

A New Era of Tech-Empowered Cities

Generative AI creates massive opportunities for local and regional governments to rapidly deliver secure, modern, and sustainable experiences.



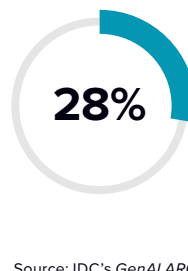
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GenAI Will Play an Increasing Role in Government Transformation

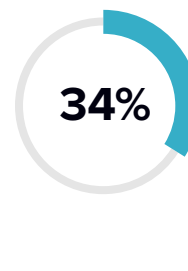
GenAI is a form of artificial intelligence to **create text, audio, video, images, and code** in response to short prompts and based on the data on which it was trained.



Governments are already investing in GenAI:



64% of governments worldwide are in initial exploration of use cases or proof-of-concepts.



31% are investing significantly now.



Source of GenAI funding:



28% will shift budget from other digital transformation projects.



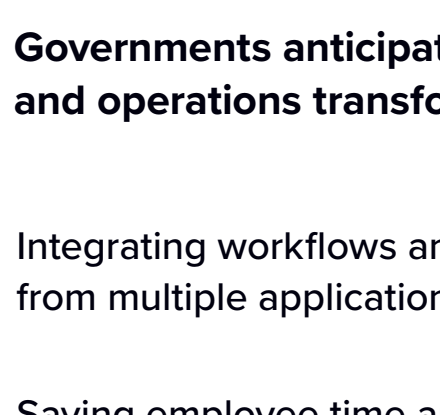
34% will increase overall IT budget to ensure timely investment.

Source: IDC's GenAI/ARC Survey, August 2023

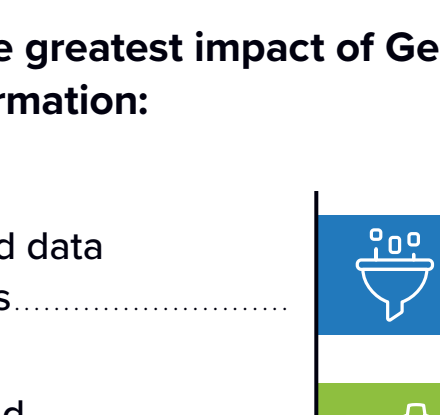
GenAI Empowered City Workforce and Operations

GenAI is part of a larger regional and local government trend to automate processes to improve productivity and the employee experience.

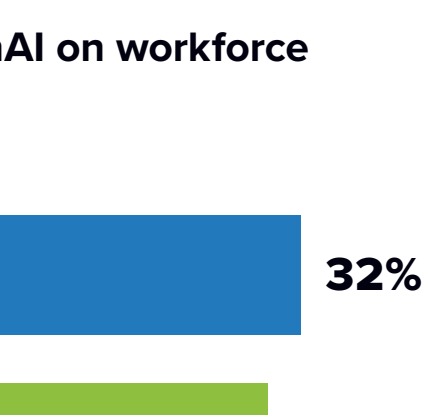
Top technology investments for next 18 months to improve productivity:



Collaboration tools



AI virtual assistants



Process automation

Governments anticipate greatest impact of GenAI on workforce and operations transformation:

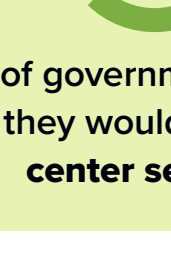


Source: IDC's Future Enterprise Resiliency & Spending Survey, Wave 5, June 2023

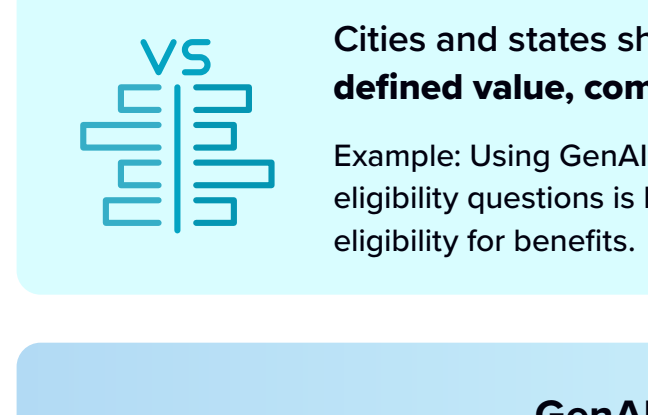
Near-Term GenAI Use Cases

Use cases demonstrate the possibilities and impact from GenAI for smart cities and communities.

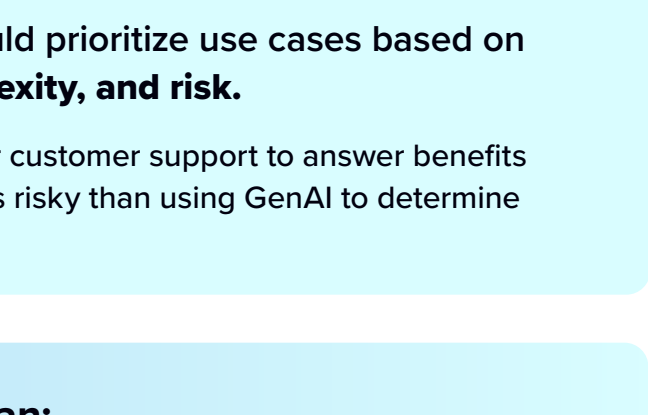
IDC predicts that in 2024,



75% of cities and states globally will pilot GenAI to improve efficacy in community outreach, procurement, staff recruitment and training, and software development.



62% of government respondents said they would use AI in citizen call center services and support.

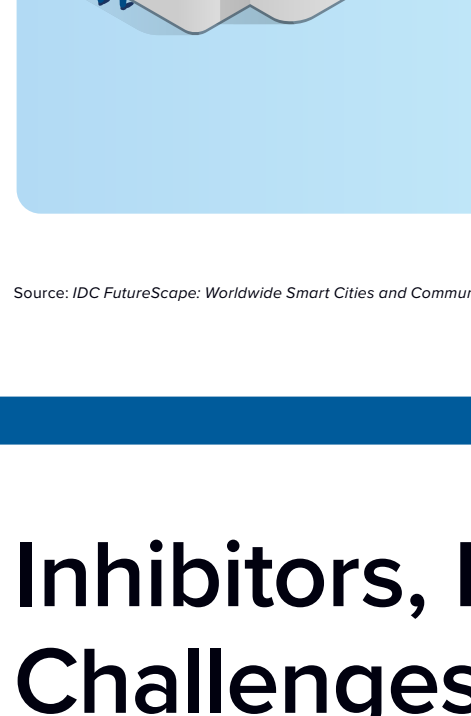


36% are looking to use AI to personalize government service delivery.



Cities and states should prioritize use cases based on **defined value, complexity, and risk.**

Example: Using GenAI for customer support to answer benefits eligibility questions is less risky than using GenAI to determine eligibility for benefits.



GenAI can:

- Generate, test, explain, audit, and translate code
- Create compelling RFIs/RFPs and job advertisements
- Summarize large amounts of information such as council notes, police complaint records, and so forth
- Be used for digital humans and chatbots — from responding to prompts to copilot
- Generate images and video content
- Assist government call centers with intelligent services
- Analyze massive amounts of information to help cities personalize services

Source: IDC FutureScope: Worldwide Smart Cities and Communities 2024 Predictions, October 2023

Inhibitors, Fears, and Challenges in Adoption

There are known and unknown risks in the responsible use of GenAI. Address the known risks now as part of a strategic AI road map and create responsible AI policies and governance.

- 1 Data fairness**
Concerns over data and/or algorithmic bias
- 2 Data explainability**
Understanding lineage and provenance of data sets
- 3 Data accuracy**
Ensuring results avoid "hallucinations" (misinterpretations and irrational results)
- 4 Data security**
Combining results from many data sets could breach privacy and security compliance



26% of governments agree that "data and cloud sovereignty requirements will make it much more difficult to take full advantage of GenAI solutions."

- 5 GenAI skills**
Lack of talent and staff training create risks in using GenAI improperly

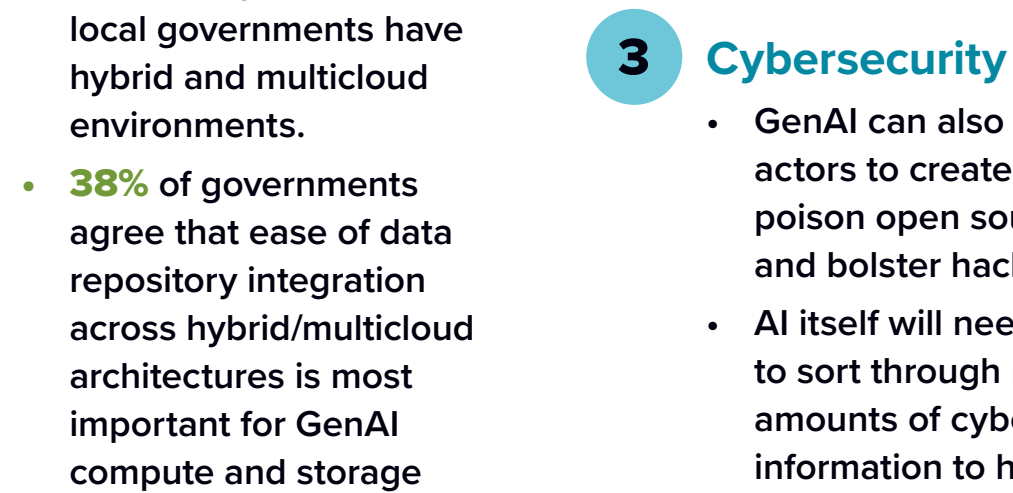
Source: IDC's GenAI/ARC Survey, August 2023

Technology Considerations

Technical issues around compute infrastructure, AI platforms, and new cybersecurity threats highlight the importance of trusted external partners.

INFRASTRUCTURE

- 1 Compute power** — GenAI requires compute power for large data sets and training data, as well as data processing.
 - Cities need to consider benefits of buy versus build.
 - New investment in GenAI for next 18 months:
 - 24% spent on public cloud-infrastructure (compute and storage).
 - 23% spent on dedicated AI-specific server and storage infrastructure.



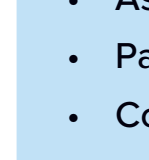
- 2 Cloud requirements**
 - 60% of regional and local governments have hybrid and multicloud environments.
 - 38% of governments agree that ease of data repository integration across hybrid/multicloud architectures is most important for GenAI compute and storage infrastructure.

- 3 Cybersecurity**
 - GenAI can also enable bad actors to create malware, poison open source code, and bolster hacker abilities.
 - AI itself will need to be used to sort through massive amounts of cybersecurity information to help protect against these threats.

Source: IDC's GenAI/ARC Survey, August 2023; IDC FutureScope: Worldwide Smart Cities and Communities 2024 Predictions, October 2023

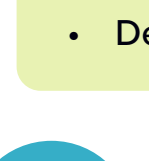
Guidance and Recommendations

Steps smart cities and communities can take to benefit from the opportunities of GenAI while managing the risks and challenges.



Scale GenAI

- Assess build versus buy strategies for AI workloads and infrastructure
- Partner with trusted suppliers
- Conduct sandboxed experimentation for prioritized use cases
- Develop an intelligence architecture



Focus on Trust

- Understand value of GenAI applied to government data
- Develop responsible GenAI policy for guardrails and compliance
 - Banning GenAI use is not an effective, sustainable, long-term policy
- Ensure sensitive data is not training the model
- Deploy the "gold standard" of AI safety, i.e., humans in the loop

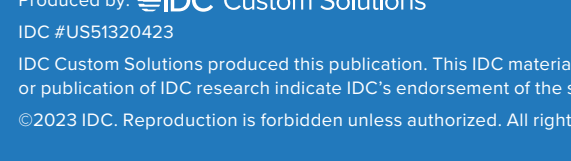


Train and Hire for GenAI Skills

- Educate staff on GenAI as acceptable use policies are developed
- Create new job descriptions
- Acquire new skills, i.e., prompt engineering, grounding, model construction, and code interpretation

Source: IDC, 2023

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