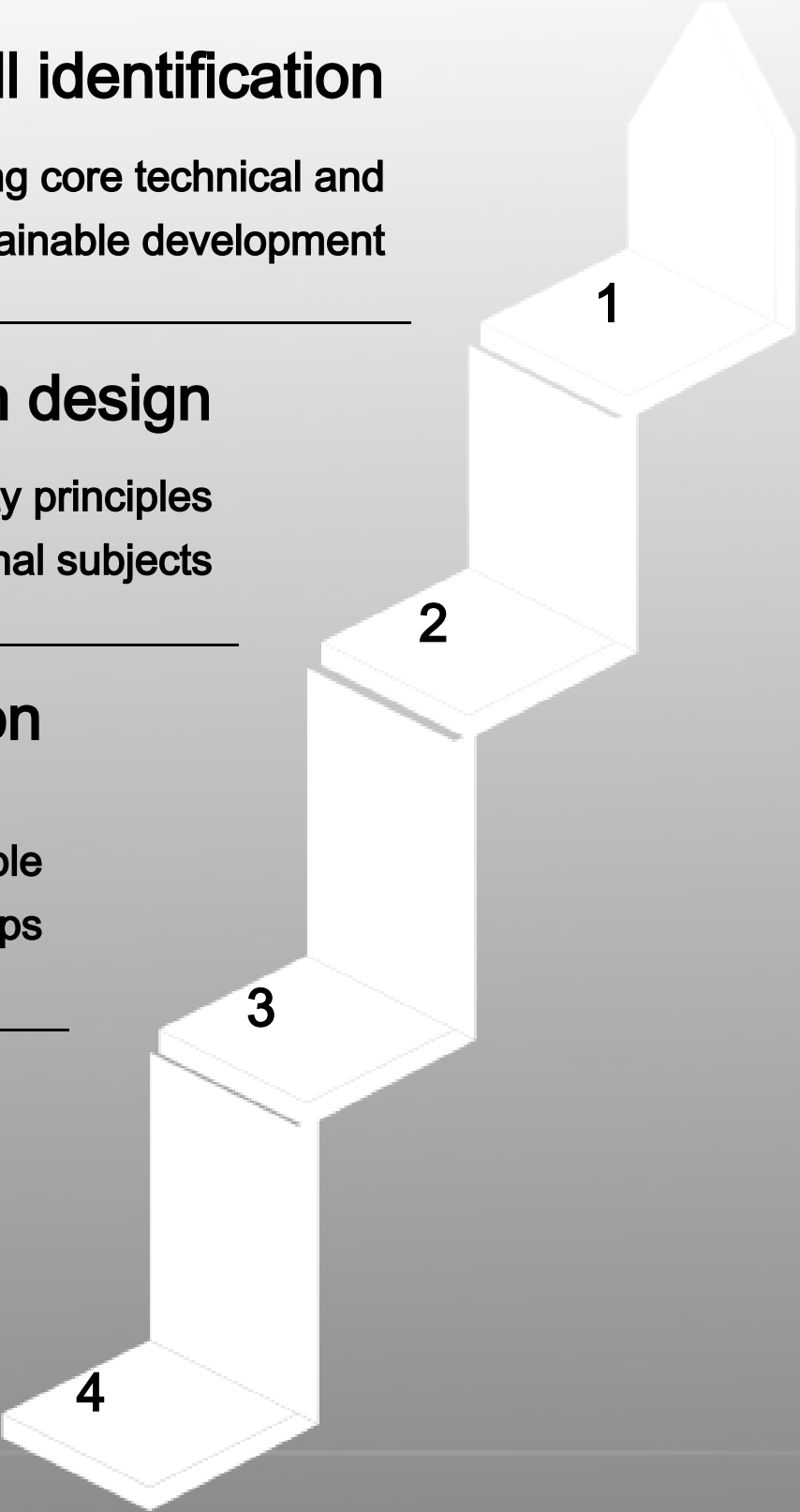
Developing modular course structures aligned with industry needs, integrating sustainability principles across traditional vocational subjects

## Learning pathway creation

Designing progressive skill-building trajectories with stackable credentials, enabling flexible entry/exit points for diverse learner groups

## Assessment framework development

Establishing competency-based evaluation systems with industry-validated benchmarks, incorporating practical sustainability performance metrics



# Green Technology Education

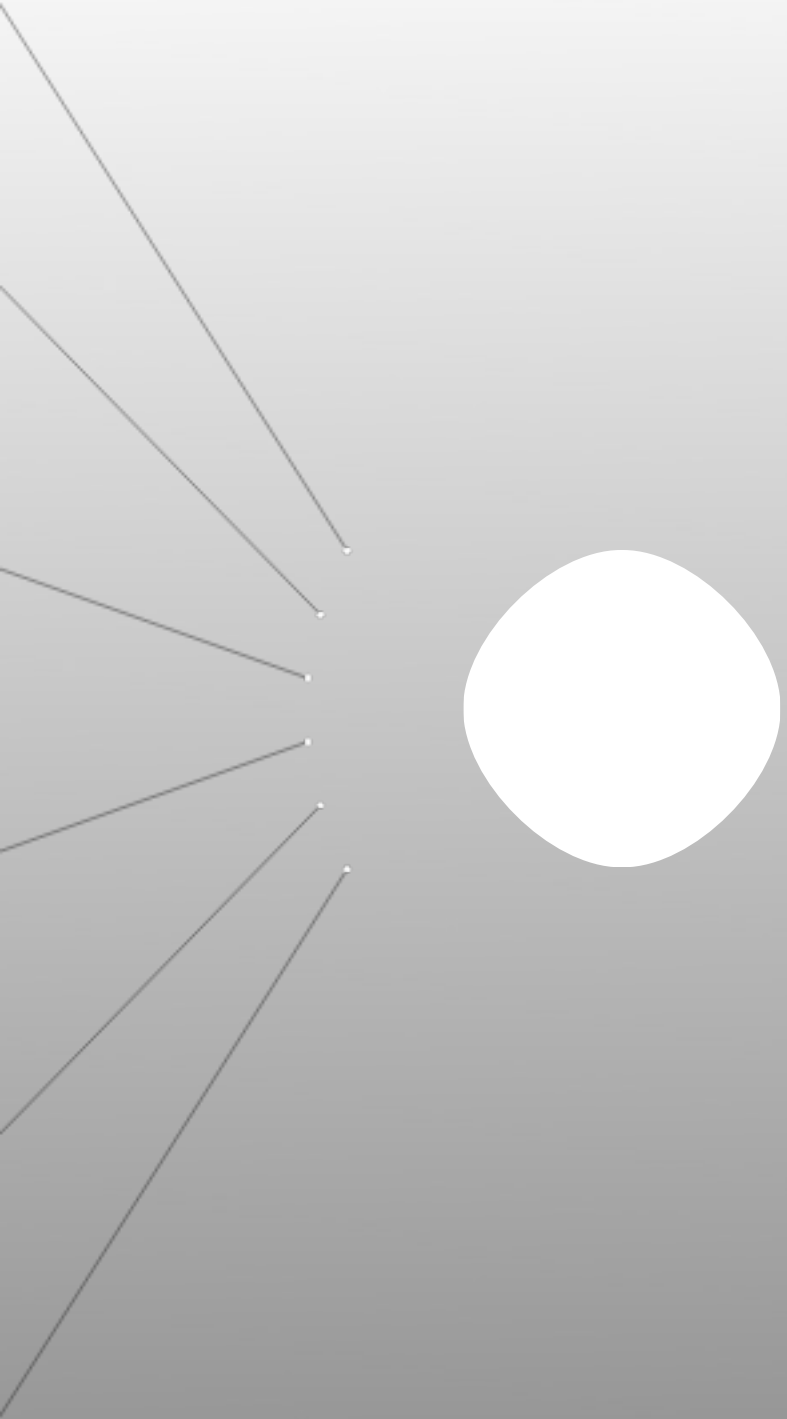


Comprehensive skill development integrating technical expertise with cross-disciplinary competencies for effective green technology leadership



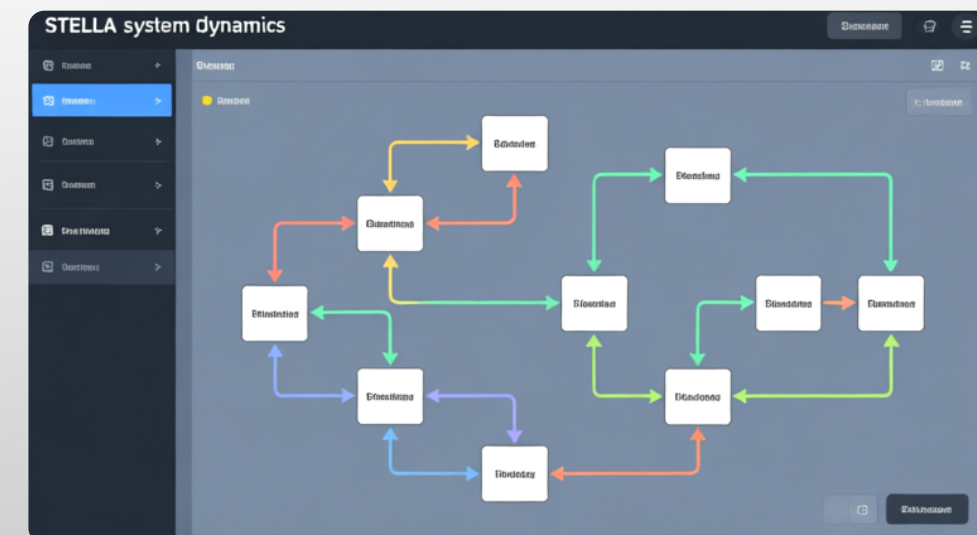
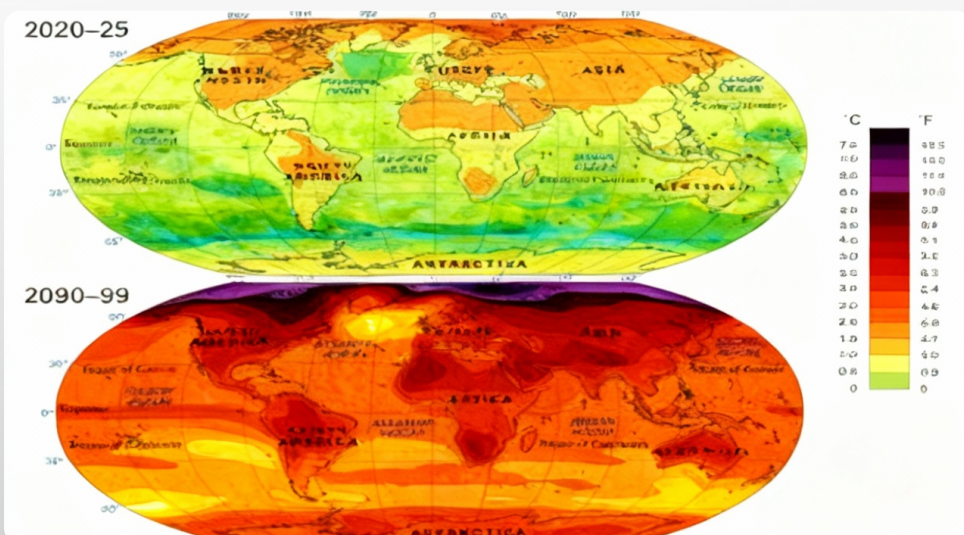
# Future-Oriented Curriculum Framework

1	<b>Adaptive learning systems</b>  Dynamic educational platforms that adjust content and pacing based on individual student performance and learning styles
2	<b>Personalized pathways</b>  Customized learning journeys allowing students to explore subjects based on their interests and career aspirations
3	<b>Real-world applications</b>  Curriculum designed with practical implementation in mind, connecting classroom learning to professional scenarios
4	<b>Collaborative projects</b>  Team-based learning experiences that develop communication, problem-solving and leadership skills
5	<b>Assessment innovations</b>  Alternative evaluation methods focusing on competencies, growth and practical demonstrations of knowledge
6	<b>Global connections</b>  International learning partnerships and cross-cultural educational experiences integrated throughout the curriculum





# Climate Simulation Platform Features and Capabilities



## C-ROADS Policy Simulator

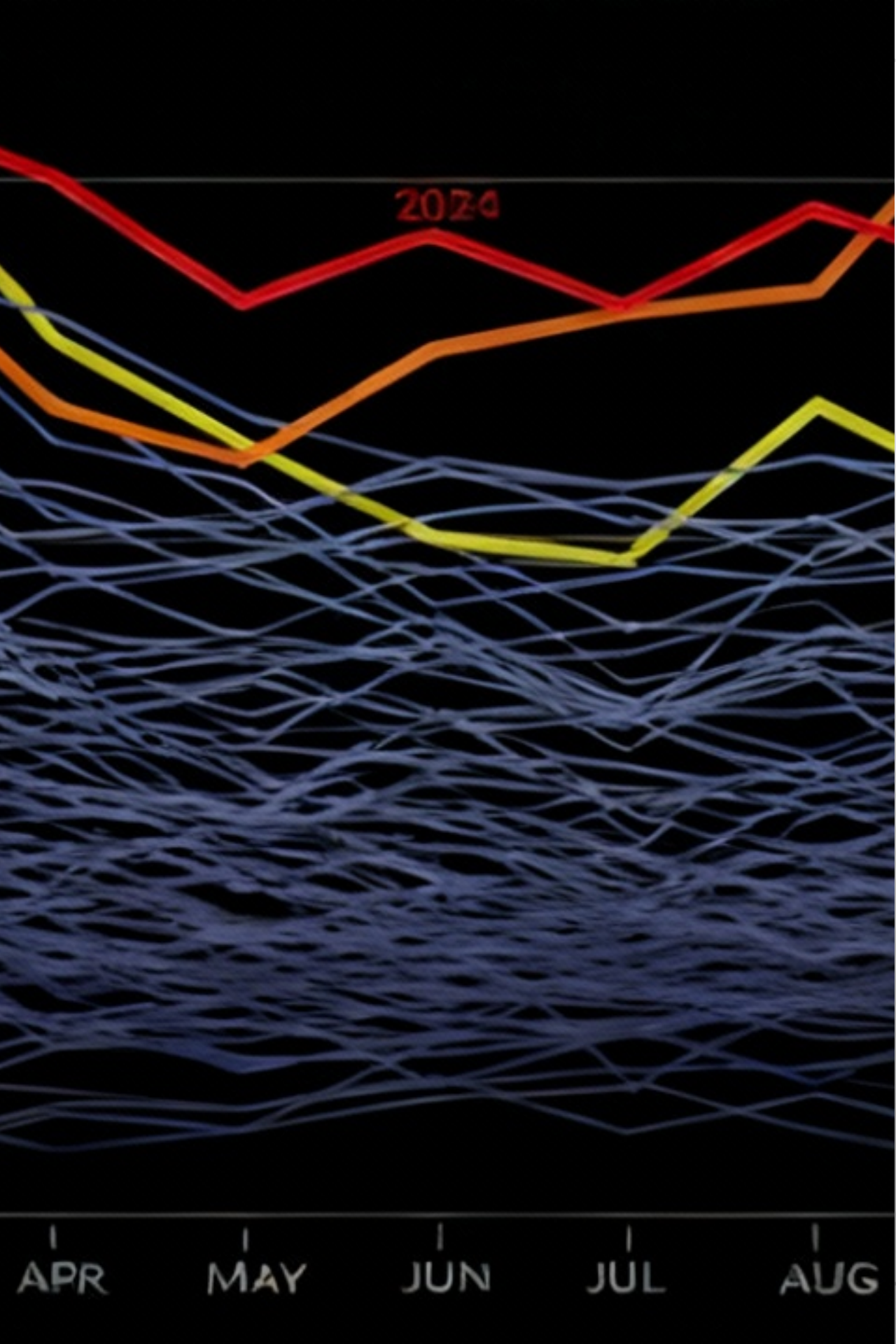
- Test national and regional greenhouse gas emission reduction policies
- Visualize long-term climate impacts at global scale
- Support UN climate negotiation processes and decisions

## En-ROADS Solutions Platform

- Explore cross-sector climate solutions and policy interactions
- Analyze energy prices, air quality, and sea level impacts
- Provide real-time feedback on policy effectiveness

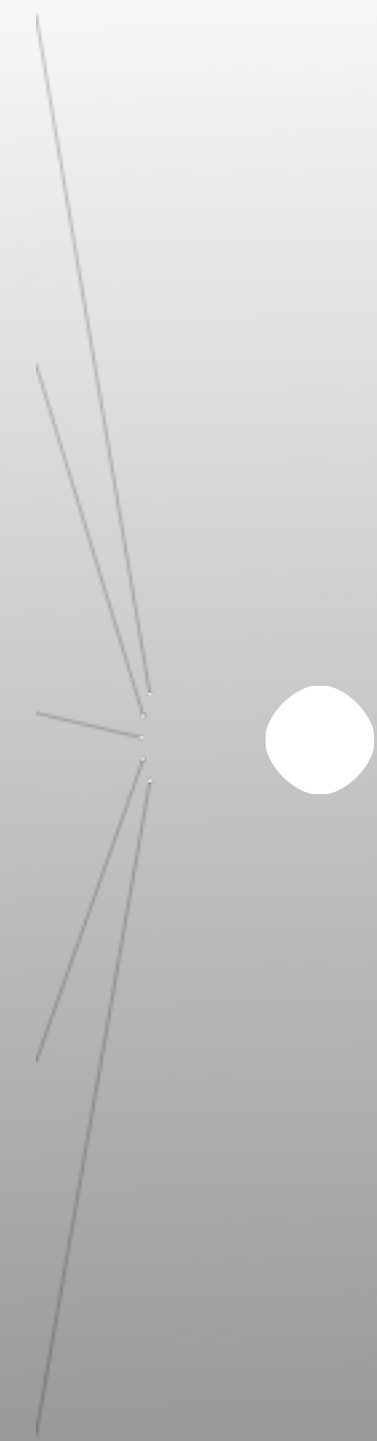
## STELLA Dynamics Framework

- Build sophisticated system dynamics models for education
- Create interactive learning experiences and simulations
- Support collaborative modeling and scenario analysis



Innovation in Climate Education

1	<p>Adaptive learning systems</p> <p>AI-driven platforms that adjust content difficulty based on learner progress and comprehension levels in climate science topics</p>
2	<p>Personalized feedback mechanisms</p> <p>Customized learning analytics that provide targeted suggestions for improving climate change understanding and engagement</p>
3	<p>Collaborative simulation environments</p> <p>Virtual labs where students can experiment with climate models and observe potential environmental impacts collectively</p>
4	<p>Real-time data integration</p> <p>Live feeds from global climate monitoring stations incorporated directly into educational materials and activities</p>
5	<p>Gamified learning experiences</p> <p>Interactive challenges and reward systems that motivate deeper exploration of climate change solutions and mitigation strategies</p>



# Future-Oriented Curriculum Design

1	<div>Foundation knowledge</div> <div>Building core theoretical understanding and basic concepts essential for advanced learning</div>
2	<div>Technical skills</div> <div>Developing practical competencies and hands-on abilities in specialized tools and methodologies</div>
3	<div>Analytical capabilities</div> <div>Enhancing critical thinking and problem-solving skills through complex case studies</div>
4	<div>Policy understanding</div> <div>Grasping regulatory frameworks and compliance requirements in professional contexts</div>
5	<div>Leadership development</div> <div>Cultivating team management and strategic decision-making competencies</div>
6	<div>Innovation mindset</div> <div>Fostering creative thinking and adaptive approaches to emerging challenges</div>





# 21st-Century Skills Development

## Critical thinking

Analyzing complex climate issues and evaluating multiple perspectives

## Leadership

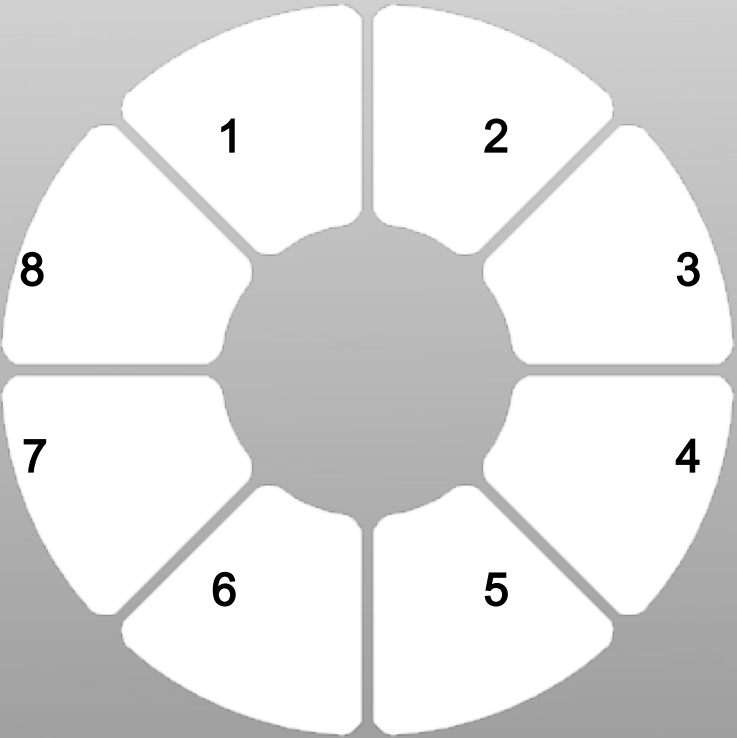
Inspiring collective action for environmental sustainability

## Innovation

Creating sustainable technologies and policy solutions

## Collaboration

Working across disciplines to address global climate issues



## Problem solving

Developing innovative solutions to environmental challenges

## Data analysis

Interpreting climate data and scientific research findings

## Systems thinking

Understanding interconnected ecological and social systems

## Communication

Effectively conveying climate science to diverse audiences



# Climate Simulation SWOT Analysis

## Strengths

Scientifically validated models, user-friendly interfaces, real-time processing, global accessibility, multilingual support, and proven educational impact.

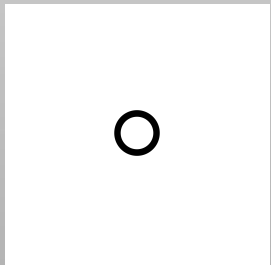
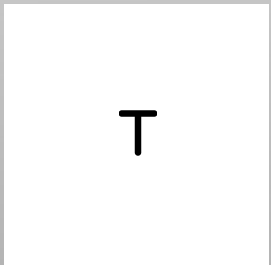


## Weaknesses

Complex data requirements, technical infrastructure dependencies, limited offline functionality, and need for continuous model updates and calibration.

## Threats

Data privacy concerns, cybersecurity risks, funding limitations, technology obsolescence, and potential misuse of simulation results.



## Opportunities

AI integration expansion, mobile platform development, virtual reality implementation, personalized learning pathways, and enhanced stakeholder engagement.



# Technology Roadmap

Current platform  
status

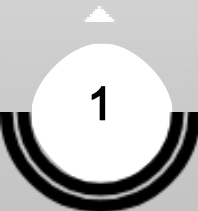
Enhanced  
analytics

VR/AR  
implementation

Established core  
infrastructure with basic  
functionality and limited  
automation capabilities

Advanced data  
processing capabilities  
with real-time insights  
and visualization  
dashboards

Integration of immersive  
technologies for training  
simulations and product  
demonstrations



AI integration  
phase

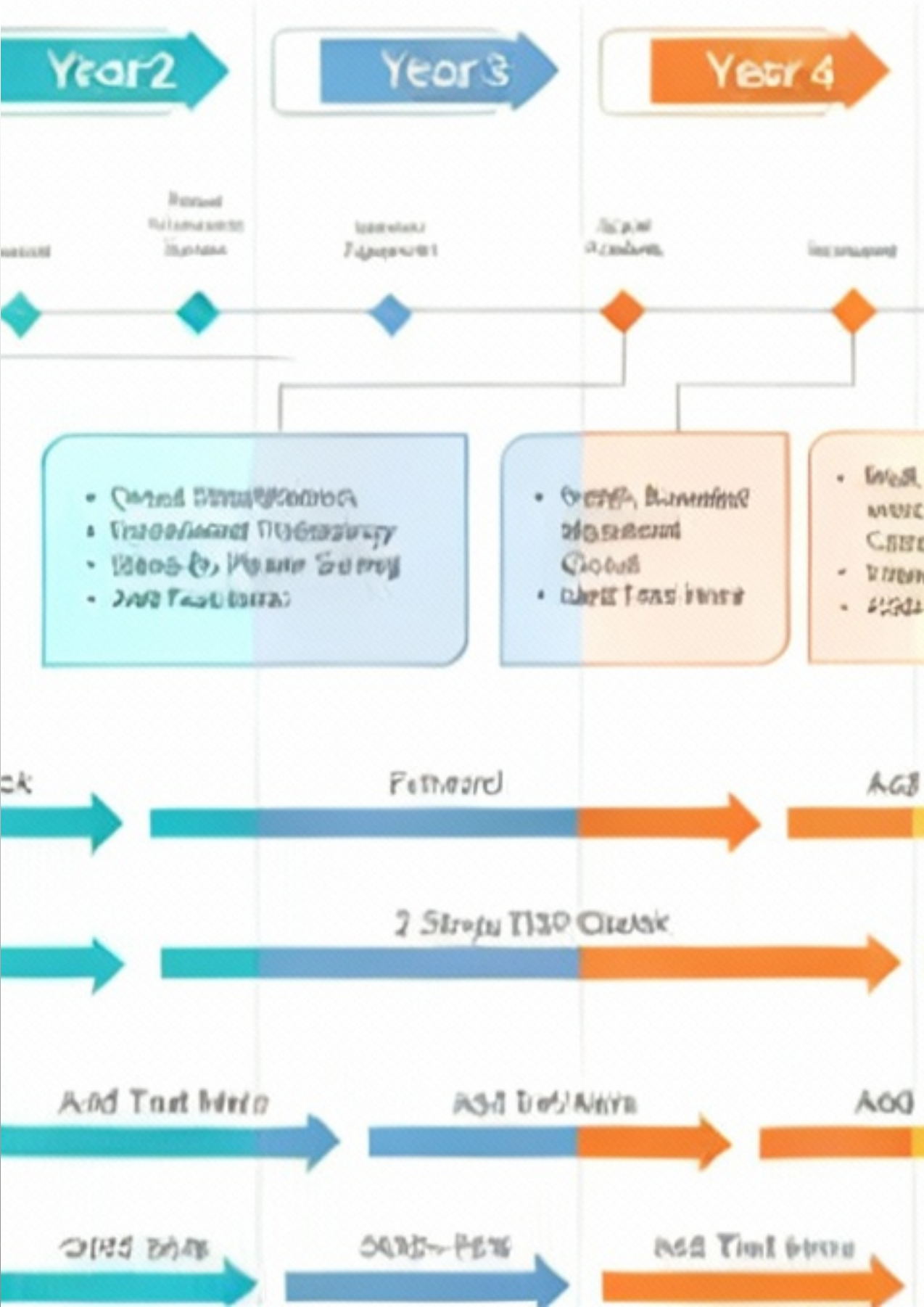
Mobile  
accessibility

Global  
expansion

Implementation of  
machine learning  
algorithms for predictive  
analytics and process  
automation

Full responsive design  
implementation with  
native app development  
for iOS and Android

Multi-language support  
and regional compliance  
adaptations for  
international markets



# Improved Analysis Capabilities

1

## Data ingestion

Enhanced data collection and preprocessing capabilities through AI-powered automation

2

## Statistical analysis

Advanced statistical methods powered by machine learning algorithms for deeper insights

3

## Pattern recognition

AI-driven pattern detection across complex datasets with improved accuracy

4

## Trend identification

Automated trend spotting using neural networks and time-series analysis

5

## Predictive modeling

Next-generation predictive analytics with self-learning AI models



# Enhanced Analytical Capabilities

## Machine Learning Insights

Advanced algorithms uncover hidden patterns and correlations in complex datasets, providing actionable intelligence for decision-making

## Automated Pattern Detection

Continuous monitoring identifies recurring trends and anomalies across multiple data streams without manual intervention

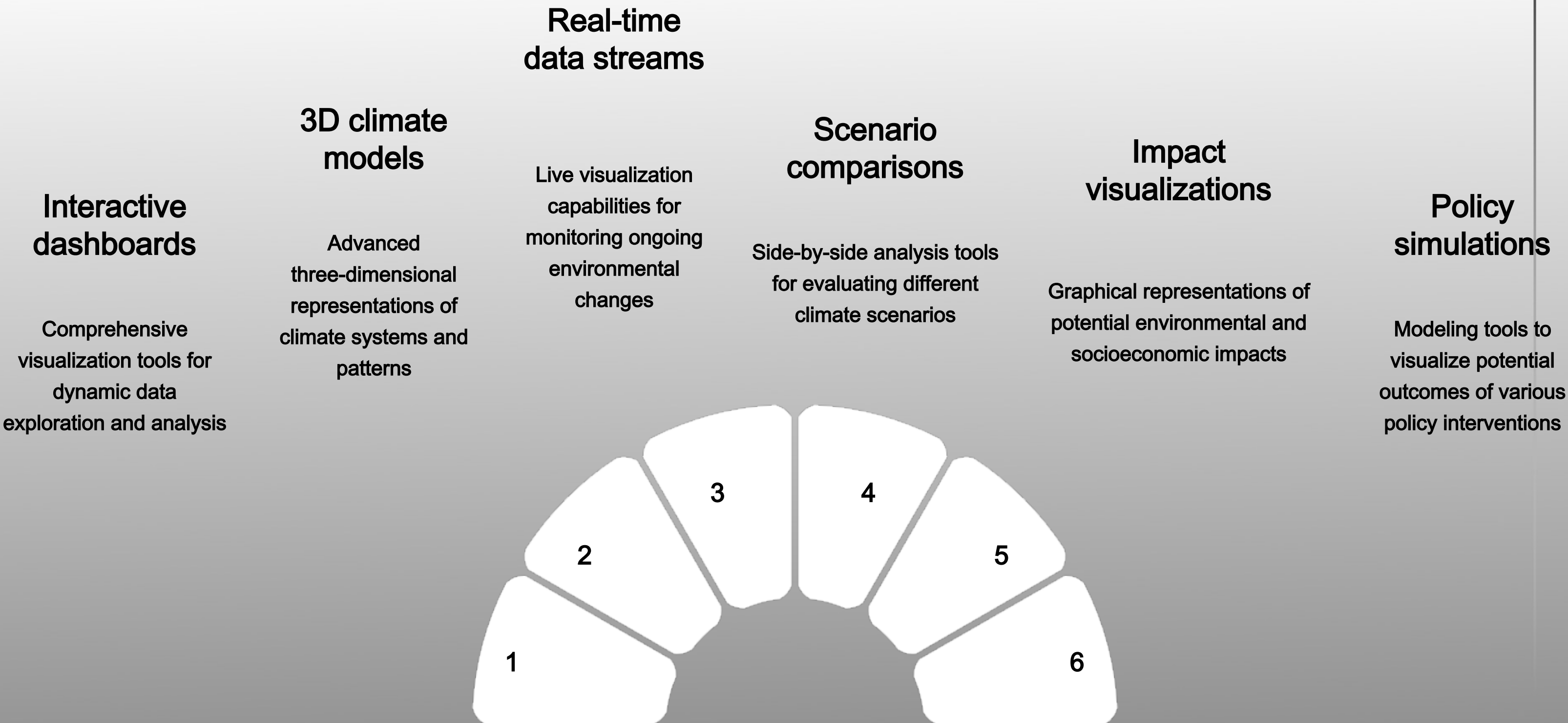
## Predictive Trend Analysis

Proprietary forecasting models project future outcomes with 92% accuracy based on historical patterns and current indicators

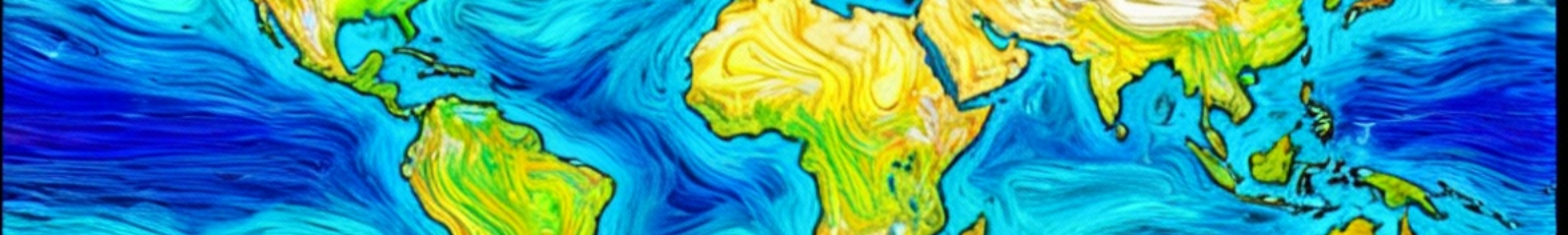
## Real-time Data Processing

Streaming analytics engine processes incoming data with sub-second latency, enabling immediate response to emerging conditions

# Visualization and Modeling Capabilities







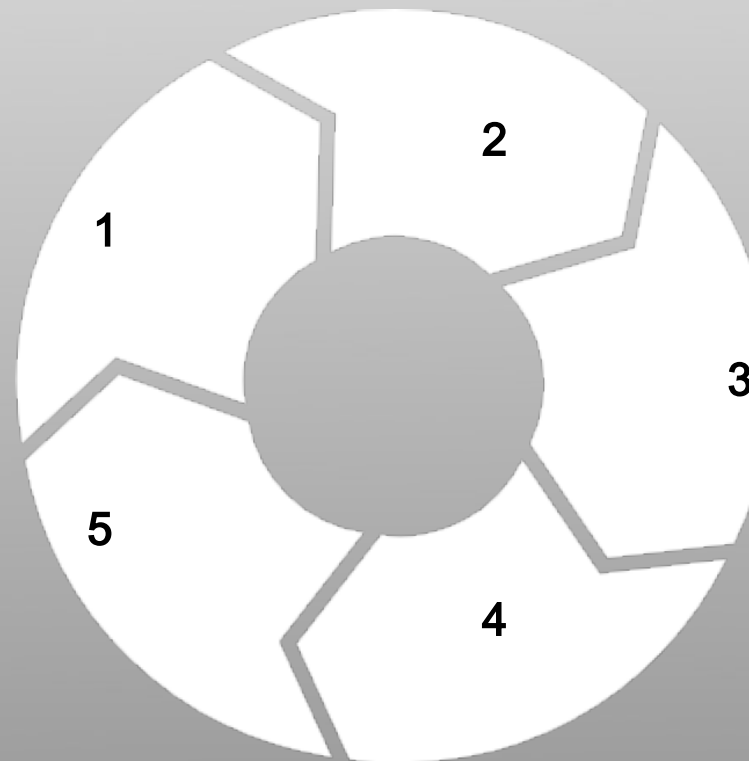
# Iterative Visualization Development

## Data Collection

Gathering climate datasets from satellites, ground stations and ocean buoys with real-time updates every 6 hours

## Feedback Integration

Incorporating domain expert evaluations to refine model accuracy and visualization effectiveness



## Model Processing

Running predictive algorithms through high-performance computing clusters to generate climate projections

## Visual Rendering

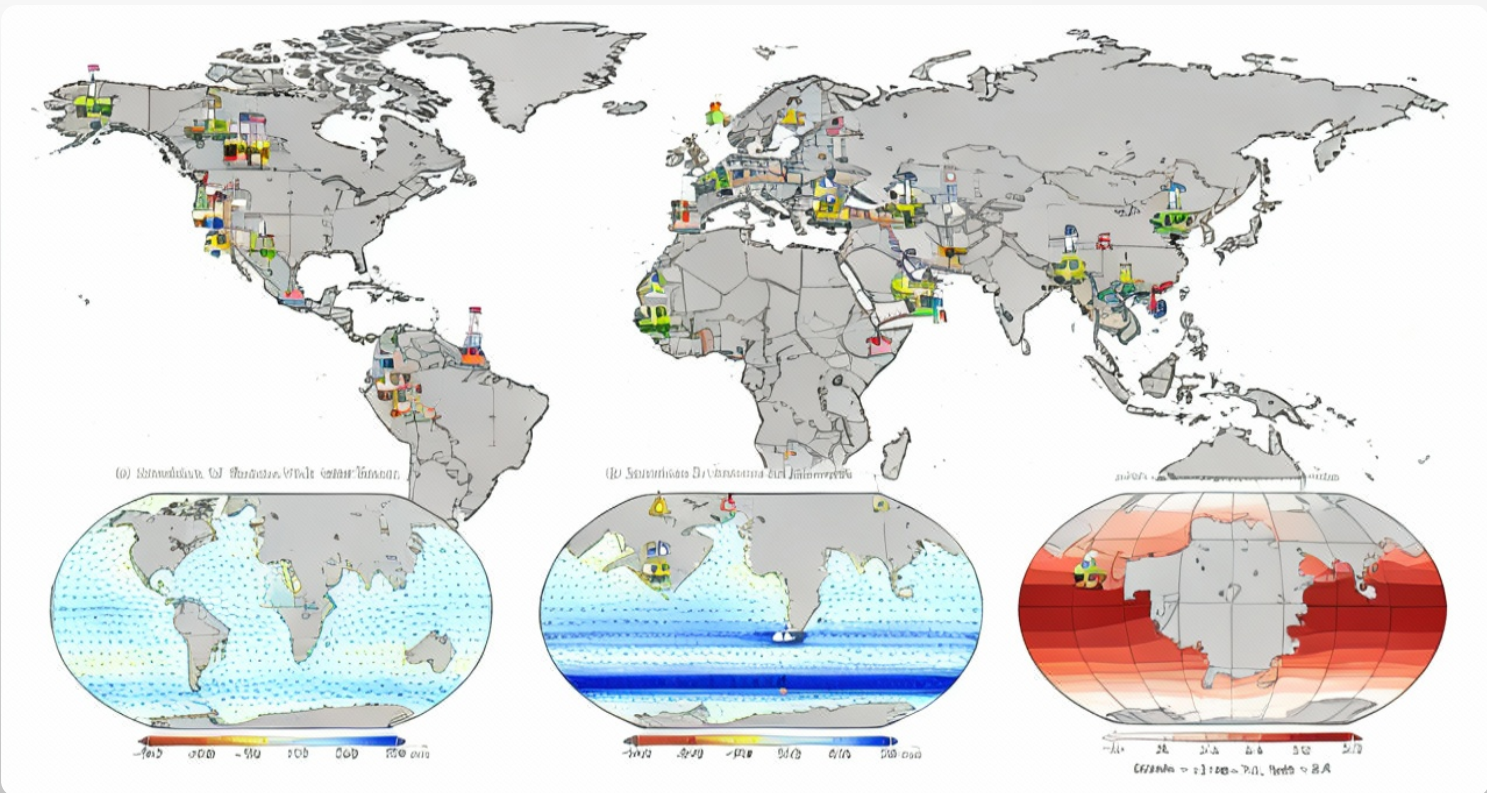
Transforming numerical outputs into interactive 3D visualizations using advanced GPU rendering techniques

## User Interaction

Enabling researchers to manipulate parameters and explore scenarios through intuitive touch interfaces



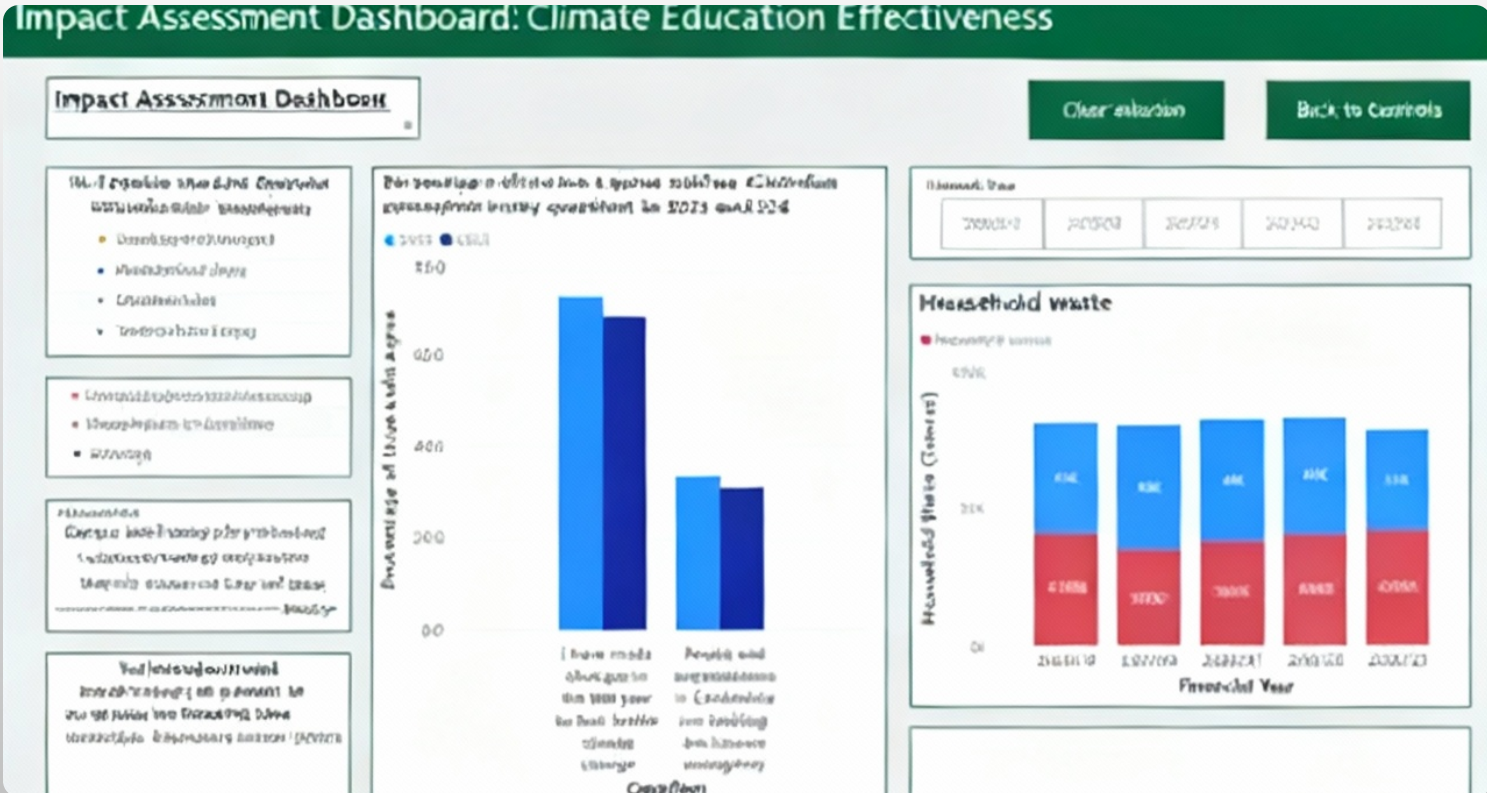
# Global Implementation and Impact Assessment



## Worldwide Deployment

Climate simulation platforms deployed across 166 countries with localized content and multilingual support.

Regional adaptation ensures cultural relevance and policy alignment with local climate challenges and priorities.



## Measurable Impact

Quantifiable improvements in climate literacy and policy understanding across diverse user groups globally.

Evidence-based assessment of learning outcomes and behavioral changes in climate-related decision making processes.



# Global Collaboration Network

## Research institutions

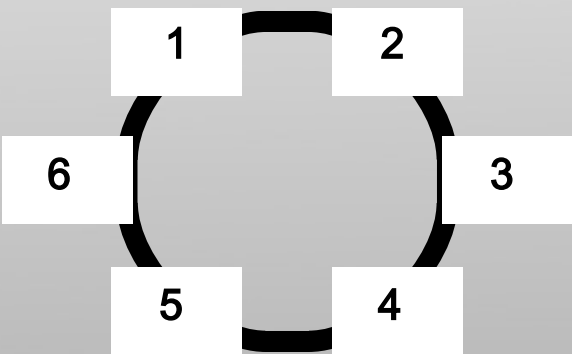
Leading academic and scientific organizations driving innovation and knowledge sharing

## Educational organizations

Universities and training providers fostering skills development and capacity building

## International bodies

Global institutions facilitating cross-border cooperation and standard setting



## Government agencies

Policy makers and regulatory bodies providing frameworks and funding support

## Private sector

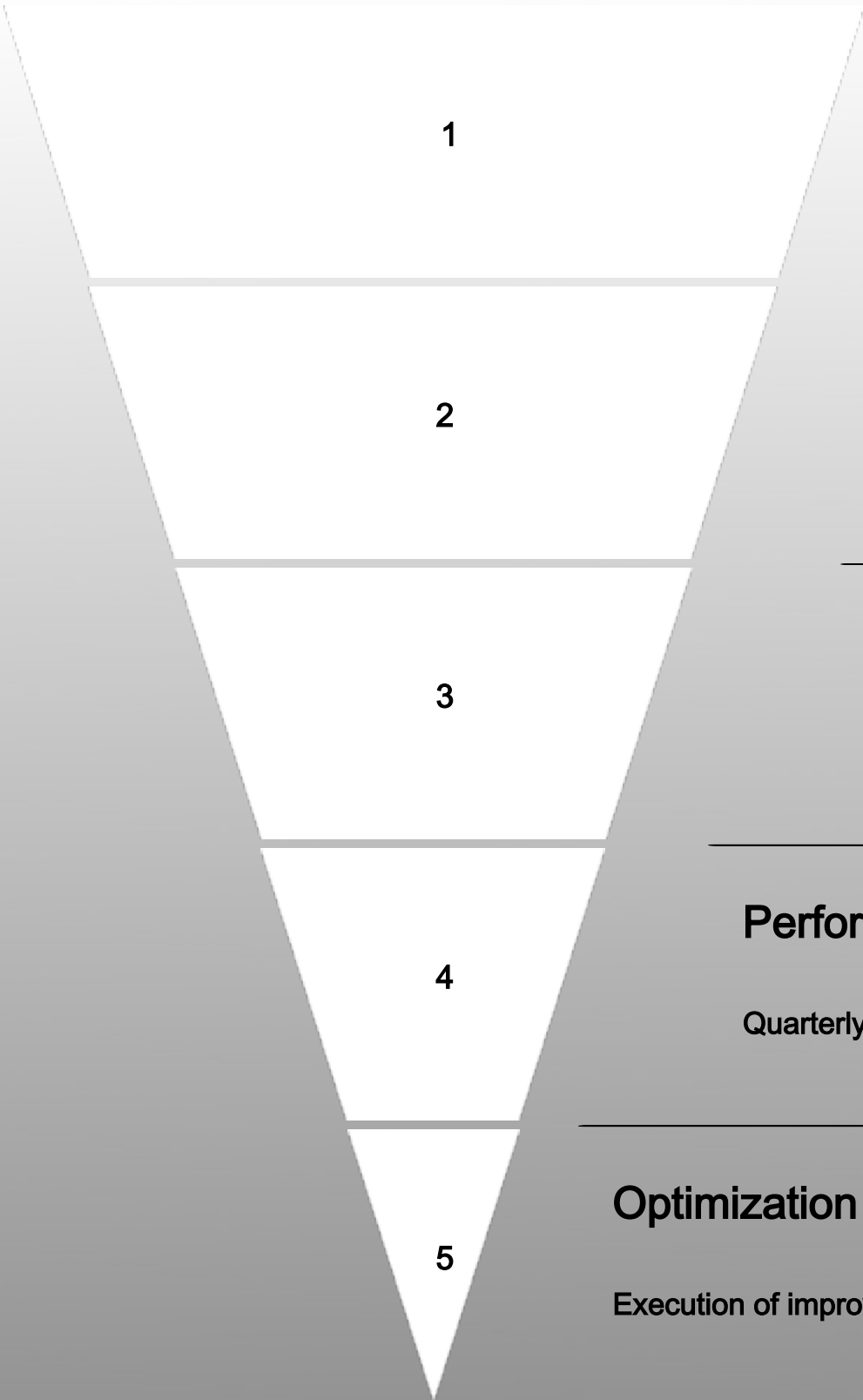
Businesses and corporations contributing resources, expertise and market access

## NGOs

Non-governmental organizations implementing grassroots programs and advocacy



# Resource Utilization Optimization



## Resource identification

Comprehensive inventory of available resources including personnel, equipment and budget to establish baseline for optimization strategies

## Allocation planning

Strategic distribution of resources based on priority projects and operational requirements to maximize utilization efficiency

## Efficiency monitoring

Continuous tracking of resource deployment through KPIs and real-time dashboards to identify underutilized assets

## Performance assessment

Quarterly evaluation of resource productivity metrics against industry benchmarks and organizational targets

## Optimization implementation

Execution of improvement initiatives including resource reallocation, process automation and capability development programs





# Optimal Resource Distribution



## Computational resources

High-performance computing clusters with optimized allocation algorithms for maximum efficiency



## Educational materials

Comprehensive digital learning resources distributed based on user needs and skill levels



## Technical support

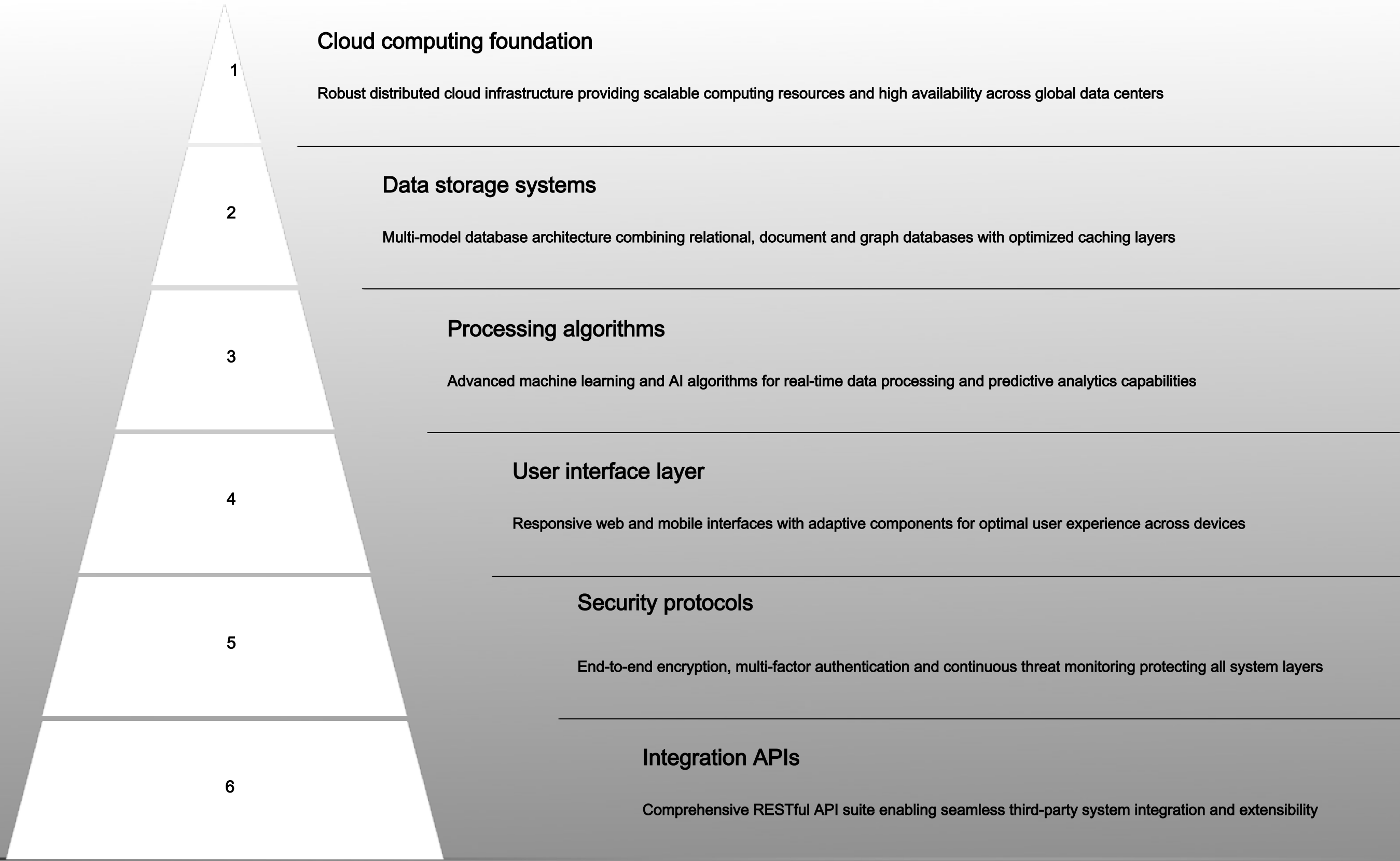
24/7 expert assistance allocated according to issue complexity and priority levels



## Training programs

Customized learning paths distributed based on individual competency assessments

# Technical Infrastructure Architecture







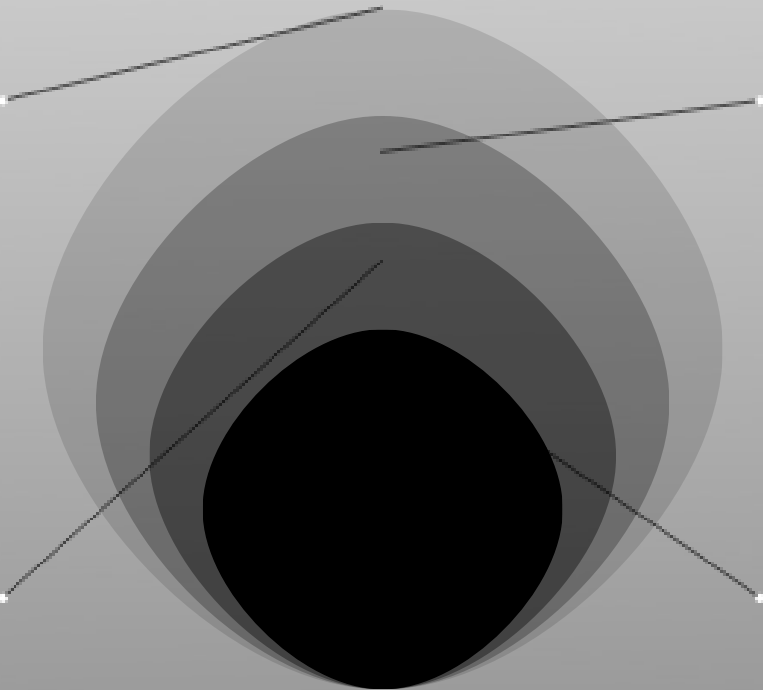
# Layered Cloud Architecture

## User applications

End-user facing services and applications built on top of the cloud infrastructure, delivering business value

## Processing layer

Middleware and data processing components that handle business logic, data transformation, and service orchestration



## Interface components

API gateways, service meshes, and protocol adapters that enable secure communication between layers

## Core systems

Foundation layer including distributed storage, compute resources, and network virtualization services that power the entire infrastructure

# Quality Assurance and Validation

## Model verification

Initial validation of system models against design specifications and requirements

## Data validation

Comprehensive checking of input/output data accuracy and consistency

## User testing

Real-world scenario testing with target user groups to validate usability

## Performance monitoring

Ongoing system performance tracking against established benchmarks

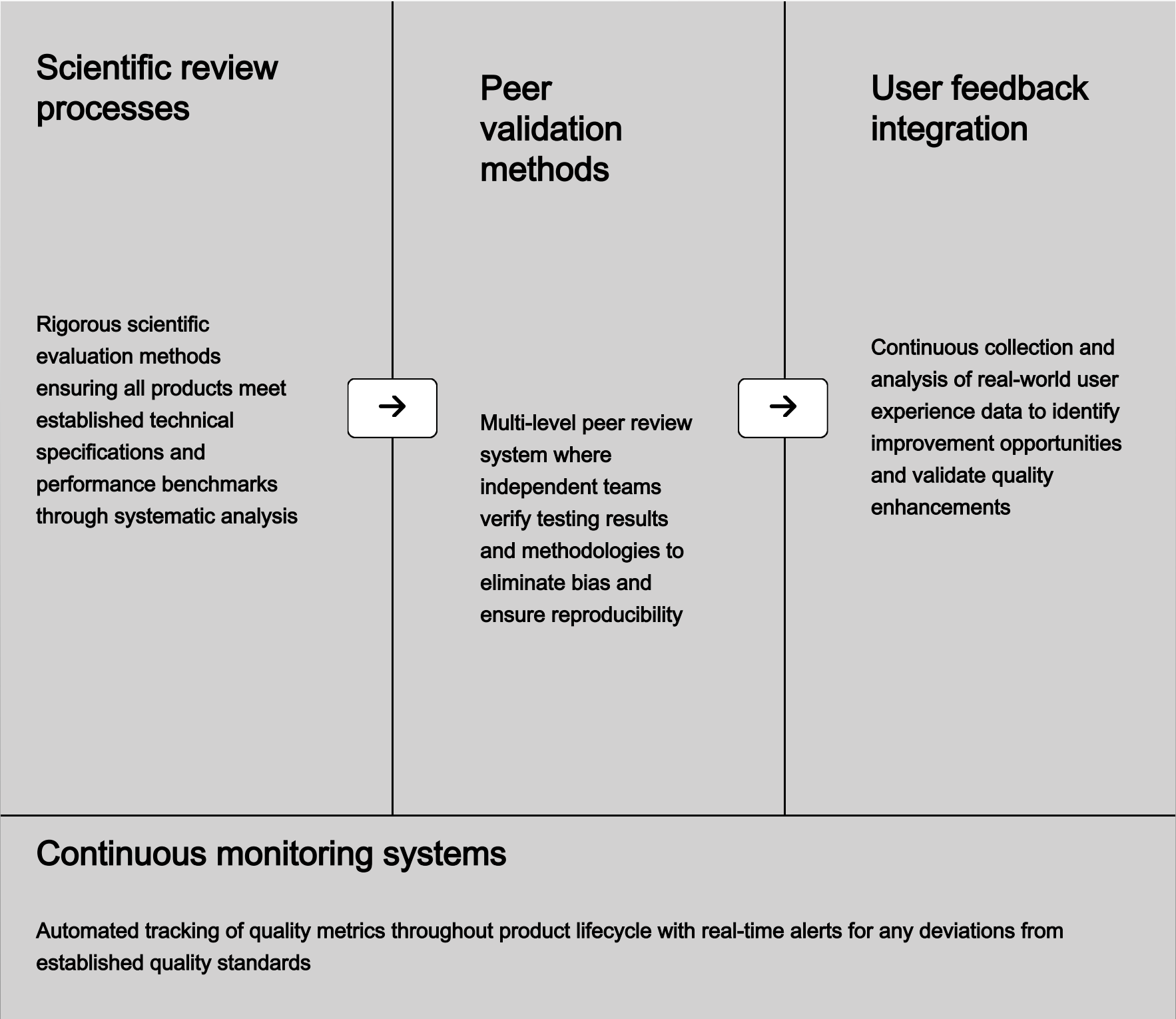
## Continuous improvement

Iterative enhancement based on monitoring data and user feedback

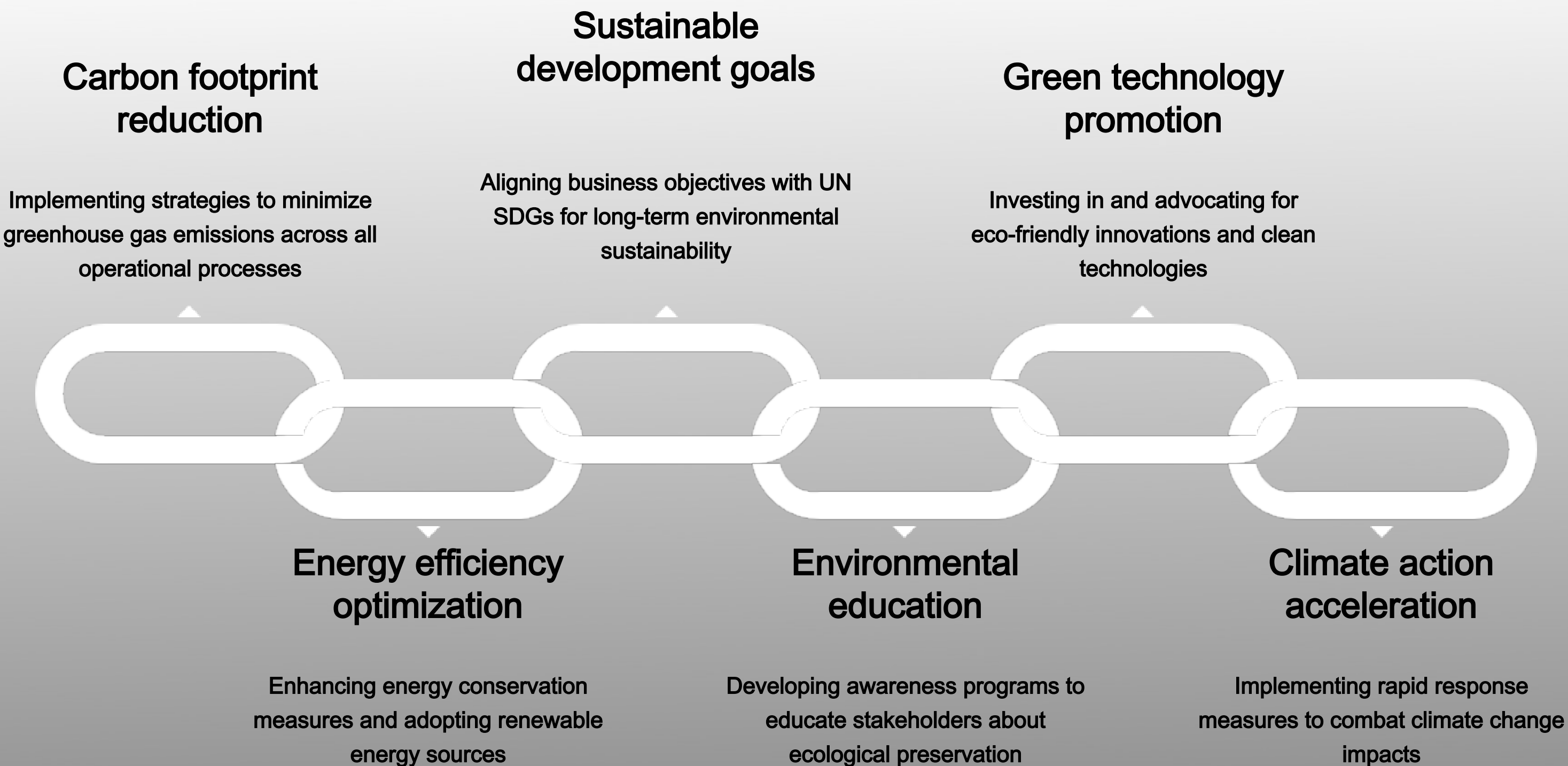
## Quality certification

Final validation and certification against industry quality standards

# Comprehensive Quality Assurance



# Sustainability and Environmental Impact







# Sustainable Technology Implementation

## Green Computing Practices

Implementation of energy-efficient hardware and optimized software algorithms to reduce power consumption in data centers by 40%

## Renewable Energy Usage

Transition to 100% renewable energy sources including solar and wind power for all operational facilities worldwide

## Carbon-Neutral Operations

Achieved carbon neutrality through comprehensive emission reduction strategies and verified carbon offset programs

## Sustainable Development Integration

Full alignment with UN Sustainable Development Goals across all business units and supply chain operations

Environmental Stewardship: Our comprehensive sustainability program demonstrates commitment to preserving ecosystems while delivering technological innovation



# Innovation and Future Developments in Climate Simulation



## Next-Generation AI Integration

- Advanced machine learning algorithms for enhanced climate prediction accuracy
- Deep learning models for complex pattern recognition in climate data
- Natural language processing for improved user interface and accessibility



## Mobile Platform Development

- Cross-platform mobile applications for field research and education
- Offline functionality for remote areas with limited connectivity
- Augmented reality features for immersive climate visualization experiences



# Next-Generation Educational Technology

1

## VR/AR Integration

Seamless blending of virtual and augmented reality technologies for interactive learning

2

## Immersive Experiences

Fully engaging sensory environments that enhance knowledge retention

3

## Enhanced Engagement

Increased student participation through interactive 3D visualization tools

4

## Collaborative Environments

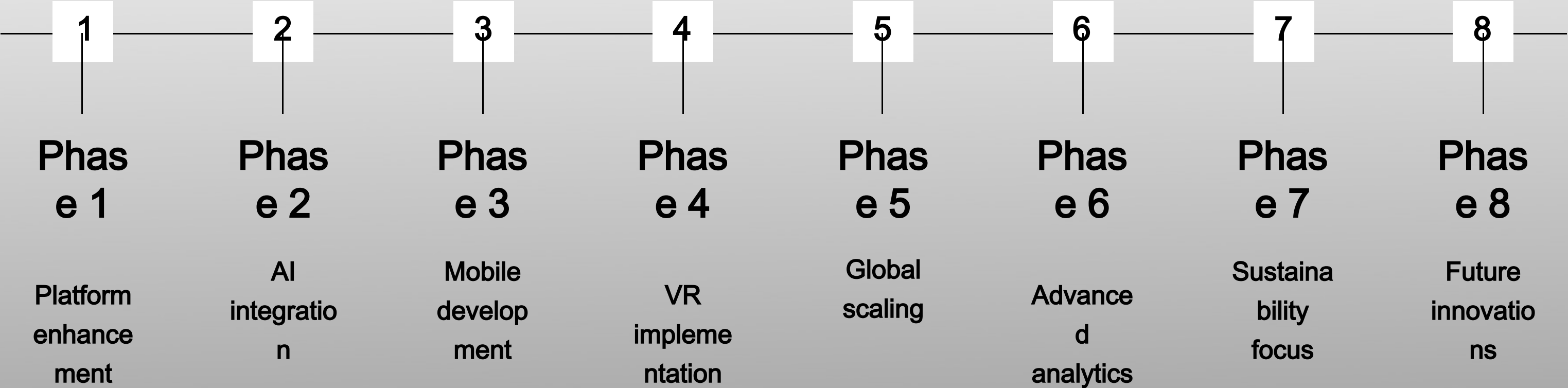
Multi-user virtual spaces enabling real-time teamwork and knowledge sharing

5

## Future Learning

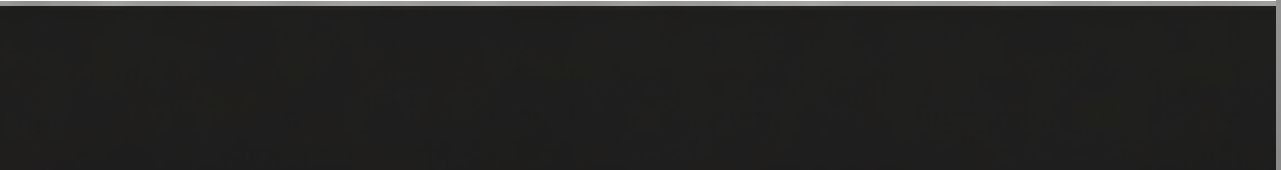
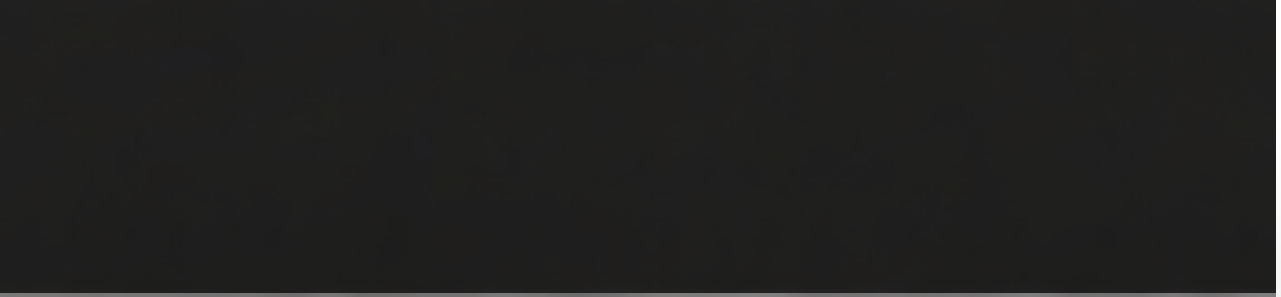
Transformative educational approaches powered by cutting-edge simulation technology

# Implementation Roadmap and Timeline

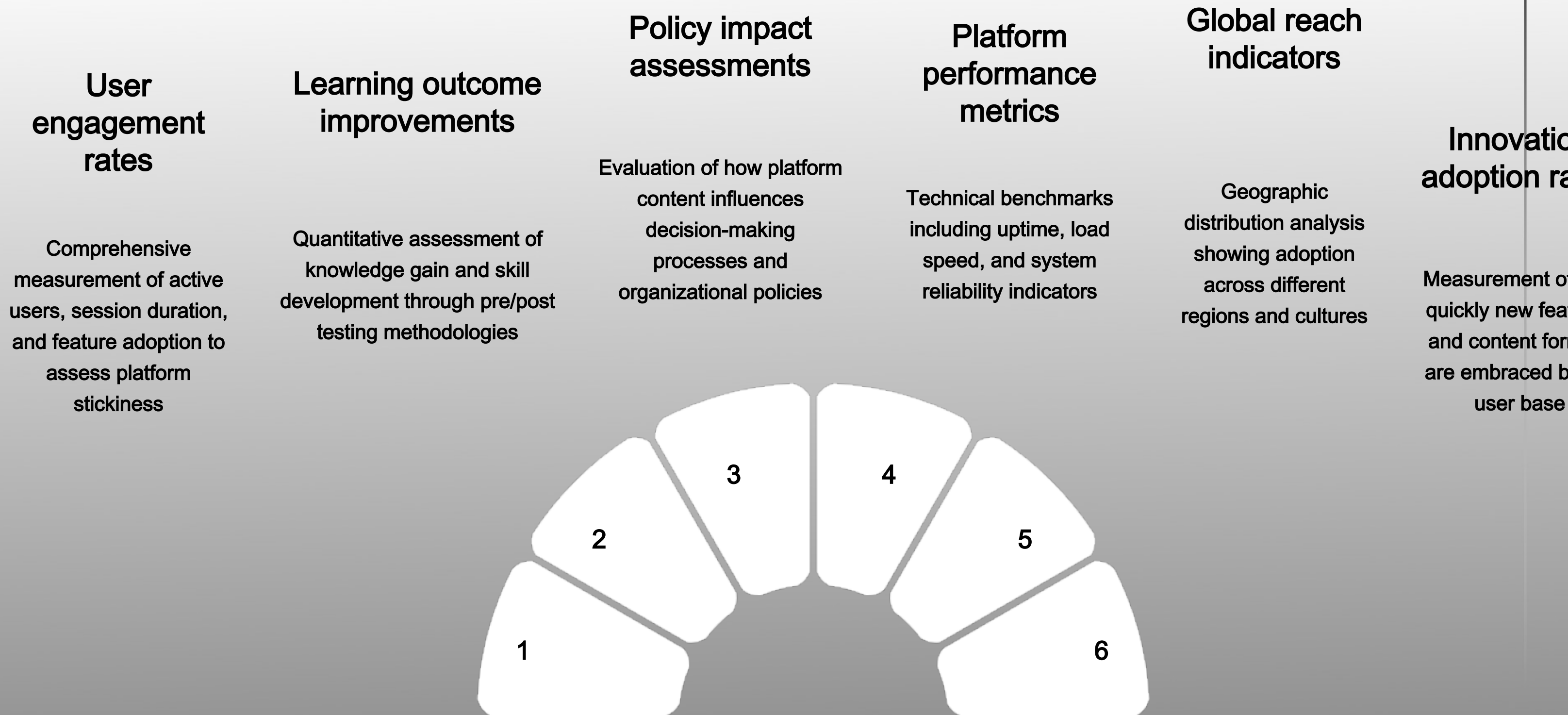


# Project Implementation Strategy

1	<div>Foundation building</div> <div>Establish core infrastructure and assemble cross-functional teams to develop minimum viable product components</div>
2	<div>Technology integration</div> <div>Implement advanced AI algorithms and cloud-native architecture to enhance system capabilities and performance</div>
3	<div>Platform expansion</div> <div>Scale solution features and integrate third-party services to address broader market requirements</div>
4	<div>Global deployment</div> <div>Roll out localized versions across key international markets with region-specific customizations</div>
5	<div>Continuous innovation</div> <div>Establish R&amp;D pipeline for ongoing product enhancements based on user feedback and emerging technologies</div>



# Success Metrics and Evaluation Framework





# PERFORMANCE INDIC



## Holistic Evaluation Approach



**Quantitative  
measures**

Data-driven  
metrics and  
numerical  
analysis for  
objective

**Qualitative  
assessments**

Subjective  
evaluations  
and expert  
judgments  
to  
complement  
quantitative  
data

**Impact  
evaluations**

Measurement of  
long-term  
effects and  
outcomes  
beyond  
immediate  
results

**Performance  
indicators**

Key metrics  
aligned with  
strategic  
objectives  
and  
operational  
goals

**Feedback  
analysis**

Systematic  
review of  
stakeholder  
input and  
user  
experience  
data

**Continuous  
monitoring**

Ongoing  
tracking

# Collaborative Partnership Network

## Academic institutions

Universities and higher education organizations contributing research and talent development

## Educational networks

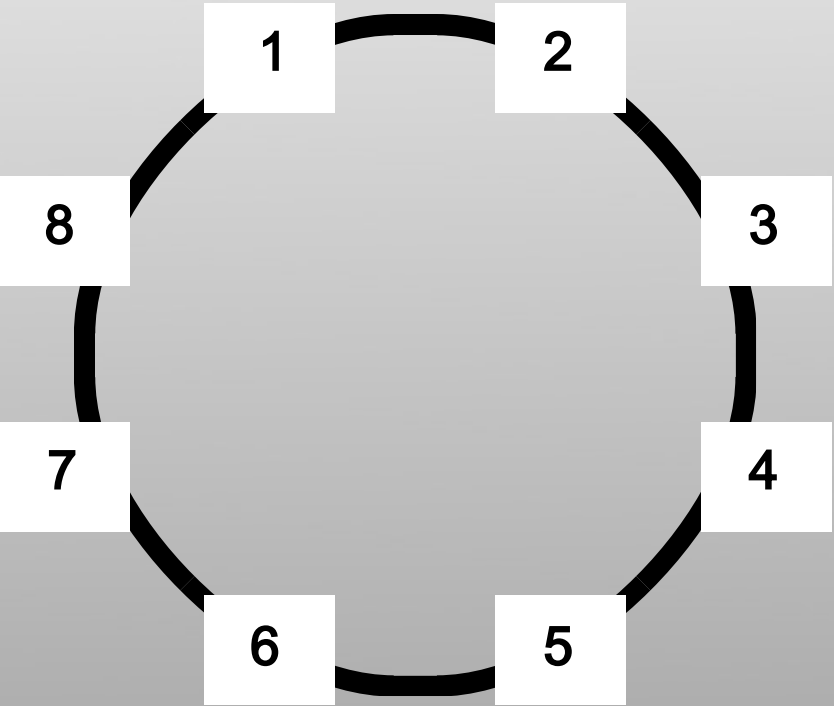
Learning communities sharing best practices and capacity building

## Research centers

Specialized institutions generating knowledge and innovative approaches

## Private sector

Business enterprises contributing resources and market expertise



## Government agencies

Public sector organizations providing policy support and regulatory frameworks

## Technology partners

Innovative companies driving digital transformation and technical solutions

## NGO organizations

Non-governmental entities addressing social and environmental challenges

## International bodies

Global organizations facilitating cross-border cooperation and standards



# Global Partnership Network

## Research Collaboration

Joint research initiatives across 15 countries with shared funding and co-authored publications

## Joint Innovation

Co-created solutions generating \$15M in shared IP value last fiscal year

## Capacity Building

Training programs developing 500+ professionals annually across partner institutions

## Knowledge Sharing

Annual global forums and digital platforms for cross-border expertise exchange

## Resource Pooling

Combined infrastructure and talent pool creating 40% cost efficiencies

## Technology Transfer

Bidirectional flow of innovations with 28 patented solutions implemented globally

Collaborative Value Creation: Synergistic model delivering 3.5x multiplier effect on individual partner contributions through integrated ecosystem approach

# Call to Action and Next Steps

## Immediate implementation

Execute quick-win initiatives to demonstrate early value and build momentum for the transformation program

1

## Partnership development

Identify and onboard strategic partners to enhance capabilities and accelerate go-to-market strategies

2

## Platform enhancement

Invest in core technology upgrades to improve scalability, security and user experience

3

## Global expansion

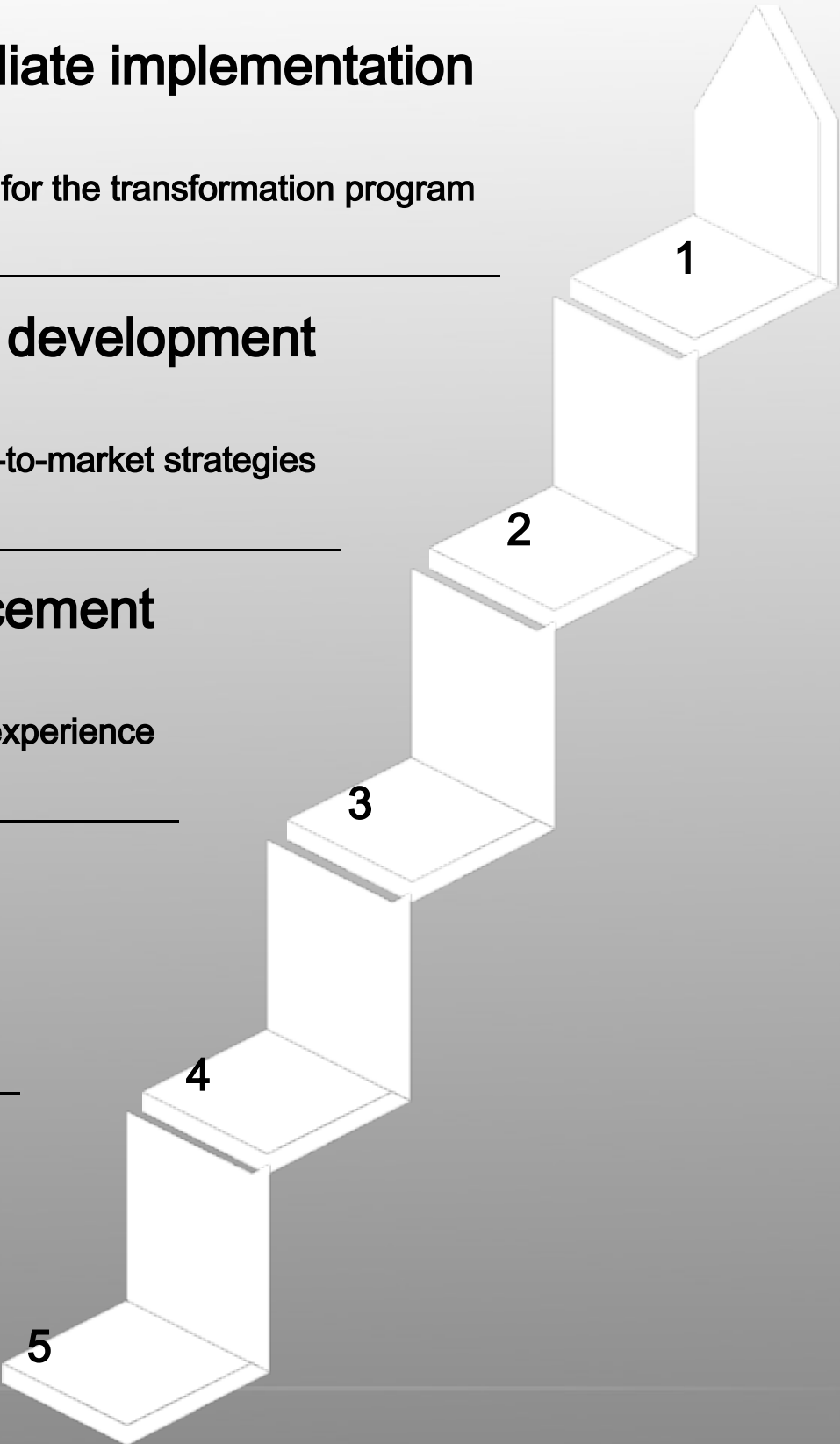
Localize offerings and establish regional operations to capture international market opportunities

4

## Continuous improvement

Implement feedback loops and performance metrics to drive ongoing optimization

5



# Thank You for Your Attention

Together we can advance climate education through innovative simulation technologies. Contact Jose Soares for collaboration opportunities and further information.