

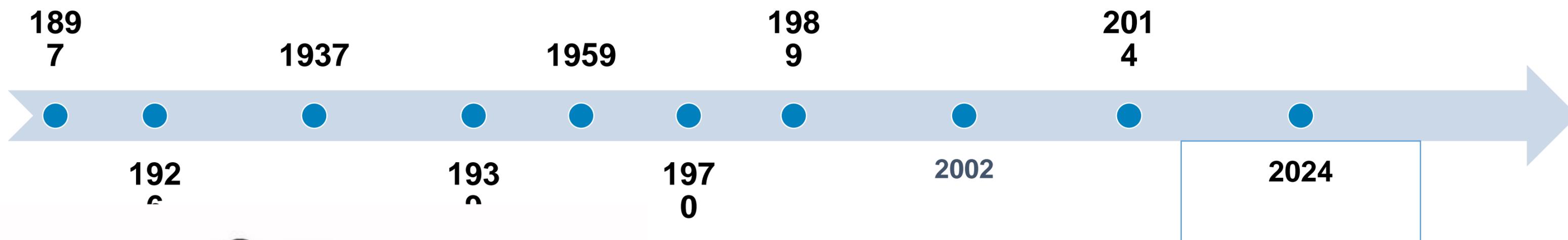
# Перепись населения раунд 2030 года



**ГОГИТА ТОДРАДЗЕ**

Исполнительный директор  
Национальное статистическое управление Грузии (GEOSTAT)

# Переписи населения в Грузии



Census



**CENSUS 2024**

LET'S SEE HOW MANY WE ARE!

# Перепись населения Грузии 2024 года: знаменательное достижение



**3.914M**

Total Population Enumerated

**100%**

Electronic Data Collection

**5.4%**

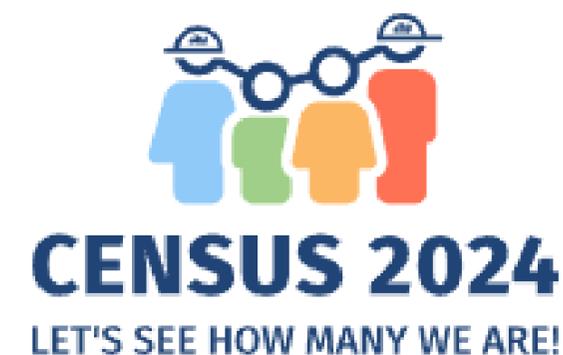
Population Growth Since 2014

**First**

Fully Digital Census in Georgia

## Key Innovation: Dual Electronic Methodology

CAWI (Computer Assisted Web Interviewing) + CAPI (Computer Assisted Personal Interviewing) combined with comprehensive administrative data integration



# Технологический прорыв: электронная реализация



## CAWI (Web-Based Self-Registration)

- ▶ 24/7 availability during enumeration
- ▶ Direct linkage to civil registry
- ▶ Real-time validation checks
- ▶ Enhanced privacy and confidentiality
- ▶ No time limitations for completion

## CAPI (Field Enumeration)

- ▶ Tablet-based door-to-door interviews
- ▶ GPS mapping integration
- ▶ Instant data quality checks
- ▶ Real-time supervisor monitoring
- ▶ Reduced processing time



## ***In-Depth Interviews***

▶ No time limitations for completion

▶ Enhanced privacy and confidentiality

▶ Reduced processing time

# Интеграция административных данных: переломный момент



## Pension Registries

Complete coverage of  
retirees



## Education Records

All enrolled students  
tracked



## Employment Data

Public & private  
sector workers



## Property Registry

Housing and dwelling  
data



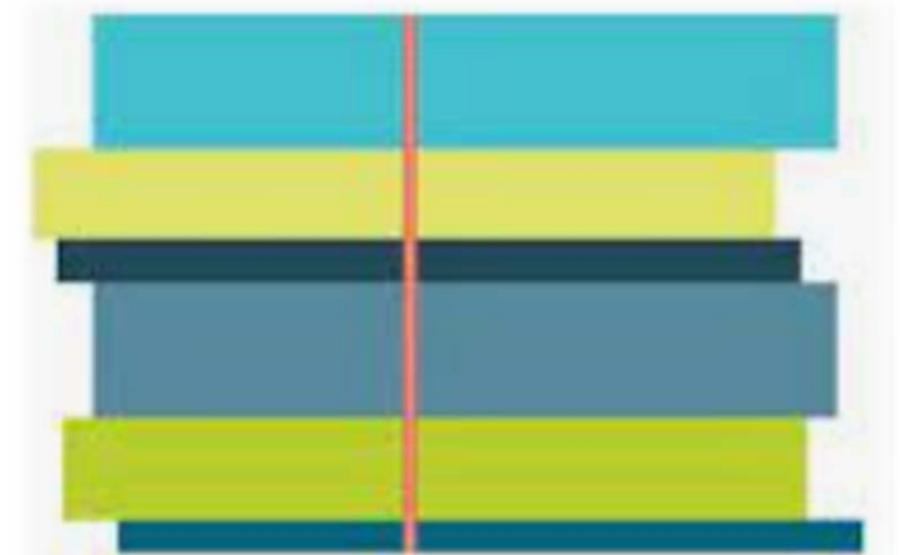
## Civil Registry

Birth, death, migration  
records



## Revenue Service

Tax and income  
information



# Основные демографические результаты 2024 года



## Urbanization Acceleration

Urban population increased from 57% to 62% (2014-2024)



**TBILISI, GEORGIA**



## Growth Leaders

- ▶ Tbilisi: +20% (1.33M inhabitants)
- ▶ Adjara: +20.1% regional growth
- ▶ Batumi: +53.5% municipal growth
- ▶ Capital concentration: 34% of total population

## Regional Challenges

- ▶ Guria: -11.1% population decline
- ▶ Samegrelo-Zemo Svaneti: -6.6%
- ▶ Rural-urban migration intensifying
- ▶ Peripheral region depopulation

# Достижение качества данных



**5.4%**

Discrepancy vs. Estimates  
(Significantly Reduced)

**Multiple**

Administrative Sources  
Integrated

**100%**

Methodological Compatibility  
with Previous Censuses



**Success despite challenges:** Political resistance during enumeration was overcome through strategic use of administrative data and pre-enumeration validation

# Преодоление трудностей 2024 года



## Political Context

Population boycotts managed through administrative data backup



## Geographic Barriers

Remote areas enumerated in September to avoid weather issues

## Strategic Solutions Applied

- ▶ Comprehensive administrative data as backup for voluntary participation gaps
- ▶ Flexible timing for geographically challenging areas
- ▶ 24/7 technical support throughout enumeration period
- ▶ Extended self-registration period due to high public engagement



# Видение раунда переписи 2030 года



## Paradigm Shift: Register-Based Census

Moving from traditional enumeration to continuous population monitoring through integrated administrative systems

### Core Objectives

- ▶ Real-time population monitoring
- ▶ Cost-effective data collection
- ▶ Enhanced data quality and timeliness
- ▶ Reduced respondent burden

### Key Enablers

- ▶ Comprehensive population registers
- ▶ Advanced data linkage systems
- ▶ Big data analytics integration
- ▶ International standardization



# Структура переписи на основе регистров



Aspect	Traditional Census	Register-Based
Frequency	Every 10 years	Continuous updates
Data Sources	Field enumeration	Administrative registers
Cost	High (periodic spikes)	Lower (continuous)
Timeliness	1-2 years delay	Real-time availability
Burden	High public burden	Minimal respondent load

# Большие данные и альтернативные источники



## Georgia's Leadership Position

Member of UN Global Working Group on Big Data for Official Statistics

Member of UN Expert Group on Migration Statistics



## BIG DATA



## Mobile Phone Data (MPD) Applications

- ▶ Population estimates by municipality
- ▶ Real-time migration tracking
- ▶ Internal mobility patterns
- ▶ Tourism flow analysis

## Implementation Challenges

- ▶ Data access negotiations
- ▶ Privacy protection frameworks
- ▶ Technical infrastructure requirements
- ▶ Resource allocation needs

▶ Tourism flow analysis

▶ Resource allocation needs

# Архитектура технологий 2030 года



## AI & Machine Learning

Automated data validation and pattern recognition



## Cloud Infrastructure

Scalable, secure data processing and storage



## API Ecosystems

Real-time data exchange between agencies



## Mobile-First Design

Responsive interfaces for all devices



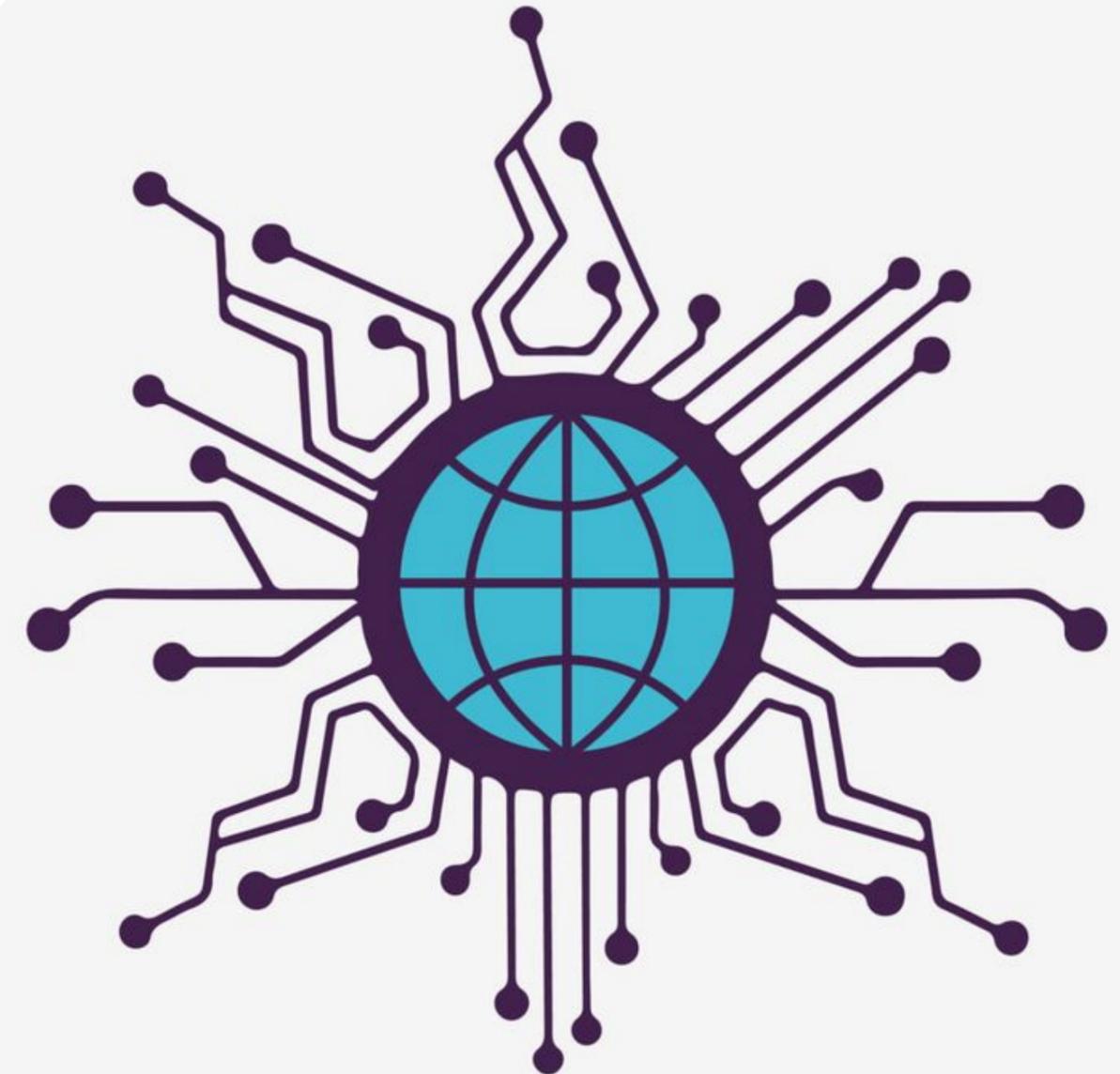
## Blockchain Security

Immutable audit trails and data integrity



## Real-Time Analytics

Instant insights and dashboard reporting



# Комплексная структура интеграции данных

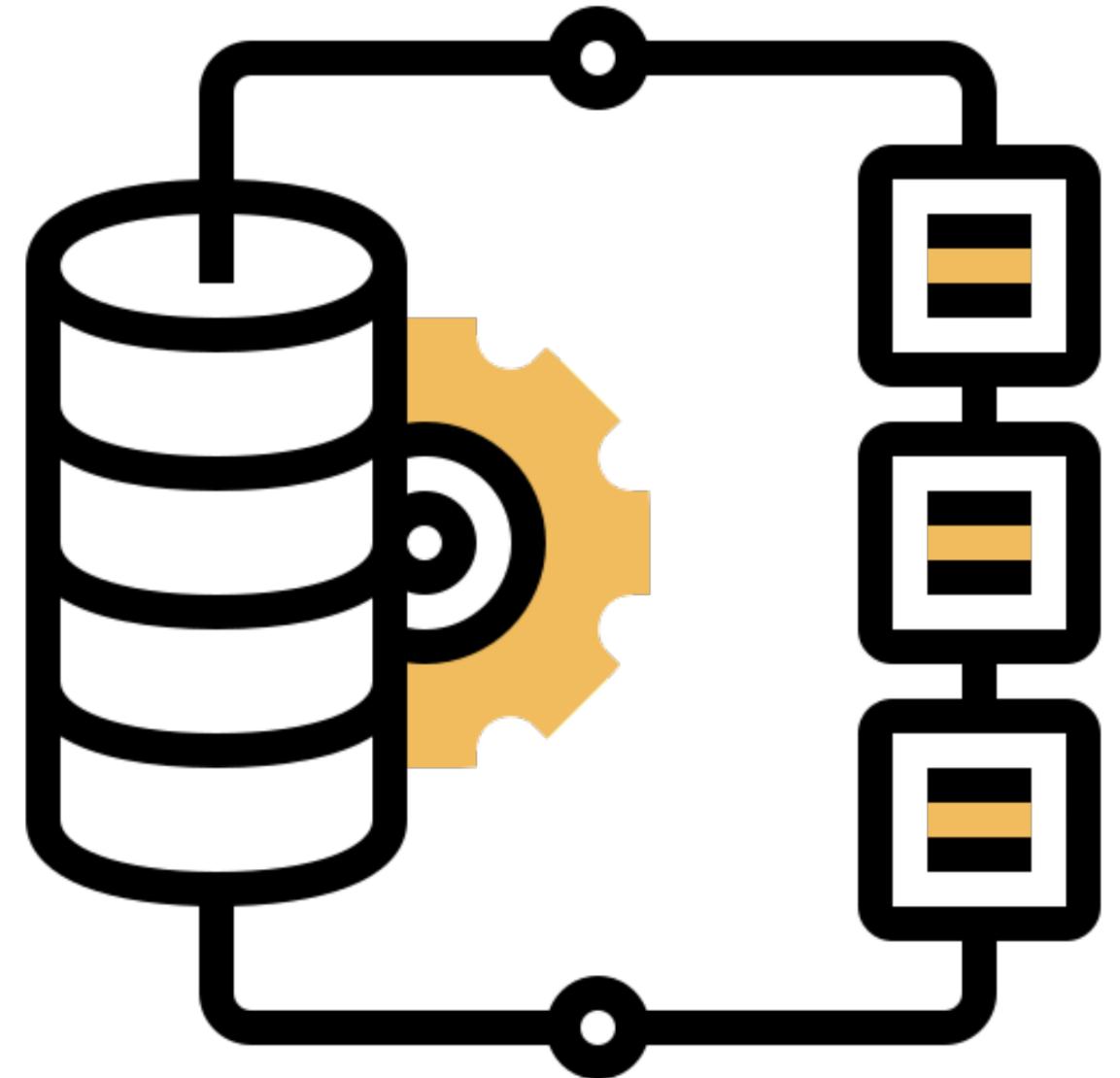


## Personal Identification Number (PIN) as Universal Key

Enabling seamless linkage across all administrative systems

- ▶ **Core Administrative Sources:** Civil registry, tax records, social security, health systems
- ▶ **Educational Systems:** Student enrollment, graduation records, skill certifications
- ▶ **Employment Data:** Public and private sector employment, gig economy tracking
- ▶ **Housing Information:** Property ownership, rental markets, building permits
- ▶ **Health Records:** Birth/death registration, disability status, healthcare access
- ▶ **Migration Tracking:** Border crossings, visa status, temporary residence

▶ **Migration Tracking:** Border crossings, visa status, temporary residence



# Улучшенный контроль качества в 2030 году



## Automated Validation

- ▶ AI-powered consistency checks
- ▶ Real-time error detection
- ▶ Automated data imputation
- ▶ Cross-source verification

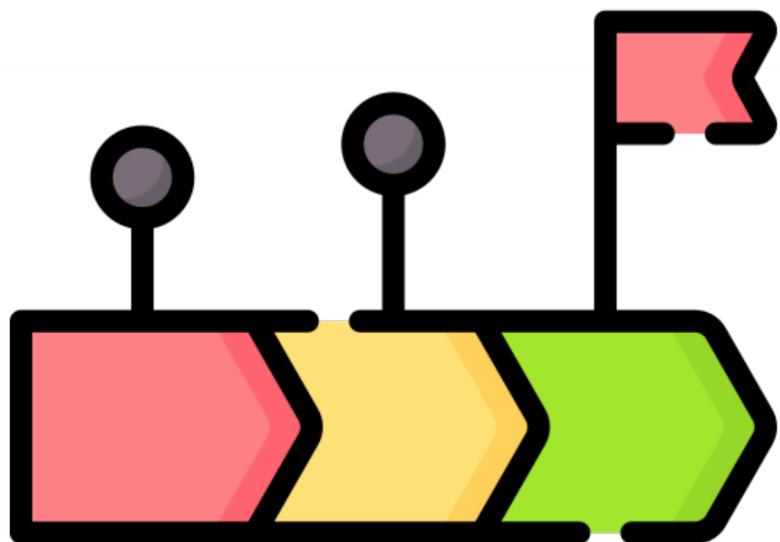
## Continuous Monitoring

- ▶ Monthly quality indicators
- ▶ Coverage assessment dashboards
- ▶ Stakeholder feedback systems
- ▶ International benchmarking

**Lesson from 2024:** Pre-enumeration validation through dwelling-by-dwelling visits provided independent confirmation of final census accuracy



# Дорожная карта стратегической реализации



- ▶ **Phase 1:** Establish comprehensive population register linking all administrative sources
- ▶ **Phase 2:** Develop automated data quality and coverage assessment systems
- ▶ **Phase 3:** Implement continuous population monitoring with annual updates
- ▶ **Phase 4:** Launch 2030 register-based census with supplementary surveys for detailed characteristics



# Европейская интеграция и стандартизация



## EU Twinning Project Collaboration

Partnership with Finland, Germany, and Italy for methodological harmonization

## Key Objectives

- ▶ GSBPM methodology alignment
- ▶ EU NUTS classification implementation
- ▶ Statistical process modernization
- ▶ Capacity building initiatives

## Expected Outcomes

- ▶ Full European standard compliance
- ▶ Enhanced international comparability
- ▶ Best practice sharing
- ▶ Technical expertise transfer



TWINNING



ФИНЛЯНДИЯ



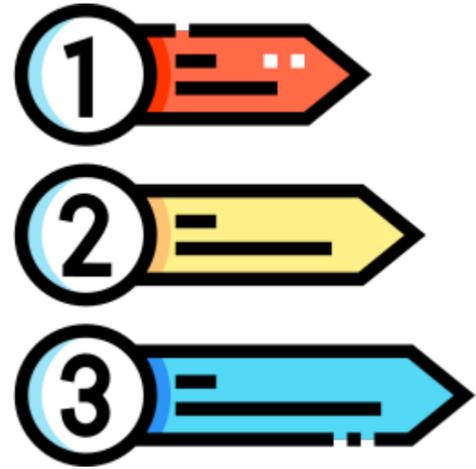
ГЕРМАНИЯ



ИТАЛИЯ



# Приоритеты инноваций для 2030 года



## Digital-by-Default

Complete digital transformation with offline backup only



## Real-Time Processing

Instant data availability and analysis



## Continuous Updates

Dynamic population register maintenance



## Targeted Surveys

Focused data collection for specific characteristics



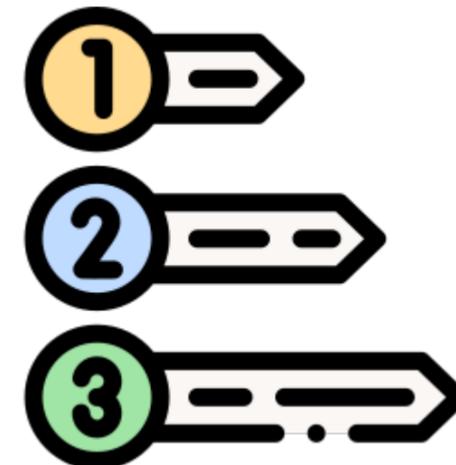
## Global Standards

Full compliance with UN and EU frameworks



## Privacy-First

Advanced data protection and anonymization



# Расширение сотрудничества заинтересованных сторон



## Critical Success Factor

Strong partnerships between statisticians, policymakers, and data source owners

- ▶ **Regular Communication:** Establish ongoing dialogue at all organizational levels
- ▶ **Clear Governance:** Define concrete rules and obligations for all stakeholders
- ▶ **Transparent Systems:** Ensure open and reliable data sharing protocols
- ▶ **Mutual Benefits:** Demonstrate value creation for all participating agencies
- ▶ **Legal Framework:** Update legislation to support seamless data integration
- ▶ **Technical Standards:** Implement unified data formats and exchange protocols

# Учимся у международных лидеров



## Nordic Model Success

- ▶ Finland: Fully register-based since 1990
- ▶ Denmark: Continuous population updates
- ▶ Norway: Integrated statistical system
- ▶ Sweden: Real-time demographic data

## Adaptation Strategies

- ▶ Gradual transition approach
- ▶ Maintaining comparability
- ▶ Building public trust
- ▶ Ensuring data privacy

**Georgia's Advantage:** Strong foundation from 2024 electronic census success positions the country for rapid register-based transition



# Революционное распространение данных



## Real-Time

Data Availability

## Interactive

Visualization Tools

## API

Direct Data Access

## Mobile

Apps & Dashboards

- ▶ **Open Data Platform:** Public access to aggregated statistics through modern web interfaces
- ▶ **Researcher Portal:** Secure access for academic and policy research with advanced analytics tools
- ▶ **Government Dashboard:** Real-time population insights for evidence-based policymaking
- ▶ **International Reporting:** Automated compliance with UN SDG and EU statistical requirements



# Конфиденциальность и этические соображения



## Data Protection Measures

- ▶ End-to-end encryption for all transfers
- ▶ Differential privacy for public releases
- ▶ Anonymization before analysis
- ▶ Strict access controls and audit trails

## Ethical Framework

- ▶ Transparent data use policies
- ▶ Public consent mechanisms
- ▶ Regular privacy impact assessments
- ▶ Independent oversight committees

**Building Trust:** Public acceptance of register-based systems depends on demonstrating clear benefits while maintaining absolute data security



# Экономическое влияние модернизации



**60%**

Projected Cost Reduction

**90%**

Time Savings in Processing

**365**

Days/Year Data Availability

**Zero**

Public Enumeration Burden



## Return on Investment

- ▶ Reduced field operations and logistics costs
- ▶ Improved data quality leading to better policy outcomes
- ▶ Enhanced international reputation and cooperation opportunities
- ▶ Foundation for advanced statistical products and services



# Ожидаемые проблемы и решения



## Technical Challenges

- ▶ **Data Integration Complexity**  
Solution: Phased implementation with pilot testing
- ▶ **System Interoperability**  
Solution: Standardized APIs and data formats
- ▶ **Real-time Processing**  
Solution: Cloud-native architecture

## Organizational Challenges

- ▶ **Stakeholder Coordination**  
Solution: Formal governance structures
- ▶ **Change Management**  
Solution: Comprehensive training programs
- ▶ **Public Acceptance**  
Solution: Transparency and communication



# Измерение успеха в 2030 году



## Data Quality Index

Comprehensive accuracy  
and completeness metrics



## Timeliness Score

Speed from reference date  
to data availability



## Cost Efficiency

Cost per person  
enumerated vs. 2024  
baseline



## Coverage Rate

Population capture  
completeness assessment



## User Satisfaction

Stakeholder and public  
feedback scores



## International Recognition

Peer assessment and  
methodology adoption

# Призыв к действию: строим будущее



## The Time is Now

Georgia's successful 2024 electronic census provides the foundation for revolutionary advances in population statistics

- ▶ **Invest in Infrastructure:** Build the technological foundation for register-based systems
- ▶ **Foster Partnerships:** Strengthen cooperation with administrative data owners
- ▶ **Embrace Innovation:** Lead the transition to next-generation statistical methods
- ▶ **Share Knowledge:** Contribute to global statistical development
- ▶ **Prepare for 2030:** Start implementation planning today



**"From Electronic Pioneer to Register-Based Leader"**



**СПАСИБО ЗА ВНИМАНИЕ!**

---

**ГОГИТА ТОДРАДЗЕ**

Исполнительный директор

Национальное статистическое управление Грузии

*Надежные данные для правильных решений!*

[gtodradze@geostat.ge](mailto:gtodradze@geostat.ge)

[WWW.GEOSTAT.GE](http://WWW.GEOSTAT.GE)