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SEOUL NATIONAL UNIVERSITY

Application of LOSI methodology in South Korea, 2024

for 2025 International Mayors Forum

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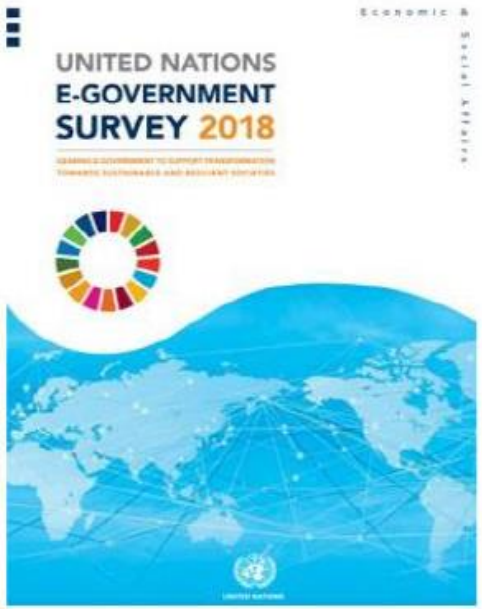
Contents

Ⅰ. LOSI Overview

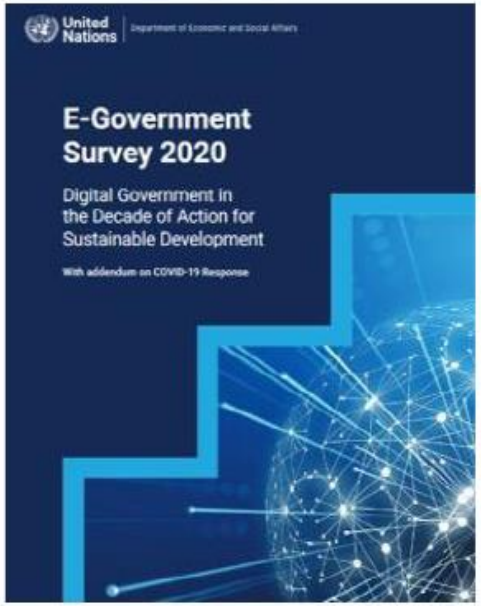
1. History of LOSI
2. LOSI Structure
3. 2024 LOSI Results

1. History of Local Online Service Index(LOSI)

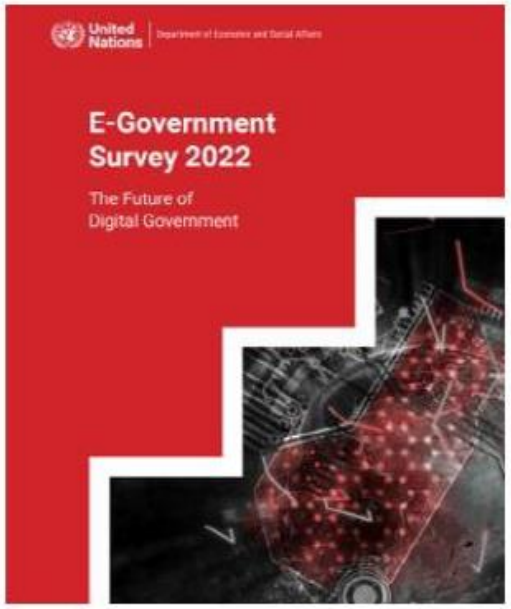
History of Local Online Service Index (LOSI)



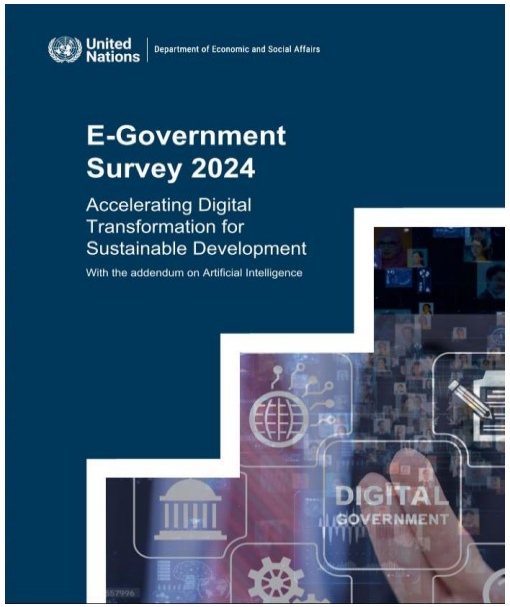
2018
40 cities
60 indicators



2020
100 cities
80 indicators



2022
193 cities
86 indicators



2024
193 cities
95 indicators

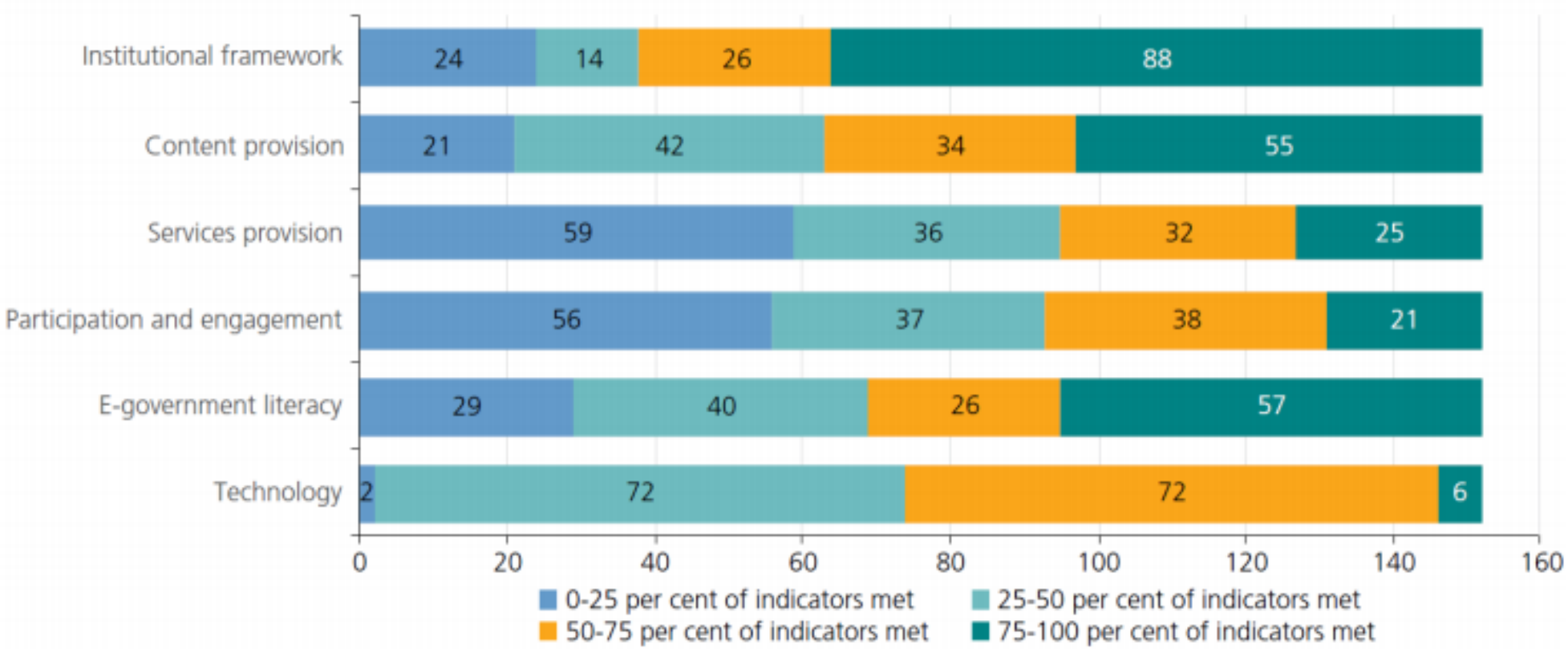
2. LOSI Structure

Local Online Service Index

- Institutional Framework
- Content Provision
- Services Provision
- Participation and Engagement
- E-government Literacy
- Technology

2. LOSI Structure

LOSI Overview: Implementation of LOSI indicators in city e-government portals(number of cities)



2. LOSI Structure

LOSI Overview: Cities in the very high LOSI category, 2024

City	Country	LOSI value	City	Country	LOSI value
Tallinn	Estonia	0.9271	Paris	France	0.8125
Madrid	Spain	0.9271	Reykjavik	Iceland	0.8125
Riyadh	Saudi Arabia	0.9167	Rome	Italy	0.8125
Copenhagen	Denmark	0.9063	Riga	Latvia	0.8125
Dubai	United Arab Emirates	0.9063	Zurich	Switzerland	0.8125
New York	United States of America	0.9063	Buenos Aires	Argentina	0.8021
Istanbul	Türkiye	0.8958	Zagreb	Croatia	0.8021
Berlin	Germany	0.8854	Almaty	Kazakhstan	0.8021
Seoul	Republic of Korea	0.8750	Auckland	New Zealand	0.8021
Singapore	Singapore	0.8750	Stockholm	Sweden	0.8021
London	United Kingdom of Great Britain and Northern Ireland	0.8750	Sofia	Bulgaria	0.7917
Shanghai	China	0.8646	Toronto	Canada	0.7917
Manama	Bahrain	0.8542	Doha	Qatar	0.7917
Tokyo	Japan	0.8542	Amsterdam	Netherlands (Kingdom of the)	0.7813
Kyiv	Ukraine	0.8542	Oslo	Norway	0.7813
Vienna	Austria	0.8438	Sydney	Australia	0.7708
Bogota	Colombia	0.8438	Warsaw	Poland	0.7708
Moscow	Russian Federation	0.8438	Vilnius	Lithuania	0.7604
Sao Paulo	Brazil	0.8333	Guayaquil	Ecuador	0.7500
Montevideo	Uruguay	0.8333	Tel Aviv	Israel	0.7500
Helsinki	Finland	0.8125	Luxembourg-Ville	Luxembourg	0.7500

2. LOSI Structure

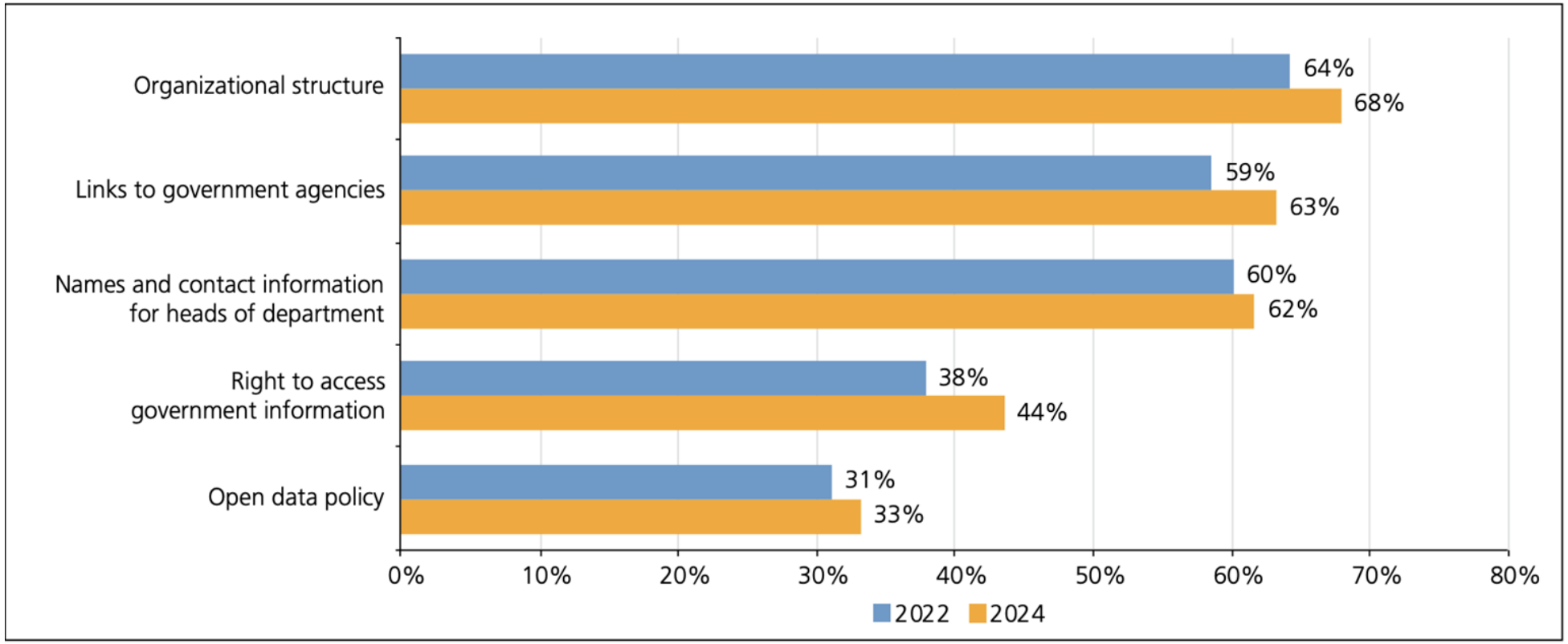
Expectations of implementing LOSI

- **Track online services**
  - Local governments could track their online services annually
    - When rankings drop, a diagnosis can be done
  - Could receive feedback on areas that require improvement

- **Generate future plans**
  - Local governments can plan how the future of online services would look like
  - Best practices such as Seoul's digital twin could be an inspiration

3. 2024 LOSI Results

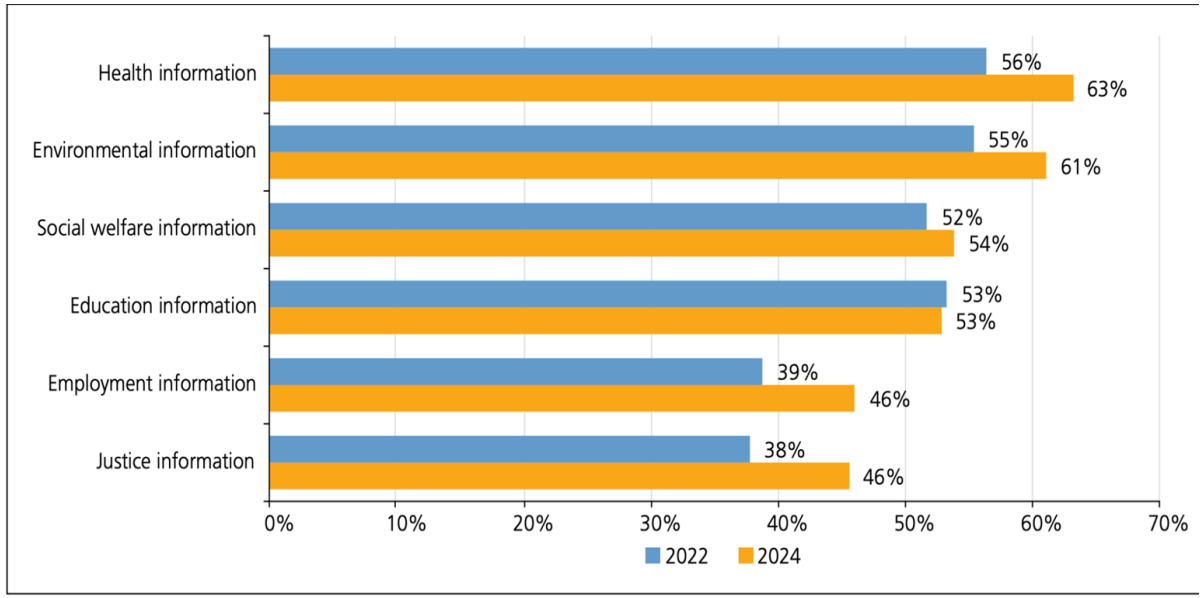
2024 LOSI Results: Implementation of **institutional framework** indicators in city portals(percentage of cities)



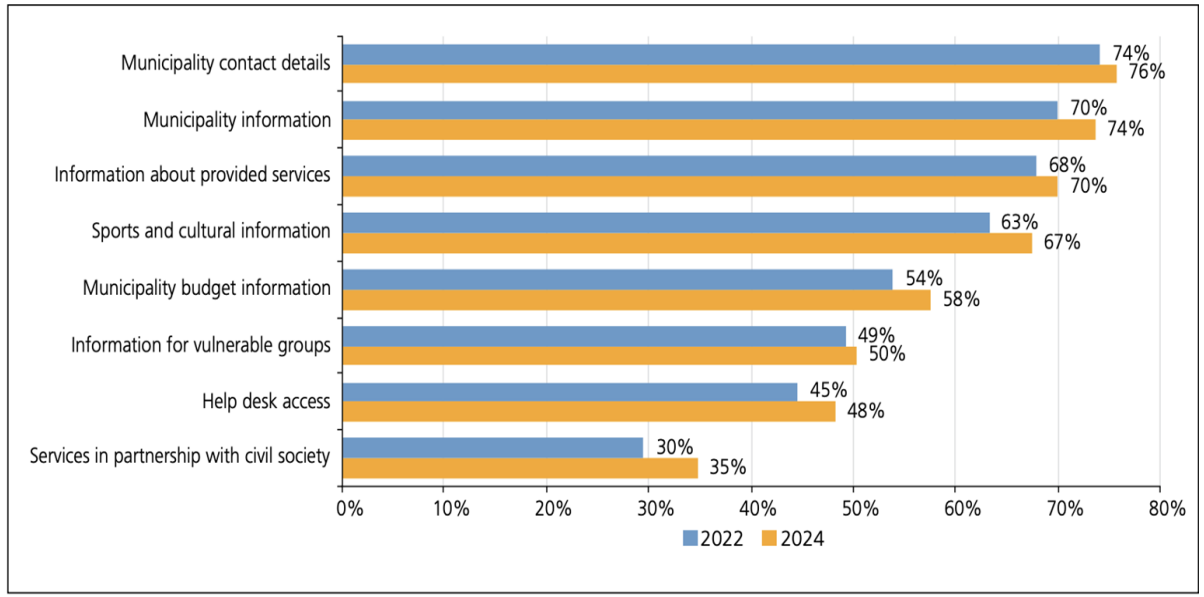
3. 2024 LOSI Results

2024 LOSI Results: Implementation of **content provision** indicators in city portals(percentage of cities)

Sectoral Information

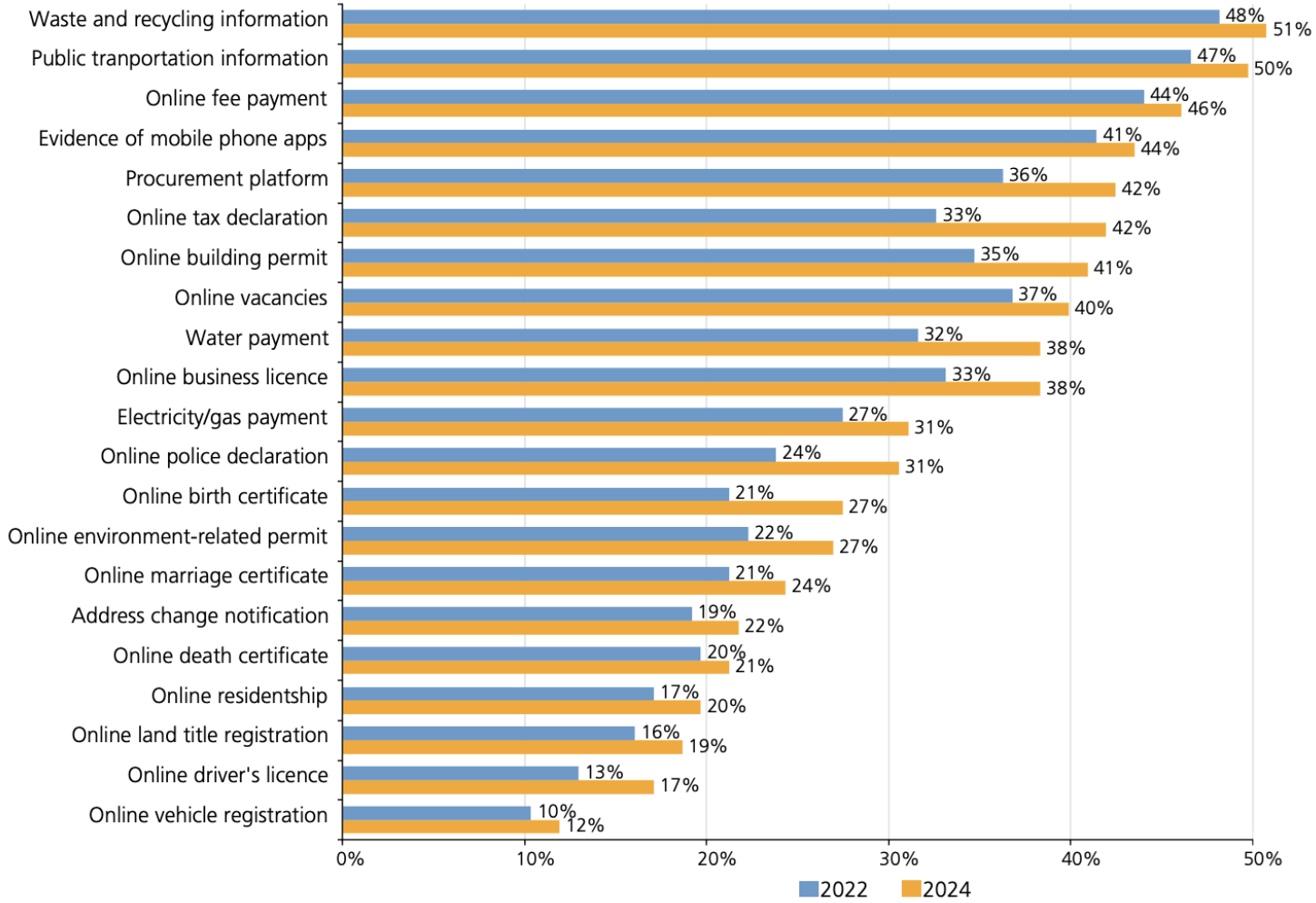


Addressing everyday needs



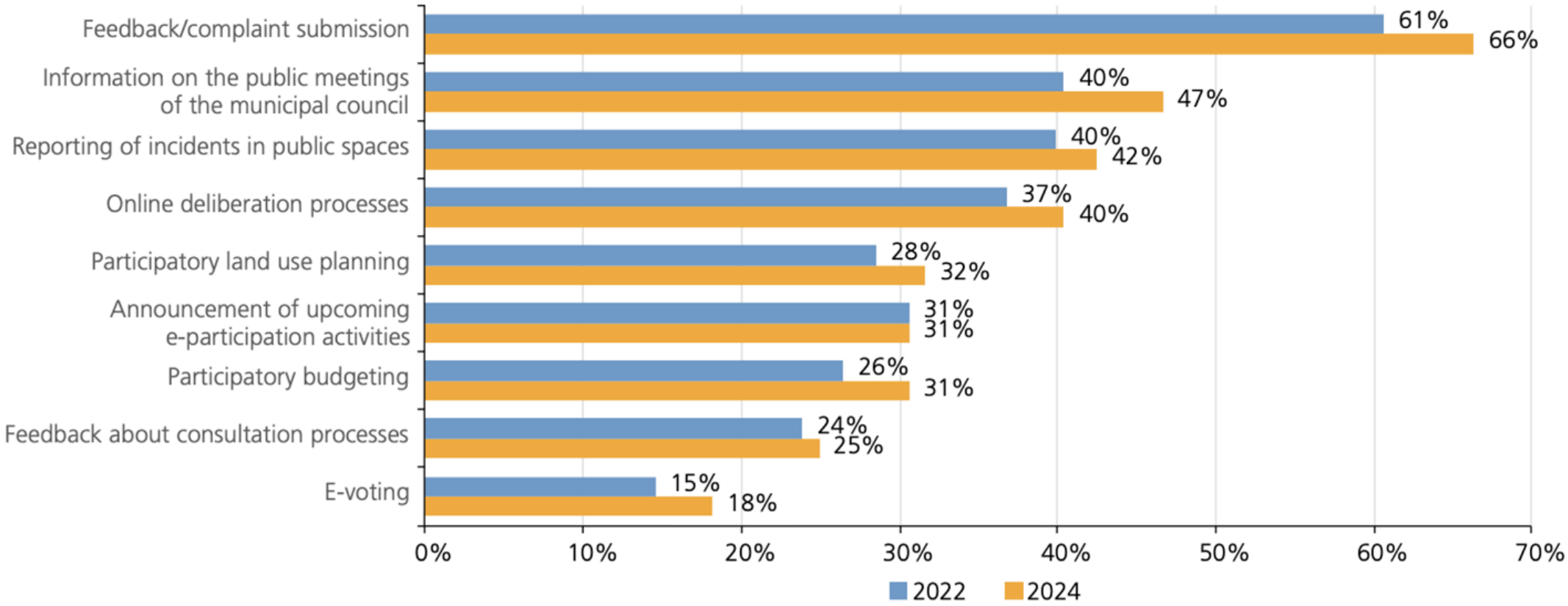
3. 2024 LOSI Results

2024 LOSI Results: Implementation of **service provision** indicators in city portals(percentage of cities)



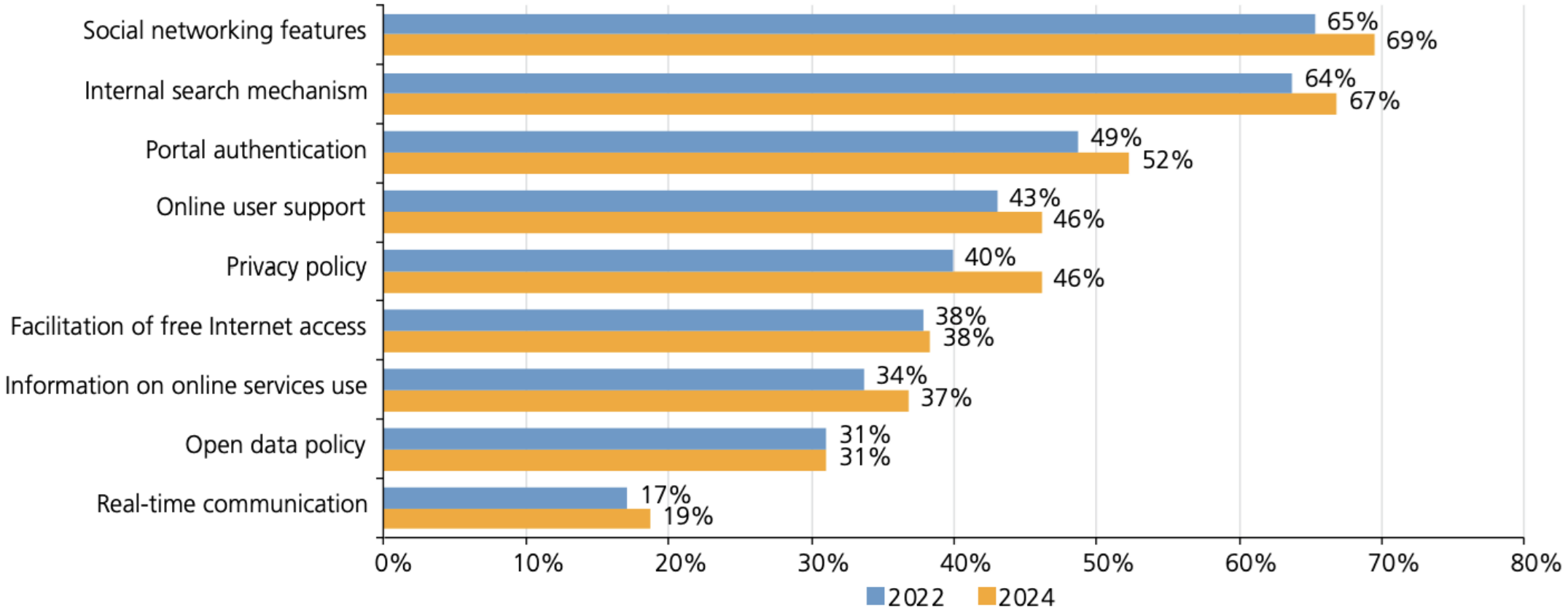
3. 2024 LOSI Results

2024 LOSI Results: Implementation of **participation and engagement** indicators in city portals(percentage of cities)



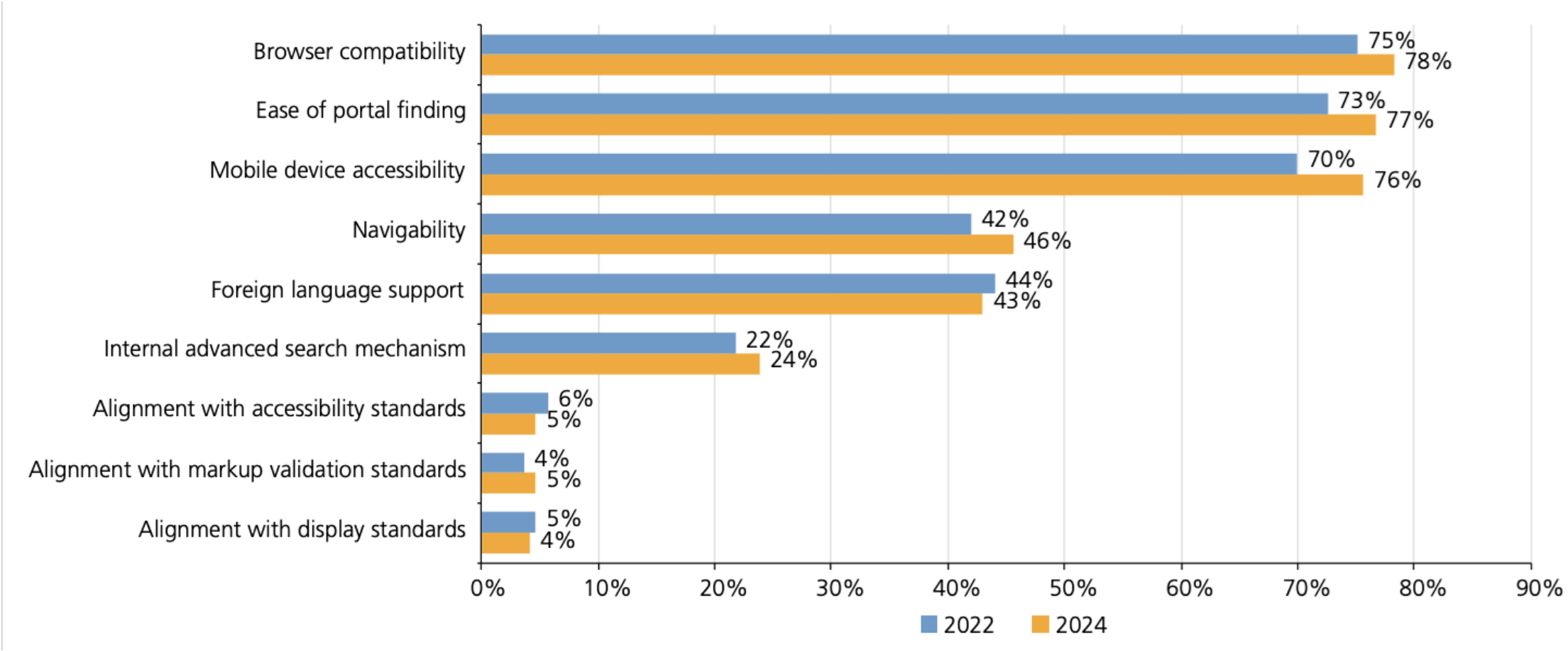
3. 2024 LOSI Results

2024 LOSI Results: Implementation of **e-government literacy** indicators in city portals(percentage of cities)



3. 2024 LOSI Results

2024 LOSI Results: Implementation of **technology** indicators in city portals(percentage of cities)



Ⅱ. Application of LOSI in South Korea, 2024

1. Historical LOSI Results in South Korea
2. Application of LOSI methodologies in South Korea, 2024
3. Expectations for applying LOSI Methodology
4. Lessons from South Korea's LOSI Experience

1. Historical LOSI Results in South Korea

Historical LOSI results in South Korea

- **LOSI results**

2022	Seoul	Republic of Korea	Asia	30	0.7674
2020	Seoul	Republic of Korea	Asia	9	0.7750
2018	Seoul	Republic of Korea	Asia	8	0.8200

- **E-government survey results**

Table 2.2 Countries leading e-government development, 2024

(Index values)

Country	Rating class	Region	OSI	HCI	TII	EGDI (2024)	EGDI (2022)
Denmark	VH	Europe	0.9992	0.9584	0.9966	0.9847	0.9717
Estonia	VH	Europe	0.9954	0.9497	0.9731	0.9727	0.9393
Singapore	VH	Asia	0.9831	0.9362	0.9881	0.9691	0.9133
Republic of Korea	VH	Asia	1.0000	0.9120	0.9917	0.9679	0.9529
Iceland	VH	Europe	0.9076	0.9953	0.9983	0.9671	0.9410

Countries leading e-government development,
Source: UN E-government Survey 2024 report, p.41

Mismatch due to different contexts in local online services:

- government organization structures
- rules & regulations
- authorities
- tasks

2. Application of LOSI methodologies in South Korea, 2024

Application of LOSI methodologies in South Korea, 2024

Research Institution: Center of Intelligent Society & Policy, Seoul National University

- Apply LOSI toolkits for the 8 cities in South Korea
- Report limitations and recommendations based on the survey results
- Share knowledge with local governments in South Korea
- Contribute to the LOSI network by providing recommendations and application experiences

Target: 8 Metropolitan cities
Seoul, Ulsan, Sejong, Busan, Incheon, Daegu, Daejeon, Gwangju

2. Application of LOSI methodologies in South Korea, 2024

Application of LOSI methodologies in South Korea, 2024 - Results

Rank	Cities	LOSI result (0 ~ 1.000)
1	Seoul	0.979
2	Busan	0.968
3	Incheon	0.947
4	Gwangju	0.937
5	Daegu	0.916
6	Ulsan	0.905
7	Daejeon	0.895
7	Sejong	0.895

2. Application of LOSI methodologies in South Korea, 2024

Application of LOSI methodologies in South Korea, 2024 - Results

Rank	Cities	Total Deductions (out of 95 indicators)	IF Institutional Framework	CP Content Provision	SP Service Provision	EPI Participation& Engagement	ELI E-Government Literacy Index
1	Seoul	2			1	1	
2	Busan	3			1	2	
3	Incheon	5			1	2	
4	Gwangju	6			1	5	
5	Daegu	8			2	6	
6	Ulsan	9			3	3	2
7	Daejeon	10		1	1	5	2
7	Sejong	10			3	3	1 1

- Content Provision category indicators and Service Provision category indicators were marked as **insufficient** in many cities

2. Application of LOSI methodologies in South Korea, 2024

Application of LOSI methodologies in South Korea, 2024 - Results

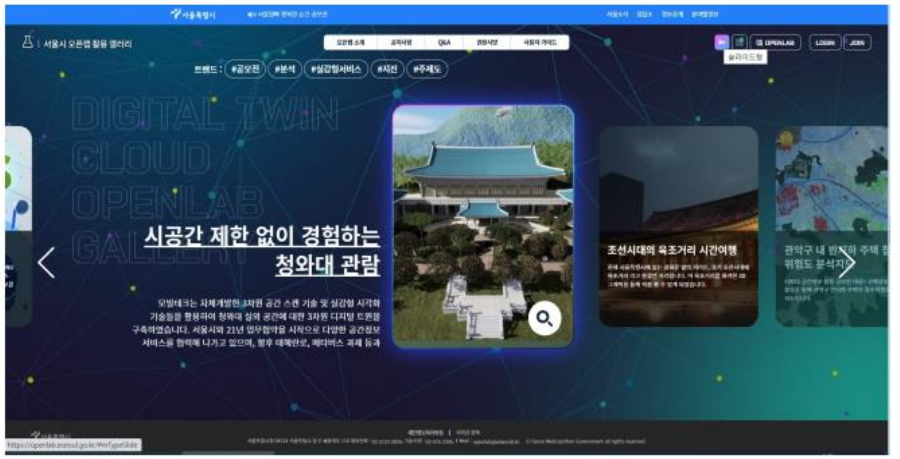
TEC	#208 Is the MGP compliant with the markup validity standards set by the World Wide Web Consortium (W3C)?
TEC	#209 Is MGP compliant with the CSS style sheet standards set by the World Wide Web Consortium (W3C)?
IF	#216 Is any information available on the MGP regarding the names and titles of head of departments/functions?
ELI	#240 Is a 'Help' feature or 'Frequently Asked Questions (FAQs)' section available on the MGP?
ELI	#241 Does the MGP offer guidance or tutorials to citizens in understanding and using online services?, e.g. Help-Link?
EPI	#250 Does the municipality respond to a question sent by email / online form in less than 3 business days?
EPI	#252 Does the municipality provide a useful answer to the above question?
SP	**#253 Can users make declarations to the police online?**
SP	#254 Can users apply for driver's' licenses online?
SP	#255 Can users apply for building permits online?
SP	#256 Can users apply for environment-related permits online?
SP	#257 Can users apply for business licenses online?
SP	#264 Can users register vehicles (car, truck, motorcycle, and others) online?
EPI	#267 Can users report any form of discrimination (e.g. ethnicity, age, or gender) online?
SP	#269b Can users pay online for fines i.e. traffic tickets?
ELI	#270a Is there a "live chat" support functionality with a person?
SP	**#287 Can users pay online for energy (electricity/gas) utility?**
TEC	#288 Is there information on the MGP about a helpdesk call number for supporting people that face difficulties in executing their services online or through any digital channel?
CP	**#289 Does the MGP provide web statistics on usage, such as new visits, total page views, average time on site, etc.?**
CP	#293 Does the MGP provide mechanisms to measure user satisfaction?
CP	#294 Does the MGP provide data regarding portal user satisfaction?
SP	#299 Does the city provide online consultation services for available/affordable housing?

The services are not provided by local governments but by central governments.

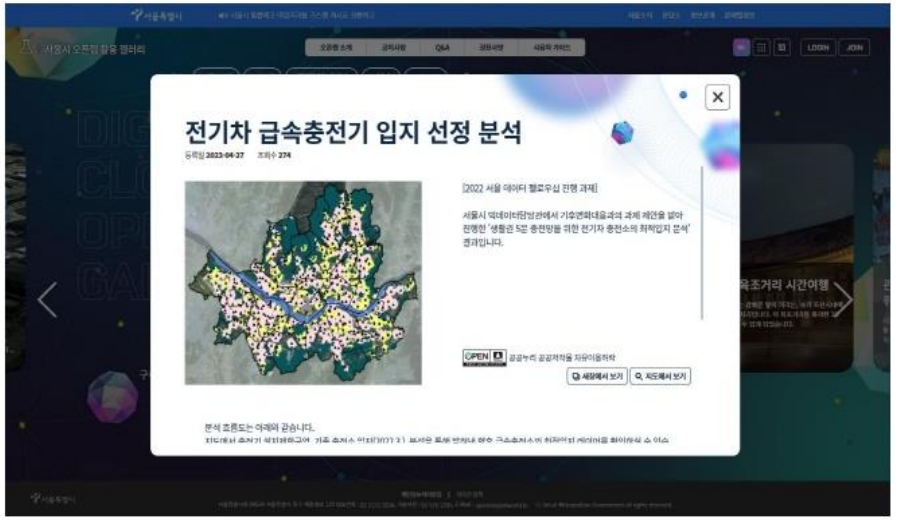
2. Application of LOSI methodologies in South Korea, 2024

Best Practices of Online Service – Seoul, Digital Twin

- Seoul provides a digital twin service that mimics the real-life map of Seoul online
  - Allows a virtual tour of president's residence (Cheongwadae)
  - Allows selection of EV charging stations
- Considered good practice that uses updated technology



Main screen of the Digital Twin Cloud Open Lab Gallery (digital tour of Cheongwadae)



Public content using spatial data (analysis for selecting locations for EV charging stations)

2. Application of LOSI methodologies in South Korea, 2024

Conclusion

Differences hindering the online service level assessments in the global contexts:

- Differences in local online services due to **different rules, regulations, authorities, and tasks the cities have** (utility, police, permit services…)
- Differences because of **centralized online services** (GOV.KR)

2. Application of LOSI methodologies in South Korea, 2024

Recommendations

1. Expanding the scope to measure local online service governance

- Current indices emphasize the categories of service provision, data security/web standards
- There is a need for indices capturing local e-government infrastructure and e-government governance.

2. Index developments considering e-government development stages and local government contexts

- Utilizing common indicators and specialized indicators to balance different contexts and situations across the global
- Development of indicators of common indicators capturing essential local e-government services and specialized indicators that are modified and tailored for the local contexts

3. Index developments for enhancing the core values

- Development of indicators capturing efficiency, citizen participation, and transparency

2. Application of LOSI methodologies in South Korea, 2024

Opinions of Local Bureaucrats on LOSI

- **Lack of advertisement**
  - **While LOSI is one of the only indices that measures online service on a local level, local bureaucrats are often unaware of its existence**

- **Unreliable Index**
  - **Lack of consistency in ranking**
    - **While online services have not changed, rankings have changed drastically**
  - **Unsure if LOSI is accurately measuring online service**

3. Expectations for applying LOSI Methodology

- **Serves as an achievable yet challenging standard**
  - **Developing countries/cities**
    - **Guidelines for achieving better online service**
  - **Established countries/cities**
    - **Serves as a checklist**
    - **Develop areas that are not up to standard**

4. Lessons from South Korea's LOSI Experience

- **Good technological infrastructure**
  - South Korea's broad provision of technology (5G, wireless internet, high use of smartphones) allows better implementation of online services
  - Better chance of meeting LOSI criteria
  - Developing countries could benefit from a stable foundation of technology provision

- **More interest from the government**
  - Some local bureaucrats had limited knowledge of LOSI methodology
  - This could potentially lead to gaps in online service provision between cities
  - More advertising of LOSI would allow better implementation of online services

- **Active incorporation of updated technology**
  - Seoul has been selected as a good example with the use of updated technology, such as digital twin
  - Introducing new, updated technology could help increase public interest and rebrand city image

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Any questions?
Thank You for listening!