Smart City
MISSION TRANSFORMATION

Ministry of Housing and Urban Affairs
Government of India

आत्मनिर्भर भारत

DATA MATURITY ASSESSMENT FRAMEWORK

CYCLE 2

DataSmart Cities Assessment Framework
Cycle 2

Report

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स्वच्छ भारत
एक कदम स्वच्छता की ओर

DataSmart Cities Assessment Framework

Cycle 2

Report

Developed by:

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EXECUTIVE SUMMARY

The future of our cities will be shaped by data. Today, data is everywhere and available at various sources in different formats. Cities can leverage this data to deliver good governance, responsive policies and facilitate effective citizen engagement, leading to open innovation and co-creation to solve complex urban problems.

Data is an asset which needs to be exploited to its full potential for the larger public good. This is possible by investing in the building blocks of the data ecosystem i.e. People, Process and Platform as outlined in our flagship initiative – DataSmart Cities Strategy.

To realize our vision of empowering cities through data, the Ministry of Housing & Urban Affairs has launched various data initiatives including *inter alia*, DataSmart Cities Strategy, Data Maturity Assessment Framework, Smart Cities Open Data Portal, City Innovation Exchange, India Urban Data Exchange and the India Urban Observatory.

Data Maturity Assessment Framework (DMAF) was conceptualized in 2019 to understand the readiness of cities on data. It consists of 2 pillars - Systemic and Sectoral Pillar.

The first cycle of the same was concluded in December 2019. The second cycle of DMAF was launched in November 2020. Similar to the first cycle, this cycle focused on assessing cities on 5 key Components of the Systemic Pillar – Policy, People, Process, Technology and Outcomes, across 22 indicators.

DMAF 2.0 Performance Overview of 100 Smart Cities

45 Cities
have drafted/approved their **City Data Policies**

32 Cities
had a **dedicated data budget** in 2020-21 for data-related activities.

100 Cities have appointed City Data Officers.

12 Cities
have formed **data alliances** and have achieved tangible outcomes.

10 Cities
have conducted **data hackathons** for solutioning urban challenges.

35 Cities
have leveraged their **data analytical capabilities** to generate actionable insights from available city data.

DMAF 2.0 Performance Overview of 100 Smart Cities

69 Cities
have deployed sensors for data collection across urban sectors.

63 Cities
have **published >30 datasets** on the Smart Cities Open Data Portal.

62 Cities
have created **GIS layers** to view data effectively and support urban planning.

29 Cities
have published 60+ data stories/blogs on the Smart Cities Open Data Portal.

32 Cities
are working on use cases using city's data to solve urban challenges

41 Cities
have leveraged their data for development of **portal and applications**

We have recently completed the second cycle of data maturity assessment of 100 Smart Cities. The Missions Data Team has engaged with the cities through various programs including training of the 100 City Data Officers through data courses, regional workshops, and video conferences.

In this cycle, 42 cities have been certified as Connected, Enabled, Explorer and Initiator. Surat, Pimpri Chinchwad, Bhopal and Pune attained the top positions and stand out as Connected Cities, 8 cities have been certified as Enabled, 11 cities as Explorer and 19 cities as Initiator. The Mission acknowledges the efforts of the certified cities to become 'DataSmart'.

This report provides key insights on the performance of 100 Smart Cities in the second cycle of DMAF. In the next cycle of assessment, the certified cities are encouraged to move towards becoming 'Connected' and the remaining 58 cities to get certified and move ahead in their journey towards becoming 'DataSmart'.

This assessment aims to institutionalize a 'culture of data' and to engage various stakeholders in identifying and solving local problems collaboratively, using city data.

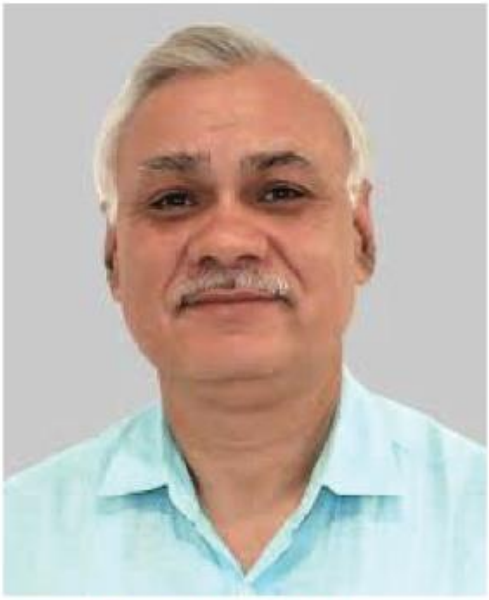
The way cities have embraced the DataSmart Cities initiative wholeheartedly is inspiring and motivating. As a next step, cities now need to identify the gaps in their performance and work on these gap areas to improve their outcomes in the next cycle.

The Data Team at the Mission would be closely working with these cities to help them achieve the shared vision of becoming DataSmart.

Hardeep S Puri

Minister of State (I/C), Housing & Urban Affairs
Minister of State (I/C), Civil Aviation
Minister of State, Commerce & Industry

"With data-driven governance, cities are now embracing transparency, responsiveness, inclusion and sustainability in their day to day functioning. These foundations will help India steer a path towards well planned urbanization thereby improving quality of life and driving economic growth."



Durga Shanker Mishra

Secretary, Ministry of Housing and Urban Affairs

"An increased focus on data-driven governance will amplify the abundant potential that exists in the Government's transformative Urban Missions and Programs, thus improving ease of living for all."

Abbreviations

AI	-	Artificial Intelligence
API	-	Application Programmable Interface
CCTV	-	Closed Circuit Television
CDO	-	City Data Officer
DSC	-	DataSmart Cities
DMAF	-	Data Maturity Assessment Framework
FAQ	-	Frequently Asked Question
GIS	-	Geographical Information System
GoI	-	Government of India
ICCC	-	Integrated Command and Control Centre
IoT	-	Internet of Things
IT	-	Information Technology
PAS	-	Public Address System
SCADA	-	Supervisory Control and Data Acquisition
SCM	-	Smart Cities Mission
SMS	-	Short Message Service
SoP	-	Standard Operating Procedure
SPV	-	Special Purpose Vehicle
ULB	-	Urban Local Body
VMD	-	Variable Message Display

PROTECTION
LOCATION
NETWORK
SHOPPING
WATER
MOBILITY
ENERGY
ECOLOGY
HEALTH

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1. INTRODUCTION

> **The goal is to turn data into information, and information into insight.**
>
> *- Carly Florina, former CEO of Hewlett - Packard*

1.1 Empowering Cities through Data

Today, the development and growth of a country is influenced to a large extent by its cities that rely on fostering a balanced confluence of rapid global urbanization and digital transformation. Data is at the core of this new thinking around technology as an enabler to drive growth. The push for data-driven governance currently has intense interest at all levels of the government.

Data is at the cornerstone of effective governance, innovation, and co-creation for solving complex challenges, thus improving the quality of life. The Ministry of Housing and Urban Affairs has recognized the importance of data and has undertaken impactful initiatives to pave the path towards data-driven governance.

> As India's cities lead our recovery from the pandemic, they will need to ensure effective targeting of public outcomes, strategic ulitisation of public assets to achieve these outcomes, targeted investments in the capital asset creation, and streamlining of urban governance processes, as well as enabling and empowering city officials with powers, information and tools to serve citizens better. The underlying fuel for all of these is the thoughtful and responsible generation, management, consumption, and disclosure of urban data. Smart Cities Mission's DataSmart Cities Strategy and DMAF are pathbreaking initiatives that are moving India's cities in this direction which charting a globally applicable trajectory for urban growth."
>
> – **Gautham Ravichander, Head – Policy Initiatives, eGovernment Foundation**

DataSmart Cities Strategy

The Smart Cities Mission launched the DataSmart Cities Strategy in February 2019 as a roadmap for harnessing the potential of data to address complex urban challenges across 100 Smart Cities. The concept of this strategy pushes its stakeholders to recognize and leverage the value of data being generated in Indian cities.

To fully unleash the power of urban data for transformation, it is crucial to make data accessible to all and as a means of collaboration in the urban ecosystem. This is possible by investing in the building blocks of the data ecosystem i.e. People, Process and Platform as outlined in the flagship initiative – DataSmart Cities.

DataSmart Cities encourages enhancing of engagement amongst all 4 stakeholders of the urban ecosystem vis.:

Government:

Data-led decisions can help the Government in better policy making and governance.

Academia:

Digitalization of data will lead to better access to quality and verified data which facilitates reliable research.

Industry and Business:

Data collaboration can lead to increased ease of doing business and gives businesses opportunity to drive themselves basis market requirements.

Citizens:

The above will in turn provide improved service delivery and better quality of life for the most important stakeholders – the Citizens.

Combination of technology platforms for secured data exchange, governance structure, data analysis and management tools will not only promote innovation and use of emerging technologies for economic growth, but also empower the communities through the practice of 'Open Government'. Bringing data in 'focus' ensures a move towards outcome-based planning in governance. Achieving the right outcomes through data-led governance also lays emphasis on the requirement of a robust data governance mechanism. This helps realistically assess the gaps between the outcomes and the desired goals. But to do so, the availability of good quality data is very crucial

> "Over our long partnership with smart cities mission, the Trusts have shared the mission's vision to revitalize local governance structures by embedding data as an integral part of the decision-making cycle. It is a great pleasure to see this journey in supporting cities in becoming 'DataSmart,' mature and bearing fruits. We congratulate the smart cities mission on entering its 7th year and the city data officers grow as data leaders for their cities."
>
> **- Poornima Dore, Head, Data Driven Governance, Tata Trusts**

1.2 Why Data Maturity Assessment Framework?

Cities are seeking new ways to create greater public value from data and enable data-driven governance and policy making at the local level. They are looking to leverage data generated by systems and processes for generating business intelligence and improving their operational efficiency. DMAF is designed around certain fundamental principles and is meant to encourage cities to strengthen their data infrastructure and facilitate them in assessing their readiness and maturity on data. The objective is to help cities undergo a process of self-evaluation, individual goal setting, and get themselves ready to embrace a data culture that is suited to their needs and requirements.

How does it work?

Under this framework, cities are assessed on two key pillars - vis. Systemic Maturity and Sectoral Maturity. Weightages for both pillars and its respective components are dynamic and will change with each assessment cycle keeping in mind cities' performances in the earlier cycle. The first two cycles were assessed purely on the systemic maturity pillar and once the cities reach a common minimum threshold, they will be assessed on their sectoral readiness of data.

> For successful implementation of AI-based urban innovations, the quality, quantity and shareability of city data is a critical dependency. Data Maturity Assessment Framework (DMAF) of MoHUA serves a critical need, empowering cities to undergo a data readiness self-evaluation and propagate a culture of data-driven urban planning and management. The framework will strengthen the AI strategy for city leaders, which is being co-developed by the World Economic Forum."
>
> **- Purushottam Kaushik, Head, Centre for the Fourth Industrial Revolution, World Economic Forum**

DMAF is intended to help cities with:

1

Continuous improvement in city's data culture

Iterative nature of DMAF will allow cities to perform gap analysis basis their scores in one cycle, undertake improvement measures and see corresponding results in the next cycle.

Data – driven governance

DMAF, through its focus on important aspects of Policy, People, Process, Technology and Outcomes strives to build a robust data governance mechanism. Data is thus used for achieving outcomes by ensuring proper data usage in decision-making.

2

3

Formation of multi-layered partnerships

Through DMAF, the Ministry envisions formation of data alliances and partnerships across varied stakeholders of the data ecosystem. This will ensure inclusiveness and encouragement of deriving appropriate solutions from other elements of the quadruple helix governance structure – the Government, Industry, Academia and Citizens.

Fostering innovation

A mature data system enables seamless exchange of information between stakeholders. This fosters an environment of innovation and co-creation where stakeholders can understand complex urban challenges and device solutions.

4

5

Adoption of emerging technologies

Through DMAF, we aim to assess the quality of the city's technological infrastructure including sensors, services digitization, digital platforms, and data exchanges protocols. This will not only ensure the city's readiness to take abode the new technologies and help kick-start digital innovation, but also help the industry to design solutions using these technologies.

1.3 DMAF Cycle 1 Outcomes

The first cycle focused on assessing cities on five key components of the Systemic Maturity pillar - Policy, People, Process, Technology and Outcomes. At the end of first cycle, 99 cities had participated in the assessment and several cities had actively initiated the process of their efforts in various components of the DataSmart Cities Strategy. DMAF concluded its first cycle of assessment in December 2019. The results of the assessment were announced in the Third Apex Conference of Smart Cities CEOs held in January 2020 in Vishakhapatnam, Andhra Pradesh.

Some of the key outcomes on the 5 components from first cycle of DMAF are highlighted below:

1. Policy

Cities had allotted budget for data initiatives in DMAF first cycle. It could be seen that cities had started realizing the need for a city-wide policy for data governance and to align city data operations with respect to the policy.

18 cities with City Data Policies

12 cities with Data budgets

100 cities with City Data Officers

50 cities with Data Coordinators

2. People

The People component had seen maximum traction in the 1st cycle of DMAF, with every city appointing a city data officer. The results showed that cities realised the need of a dedicated team of officials for driving data related activities in the city.

3. Process

Data Hackathons and Alliances were received by cities as new concepts. Hence their results indicated that they were in initial phases of understanding these concepts and engaging multiple stakeholders for generating a data ecosystem.

10 cities with City Data Alliances

8 cities hosted Data Hackathons

3457 datasets off **100** cities

75 cities digitised municipal services

4. Technology

The cities had started embracing the culture of open data by publishing datasets on the SCODP. Cycle 1 also witnessed the interest of cities towards digitisation of urban services for ease of access to citizens.

5. Outcome

Some of the cities had started building data-based use cases and unlocking the potential of data for solving urban problems. It was observed that cities were at a nascent stage of achieving evidence-based outcomes.

20 cities developed use cases

9 cities developed web applications

While cities had started strong in building a solid data foundation on the various aspects, it was observed that all cities were yet to reach a common minimum threshold to be able to march ahead in their data journey. Based on these learnings and consultations with cities, the second cycle of DMAF was conceptualized to capture the advancements that have taken place in the cities as well as help them in taking another step forward.

2. FRAMEWORK & METHODOLOGY

2.1 Overview of DMAF Cycle 2

In the second cycle of DMAF, the focus on the Systemic Maturity pillar was continued to aid better institutionalization of an able data culture in the 100 smart cities prior to moving further and focusing on components that are a part of the Sectoral pillar. The components of the Systemic Maturity pillar aim to capture the cities' maturity and readiness as per the following:

1. **Policy**

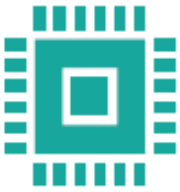
Existence of robust policy mechanisms in the city around data governance, empowerment, protection, collaboration, and innovation.

2. **People**

Presence of empowered city officials with the capacity to guide the development of city data policies, manage data governance, drive inter-departmental and inter-agency data exchange.

3. **Process**

Effectiveness of the city's processes around data collection, usage, management, security, privacy, collaboration, and innovation.



4. **Technology**

Quality and robustness of the city's ICT infrastructure including digital platforms, sensors, IoT devices, data exchanges, big data, and analytics.

5. **Outcomes**

Quality of outcomes around data-driven governance, citizen engagement, ease of living, ease of doing business, collaboration, and innovation in the city.

The weightages of pillars and components of DMAF Cycle 2 are as under:

Pillar	Pillar Weightage	Component	Component Weightage	No. of Indicators
Systemic Maturity	90%	Policy	15%	4
		People	15%	5
		Process	20%	4
		Technology	25%	5
		Outcome	25%	4
	10%	City Engagement Score	10%	NA
Sectoral Maturity	0%	Data Availability	40%	4
		Data Usage	30%	6
		Data Shareability	15%	4
		Data Management	15%	5

Key areas of assessment in this cycle include:

- Development of a City Data Policy with supporting budgetary allocations.
- Creation of a data team with clearly defined roles and responsibilities and capacity building
- Formation of City Data Alliances
- Identification and classification of key Municipal datasets
- Introduction of data analytics capabilities
- Development of data stories and use cases in the city.
- Continuous engagement with the Ministry on various data activities

To help cities, move towards becoming DataSmart, it was decided to focus the 2nd cycle of DMAF on the Systemic Pillar covering 22 indicators with emphasis and addition of future-ready indicators such as publishing of APIs, capacity building initiatives, analytics capabilities, GIS/spatial readiness, and city engagement on data initiatives.

> Data is the key to improving the lives of India's urban citizens. There is a myriad of inhibitors that prevent effective data usage within cities, ranging from poor data quality, incompatible formats, and security and privacy issues. Within India's Smart Cities, we are embarked on a unique and ambitious program to eliminate these inhibitors and unleash the power of data.
>
> **- Inder Gopal, CEO, India Urban Data Exchange; Research Professor, Indian Institute of Science (IISc)**

List of indicators under each component:

Policy (4 indicators)

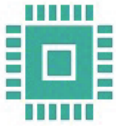
1.a Approval of City Data Policy
1.b City Data Policy Components
1.c Budgets for data- related initiatives (2019-2020)
1.d Budget for data – related initiatives (2020 – 2021)*

People (5 indicators)

2.a City Data Officer
2.b Appointment of Data Coordinators
2.c Data Team
2.d Capacity Building – Ministry Initiative
2.e Capacity building – City Initiative*

Process (4 indicators)

3.a City Data Alliances
3.b Data Hackathons / Data Challenges
3.c Solving Urban Challenges using available datasets
3.d Analytics capability*



Technology (5 indicators)

4.a Sensors for collection of data
4.b Number of datasets on Smart Cities Open Data Portal
4.c Schedule of Updating Datasets on Smart Cities Open Data Portal
4.d Number of APIs on Smart Cities Open Data Portal*
4.e Spatial Readiness (GIS)*

Outcomes (4 indicators)

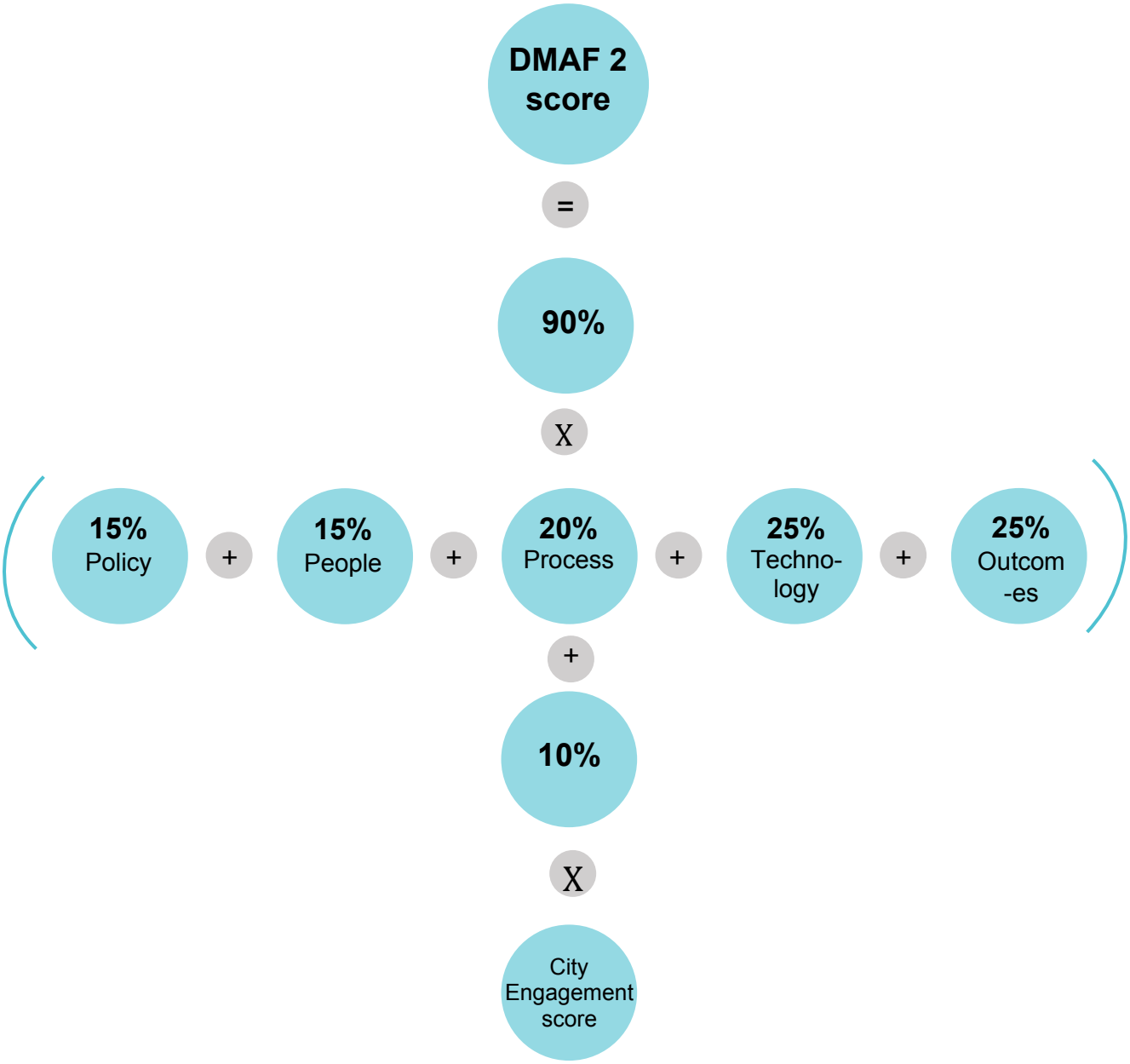
5.a Data Stories/Blogs*
5.b Data-related Use Cases
5.c Development of Portals / Applications
5.d Alerts & Notifications*

City Engagement

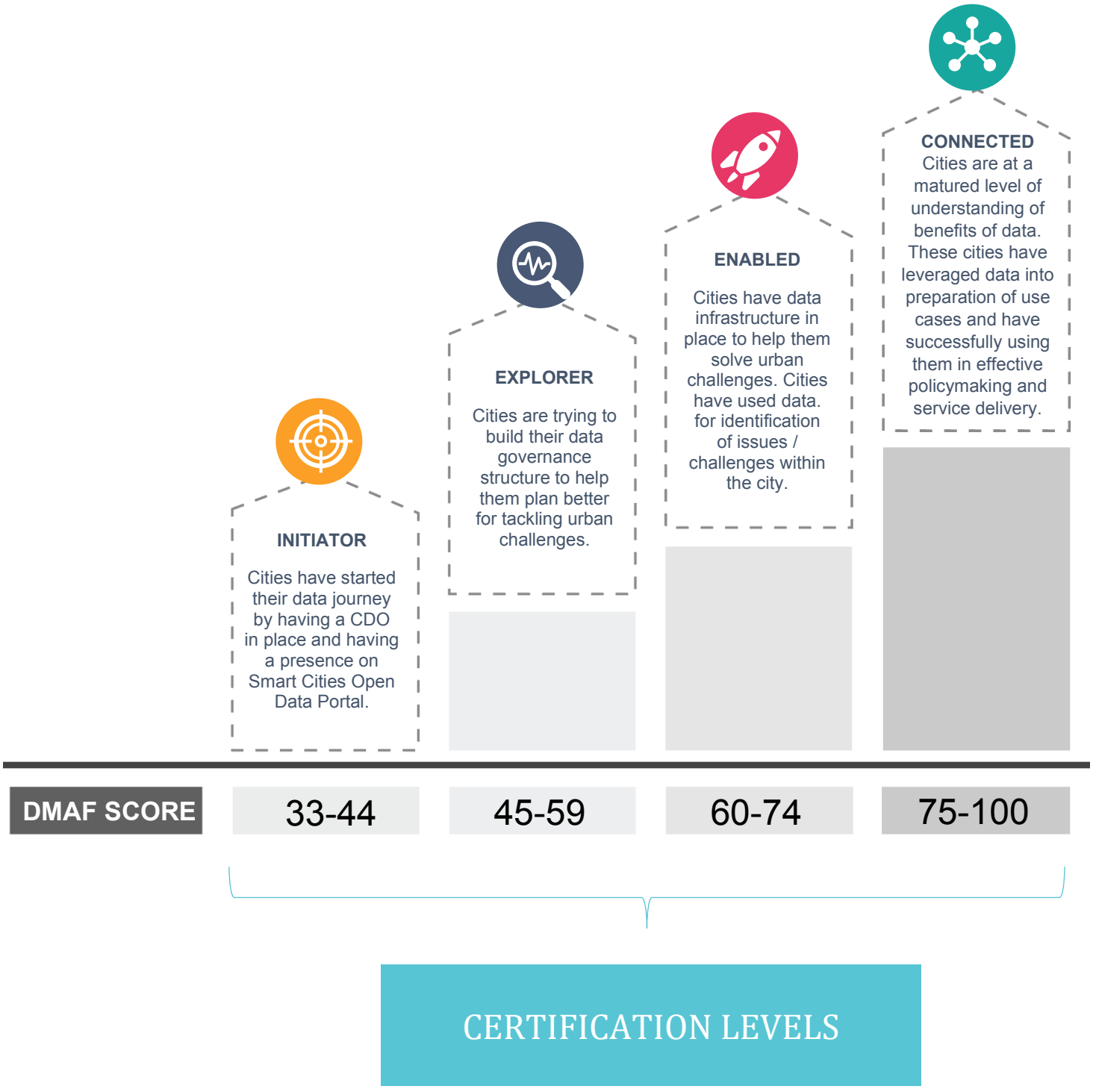
- Engagement with IUDX*
- Performing during Tata Trust Training*
- Presence and utilization of ICCC*
- Active engagement with Ministry for data initiatives*

* new indicators

The data collected for the various indicators across the framework were obtained in varied units. For instance, the presence of relevant elements in the City Data Policy like data classification, data categorization, data flow and approval frameworks were measured as a binary yes or no, while the appointment of data coordinators in departments were measured as a percentage of actual appointment/nominations to the number of departments and number of datasets published on the SCODP were based on step marking. Each of these indicators had a different scoring mechanism as explained in the Data Maturity Assessment Framework Cycle 2 (Design and Methodology) document.



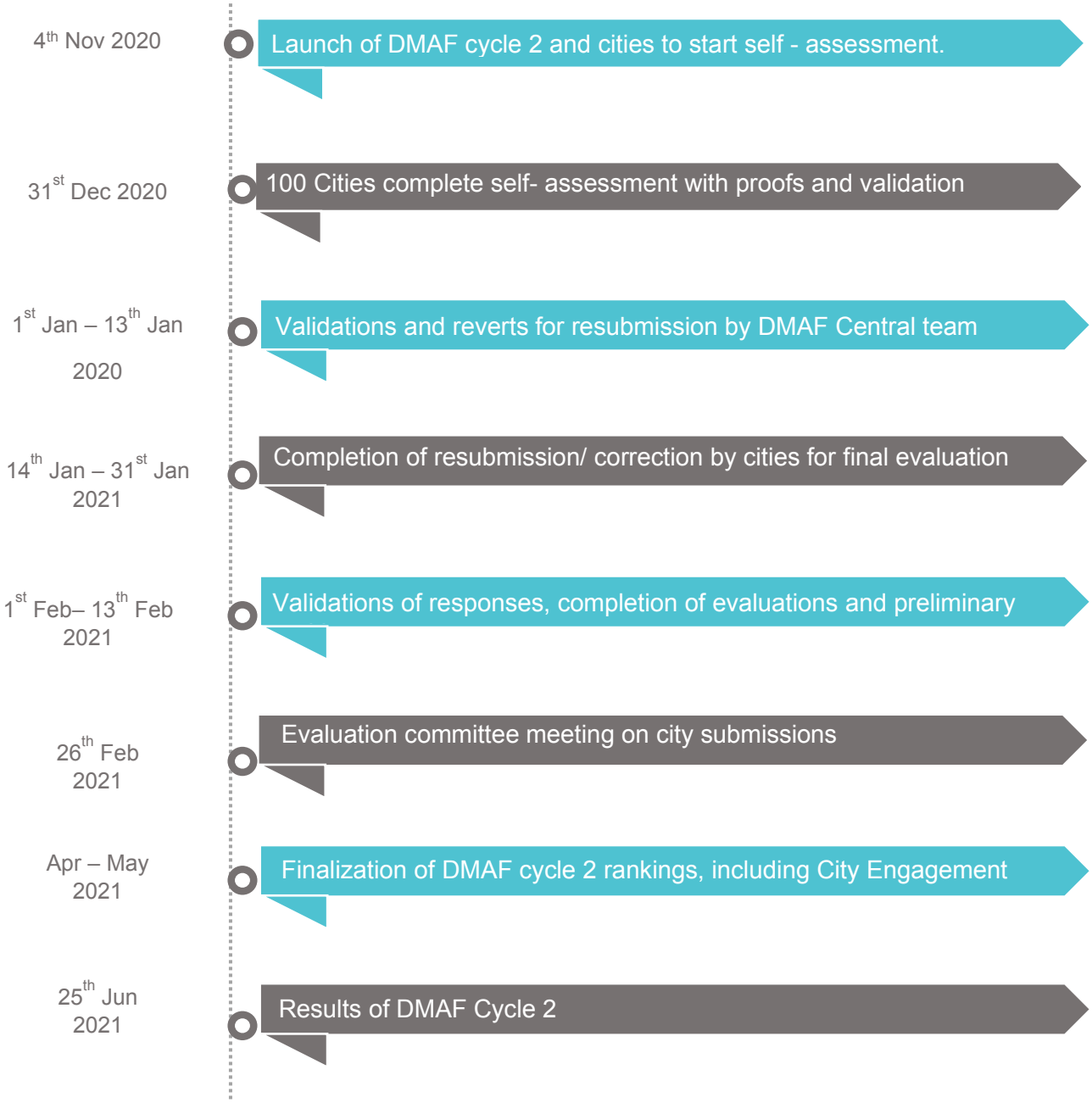
Based on the final scores of the cities, a certification level was assigned to each city.



3.2 Engagement with Cities

During 2020, post the extensive stakeholder feedback and consultation with subject matter experts, the DMAF Cycle 2 questionnaire was finalized. The Assessment was launched on the 4th of November 2020 by Shri Hardeep Singh Puri, Honourable Minister (I/C) Ministry of Housing and Urban Affairs, GoI. CDOs from each city were tasked with collecting data across the given parameters in their respective cities.

DMAF 2 Timeline:



The data was to be uploaded on the online AMPLIFI portal (http://amplifi.mohua.gov.in/). This portal has been used for data collection under various initiatives such as Ease of Living, Municipal Performance Index, and ClimateSmart Cities Assessment Framework

Capacity Building

Several capacity building activities and peer-to-peer learning sessions were conducted for the City Data Officers to ensure compliance and successful completion of this cycle. Online webinars were organised for CDOs/Nodal Officers of all the 100 Smart Cities to apprise them about the overall framework, the indicators, the data portal, and so on.

Central Team at the Ministry conducted these webinars for 4 consecutive days, from 10th November 2020 to 13th November 2020. A seven-member team led the training sessions in terms of organizing the sessions, delivering the content as well as following up with cities to attend the sessions.

Post the Capacity Building sessions, a Peer-to-Peer learning series – 'Let's Talk Data' was organised. The aim of this series was for cities to understand what the counterparts are doing better on the same components. In each of the session, some of the cities like Pimpri Chinchwad, Solapur, Raipur, Agra, Chandigarh, Jabalpur, and Surat were able to showcase their best practices for improving their data maturity and how others can follow the path. The following sessions were included in the series:

- **Session 1:** Drafting a City Data Policy – 25th Nov 2020.
- **Session 2:** Collecting and Publishing Datasets, APIs, and Data Stories on SCODP– 27th Nov 2020
- **Session 3:** Organising Data Hackathons and Establishing Data Alliances – 2nd Dec 2020

City Support

During the data entry process there were various issues, general and technical, faced by the cities which were resolved by the Central Team. Assistance to these cities was provided in form of teleconferencing and video conferencing. The cities could reach out to the team at the central helpdesk ID - dsc.mohua@gmail.com. There was also a set of Q&A Sessions which was organised to help cities clear any doubts regarding data entry, portal navigation, supporting documents, etc. These weekly Q&A sessions were held every Wednesday in the month of December. The team on a regular basis also shared the city's progress with the relevant stakeholders.

Review and Validation

By 31st December 2020, all the 100 Smart Cities had submitted their data along with the supporting documents. Once the cities had finished the data entry on the online portal, multiple stages of validation were carried out to review all the responses and rectify the errors, if any. The team reviewed all the responses and reverted specific indicators which needed to be rectified through the portal itself. Post this activity, the cities were given 2 weeks' time to rectify any inaccuracies and resubmit the data and supporting documents. During this process, the team reached out to each city and guided them through the queries that the team had in terms of validation and provided necessary solutions. The portal was closed for data entry on 31st of January 2020, post which another round of validation was carried out.

Scoring and Ranking

Once the validation was completed, the responses were verified and evaluated, and scoring was done for each indicator based on the scoring methodology and discussed with the Evaluation Committee on 26th February 2021. Based on the inputs provided by the Evaluation Committee and other factors, last round of validation was done. The City Engagement Scores were then added to the city scores. Basis this, the scores and ranks for each component were computed for all the cities and the rankings for DMAF Cycle 2 were finalise.

Kunal Kumar

Joint Secretary, Ministry of Housing & Urban Affairs
Mission Director, Smart Cities Mission

"It is of utmost importance that cities embrace a culture of evidence-based policy and action. Data is at the foundation of their efforts to build innovation, better governance and enhanced citizen service delivery. The Smart Cities Mission is supporting cities under its overarching DataSmart Cities Strategy, driven by the 3 key pillars of action -people, process, and platform."

“Data Maturity Assessment Framework provides the right kind of awareness to cities, enabling them to build a data-culture that values the aspirations of its people. Cities that strive to improve their data maturity on this Framework, are moving on the right path toward developing a citizen centric governance model.”

Rahul Kapoor

Director, Ministry of Housing & Urban Affairs
Mission Data Officer , Smart Cities Mission

3. ANALYSIS

3.1 Status of Data Maturity in Indian Smart Cities

All 100 Smart Cities participated in the 2nd cycle of DMAF, of which 42 cities have been Certified with a score above 33, and rest 58 cities have been termed as Beginners.

Participating Cities **100** → Certified Cities **42**

Distribution of certified cities:

Connected	Enabled	Explorer	Initiator
4	8	11	19

32
National Average Score

80
National Highest Score

Connected		
1	Surat	80
2	Pimpri Chinchwad	79
3	Bhopal	76
4	Pune	75

Enabled		
5	Nagpur	72
6	Ahmedabad	68
7	Jabalpur	66
8	New Town Kolkata	65
9	Chennai	63
10	Kohima	60
10	Thane	60
10	Raipur	60

Explorer		
13	Kanpur	57
14	Visakhapatnam	56
14	Rajkot	56
16	Varanasi	55
17	Tiruppur	54
17	Vadodara	54
19	Agra	53
19	Kakinada	53
19	Chandigarh	53
22	Ranchi	52
23	Tumakuru	48

Initiator		
24	Gandhinagar	44
24	Solapur	44
26	Udaipur	42
27	Amaravati	41
28	Rourkela	39
28	Agartala	39
28	Saharanpur	39
31	Dehradun	38
32	Aligarh	37
33	Belagavi	36
33	Erode	36
33	Ujjain	36
36	Itanagar	35
36	Bhubaneswar	35
38	Tirunelveli	34
39	Muzaffarpur	33
39	Indore	333
39	Dharamshala	33
39	Coimbatore	33

Beginner					
43	Lucknow	32	70	Jalandhar	17
43	Kalyan Dombivli	32	70	Gwalior	17
45	Naya Raipur	30	70	Moradabad	17
46	Amritsar	29	70	Panaji	17
46	Sagar	29	76	Bilaspur	16
46	Greater Warangal	29	76	Pasighat	16
46	New Delhi	29	76	Vellore	16
46	Faridabad	29	76	Aurangabad	16
51	Kochi	28	76	Thanjavur	16
51	Satna	28	81	Jammu	15
53	Salem	27	81	Namchi	15
54	Karimnagar	25	81	Shimla	15
54	Shivamogga	25	84	Tirupati	14
56	Mangalore	24	84	Jaipur	14
56	Tiruchirappalli	24	84	Bhagalpur	14
58	Silvassa	23	87	Ajmer	13
58	Aizawl	23	87	Hubli Dharwad	13
60	Kota	22	87	Bengaluru	13
60	Ludhiana	22	90	Prayagraj	12
62	Thoothukudi	21	90	Karnal	12
62	Madurai	21	90	Kavaratti	12
62	Guwahati	21	93	Diu	11
62	Dahod	21	93	Shillong	11
66	Gangtok	20	93	Jhansi	11
67	Davangere	19	93	Srinagar	11
67	Thiruvananthapuram	19	97	Port Blair	10
69	Bareilly	18	98	Imphal	8
70	Bihar Sharif	17	98	Patna	8
70	Nashik	17	98	Puducherry	8

Key Outcomes from DMAF Cycle 2

Policy

45 cities have created their **City Data Policies**, of which 35 have been approved and are in the process of implementation.

32 cities had a **dedicated city data budget** in 2020-21 for implementing data-related activities such as capacity building and workshops, enhancing data skills, purchasing data tools etc.

People

100 City Data Officers (CDOs) have been appointed with **13 permanent nominations** for leading and performing data-led activities.

61 cities have appointed **Data Coordinators** to help coordinate data activities for their respective departments as per guidance of CDO.

25 cities have conducted their own **capacity building** sessions on data-related areas in addition to the Ministry-organised trainings.

Process

12 cities have formed **data alliances** and have achieved tangible outcomes such as sharing of data, sourcing solutions for urban challenges, etc.

10 cities have conducted **data hackathons** for solutioning urban challenges.

35 cities have leveraged their data **analytical capabilities** to uncover actionable insights from available city data and analyse sector specific challenges and solutions.

Technology

69 cities have deployed sensors for data collection across urban

63 cities have **published >30 datasets** on the Smart Cities Open Data Portal (SCODP)

16 cities have begun publishing **data in form of APIs** on the SCODP.

62 cities have created **GIS layers** to view data effectively support with urban planning.

Outcomes

60+ data stories/blogs showcasing sector-specific achievements through use of data have been published on the SCODP.

32 cities are working on sectoral **use cases** and using city's data to solve city-specific urban challenges.

41 cities have leveraged city's datasets in creation of **portals/applications** for service delivery.

50 cities have showcased better citizen engagement through **alerts & notifications.**

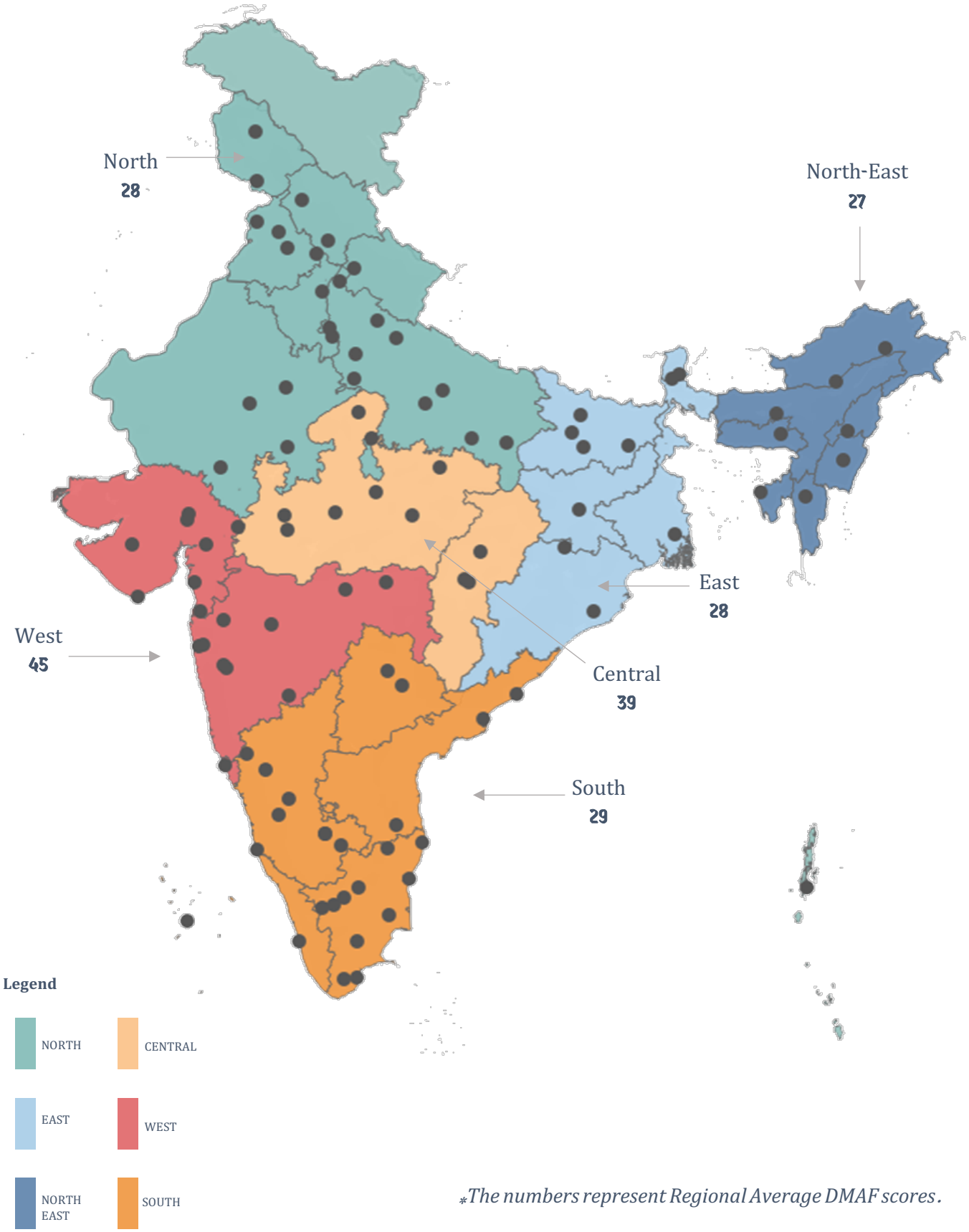
3.2 Regional Analysis

India is very diverse in terms of development as well as geographical distribution. To get a better understanding of the scores, the States and Union Territories have been divided into six regions: North, South, West, Central, East, and North-East. The list of States and Union Territories under each region are as under:

- **North**: Chandigarh, Haryana, Himachal Pradesh, Jammu & Kashmir, Delhi, Punjab, Rajasthan, Uttar Pradesh, Uttarakhand
- **South**: Andhra Pradesh, Karnataka, Kerala, Lakshadweep, Puducherry, Tamil Nadu, Telangana
- **West**: Dadra and Nagar Haveli, Daman and Diu, Goa, Gujarat, Maharashtra
- **Central**: Chhattisgarh, Madhya Pradesh
- **East**: Andaman & Nicobar Islands, Bihar, Jharkhand, Odisha, Sikkim, West Bengal
- **North-East**: Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Tripura

Bhopal ICCC

Regional Distribution of DMAF 2 scores



**The numbers represent Regional Average DMAF scores.*

North

Out of 26 cities in the Northern region, 9 cities have been certified. Cities in this region have been certified as Explorer and Initiator. 7 of the top 10 cities in this region are from Uttar Pradesh, with Kanpur at the top. The city has identified urban challenges and is working towards utilising data to solve them via data hackathons and alliances.

Regional Average Score

Cities above National Average

Best Performing City

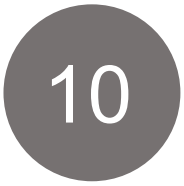
Best Performing Component

State	City	Policy Score	People Score	Process Score	Techno-logy Score	Outcom-es Score	City Engage-ment Score	DMAF 2 Score
Chandigarh	Chandigarh	81	65	20	55	40	80	**53**
Delhi	New Delhi	31	15	0	30	35	80	**29**
Haryana	Faridabad	60	21	20	13	10	90	**29**
	Karnal	0	35	0	0	0	70	**12**
Himachal Pradesh	Dharamshala	83	53	0	33	0	70	**33**
	Shimla	0	25	0	20	0	70	**15**
Jammu & Kashmir	Jammu	34	10	0	15	0	60	**15**
	Srinagar	0	10	0	15	0	60	**11**
Punjab	Amritsar	25	55	20	30	10	60	**29**
	Jalandhar	0	15	0	30	10	60	**17**
	Ludhiana	0	15	20	30	15	60	**22**
Rajasthan	Ajmer	0	20	0	20	0	60	**13**
	Jaipur	0	10	0	15	0	90	**14**
	Kota	4	40	0	25	10	80	**22**
	Udaipur	30	60	50	45	10	80	**42**
Uttar Pradesh	Agra	62	55	20	48	65	80	**53**
	Aligarh	60	30	0	30	50	70	**37**
	Bareilly	30	30	0	15	0	70	**18**
	Jhansi	0	10	0	15	0	60	**11**
	Kanpur	19	55	70	45	70	90	**57**
	Lucknow	60	40	0	30	20	70	**32**
	Moradabad	0	28	20	10	0	70	**17**
	Prayagraj	0	15	0	0	10	80	**12**
	Saharanpur	60	55	30	33	10	80	**39**
	Varanasi	60	55	40	60	40	100	**55**
Uttarakhand	Dehradun	0	50	30	33	45	80	**38**

South

In the Southern region, we have 28 cities, of which 10 have been certified. Top performing city in this region is Chennai with a score of 63, owing to its continuous focus on developing a comprehensive data policy and efforts to establish a city-wide urban data observatory in alliance with multiple stakeholders.

Regional Average Score



Cities above National Average

Best Performing City

Best Performing Component

State	City	Policy Score	People Score	Process Score	Techno-logy Score	Outcom-es Score	City Engage-ment Score	DMAF 2 Score
Andhra Pradesh	Amaravati	40	75	30	30	30	70	41
	Kakinada	60	95	20	45	45	80	53
	Tirupati	0	20	0	25	0	60	14
	Visakhapatnam	60	35	35	45	80	90	56
Karnataka	Bengaluru	0	15	0	3	0	100	13
	Belagavi	52	45	15	40	20	70	36
	Davangere	0	40	0	25	0	80	19
	Hubli Dharwad	0	10	0	20	0	70	13
	Mangalore	0	52	0	45	0	70	24
	Shivamogga	60	33	0	25	0	70	25
	Tumakuru	69	50	45	30	40	80	48
Kerala	Kochi	0	15	20	25	40	80	28
	Thiruvananthapuram	0	46	0	25	0	70	19
Lakshadweep	Kavaratti	0	35	0	0	0	70	12
Puducherry	Puducherry	0	15	0	0	0	60	8
Tamil Nadu	Chennai	80	48	30	45	90	100	63
	Coimbatore	60	50	10	10	30	70	33
	Erode	31	60	0	25	50	70	36
	Madurai	0	28	0	20	30	60	21
	Salem	17	45	10	35	10	70	27
	Thanjavur	0	35	0	18	0	70	16
	Tiruchirappalli	33	27	0	30	10	70	24
	Tirunelveli	30	48	20	40	20	60	34
	Tiruppur	41	88	35	50	55	70	54
	Thoothukudi	0	30	0	36	10	70	21
	Vellore	0	35	0	20	0	70	16
Telangana	Greater Warangal	0	55	0	35	30	70	29
	Karimnagar	0	35	0	45	15	70	25

West

Western region is the best performing region among all others. Its regional average score of 45 is much higher than the national average of 32. There are 26 cities in Western region, of which 10 cities have been certified. The highest score in this region is 80, which is also the highest in the country. Surat is the best performing city in this region owing to their efforts of deploying a dedicated team of data experts and incorporating various technological advancements, such as establishment of SuratiLab, an advanced innovation lab for uncovering modern solutions for improved service delivery.

Regional Average Score

Cities above National Average

Best Performing City

Best Performing Component

State	City	Policy Score	People Score	Process Score	Techno-logy Score	Outcom-es Score	City Engage-ment Score	DMAF 2 score
Dadra & Nagar Haveli	Silvassa	52	10	0	40	0	60	23
Daman & Diu	Diu	0	15	0	15	0	60	11
Goa	Panaji	0	15	0	0	20	100	17
Gujarat	Ahmedabad	75	65	40	50	100	80	68
	Dahod	0	25	0	45	0	70	21
	Gandhinagar	0	50	80	30	40	70	44
	Rajkot	77	65	50	58	30	80	56
	Surat	69	100	80	68	100	50	80
	Vadodara	72	50	35	45	50	100	54
Maharashtra	Aurangabad	0	23	15	15	0	70	16
	Kalyan Dombivli	0	40	0	45	40	70	32
	Nagpur	65	89	70	50	80	90	72
	Nashik	0	25	0	30	0	70	17
	Pimpri Chinchwad	100	90	80	60	90	50	79
	Pune	67	80	65	74	90	70	75
	Solapur	86	70	0	45	20	80	44
	Thane	74	65	30	53	70	80	60

Central

Central region has 10 cities, with its regional average of 39, more than national average of 32. In this region, 5 cities have been certified, of which Bhopal is the best performing city. Bhopal has been efficiently working on developing a dedicated team of data experts to help utilise data to solve urban challenges. They have utilised the available data for enhancing their solid waste management services, resulting in improved staff handling and efficient door to door collection.

Regional Average Score

Cities above National Average

Best Performing City

Best Performing Component

State	City	Policy Score	People Score	Process Score	Techno-logy Score	Outcom-es Score	City Engage-ment Score	DMAF 2 Score
Chhattisgarh	Bilaspur	30	15	0	15	0	70	16
	Naya Raipur	0	25	0	40	40	90	30
	Raipur	84	65	50	45	55	80	60
Madhya Pradesh	Bhopal	85	90	70	51	100	60	76
	Gwalior	0	20	0	18	10	80	17
	Indore	0	25	0	50	45	80	33
	Jabalpur	71	55	80	50	65	90	66
	Sagar	25	15	0	45	30	70	29
	Satna	0	25	0	45	30	80	28
	Ujjain	0	41	20	40	40	90	36

East

East region has 11 cities with regional average of 28, of which 6 have been certified. The cities in this region have performed well in Policy component, with other components being in their nascent stage as of now. New Town Kolkata is the best performer in East, due to its efforts of developing a comprehensive data policy, team of dedicated professionals working on data-related activities such as efforts towards improving traffic management through evidence-based planning.

Regional Average Score

Cities above National Average

Best Performing City

Best Performing Component

State	City	Policy Score	People Score	Process Score	Techno-logy Score	Outcom-es Score	City Engage-ment Score	DMAF 2 Score
Andaman & Nicobar Islands	Port Blair	0	15	0	10	0	60	10
Bihar	Bhagalpur	0	15	0	20	0	70	14
	Bihar Sharif	30	30	0	0	10	70	17
	Muzaffarpur	60	21	5	45	15	80	33
	Patna	0	15	0	0	0	60	8
Jharkhand	Ranchi	82	75	45	30	35	80	52
Odisha	Bhubaneswar	30	20	0	30	50	100	35
	Rourkela	60	51	10	35	30	80	39
Sikkim	Gangtok	60	20	0	10	0	70	20
	Namchi	0	25	0	20	0	70	15
West Bengal	New Town Kolkata	86	70	70	35	70	80	65

North-East

Out of the 8 cities in the North-Eastern region, 3 cities have been certified. Kohima's good performance in this region has raised the regional average fairly, despite proportionately lesser no. of cities participating unlike other regions. Introduction of technological advancement like ICCC and predictive analytics for resolving urban challenges are the key factors improving data maturity in Kohima.

State	City	Policy Score	People Score	Process Score	Techno-logy Score	Outcom-es Score	City Engage-ment Score	DMAF 2 Score
Arunachal Pradesh	Itanagar	20	49	30	30	35	60	35
	Pasighat	0	20	0	0	30	70	16
Assam	Guwahati	0	35	0	10	30	70	21
Manipur	Imphal	0	10	0	0	0	70	8
Meghalaya	Shillong	0	15	0	15	0	60	11
Mizoram	Aizawl	0	25	0	45	10	70	23
Nagaland	Kohima	97	77	45	60	30	80	60
Tripura	Agartala	48	25	30	52	10	100	39

3.3 Component Level Analysis

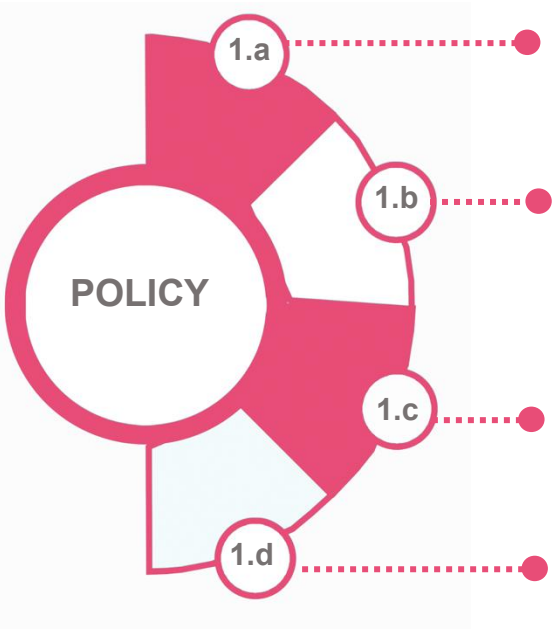
Component 1: Policy

	Highest	National Average
Score (On 100)	100	29
No. of Cities	47	53
	Above Average	Below Average

Scope

A City Data Policy will be critical to defining the responsibilities, governance structure and data flow to help deal with the outcomes of collecting huge quantities of data in a city. To drive their city data policy and other data initiatives, necessary budgetary allocations need to be made to operationalize the data ecosystem.

Indicator Details



Approval of City Data Policy: A frame of reference to operate in for all stakeholders in the data ecosystem to be approved by the Municipal Commissioner/CEO of

City Data Policy Components: Components such as data classification & categorization, data flow framework, privacy & security, SOPs for data collection, usage, etc. to be included.

Budget for data related initiatives (2019-2020): Budgetary allocation of data activities and percentage spending of data budget in 2019-20.

Budget for data related initiatives (2019-2020): Budgetary allocation of data activities in 2020-21.

Key Highlights

- Cities like **Nagpur** and **Pimpri Chinchwad** have a well-defined City Data Policy with all SOPs covered.
- Irrespective of the size, cities like Kohima, Agartala have dedicated about **50%** of their budget for data related activities in 2019.
- Key focus areas for data budget allocation have been GIS mapping, ICCC implementation and data team compensation, etc.

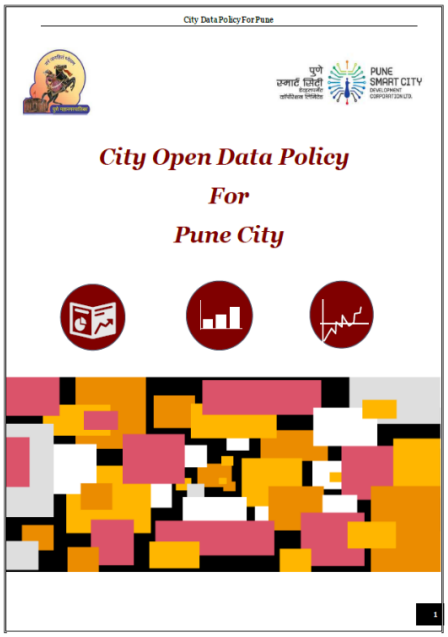
1.a City Data Policy

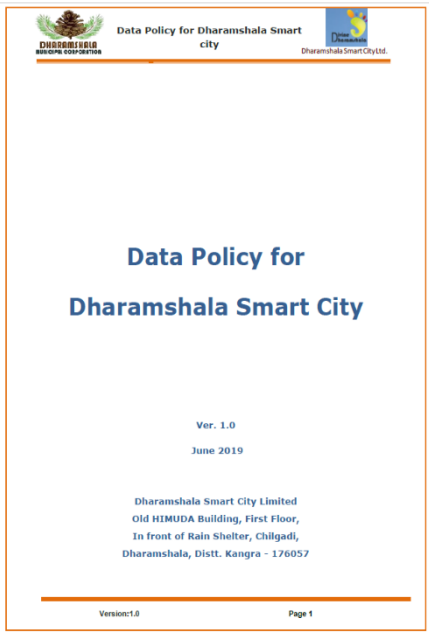
Presence of a City Data Policy is crucial in achieving data maturity in the city. It acts as a frame of reference for all data initiatives undertaken in the city and helps in their effective implementation by utilising the various processes required to manage data. It outlines a mechanism to retain trust between the city administration and its citizens, while navigating the issues of data privacy and anonymisation. Hence, to support cities in developing a data policy, Smart Cities Mission, Ministry of Housing & Urban Affairs has published a reference guide available on the Smart Cities Open Data Portal (https://smartcities.data.gov.in/) which aims to help cities understand the various components required to form a robust data policy.

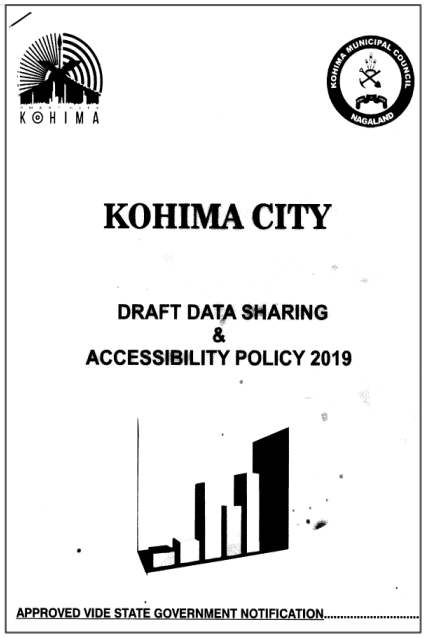
35 cities have approved their City Data Policy. Additionally, 1o cities have formulated the City Data Policy and are in process of receiving final approval, while remaining are in process of developing their policies.

1.b City Data Policy Components

A city data policy is a comprehensive framework comprising of multiple components like data classification, categorization, retention and archival, security, ownership etc. A predefined standard operating procedure is a necessity to ensure effective functioning of the city data ecosystem. For e.g., appropriate data flow structures may be put in place to maintain accountability and transparency. Under the purview of the components and SoPs laid down in the city's data policy, the data collected within a city may be utilised for data-driven decision making.







34 cities have captured all the suggested components in their city data policy, meanwhile **11 cities** have partially adopted policy components, according to their technical capacity of engaging departments for data handling and availability of systems in place for harnessing the potential of available data. Most of the cities who adopted all the components have an ICCC in place and are utilising the same to streamline the movement of data from departments to the Integrated Command & Control Centres.

Below is the list of cities that have a City Data Policy:

Agra	Ahmedabad	Aligarh	Belagavi	Bhopal
Chandigarh	Chennai	Coimbatore	Dharamshala	Faridabad
Gangtok	Jabalpur	Jammu	Kakinada	Kohima
Lucknow	Muzaffarpur	Nagpur	New Town Kolkata	Pimpri Chinchwad
Pune	Raipur	Rajkot	Ranchi	Rourkela
Saharanpur	Shivamogga	Silvassa	Solapur	Surat
Thane	Tumakuru	Vadodara	Varanasi	Visakhapatnam

PCMC formed an alliance with the Tel Aviv City Council as a consultant for formulation of the City Data Policy. This alliance helped PCMC in introducing components and mechanisms required for integration of different departments and parastatal agencies for data collection, usage, and management. It has strengthened transparency in the organization by allowing data availability through a single channel enabled by the City Data Policy.

- Nilkanth D. Poman, City Data Officer, Pimpri Chinchwad

1.c Budget for data-related initiatives (2019-2020)

City Data Policy also highlights the need for an annual budget for supporting the implementation of data related activities in the city. The budget needs to be dedicated for any activity or initiative which contributes to the enhancement of data maturity. This includes expenditure on capacity building of data team and the employees of the Municipal Corporation, conducting hackathons and workshops, provisioning of any technical tools and any other work related to data initiatives. This indicator comprises measurement of both the allocation of data budget as well as the ratio of their expenditure versus the allocation. This emphasizes on utilisation of funds for data activities, rather than only considering allocation and not utilising that budget.

27 cities had earmarked budget for data related initiatives in their annual budget for the year 2019-20, with spending on salaries of data staff, setting up of ICCC, GIS implementation, capacity building and training workshops, etc.

Out of these, **14 cities** spent more than 50% of the allotted budget in 2019-20, including Bhopal, Agartala, Kohima, Rajkot, Pimpri Chinchwad, Nagpur etc.

1.d Budget for data-related initiatives (2020-2021)

In continuation to the earlier indicator that focussed on utilisation of funds against allotted budget for data related activities, the indicator on budget for data-related initiatives (2020-2021) was to understand the amount of funds allocated during the assessment year of DMAF 2 evaluation. As in the previous year, several cities assigned a bulk fund in terms of a percentage of the Municipal or the Smart City Budget for the data budget. This overall allocation is necessary for cities to support their data initiatives on-ground and will help inculcate data maturity.

32 cities had earmarked budget in their annual budget for the year 2020-21 for data-related activities including, Bhopal, Chennai, Erode, Kota, Pune, New Town Kolkata, etc.

Component 2: People

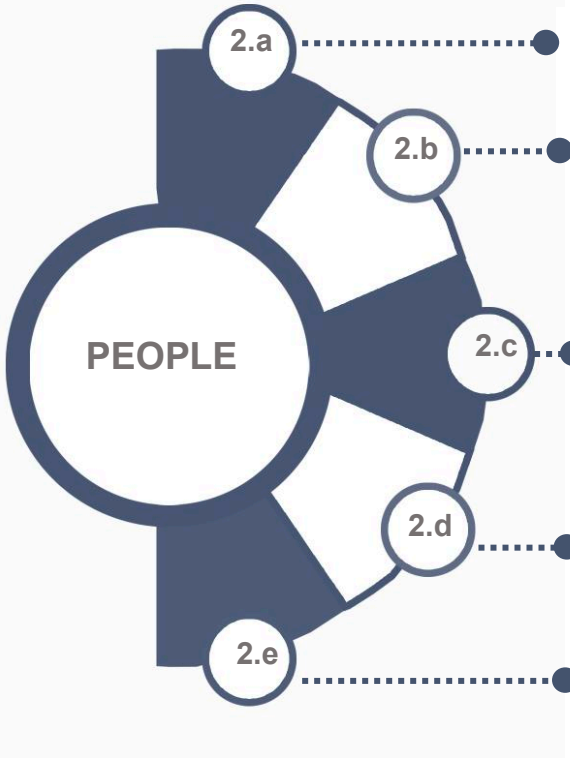
Score (On 100): 100 Highest | 39 National Average

No. of Cities: 45 Above Average | 55 Below Average

Scope

With a need to allocate resources and setup robust Institutional Governance mechanisms for capacity building, 'People' are at the core for successful implementation of any strategy. This component aims to assess the presence of empowered city officials with the capacity to guide the development of city data policies, manage data governance, drive interdepartmental and inter-agency data exchange and to build city data alliances.

Indicator Details



City Data Officer: CDO to be nominated to act as the custodian and driver of various data initiatives in their respective cities.

Appointment of Data Coordinators: Data coordinators to help CDOs with activities related to data collection, cleaning, assessing of data requirements, data reporting at a departmental level.

Data Team: A group of data experts and technical specialists who can facilitate development of relevant insights and visualizations from the collected data.

Capacity Building (Ministry Initiative): National-level workshops and training sessions for CDOs to ensure penetration of new data initiatives in cities.

Capacity Building (Ministry Initiative): City-level trainings for departments and data teams to strengthen their skills for implementing data activities – data management, visualization, etc.

Key Highlights

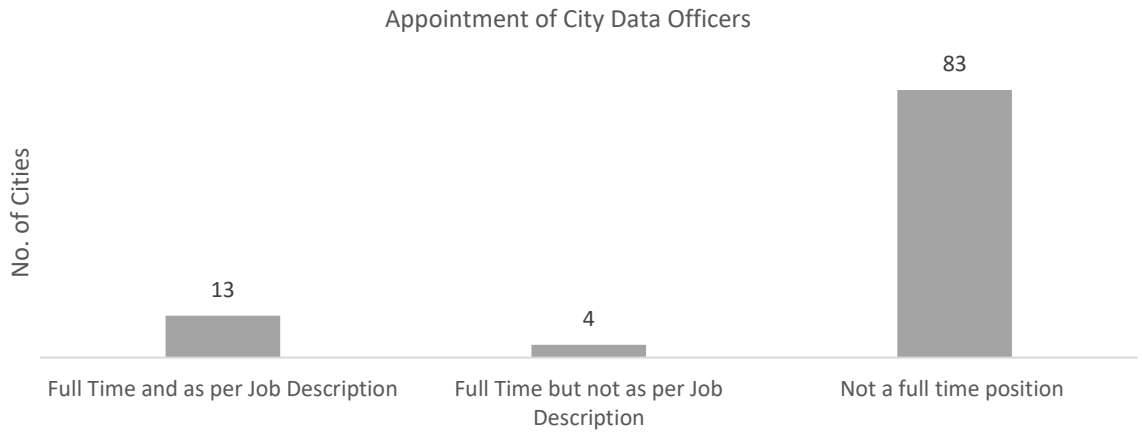
- **Surat** has hired a diverse team of professionals like data architects, data analysts, knowledge management experts etc. for working on data related initiatives.
- Most of the cities have **CDO as a shared position** for existing officials in Municipal Corporations.
- Cities like **Gandhinagar** and **Kanpur** have hosted training sessions on hackathons and technological components utilised in cities.

2.a City Data Officer

Every city needs to appoint a City Data Officer (CDO) who acts as the single contact for all the data-related activities in the city. He/she is responsible for ensuring data is used aptly and to its full potential for generating insights and improving civic operations. CDO is expected to tap into the potential of available data and set up a data culture in the city. CDO is expected to help formulate and review the City Data Policy, conduct regular meetings with other urban stakeholders to uncover the potential of data, identify areas where data can help solve urban issues, and finally ensure effective implementation of City Data Policy.

Currently, all **100 smart cities have appointed a CDO**.

13 cities have a full-time CDO as per the job description, including Pune, Surat, Bhopal, Tiruppur, Kota etc.



2.b Appointment of Data Coordinators

Data is a cross functional entity and meaningful data may reside within different entities in the city. To support data flows among various departments, there arises a need for data coordinators in respective departments for handling and sharing of data. This pool of data coordinators is meant to support the CDO in easy access and sharing of data among multiple departments under the Municipal Corporation. Cities may appoint one coordinator in each department. The data coordinators are expected to support the CDO in aggregating quality information in response to data demands, as well as identify areas of collaboration for best possible use of city data.

61 cities have appointed data coordinators, including Dehradun, Itanagar, Rourkela, Nagpur etc.

38 cities have a data coordinator in all their departments, including Amaravati, Agra, Tirunelveli, Kohima, etc.

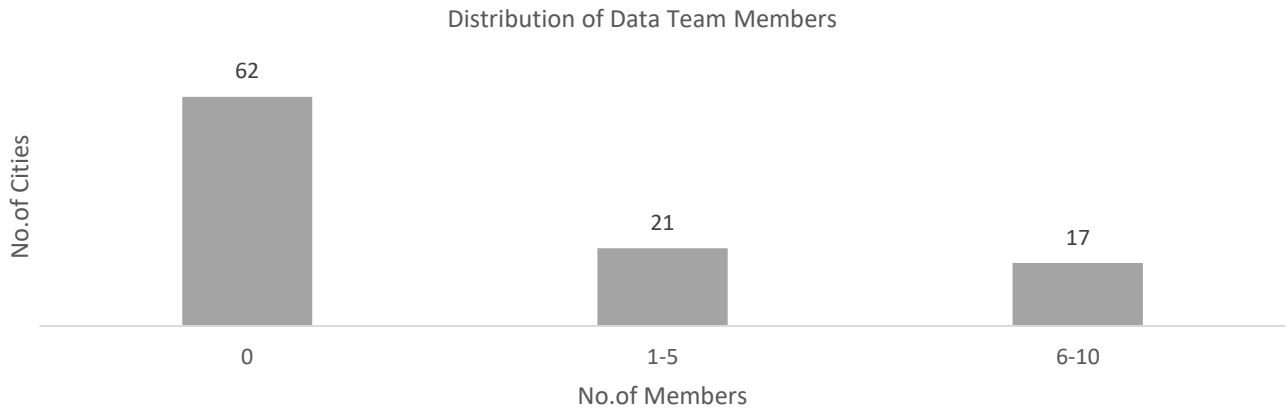
2.c Data Team

A dedicated team of experts who understands data and can complement each other, is the primary need of any city while improving their data maturity. Specialists may be required to extract detailed insights from the datasets available and present them in a way that others can also understand. This team, excluding the data coordinators, is headed by the CDO. Data team can help assess the data at different levels and generate actionable insights to facilitate data-driven governance and policy formation. Size of the data team will depend on the needs and size of the city.

38 cities have a data team including data specialists like data scientists, architects, GIS experts, open data experts, outreach experts.

Example:

- **Surat**: The city has a diverse team of data experts like data scientist, data architect and data analyst for preparing meaningful analytics and data visualisation from available datasets and developing necessary middleware for existing system to ensure data readability. The city has also appointed an outreach expert for coordination between data team and data coordinators, to ensure timely availability of datasets.



Chandigarh understands the role of a data team in effective data management and implementation. Chandigarh has appointed 15+ data coordinators across its departments to ensure that smooth coordination and informed data sharing amongst stakeholders. Data Coordinators in the departments have helped gather, cleanse and publish more than 80 datasets on the SCODP.

– Anil Garg, City Data Officer, Chandigarh

2.d Capacity Building – Ministry initiative

Change management and capacity building are of utmost importance and may define and decide the fate of any initiative or program. To ensure city officials are aware of the DataSmart Cities initiative, the Ministry organises numerous training programs. These programs help to build capacity of city officials and to make them realise the importance of data-driven governance and what measures should be taken to ensure proper data collection, implementation, and analysis. These initiatives by the Ministry are held in the form of National and State-level training programs, workshops, video conferences etc.

88 cities have attended trainings or workshops over video conference to build capacity of its data team for executing the DataSmart Cities Strategy.

2.e Capacity Building – City initiative

Not every city has the technical or sectoral expertise to work on data related initiatives. To ensure that the city officials have the required technical capacity to perform data-related activities, Municipal Corporation, or Smart City SPV may organise training sessions for their staffs. These can be done in form of online training, video conferencing or hands-on workshops in collaboration with sector experts. These training sessions are supposed to be organised by city in addition to the capacity building done by the Ministry at national level.

25 cities have conducted trainings or workshops to build capacity of its data team.

Ahmedabad	Bhopal	Bhubaneswar	Chennai	Dehradun
Gandhinagar	Itanagar	Kakinada	Kanpur	Kohima
Nagpur	New Town Kolkata	Pimpri Chinchwad	Pune	Raipur
Ranchi	Saharanpur	Solapur	Surat	Thiruvananthapuram
Tiruppur	Tumakuru	Udaipur	Vadodara	Varanasi

Examples:

- **Gandhinagar**: Gandhinagar Smart City Development Limited, trained their staffs about Data Hackathons for effective implementation of such initiatives.
- **Kanpur**: Kanpur Smart City Limited focussed on training their staffs about development and use of web applications for grievance redressal system, Integrated Traffic Management system and Citizen services mobile application.

Capacity Building Workshop, Kakinada

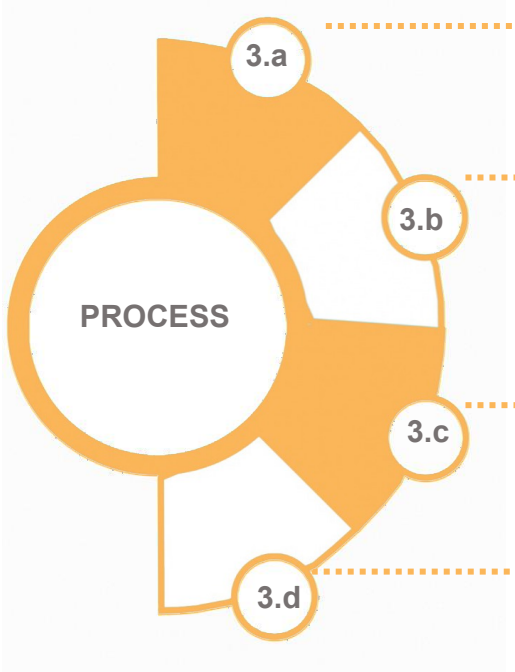
Component 3: Process

Score (on 100)	100 Highest	16 National Average
No. of Cities	37 Above Average	63 Below Average

Scope

Institutionalizing 'processes' of data governance is required for reliable data collection, spatial intelligence, data security and privacy, creation of alliances, eliminating data silos and seamless data exchange through standardization.

Indicator Details



City Data Alliance: Data-based collaborations between city administration and stakeholders in the data ecosystem such as data providers, technology experts,

Data Hackathons/Challenges: Intended to invite varied experts to help city governments crowdsource solutions to key urban issues.

Solving Urban Challenges: Utilising data to help identify and/or solution city's urban challenges.

Analytics Capability: Capacity for application of analytics tools and technologies to uncover actionable insights from the available data.

Key Highlights

- **Chennai** has partnered with multiple organisations for development of a **city-level Data Observatory.**
- Key **urban challenges** highlighted by cities are focussed on waste management, mobility issues and grievance redressal.
- Cities are at a **nascent stage of hosting data hackathons**, which indicates the lack of resources and unavailability of relevant data to conduct hackathons or challenges.

3.a City Data Alliances

Cities generate vast amount of data every day, but it remains in silos and is not utilized to its full potential due to unavailability of resources, tools or expertise. Hence the need to form Data Alliances becomes important. The 'quadruple helix' comprising of Government, Industry, Academia and Civil Society may be leveraged for the formation of City Data Alliances. These alliances can facilitate learning, help increase capacities, offer technical expertise or tools, thus enabling the city to better utilize available data. This also benefits in terms of offering data sharing opportunities to uncover hidden insights and facilitate data-driven decision-making.

12 cities have formed data-related alliances. These data alliances are mostly with research organisations and academic institutions.

Chennai	Gandhinagar	Jabalpur	Kanpur
Nagpur	New Town Kolkata	Pimpri Chinchwad	Ranchi
Surat	Tiruppur	Tumakuru	Varanasi

The results indicate that most of the cities are in their early stages of forming data alliances, and currently most of them have opted for either collaboration with academia, other government departments or parastatal agencies. Cities should try to focus more on broadening their horizons in terms of alliances for innovative technological solutions. Some cities like Pimpri Chinchwad have collaborated with multiple stakeholders and are near to leveraging alliances to their full potential.

Through the use of catalogued, managed and shared datasets on IUDX, Varanasi was able to create a mobile-based application that helps city's ICCC to identify anomalies and generate real-time alerts. Further, the city is working on improving tourist experience by integrating datasets from diverse and discreet sources and is in the process of creating a safety index for popular destinations in the city through a mobile app for tourists.

– Sandeep Kumar Srivastava, City Data Officer, Varanasi

Examples:

- **Chennai:** The city has formed two alliances focussing on urban mobility strategies and data observatory:
  1. **Sustainable Urban Mobility**: It is an MoU with ITDP for technical assistance on planning and promoting sustainable urban mobility practices in the city.
  2. **Coalition for Chennai Data Observatory**: This is a coalition for implementation of an Urban Data Observatory under the guidance of NIUA, Centre of Building and Environment (CUBE-IIT Madras), Madras Chamber of Commerce and 100 Resilient Cities. The mode of engagement here is a Letter of Consent by the organisations involved.
- **Tumakuru**: The city has collaborated with local engineering colleges like SIT, SSIT and SIET for technical expertise on data analysis and problem-solving activities.

Through India Urban Data Exchange (IUDX), Surat integrated data from various sources such as ITMS, Surat Money Open Loop Smart Card, QR code-based ticketing and Google's bus-related real-time data. Analysis of these datasets helped the city in identifying real-time bus occupancy, resulting in minimizing waiting times for passengers, effective scheduling of buses, helping the citizens better plan their travel, among other benefits.

– Chaitanya Y. Bhatt, CEO Surat Smart City, Deputy Commissioner SMC

3.b Data Hackathons/ Data Challenges

The data available within a city can help the authorities identify different problems related to various urban services. To uncover innovative solutions to such problems, cities are encouraged to conduct Data Hackathons or Data Challenges, inviting academia, technocrats, students, developers, urban planners, etc. This will support the city authorities in trying to identify solutions to such issues. The CDO may lead this initiative of identifying the specific problem statement in coordination with departmental officials and inviting participants for the challenge. The data shared for hackathon or challenge should be cross checked for any ambiguity, as the reliability of dataset may impact solutions.

10 cities have conducted Data Hackathons / Data Challenge for stakeholders like academia, students, research institutes, start-ups etc to help solve city issues through data.

These data hackathons/challenges are mostly intended towards capturing ideas from various stakeholders on current urban challenges faced by cities.

Bhopal	Chandigarh	Gandhinagar	Jabalpur	Kanpur
New Town Kolkata	Pimpri Chinchwad	Pune	Rajkot	Surat

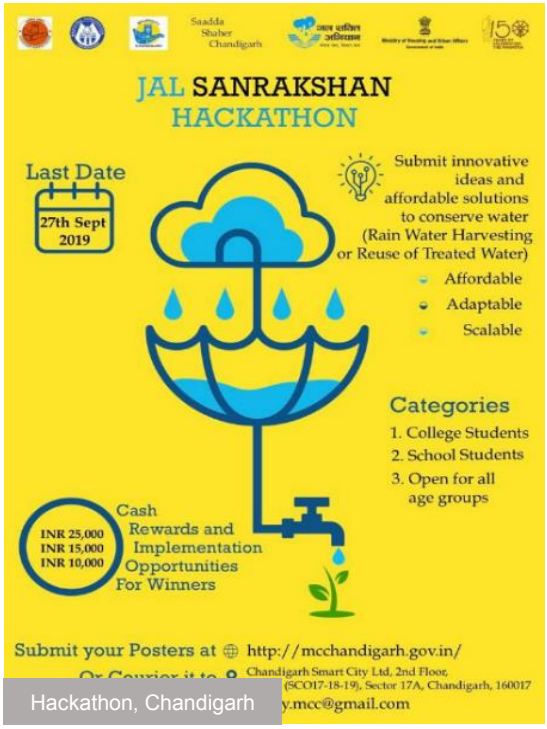
Examples:

- **Jabalpur:**
    1. **Hackfest Jabalpur 2019**: This data hackathon aimed at developing innovative solutions for issues of peri urban and rural areas.
    2. **Coding Pathshala 2020**: Jabalpur Incubation centre conducted 20 online coding sessions inviting 219 students across various states for learning and developing mobile applications related urban services and were also sponsored for publishing the same on Play store/Apple Store.

Hackathon, Jabalpur

Hackathon, Jabalpur

- **Chandigarh**: The city conducted three data challenge events as described below:
    1. **Idea Competition**: This was a design challenge, inviting architects, design professionals, citizens, students, and environmentalists to give ideas for improvement of sector 22 and 35 in city.
    2. **Digital Media Strategy Competition**: This competition was focussed on fostering better relations between citizens and smart city corporation through digital media outreach.



Hackathon, Chandigarh

3.c Solving Urban Challenges using Available Datasets

The objective of this indicator is to help cities identify pressing urban challenges and gain insights into the exact problem, its severity, and impact on citizens etc. and how data is used to identify the same. The previously available datasets with cities, can be mapped to analyse if there are any trends or if it indicates occurrence of any issue in existing services.

37 cities have identified and attempted to get insights into urban challenges using available data and more than 50% of these cities have focussed on areas related to basic urban services like waste management and traffic management.

Examples:

- **Kakinada Road Safety:** On analysing fatalities data from road accidents, it was found that pedestrians and bicycle users were more prone to fatal road accidents.
- **Varanasi Solid Waste Management:** On analysis of the door-to-door collection system, though there is data on location of bins, waste pick-up schedule it was seen there is no real-time tracking of vehicles, fuel disbursement or distance travelled, all monitoring is based on initial analysis and estimations.

> Chennai used the dataset showcasing the consumption of electricity by street lights to effectively transform the usage pattern to more sustainable methods. For greater savings, conventional sodium vapor lamps have been replaced by the LED lamps. Chennai is also currently working on a coalition for setup of a city-level data observatory which will support further advancement in data analytics capabilities for the city.
>
> **- Babu B. V., City Data Officer, Chennai**

3.d Analytics capability

Data analytics helps make sense of data. Cities can use it to analyse raw data and generate insights and understand trends. There are various types of analytics like:

- **Descriptive analytics** that tell us what happened in the past
- **Diagnostic analytics** that help us understand why something happened in the past
- **Predictive analytics** that predict what is most likely to happen in the future
- **Prescriptive analytics** that recommend the actions to be taken to affect the outcomes

35 cities are currently practicing analytics at the city level out of which 14 cities are practicing all four types of *vis.* descriptive, diagnostic, predictive and prescriptive, 6 cities are practicing 3 types of analytics, 11 cities are practicing 2 types and 4 cities are practicing one type.

Examples:

- **Kohima is utilising Predictive Analytics** to study the number of public Wi-Fi users to predict the areas of most usage and thus enable relocation of existing Wi-Fi hotspots and installation of additional Wi-Fi hotspots.
- **Itanagar is utilising all 4 types of analytics** on its CCTV video feeds. **Descriptive** to understand crowd formation, smoke detection, loitering, intrusion detection; **Diagnostic** to understand reasons for crowding, or why smoke is detected; **Predictive** to predict the areas where such events may happen; and **Prescriptive** to plan for such events in the future, i.e., better control of fires, crowd management, etc.

> Through the open data initiative, Kohima Smart City Development Limited formulated a data-driven strategy to modernize its city's bus fleet. Existing bus fleet data was collected from the Transport Authority and analyzed to draw insights that majority of the existing buses did not comply with current emission norms and also had a higher seating capacity not ideal for a hilly city like Kohima with smaller Right of Way roads. Kohima recognizes the power of data and is leveraging existing datasets in preparation of city mobility plans as well as solutioning the demand-supply gaps that exist in the water sector.
>
> **- Mrs. Kezhochole Rhetso, City Data Officer, Kohima**

Score (on 100)	Highest	National Average
	74	31

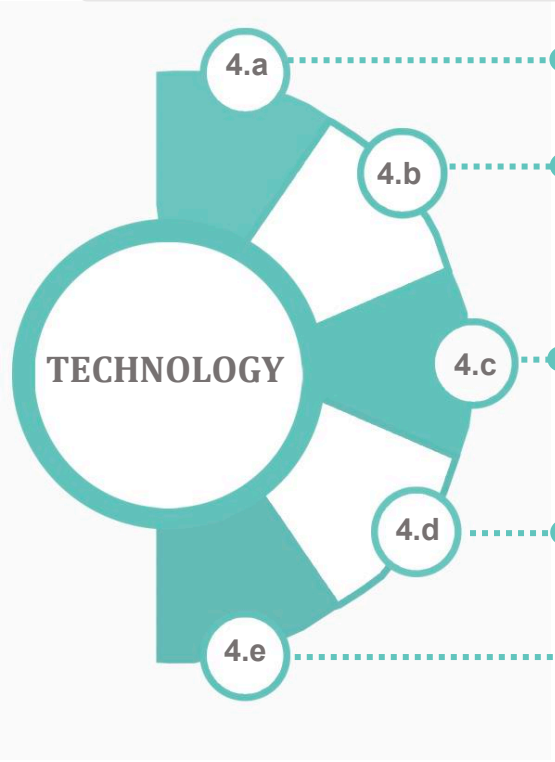
No. of Cities	Above Average	Below Average
	45	55

Component 4: Technology

Scope

To encourage publish and exchange of data, measure performance and outcomes and generate evidence for policy planning, 'Platforms' are the set of digital infrastructure components needed to achieve broader data objectives.

Indicator Details



Sensors for collection of Data: Utilization of sensor-based devices like IoT, Edge devices, etc. for data collection by city authorities.

Number of Datasets on SCODP: Quantum of datasets published in machine-readable formats on SCODP.

Schedule of Updating Datasets on SCODP: Frequency of data uploaded by cities, to ensure recency and validity of data.

No. of APIs on ODP: Number of datasets being uploaded via web services to enable seamless integration.

Spatial Readiness: Preparedness of a city for managing and utilizing geo-spatial data.

Key Highlights

- Most cities have adopted **environmental sensor** and cameras with sensors **for security or traffic management.**
- **Kakinada** has shared real-time APIs for their solid waste collection system on the SCODP.
- **More than 50%** of participating cities have spatial readiness and are using GIS based tools.

4.a Sensors for collection of data

Sensor/field devices may be installed within the city at various points so that they collect data at source and help in analysing the situation of the city. They may be utilised for capturing crucial information about pollution levels, traffic management, solid waste management, smart streetlights, water leakage management, safety, and security etc. This gives access to real time information which can help the city to take quick actions in case of any issue.

69 cities have installed sensors/field devices to collect data.

More than 50% of these are currently using sensors for collecting data on pollution levels by capturing PM10, PM2.5, traffic management for generating e-challans and smart streetlight management.

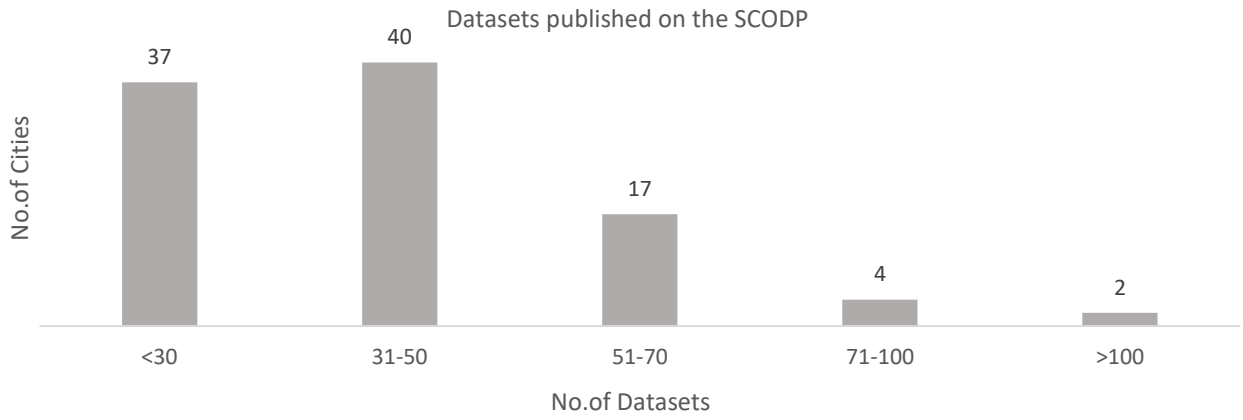
4.b Number of datasets on SCODP

More than 3,800 datasets are currently published on the SCODP across various urban domains from mobility, to water, to environment. Different machine-readable formats are allowed in which data can be submitted on the portal such as CSV, XLS, ODS, XML, RDF, GML etc. Information about the data being published using common data formats helps in providing seamless access to data.

63 cities have published their datasets on SCODP.

2 cities have > 100 datasets - Pune and Ujjain

4 cities 71-100 datasets - Surat, Thane, Rajkot, and Kohima

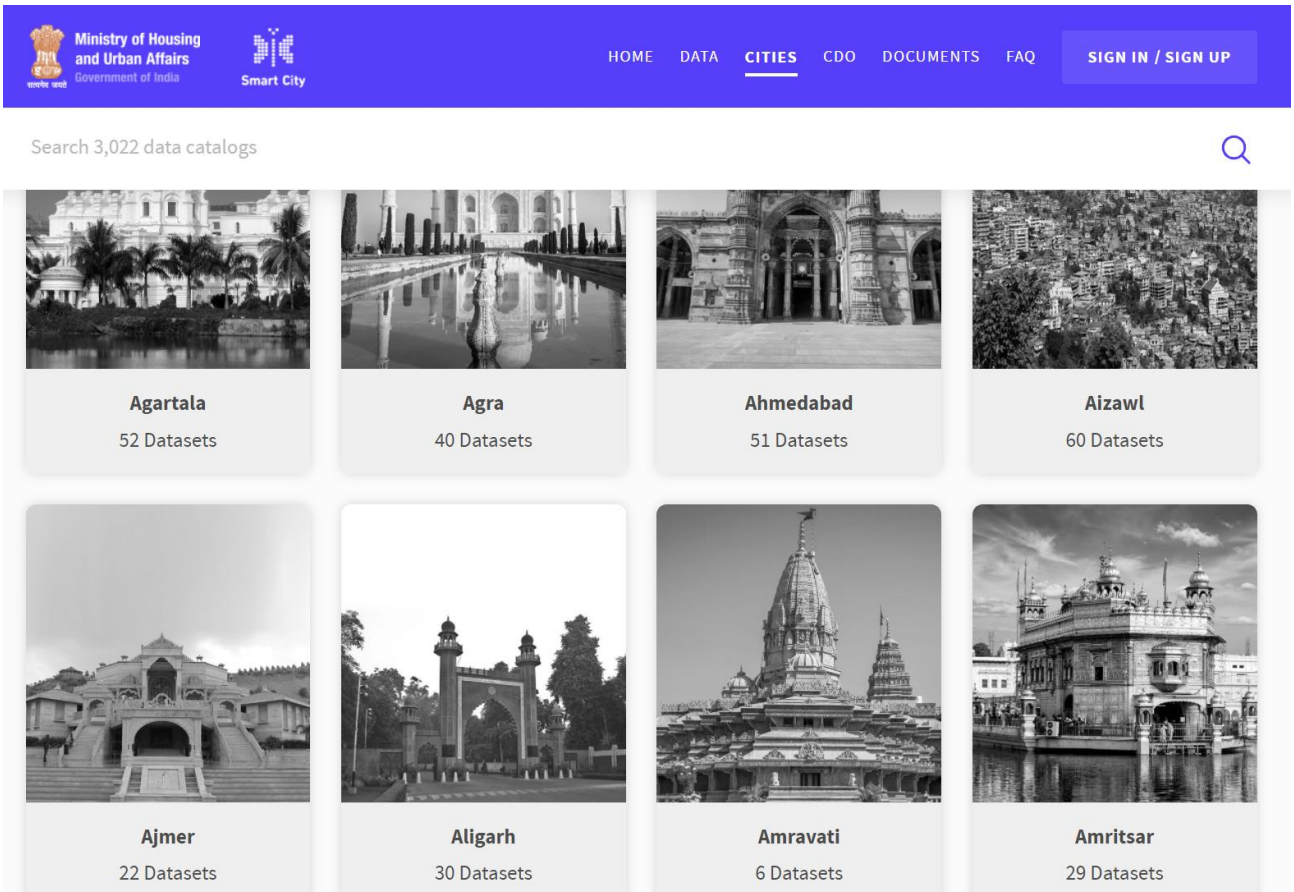


Pune utilized 450+ open datasets from its Open Data Portal to drive the Pune Open Data Hackathon. Participants involved educational institutes and the problem statements ranged across education, health, energy, transport and property tax. The event saw extensive use of open data source tools, building solutions and a creation of a decision support tool created for the education problem statement. Pune is looking to organize many more such events to fully exploit the potential of data.

- Rahul Jagtap, City Data Officer, Pune

4.c Schedule of Updating of Datasets on SCODP

For every dataset on the SCODP, an updating schedule needs to be prepared by the city so that data can be updated regularly. This scheduled updating of datasets helps the city keep a record of all the data and generate d etailed insights from the trend analysis of continuous data. For e.g., quantum of waste collected from door-to-door is a daily information a city records, while data on air pollution can be mapped monthly or annually. As per the schedule, the cities can also update their data along with the progress they have made.



9 cities have updated data on SCODP as per the schedule:

Agartala	Bhopal	Chandigarh
Kohima	Pune	Saharanpur
Surat	Thane	Thoothukudi

This indicates that cities are still facing challenges in collection of datasets on a regular basis for any given period. The reason for this can be non-availability of technology for managing data regularly or lack of technical expertise in handling data. For example, cities like Shillong are currently maintaining their data manually which increases chances of error and irregularities in updating information on a regular basis. Shillong is still in initial phase of establishing a full-fledged data team, owing to which they are still dependent on manual data processes.

4.d Number of APIs

Application Programming Interface (API) ensures appropriate security controls and easy data sharing across multiple stakeholders. This reduces dependency of city administration or government agencies on manual data sharing as it allows direct access to the information available. This also inculcates good governance by enhancing transparency and accountability as the data is readily available for access to many users at the same point in time. Sharing data available within city *via* web services becomes an essential practice for cities to strengthen their data management system.

16 cities are publishing data on SCODP through APIs, including Kohima, Dharmshala etc.

Many cities from southern and western states, have shared APIs for real time data getting captured at their Integrated Control and Command Centre (ICCC), e.g., Kakinada has real time APIs for their solid waste collection, while cities from North are yet to initiate such practices.

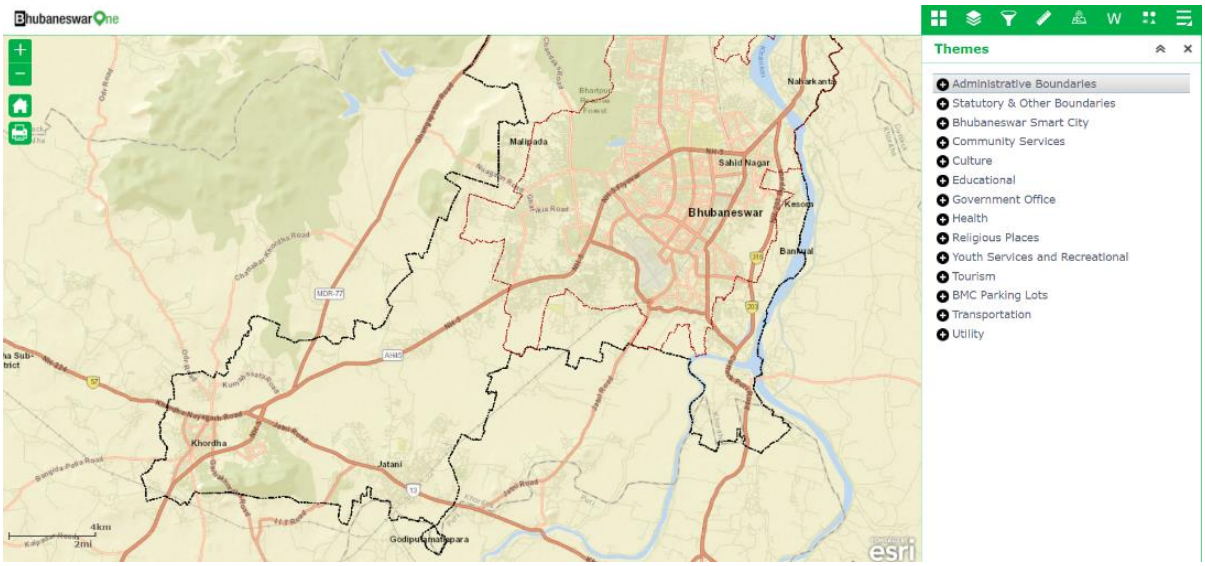
4.e Spatial Readiness

Spatial readiness is defined by their potential of utilising Geographic Information System (GIS) for managing geo-spatial data in the city and mapping different layers like roads, water bodies, properties etc. This data collected can be in the form of shape files or AutoCAD drawings. Geo-spatial data include the city base maps having settlement and household information, complete transport network, water bodies, green spaces, and utility networks and many other elements. Spatial data provides local authorities insight to efficiently manage resources and meet the economic, social, and environmental needs of the people. Real-time processing of geospatial data allows predictive analysis and provide proactive solutions to cities' existing problems.

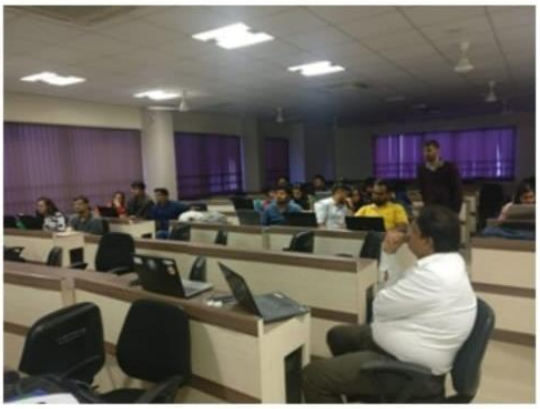
62 cities have attempted mapping layers of roads, water bodies, properties, utilities like water works, etc. using GIS; out of which 49 cities have 7 or more GIS layers mapped, 6 cities have 4-6 GIS layers mapped and 7 cities have 1-3 GIS layers mapped. This shows active participation of authorities in utilising geo-spatial tools for collecting information about their city.

Examples:

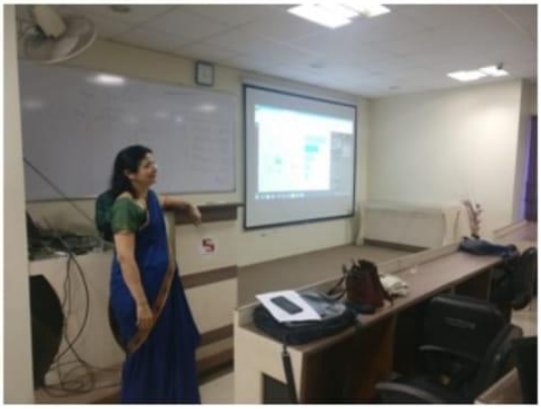
- **Bhopal**: The city has prepared 15 layers of GIS maps capturing information on Roads and Railways, Municipal Boundaries, Zones, Wards, Water Bodies, Properties, Open Areas, Green Cover, Ward Boundaries, Schools, Hospitals, Slums, Zone Boundaries, Parks, Residential Areas, Commercial Areas and Open Lands.
- **Bhubaneswar**: The city has mapped 131 layers in total focusing various segments of administrative boundaries, Bhubaneswar smart city, community services, culture of city, education services, government offices, health services, religious place, transportation services, tourism, utility services.



- **Pune**: The city has mapped multiple GIS layers categorised under 33 segments of administrative boundaries, utility services, payment centres, land use and landcover, encroachment, water, satellite imagery, roads and railways, development plan, etc.



Visual 1: Participants and facilitators at the hackathon



Visual 2: Overview of the education dataset and problem description being provided to the participants

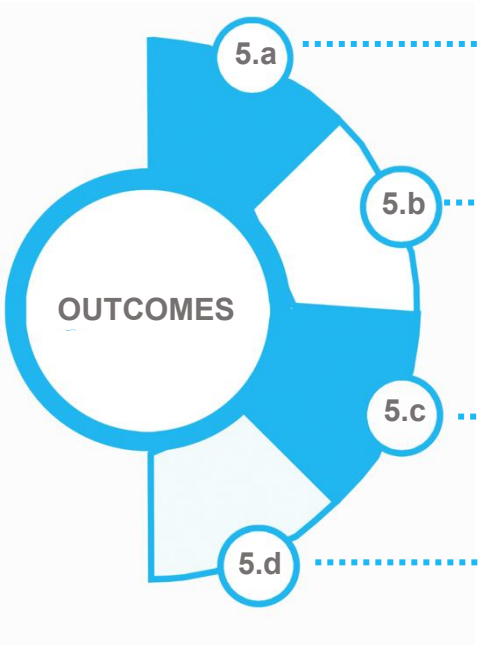
Component 5: Outcomes

Score (On 100)	100 Highest	26 National Average
No. of Cities	44 Above Average	56 Below Average

Scope

While efforts are being made in setting up a strong foundation for data, it is important to see the impact these efforts are creating. This component assesses the use of data for positive citizen outcomes and improving the lives of citizens.

Indicator Details



Data Stories/Blogs: Highlights from success stories of data related initiatives in the city.

Data-related Use Cases: End-to-end implementations of data-based solutions, from identifying urban issues to solving them through the use of data.

Development of Portals/Applications: Web and mobile based applications developed by cities for ease of access municipal service delivery.

Alerts and Notifications: Multiple channels through which a city is disseminating important information to its citizens.

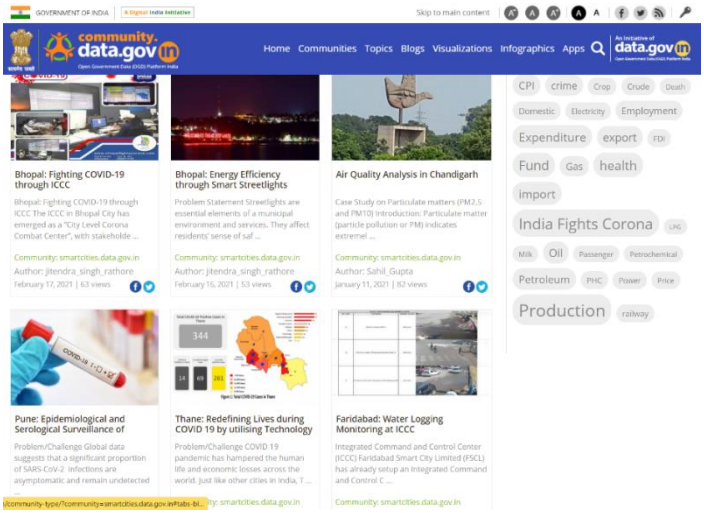
Key Highlights

- **Ahmedabad, Bhopal, and Surat** at the top performing cities in this Component
- Most of the cities have focussed on developing applications for **grievance redressal, birth and death certificates** and **property tax payment.**
- **Ahmedabad** has highest number of blogs published on the Open Data Portal.

5.a Data Stories/Blogs

Showcasing of any successful practice of utilizing data for public good by a city is essential as it acts as a reference for its peer cities while contemplating similar activities.

The Data Stories/Data Blogs section on SCODP is one such platform where cities can publish their data initiatives and highlight their success stories of utilising data for improving urban governance and service delivery.



People can read about it and understand how data was collected or used and is helping cities analyse the existing situation and perform better. To help cities understand how to prepare a data story/blog better and develop their own, Smart Cities Mission has also shared Data Story guidelines on SCODP.

29 cities have published stories/blogs on Open Data Portal around how data was used for Covid management, for energy efficiency in streetlights, water efficiency using SCADA systems, etc.

Examples:

- **Ahmedabad:** The city has uploaded 9 data blogs on SCODP, pertaining to their success stories of using data from SCADA systems for managing water distribution in city, improved solid waste management services, public transport systems, traffic management through e-challans, achieving energy efficiency through smart streetlights and centralised complaint redressal system.
- **Pimpri Chinchwad:** The city has uploaded 3 data blogs on Open Data Portal regarding their successful implementation of Covid War Room for monitoring and managing patients, road surveillance for lockdown monitoring and crowd control, citizen assistance; Project Dashboard tool for real time monitoring of all Capital works undertaken by the Municipal Corporation; analysis of citizen complaints using the Grievance Redressal System.

5.b Data-related use cases

A use case includes detailed description of problem statement, solutions identified, application of data and datasets being used. It helps in enabling peer learning across the cities over data driven governance and replication of same use cases in different domains can be attempted by other cities. Here cities have tried to showcase end-to-end use case of utilising data to solve any urban challenge. They have identified specific solutions such as developing monitoring systems, deploying technology assets, etc. to solve problems identified in 3c using relevant datasets.

32 cities have been working on use cases/SoPs of data and are mostly focussed on improvement of waste management services and traffic management.

Examples:

- **Kakinada waste management use-case:** To tackle delays in cleaning of filled garbage bins, the city implemented a solution for centralized monitoring of volume sensors installed in garbage bins. Data from these sensors was used to send real-time alerts to waste management staff about filled bins for prompt cleaning leading to reduction in delays and improvement in city sanitation.
- **Vishakhapatnam Covid-19 test prioritization:** Through the citizen mobile App, the data of foreign returnees was captured and analysed to identify clusters. The returnees were then classified by age-group and the risk level to be prioritized for Covid-19 testing.

> Bhopal has facilitated a structure of data sharing between different authorized entities to ensure data-centric decision making and outcome-based planning in governance. Bhopal's ICCC was leveraged for efficient deployment of resources through data-driven informed decision making during the Covid-19 crisis. ICCC mapped infected persons' locations data on GIS to decide on containment zones, conduct lockdown monitoring and conduct smart surveillance to avoid spread of the disease. Bhopal's ICCC was recommended to be leveraged by the authority as "COVID Combating Center" for the District and State Operations for its effective and efficient use of data.
>
> **- Jitendra Singh Rathore, City Data Officer, Bhopal**

5.c Development of portal/applications

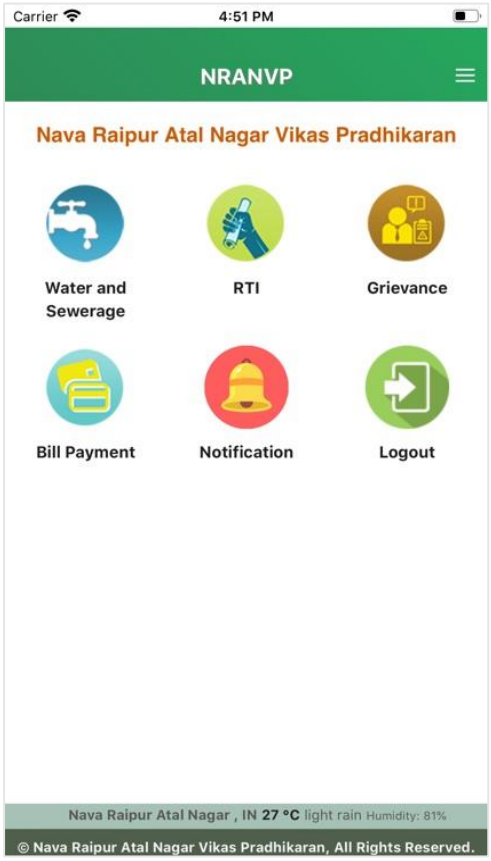
For ease of access to municipal services, development of portal or applications is an effective measure. These can be made available both in form of web-based platforms or mobile based applications. This helps in collection of data about how frequently citizens use the services provided by city. For e.g., a city which made its property tax payment facility online with an application, will have readily available data about the number of people paying taxes in city, while ensuring a hassle-free online payment facility to the citizens.

Against each portal/application, information such as description, datasets used, active users, key features, number of downloads etc. will be generated. Cities can also opt for an integrated application as single window for service delivery.

41 cities have delivered services through web portals/applications, like unified App for all municipal services, Apps for payment of taxes, etc.

Examples:

- **Naya Raipur**: The city has developed a comprehensive application called "City App" for helping citizens in payment of water charges, lease rent charges and application of building permission. There are more than 2,300 active users of this application in Naya Raipur.



- **Vishakhapatnam**: The city has 4 applications developed to facilitate urban services and provide information regarding waste management services, self-quarantine for Covid-19, streetlight management, grievance redressal, ward details, demographic profile of city etc.:
    1. E-governance web application
    2. M-governance mobile application
    3. Smart Vizag
    4. Citizen Portal

5.d Alerts and notifications

One of the most important features of good governance is how well citizens are kept informed. Alert management and regulatory reporting of incidents in a city is crucial to keep citizens engaged and informed. City authorities may send service alerts in case of traffic, disaster, health, water, electricity, environment etc. to citizens for inducing preparedness and accessibility of essential information. These alerts may be sent in the form of SMS, IVRS or other modes like notifications on city governance applications. Many cities are utilising ICCC (Integrated Command & Control Centre) to share these alerts and notification as a part of their data dissemination strategy.

Most of the cities have currently focussed on disseminating information on urban services like water bills, electricity bills, solid waste management notifications, disaster management, traffic management etc.

50 cities are sending multiple alerts and notifications to citizens in form of SMS, IVRS, PAS, VMD etc. for water bills, electricity bills, solid waste management notifications, disaster management, traffic management etc.

Thane Municipal Corporation and Thane Smart City Limited instituted DigiThane (Citizen Engagement Platform) to provide citizen services. In addition, it has successfully provided citizens a one-point access for getting all the COVID 19 information such as a GIS mapping of Covid-19 cases, booking of medical facilities and e-passes and also provides information on guidelines and advisories issued by City, State and Centre. It has achieved record 3.2 Cr two-way interactions with the citizens during the pandemic.

- Nitin Dumbre, City Data Officer, Thane

Examples:

- **Agra:** The city sends alerts across 8 categories via 4 different mediums to the citizens,
    1. **Public Address System and Variable Message Displays at road junctions:** Information related to traffic management, public health awareness.
    2. **Sensor displays:** Information about environment related parameters displayed through sensors at 39 locations in city.
    3. **Mobile application:** Information related to waste pickup sent to residents
    1. **Sarvam Setu app:** Information about water supply, emergency services, and grievance redressal
- **Pasighat:** The city sends alerts in form of messages for traffic safety rules and speed limits, Flood and Landslide alerts, health related guidelines, scheduled power cuts while uses IVRS for alerts on emergency services.

5. WAY FORWARD

5.1 Road Ahead for Cities

Many of the cities have put efforts in improving their data ecosystems and some have achieved the certification in this cycle of DMAF. The level of maturity that many cities have gained in terms of data is outstanding. A lot of cities have put efforts in the second cycle of DMAF as they scored less in the first cycle and have progressed in their journey towards becoming DataSmart. However, upon analysing the gaps, it can be seen that many cities are yet to achieve a high level of data maturity. Thus, there is a need to guide the cities and help them on basis of their gap analysis under DMAF. Recommendations have been collated for all the cities based on their scoring and the Missions experience in interacting with them over the past two years. Some of the broad areas that cities should focus on are highlighted below:

Component 1: Policy

- Cities may like to explore creating and formalizing their **City Data Policies** as this will help guide all the current and planned data-related activities in the city. Cities should prepare their policies in compliance and reference to the guidance document published by the SCM. Such policies may include various aspects like data classification, privacy and security management, data collection and analysis etc. Cities should also look to create an implementation plan to operationalize the policy and periodically revise the same based on regulatory and technology advancements.
- It is vital for cities to **earmark budget** from their city's yearly Municipal or Smart City Budget towards data activities. This budget may be used for upskilling of data team, hiring of subject matter experts, procuring data tools and software, conducting hackathons, etc.

Component 2: People

- Cities should consider **permanent appointment of City Data Officers (CDOs)** to ensure continuity in city's tremendous efforts towards data-related activities. The CDO should also be supported by a robust and holistic data team committed to data-related activities.
- The cities may focus on strengthening their data skills by conducting **capacity building exercises** for the various stakeholders around data activities – data management, visualization, utilization of data to create meaningful insights, various data portals, latest tools, and technologies.

Component 3: Process

- The cities may focus on engaging stakeholders in the data ecosystem by **forming alliances** and working towards the common goal of creating a 'data culture'. These partnerships, formed by engaging external parties such as sector experts, industry experts, universities etc., will be key for solutioning sector-specific challenges/issues. National programs such as India Urban Data eXchange (IUDX), and other initiatives of MeitY can also be leveraged towards this end.
- **Hackathons** may be used by cities as a means to crowdsource innovative solutions to the everyday urban challenges. Cities may start with formulating a problem statement, identifying potential participants, and highlighting the desired outcomes.
- Cities may like to explore enhancing their **analytical capabilities** that will help them better analyse the city problems and find appropriate solutions.

Component 4: Technology

- Focus should also be on publishing quality data sets that can be used for analysis and for solving cities problems. Cities may utilize the **75+ dataset templates** that are available on the SCODP to publish data. Cities should also consider onboarding themselves on the IUDX platform of the Mission, as an evolution to open data initiative.
- It is imperative for the cities to prepare a schedule of **updation of datasets** on the open data portal and to comply with the schedule.
- Cities are also encouraged to **collect and analyse spatial data** to be able to better visualize and tackle city problems.

Component 5: Outcomes

- Cities should target publishing more and more **data stories** basis their experience in utilising data for better governance and service delivery.
- Cities may like to focus on developing **sector-specific data-driven use cases** to tackle one problem at a time. Analytical capabilities and support from all partners of the quadruple helix can then be utilized to find innovative solutions.
- The data available with the cities can be used by them to **develop applications and portals** for improved citizen services and engagement.

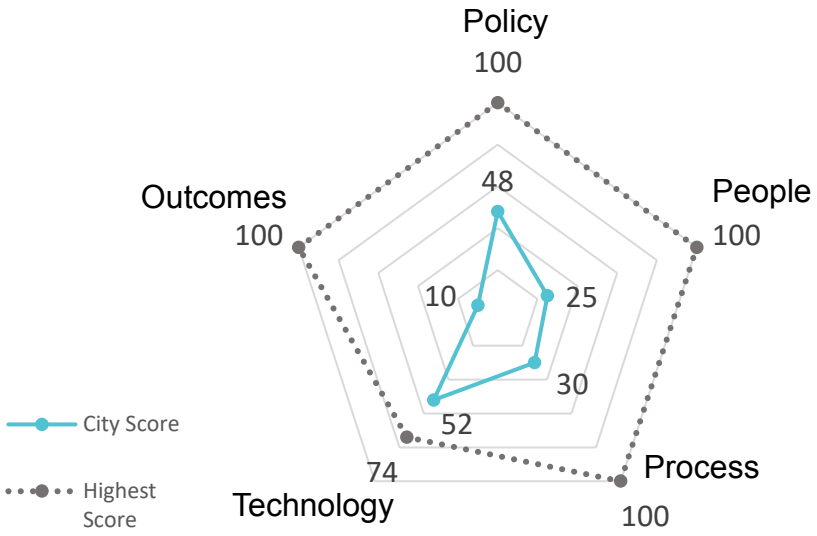
A handbook of city progress and recommendation has been prepared for each city and can be referred via the DMAF Results Dashboard at https://dmaf.mohua.gov.in. Cities can access the same and operationalize and infuse these recommendations in their current and planned data initiatives so as to progress further in their data journey.

Annexure

City Snapshots

AGARTALA | TRIPURA

City Scores across Components



City Engagement Score (out of 100): 100

28th

Rank

Initiator

Certificate

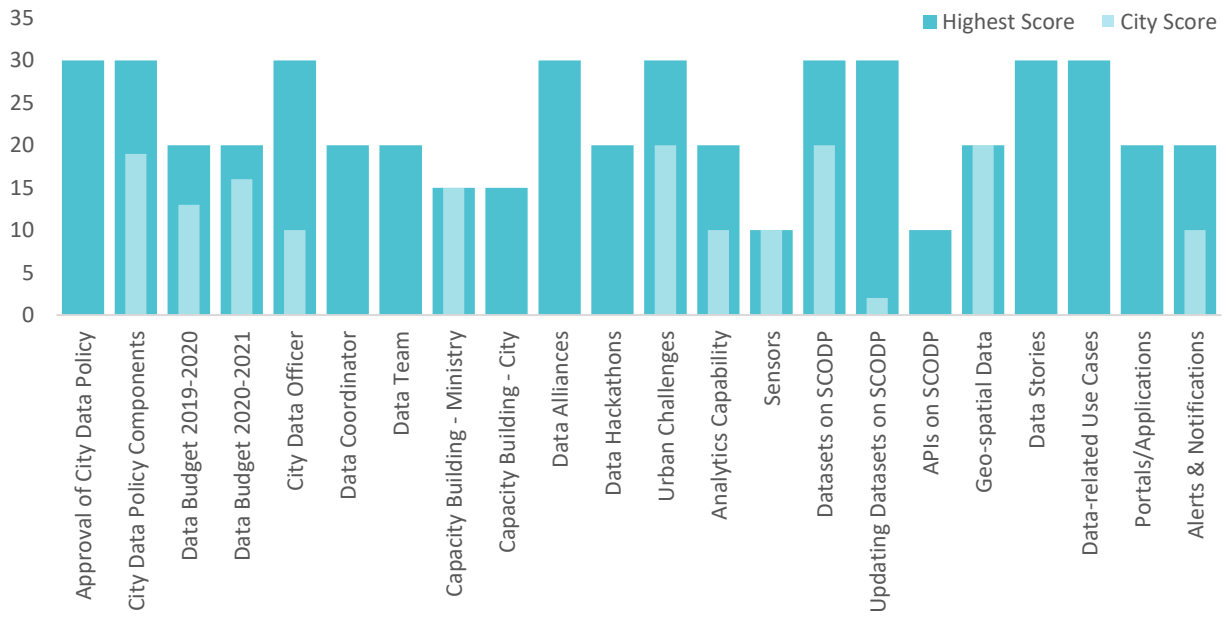
39

Score

City Ranks across Components

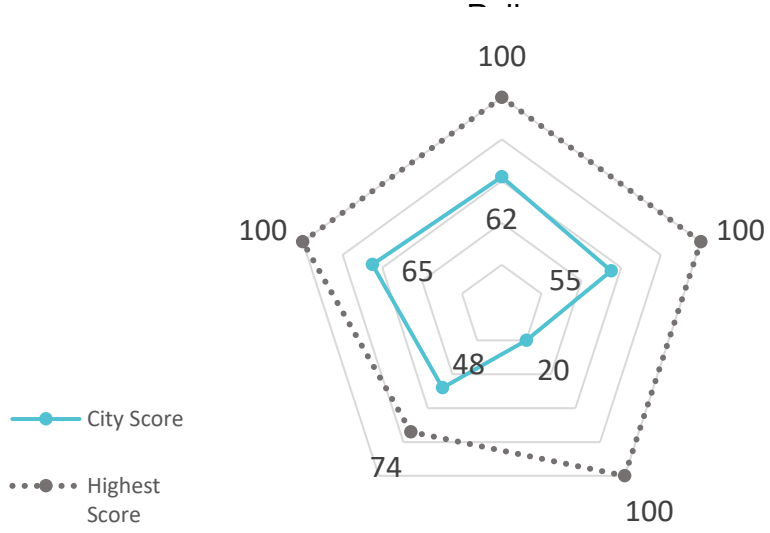
Policy	People	Process	Technology	Outcomes
35th	61st	21st	09th	53rd

City Score vs Highest across Indicators



AGRA | UTTAR PRADESH

City Scores across Components



City Engagement Score (out of 100): 80

19th
Rank

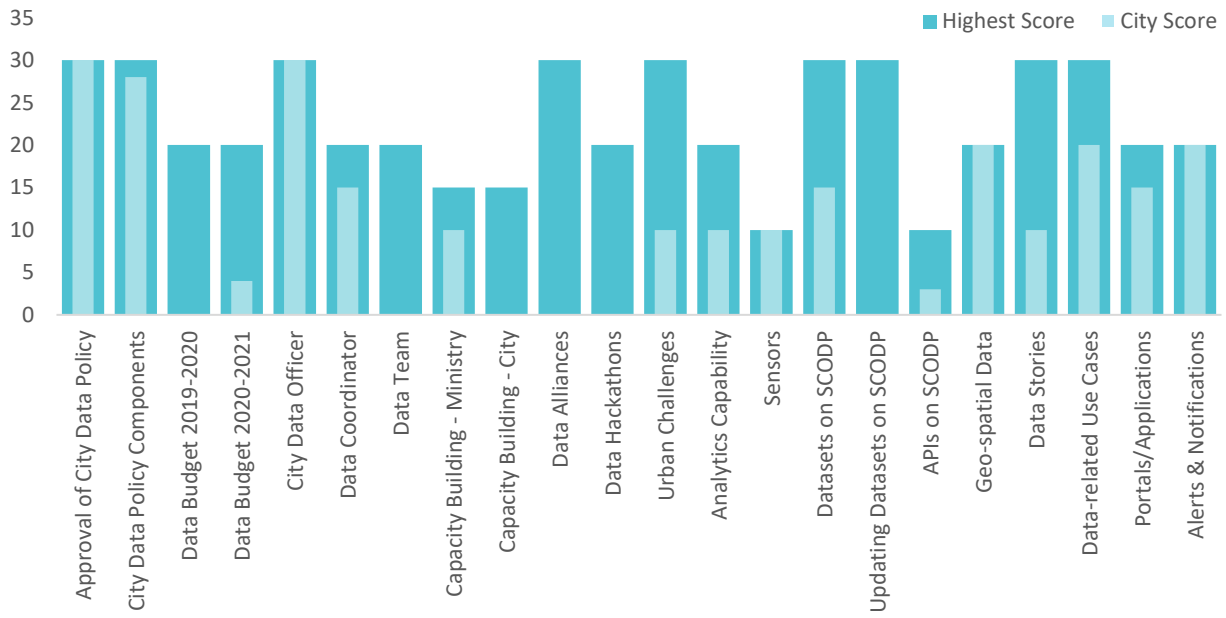
Explorer
Certificate

53
Score

City Ranks across Components

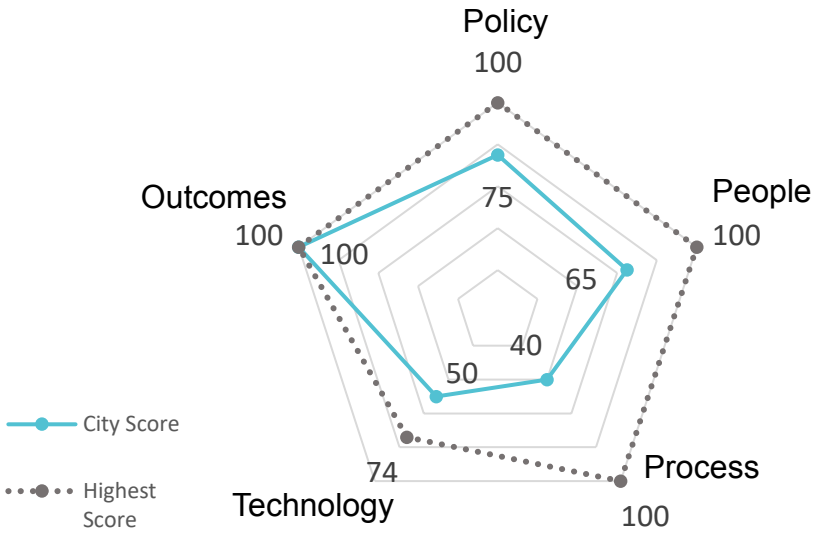
Policy	People	Process	Technology	Outcomes
20th	20th	28th	16th	12th

City Score vs Highest across Indicators



AHMEDABAD | GUJARAT

City Scores across Components



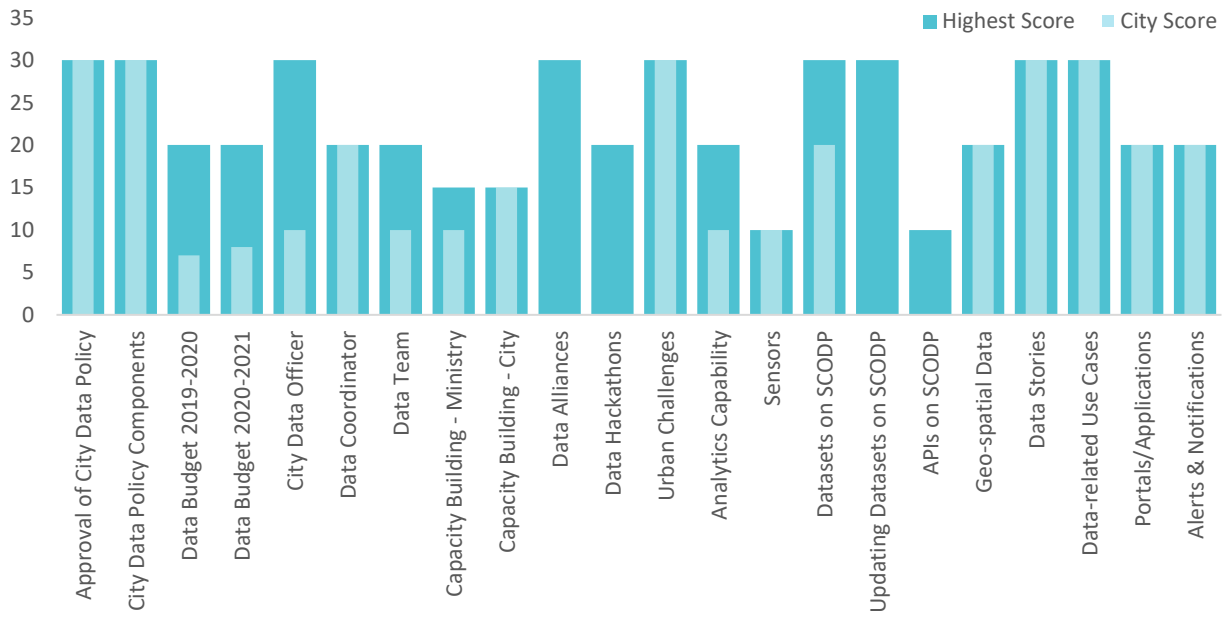
City Engagement Score (out of 100): 80

6th
Rank
Enabled
Certificate
68
Score

City Ranks across Components

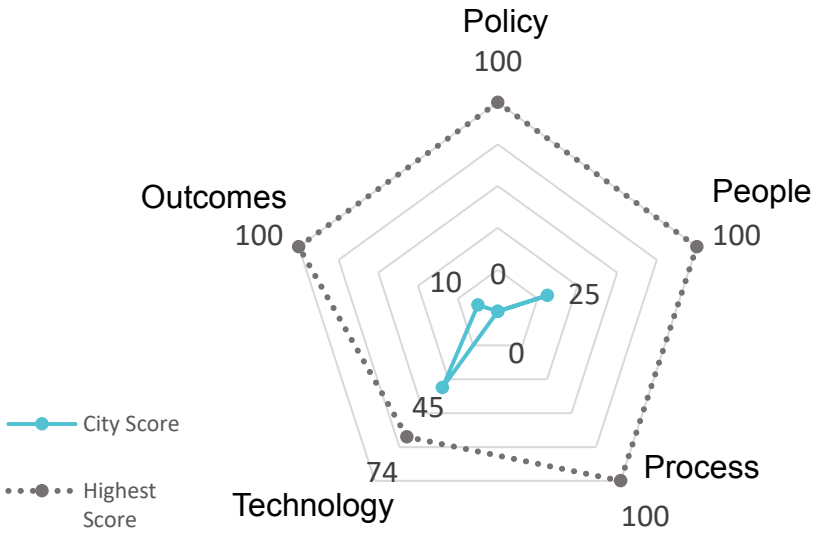
Policy	People	Process	Technology	Outcomes
12th	13th	16th	11th	01st

City Score vs Highest across Indicators



AIZAWL | MIZORAM

City Scores across Components



City Engagement Score (out of 100): 70

58th
Rank

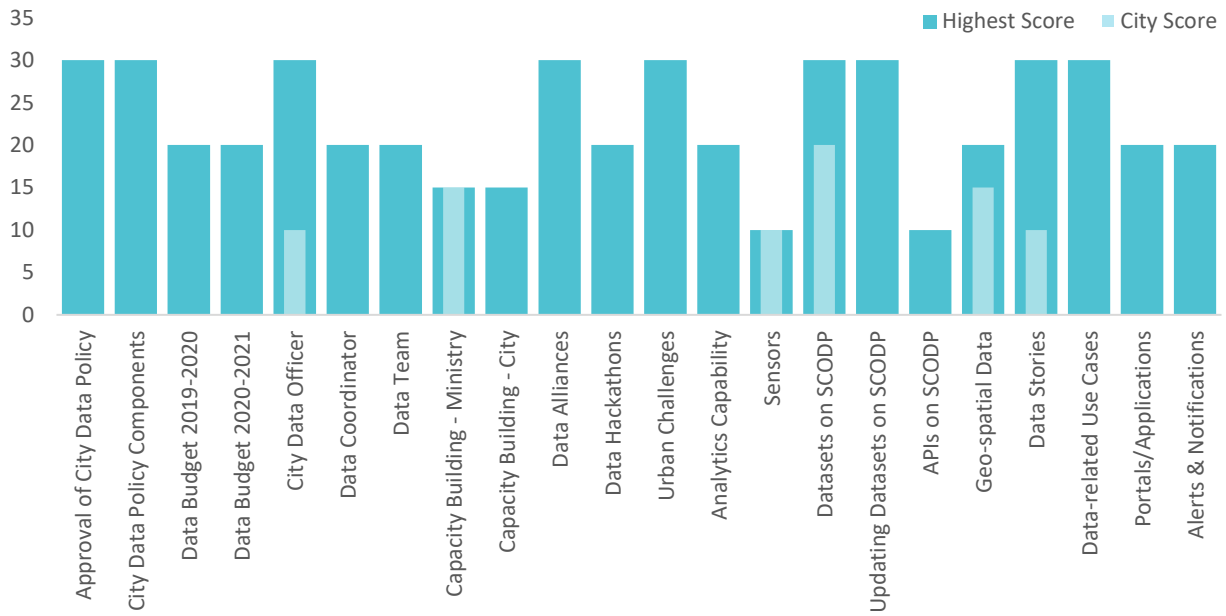
Beginner
Certificate

23
Score

City Ranks across Components

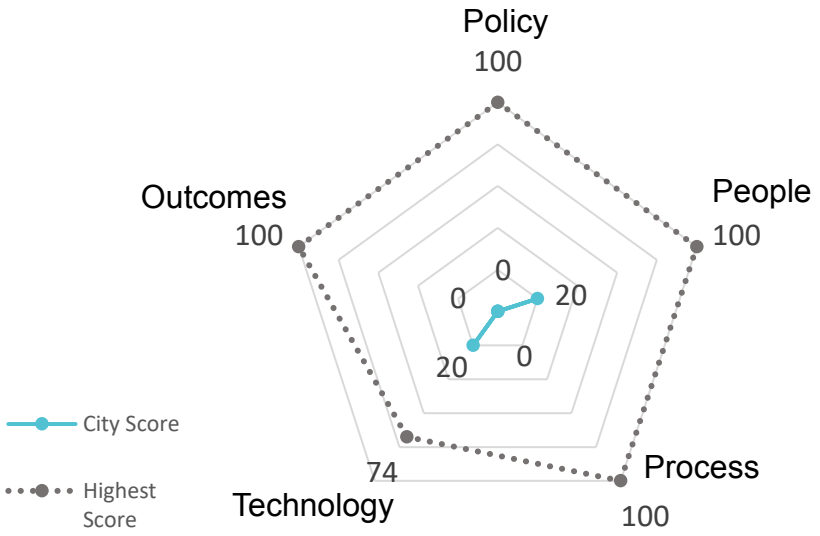
Policy	People	Process	Technology	Outcomes
54th	61st	44th	17th	53rd

City Score vs Highest across Indicators



AJMER | RAJASTHAN

City Scores across Components



City Engagement Score (out of 100): 60

87th
Rank

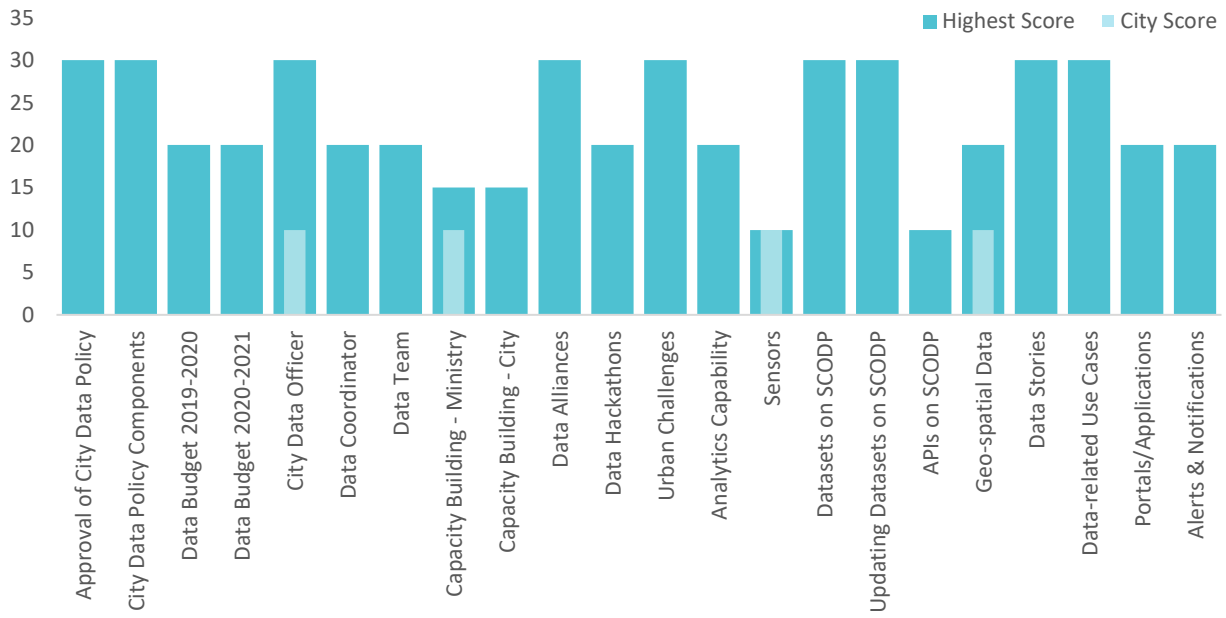
Beginner
Certificate

13
Score

City Ranks across Components

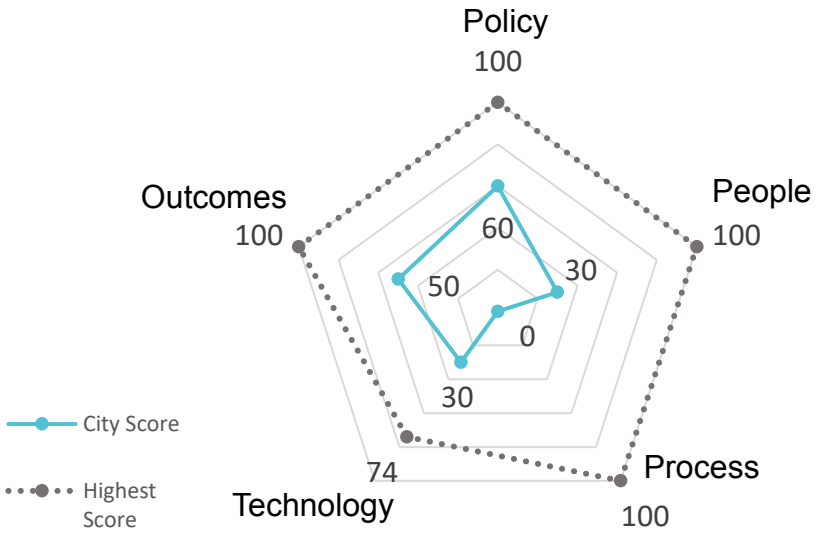
Policy	People	Process	Technology	Outcomes
54th	73rd	44th	67th	67th

City Score vs Highest across Indicators



ALIGARH | UTTAR PRADESH

City Scores across Components



City Engagement Score (out of 100): 70

32nd
Rank

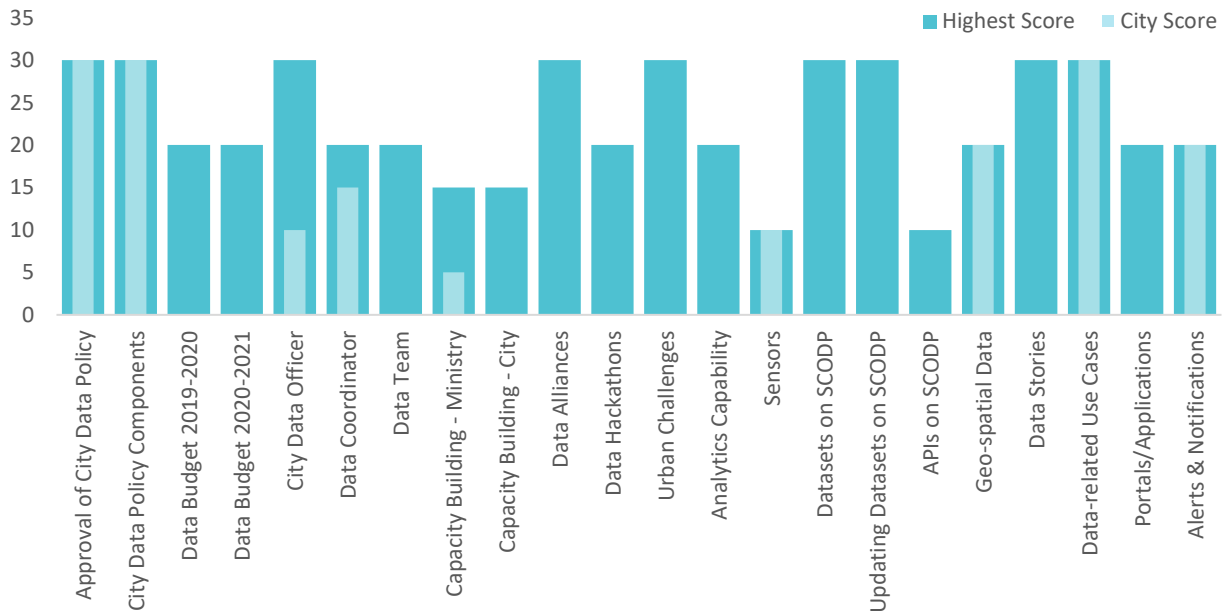
Initiator
Certificate

37
Score

City Ranks across Components

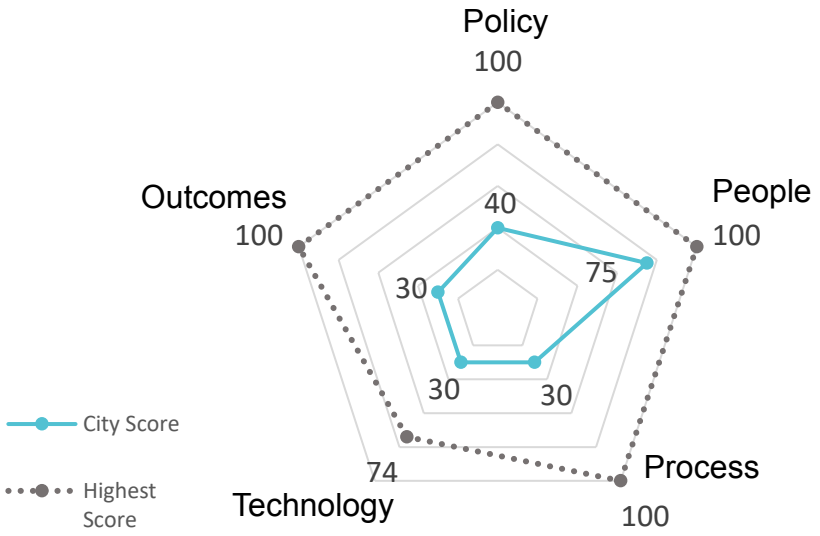
Policy	People	Process	Technology	Outcomes
21st	54th	44th	46th	16th

City Score vs Highest across Indicators



AMARAVATI | ANDHRA PRADESH

City Scores across Components



City Engagement Score (out of 100): 70

27th
Rank

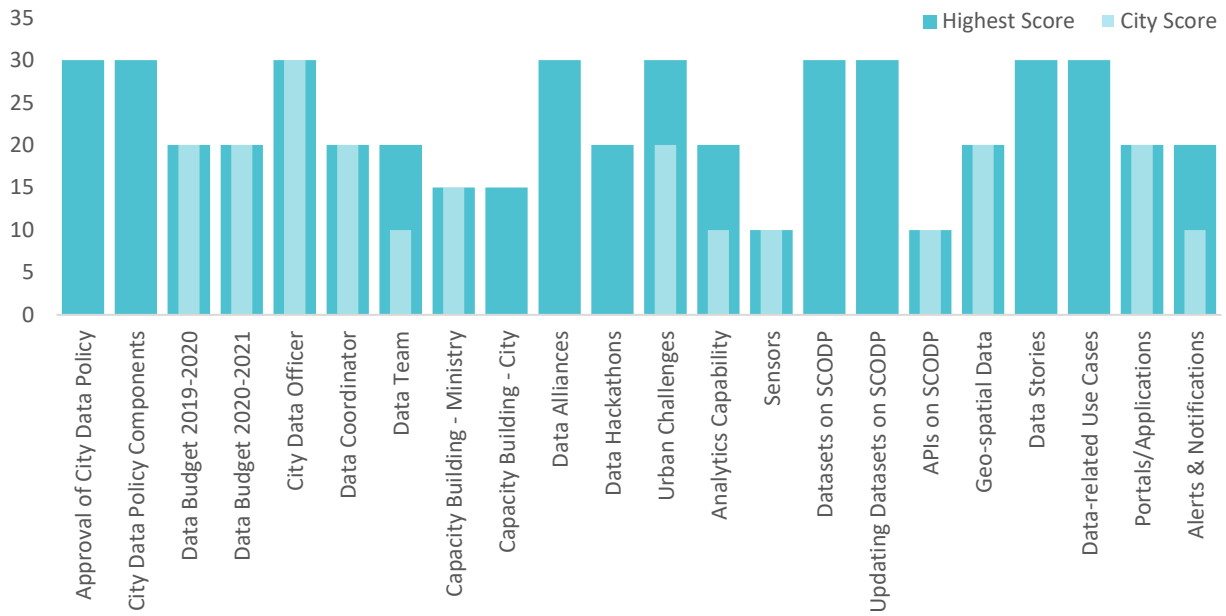
Initiator
Certificate

41
Score

City Ranks across Components

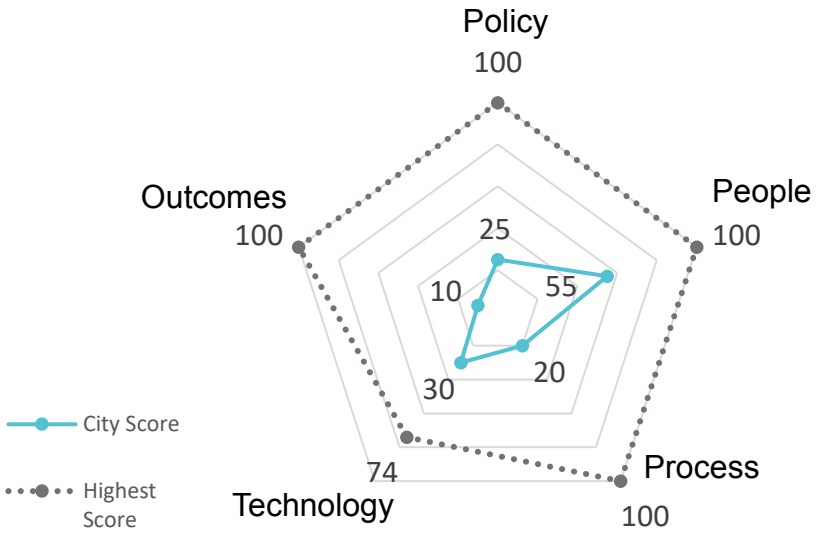
Policy	People	Process	Technology	Outcomes
37th	09th	21st	46th	34th

City Score vs Highest across Indicators



AMRITSAR | PUNJAB

City Scores across Components



City Engagement Score (out of 100): 6s0

46th
Rank

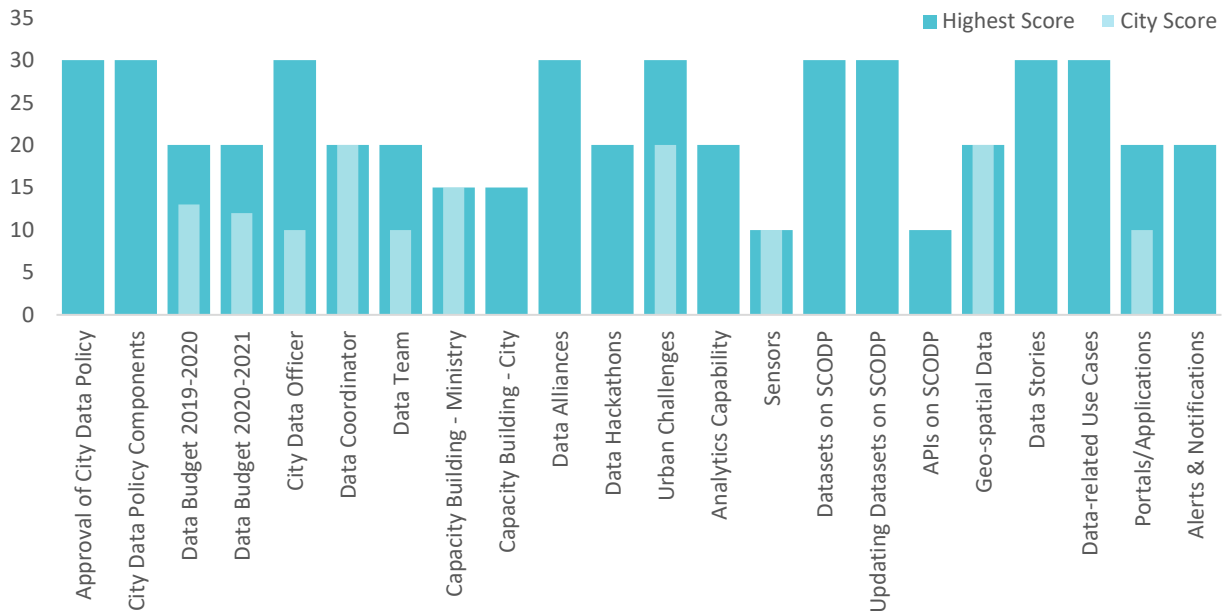
Beginner
Certificate

29
Score

City Ranks across Components

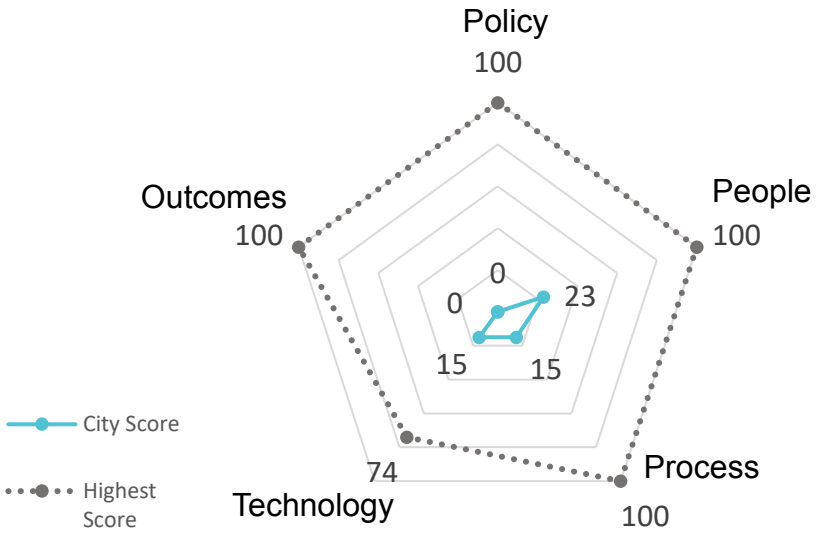
Policy	People	Process	Technology	Outcomes
48th	20th	28th	46th	53rd

City Score vs Highest across Indicators



AURANGABAD | MAHARASHTRA

City Scores across Components



City Engagement Score (out of 100): 70

76th
Rank

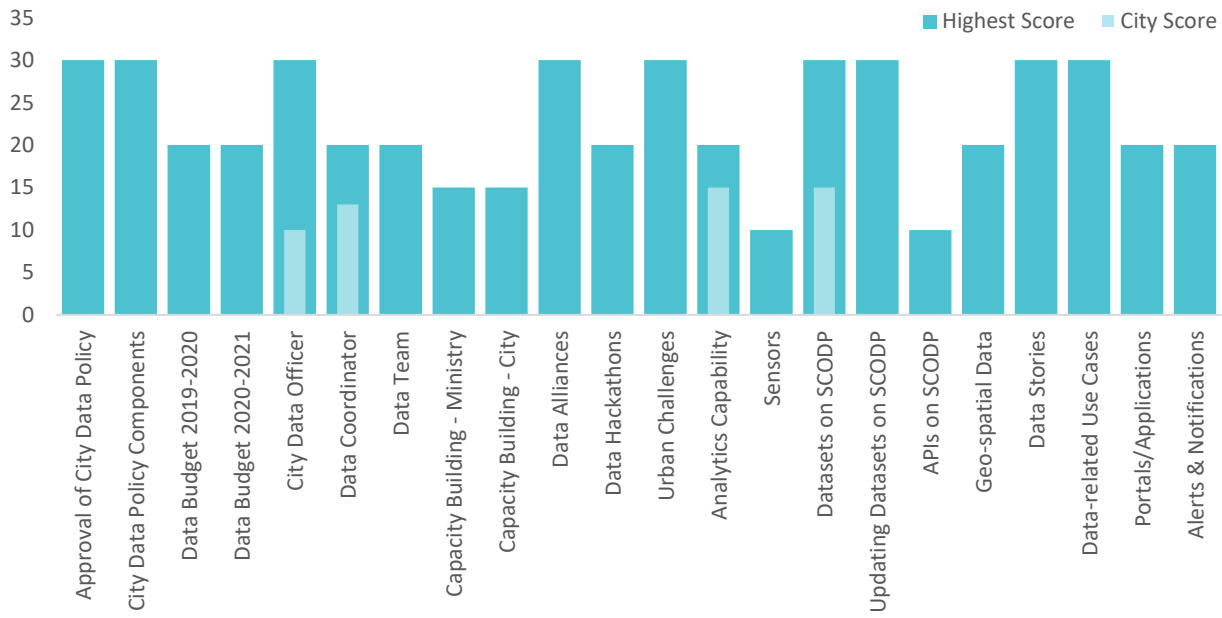
Beginner
Certificate

16
Score

City Ranks across Components

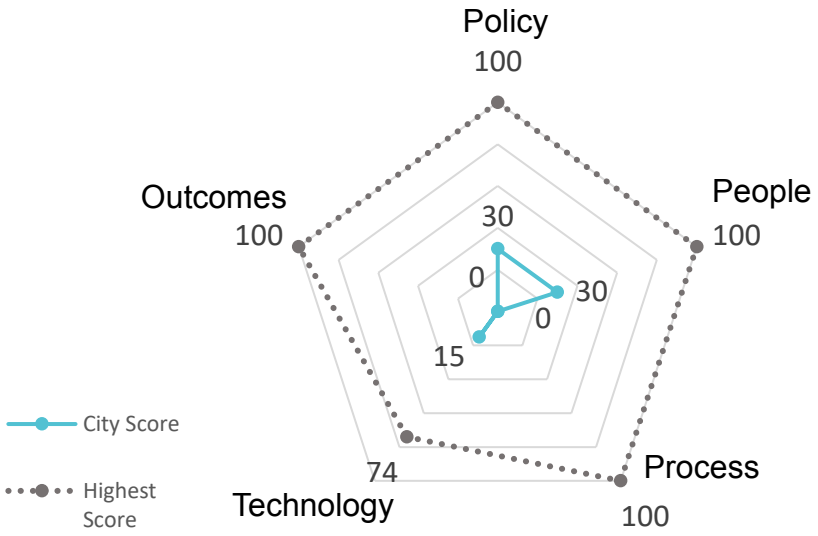
Policy	People	Process	Technology	Outcomes
54th	70th	38th	76th	67th

City Score vs Highest across Indicators



BAREILLY | UTTAR PRADESH

City Scores across Components



City Engagement Score (out of 100): 70

69th
Rank

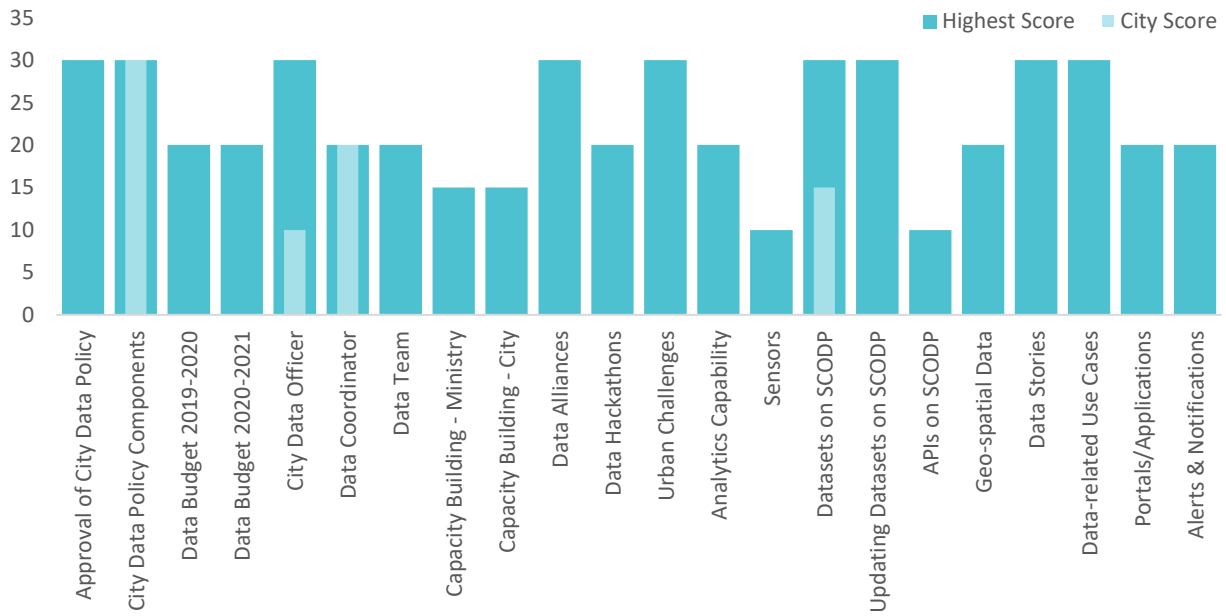
Beginner
Certificate

18
Score

City Ranks across Components

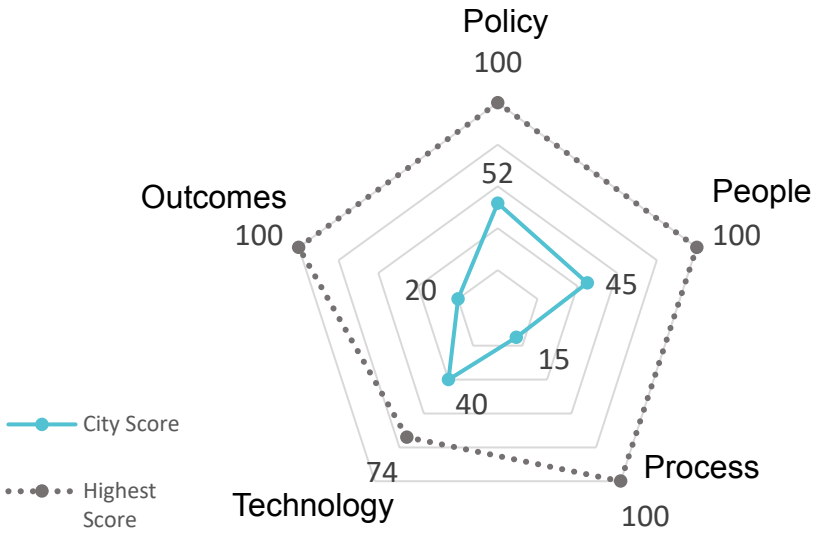
Policy	People	Process	Technology	Outcomes
42nd	54th	44th	76th	67th

City Score vs Highest across Indicators



BELAGAVI | KARNTAKA

City Scores across Components



City Engagement Score (out of 100): 70

33rd
Rank

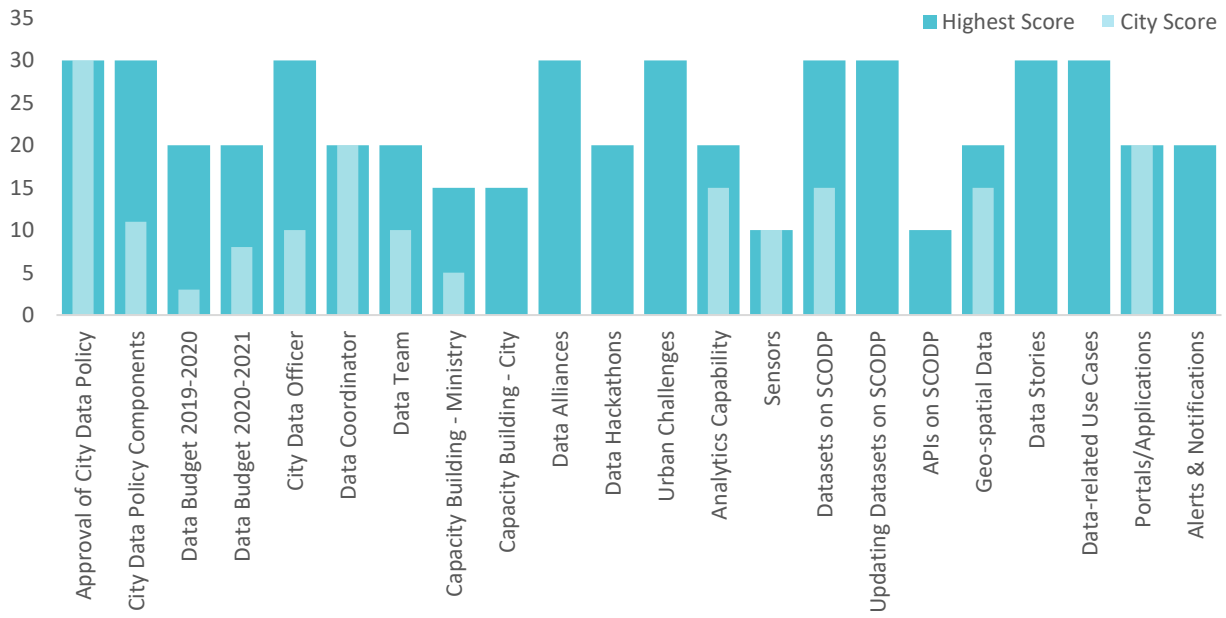
Initiator
Certificate

36
Score

City Ranks across Components

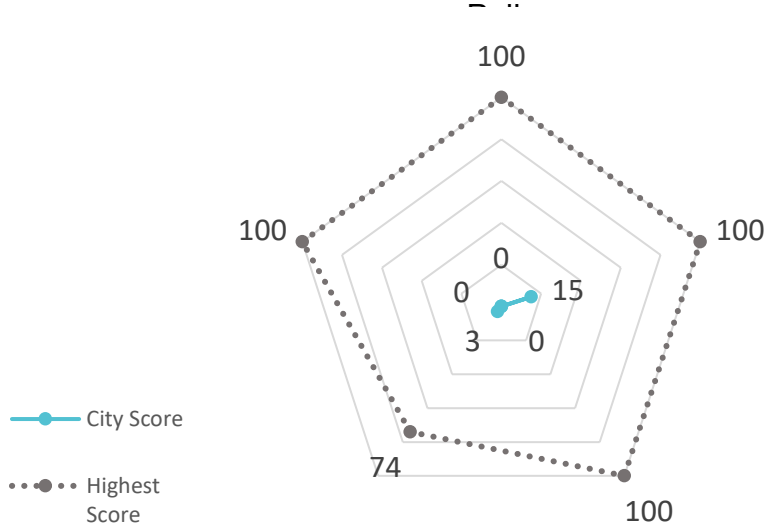
Policy	People	Process	Technology	Outcomes
33rd	39th	38th	33rd	45th

City Score vs Highest across Indicators



BENGALURU | KARNATAKA

City Scores across Components



City Engagement Score (out of 100): 100

87th
Rank

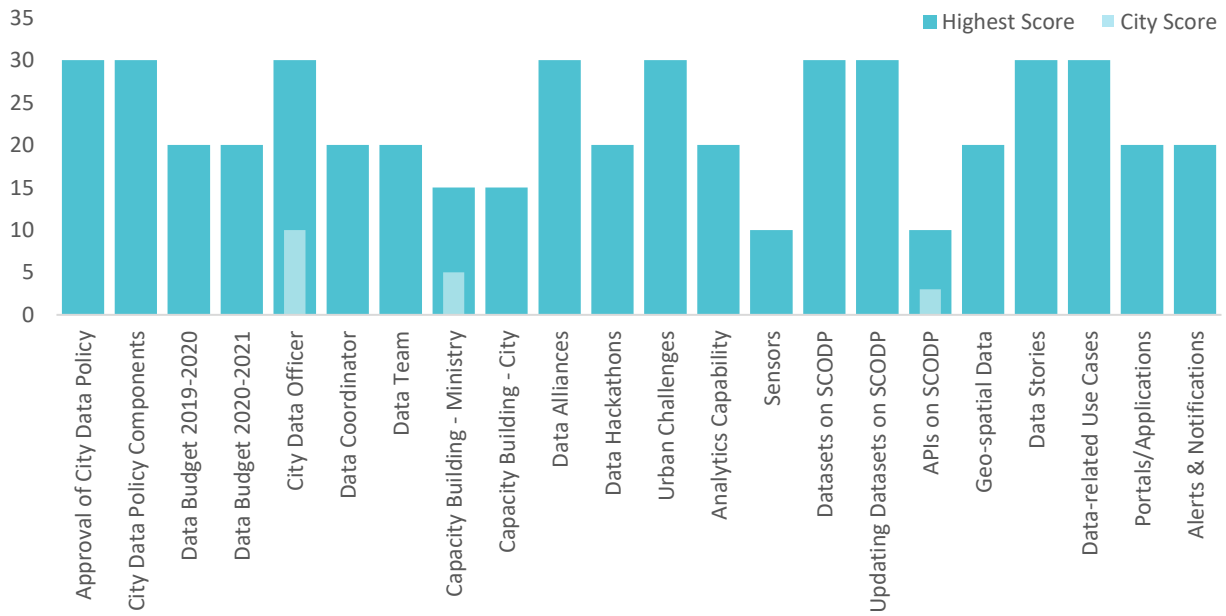
Beginner
Certificate

13
Score

City Ranks across Components

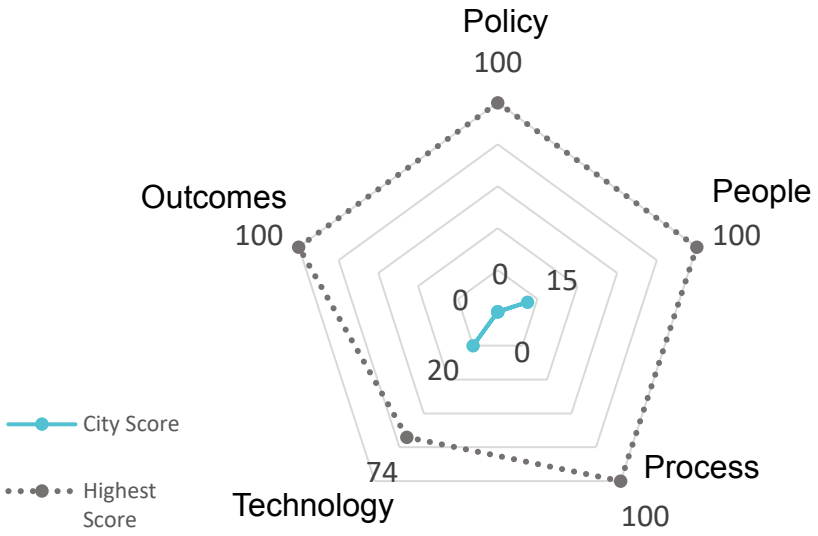
Policy	People	Process	Technology	Outcomes
54th	79th	44th	91st	67th

City Score vs Highest across Indicators



BHAGALPUR | MADHYA PRADESH

City Scores across Components



City Engagement Score (out of 100): 70

84th
Rank

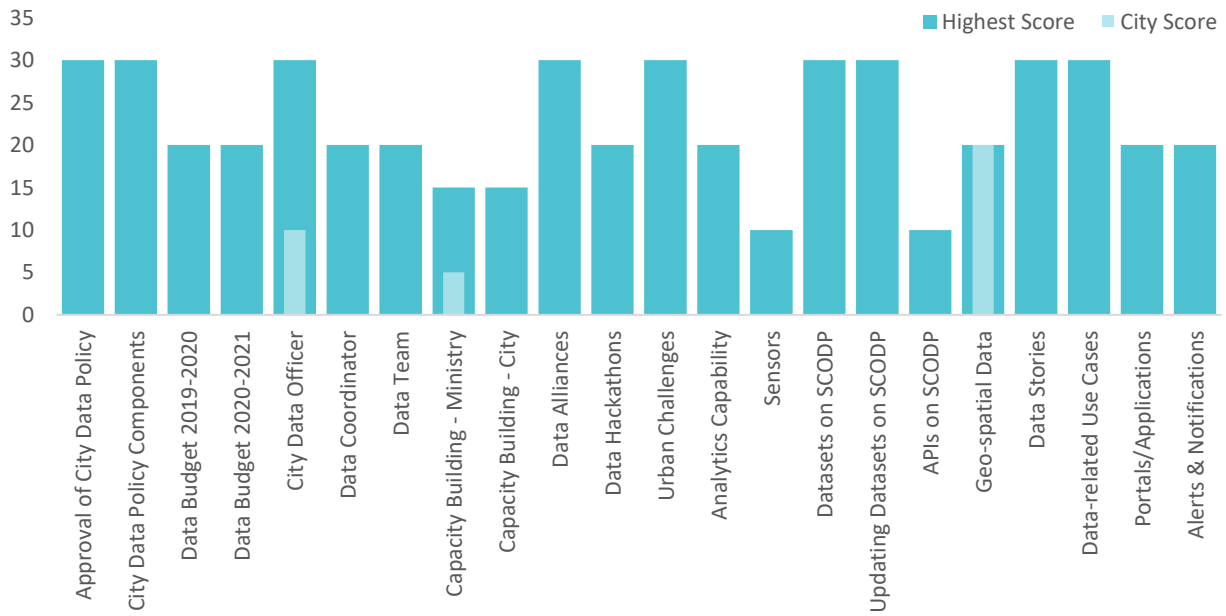
Beginner
Certificate

14
Score

City Ranks across Components

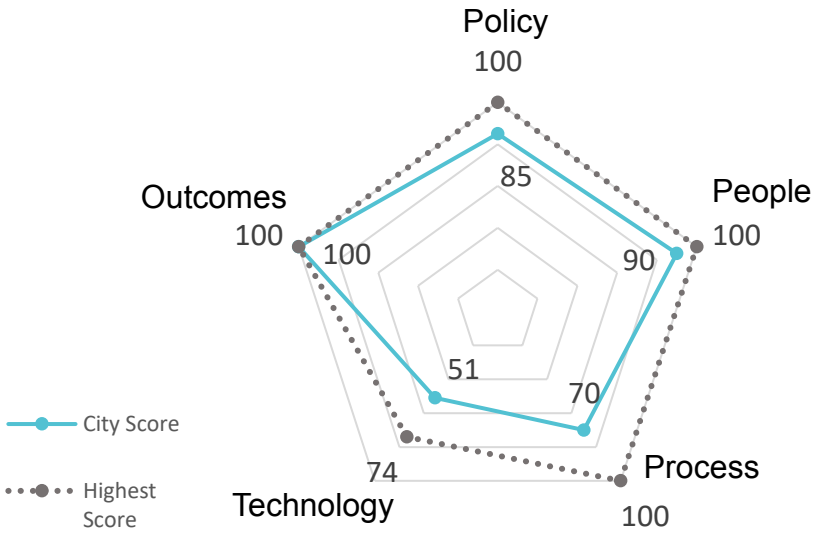
Policy	People	Process	Technology	Outcomes
54th	79th	44th	67th	67th

City Score vs Highest across Indicators



BHOPAL | MADHYA PRADESH

City Scores across Components



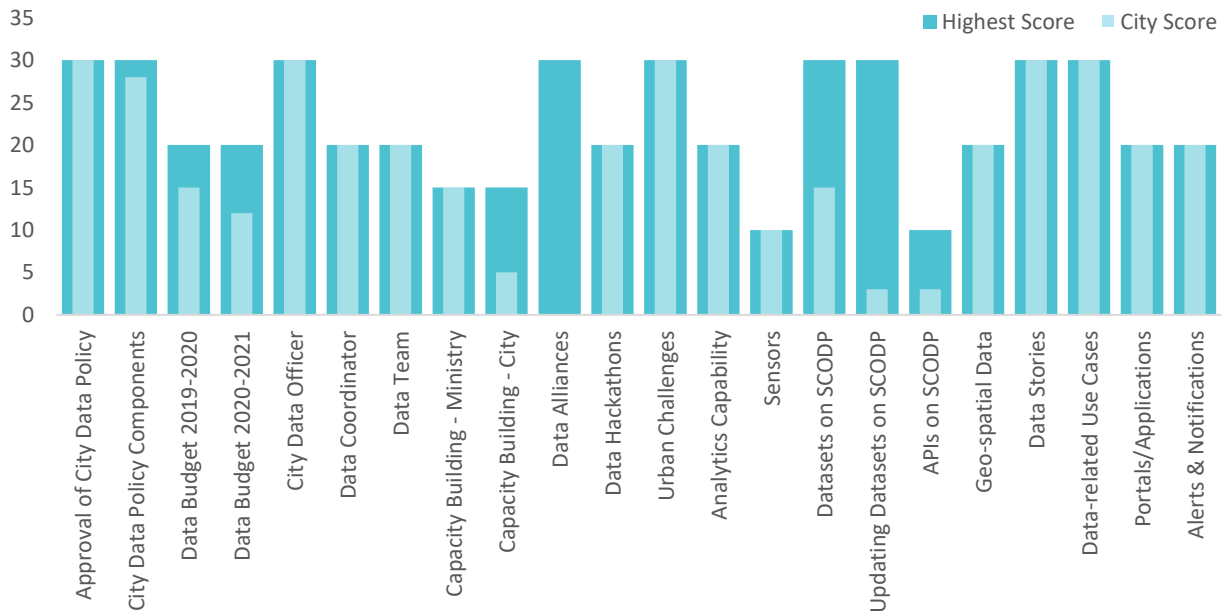
City Engagement Score (out of 100): 60

3rd	Rank
Connected	Certificate
76	Score

City Ranks across Components

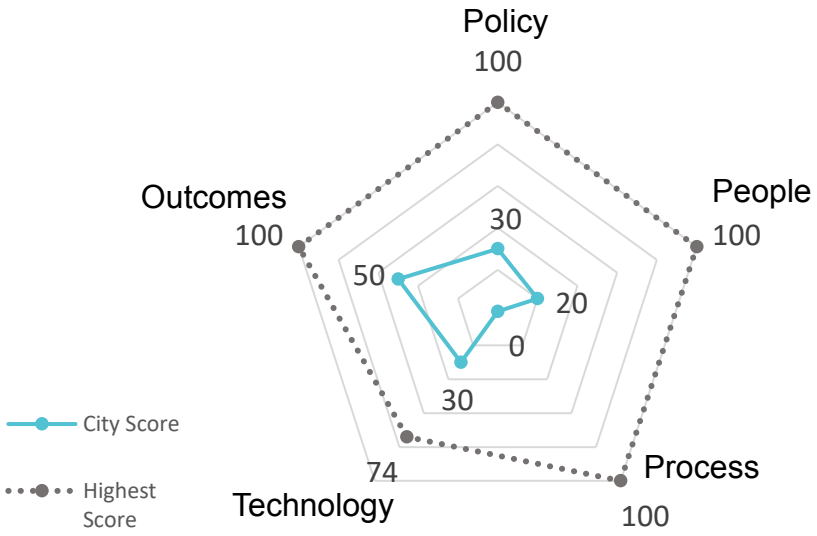
Policy	People	Process	Technology	Outcomes
5th	3rd	5th	10th	1st

City Score vs Highest across Indicators



BHUBANESWAR | ODISHA

City Scores across Components



City Engagement Score (out of 100): 100

36th
Rank

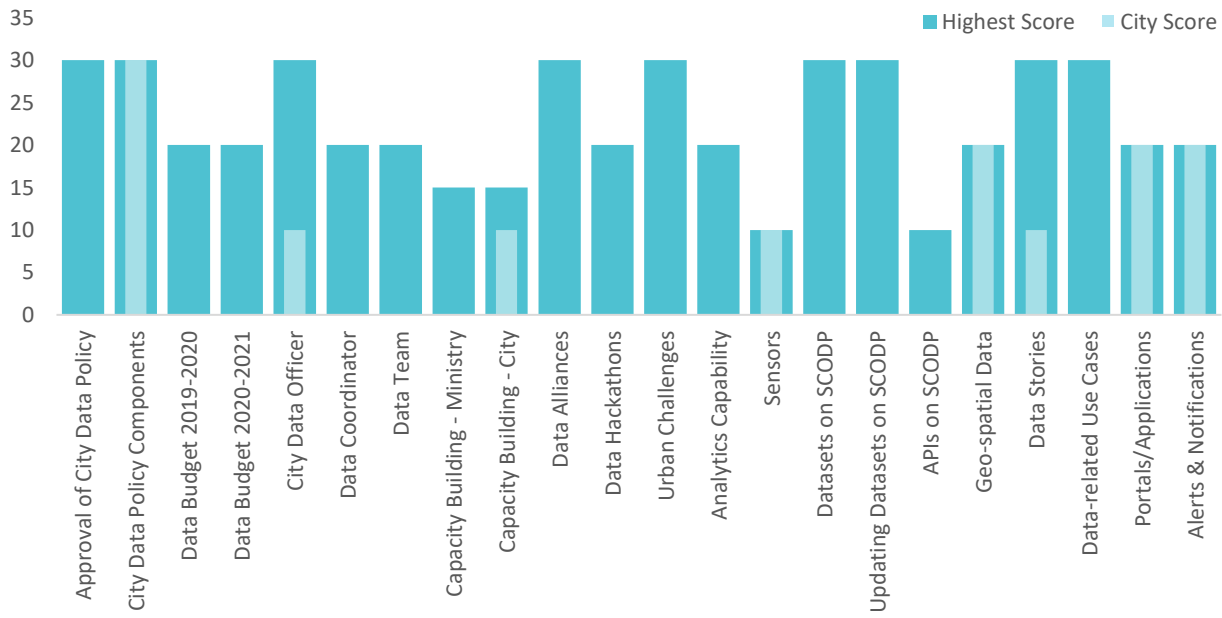
Initiator
Certificate

35
Score

City Ranks across Components

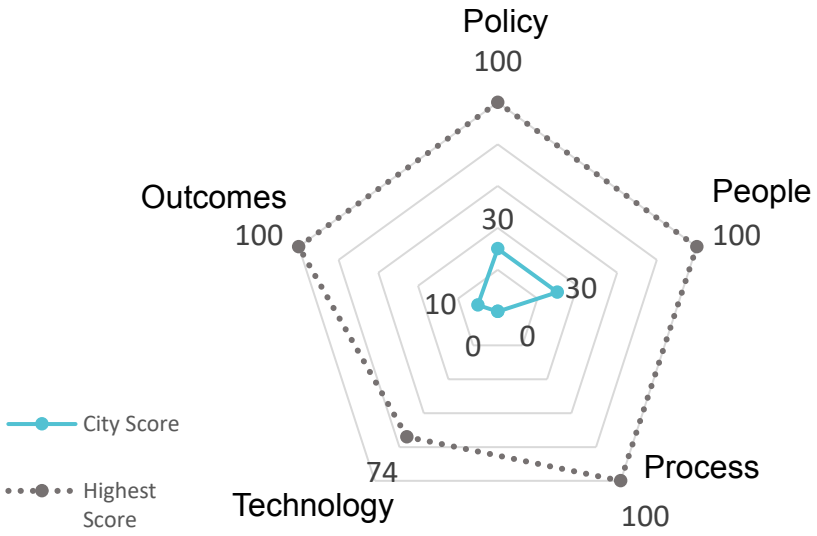
Policy	People	Process	Technology	Outcomes
42nd	73rd	44th	46th	16th

City Score vs Highest across Indicators



BIHAR SHARIF | BIHAR

City Scores across Components



City Engagement Score (out of 100): 70

70th
Rank

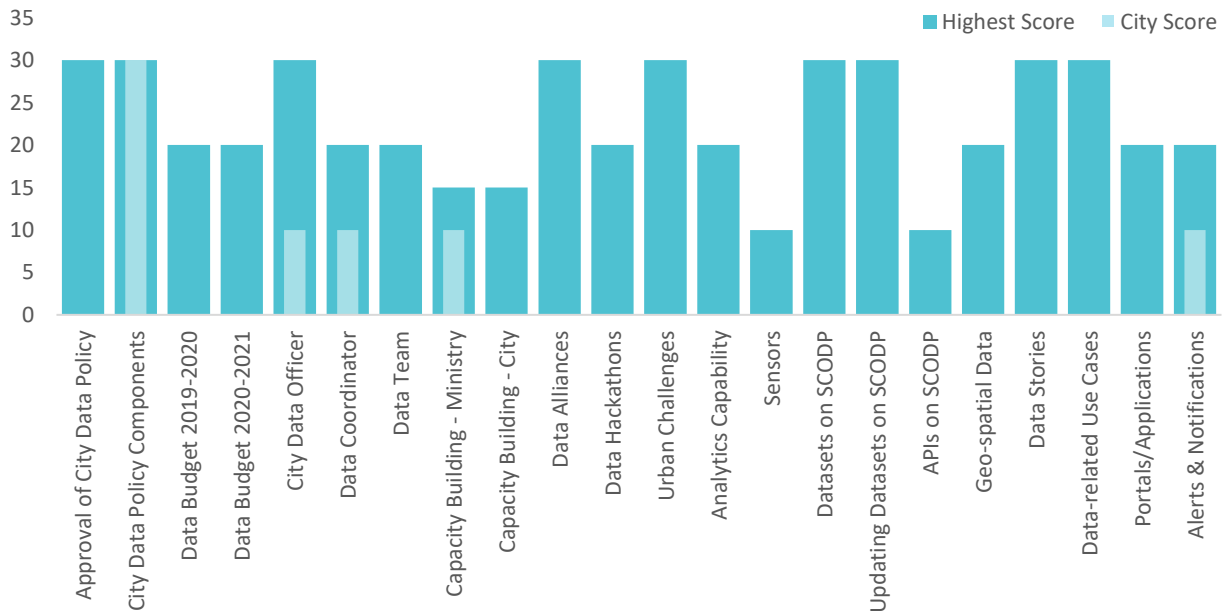
Beginner
Certificate

17
Score

City Ranks across Components

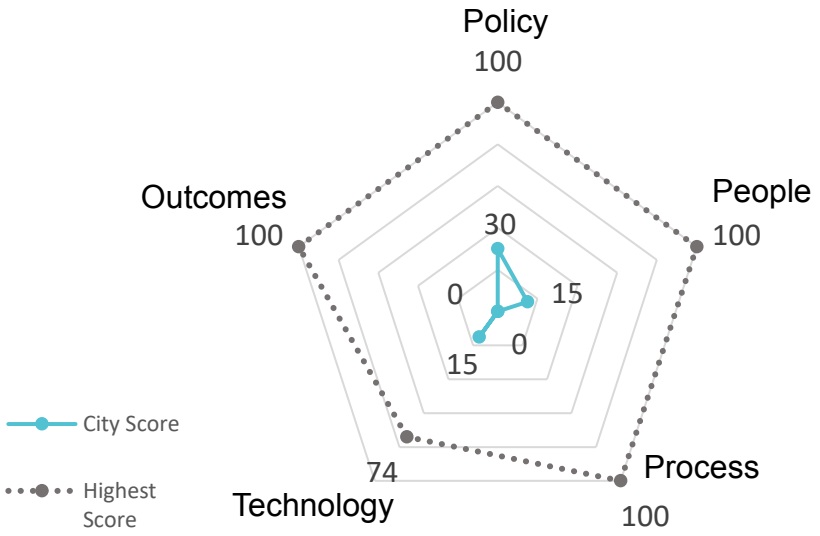
Policy	People	Process	Technology	Outcomes
42nd	54th	44th	92nd	53rd

City Score vs Highest across Indicators



BILASPUR | CHHATTISGARH

City Scores across Components



City Engagement Score (out of 100): 70

76th
Rank

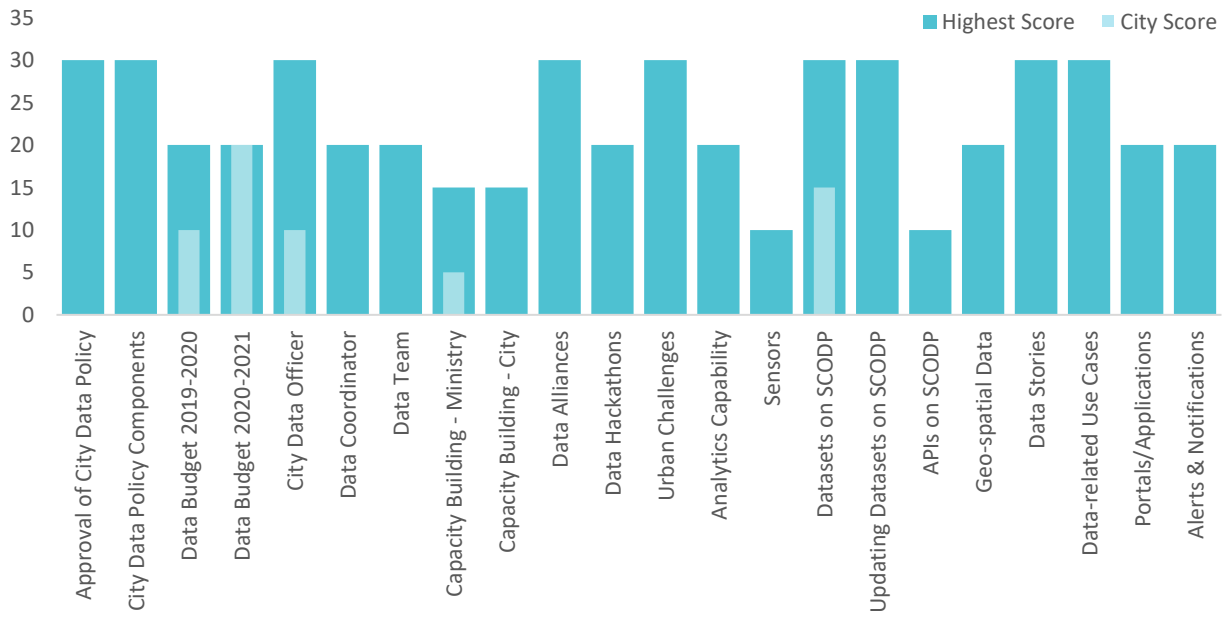
Beginner
Certificate

16
Score

City Ranks across Components

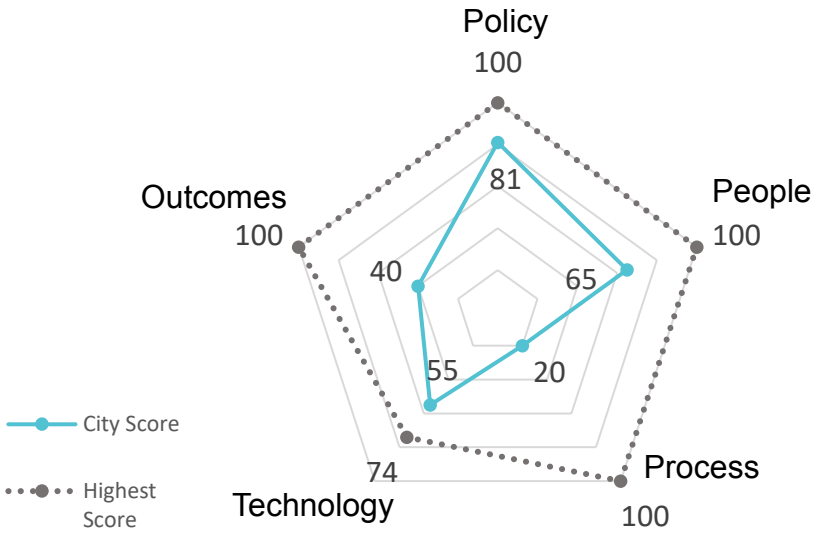
Policy	People	Process	Technology	Outcomes
42nd	79th	44th	76th	67th

City Score vs Highest across Indicators



CHANDIGARH | CHANDIGARH

City Scores across Components



City Engagement Score (out of 100): 80

19th
Rank

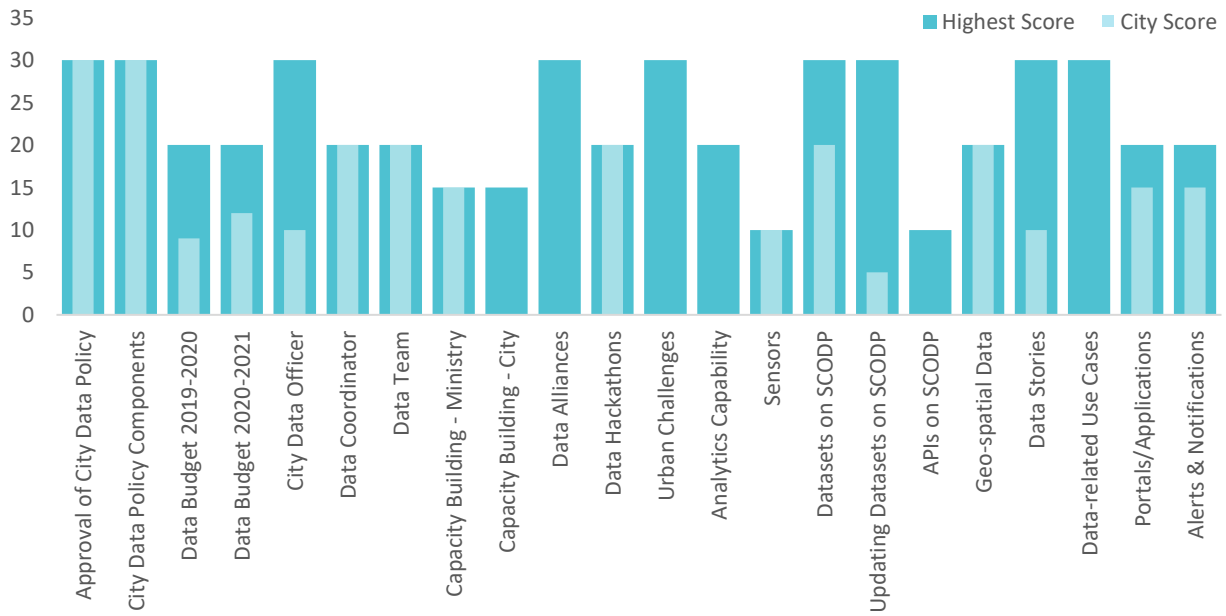
Explorer
Certificate

53
Score

City Ranks across Components

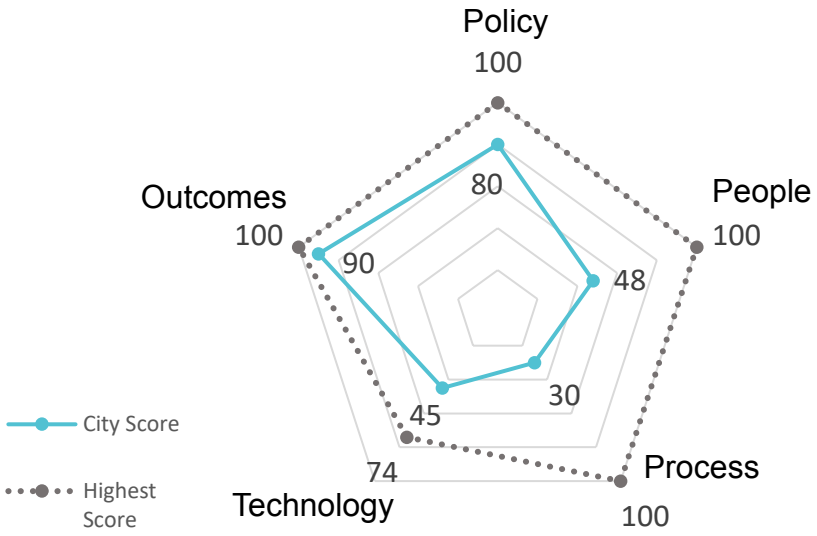
Policy	People	Process	Technology	Outcomes
9th	13th	28th	7th	23rd

City Score vs Highest across Indicators



CHENNAI | TAMIL NADU

City Scores across Components



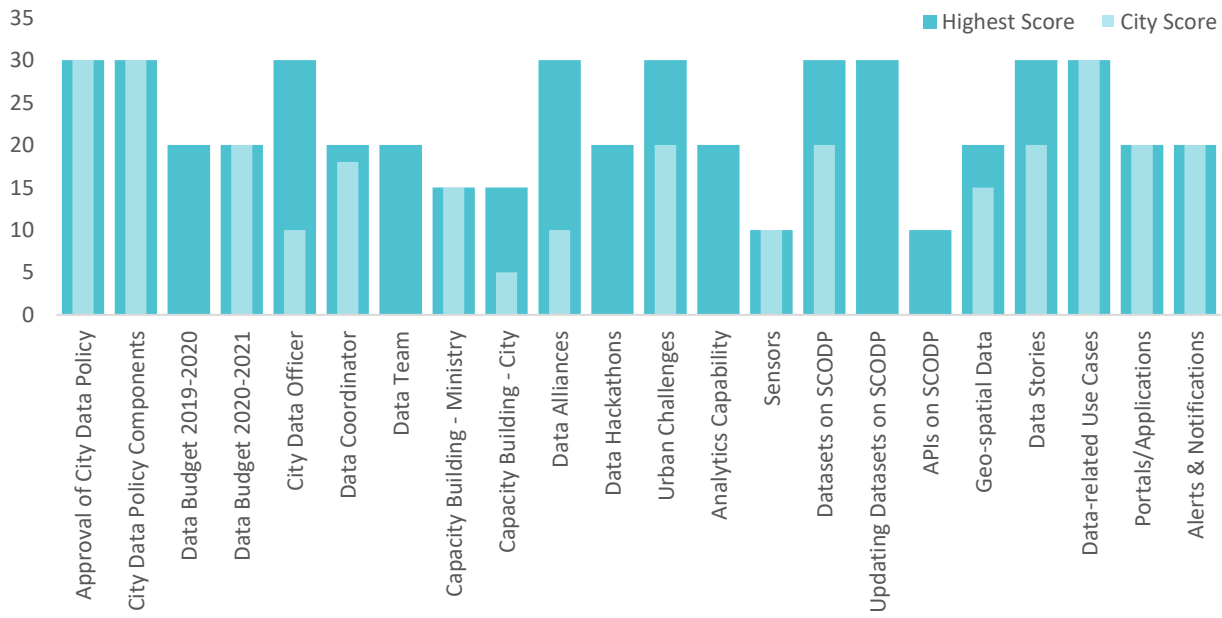
City Engagement Score (out of 100): 100

9th
Rank
Enabled
Certificate
63
Score

City Ranks across Components

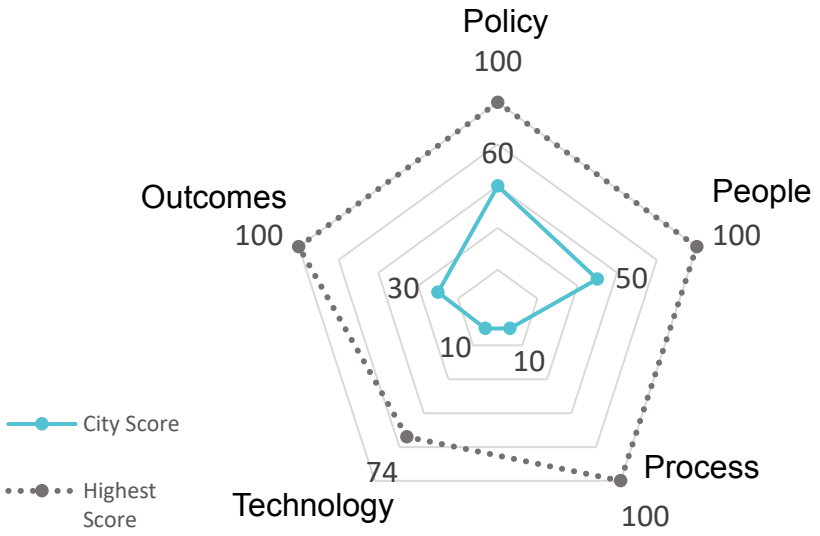
Policy	People	Process	Technology	Outcomes
10th	36th	21st	17th	4th

City Score vs Highest across Indicators



COIMBATORE | TAMIL NADU

City Scores across Components



City Engagement Score (out of 100): 70

39th

Rank

Initiator

Certificate

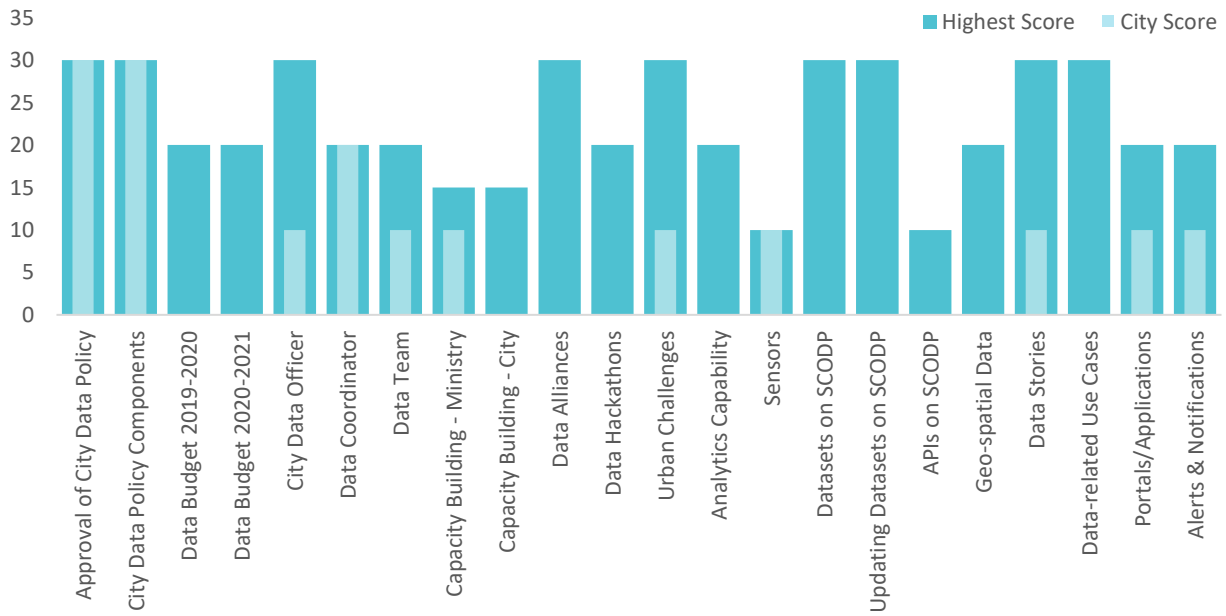
33

Score

City Ranks across Components

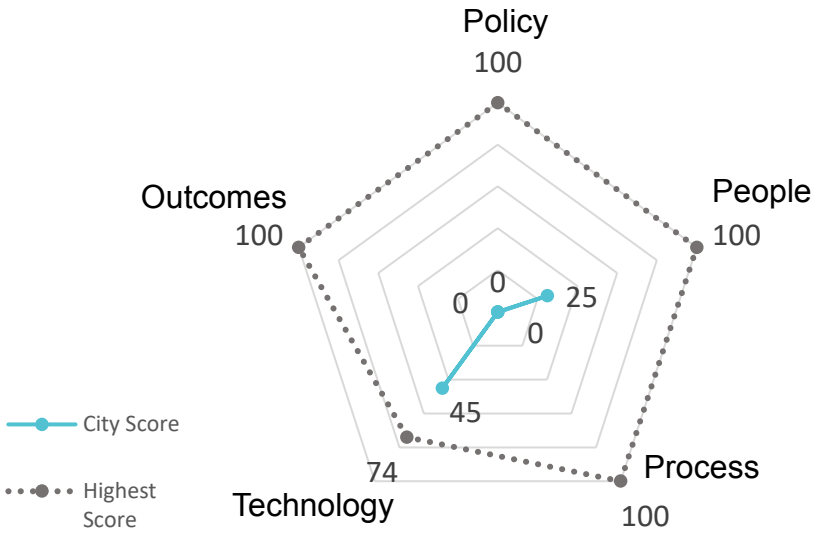
Policy	People	Process	Technology	Outcomes
21st	30th	40th	86th	34th

City Score vs Highest across Indicators



DAHOD | GUJARAT

City Scores across Components



City Engagement Score (out of 100): 70

62nd
Rank

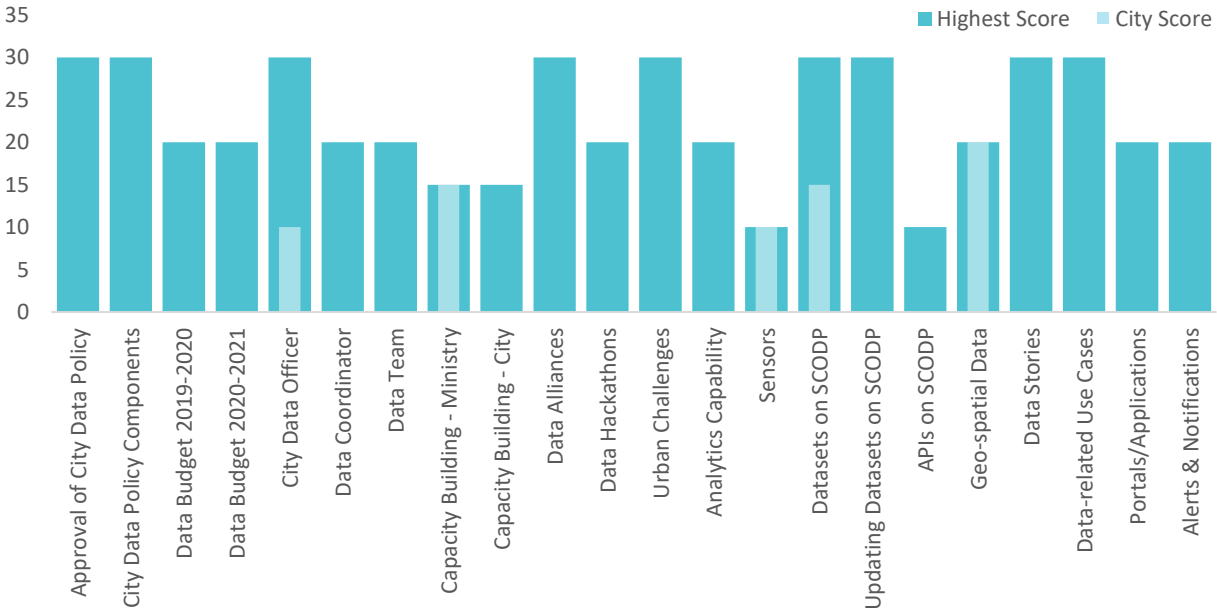
Beginner
Certificate

21
Score

City Ranks across Components

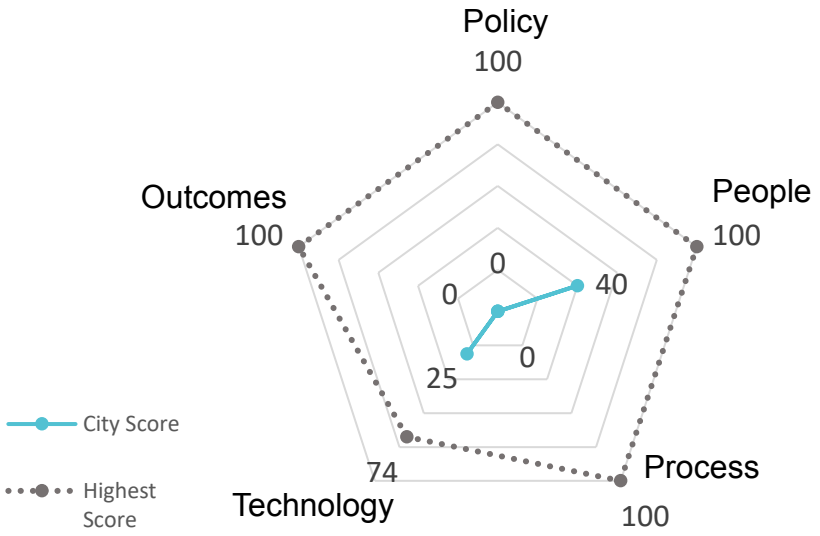
Policy	People	Process	Technology	Outcomes
54th	61st	44th	17th	67th

City Score vs Highest across Indicators



DAVANGERE | KARNATAKA

City Scores across Components



City Engagement Score (out of 100): 80

67th
Rank

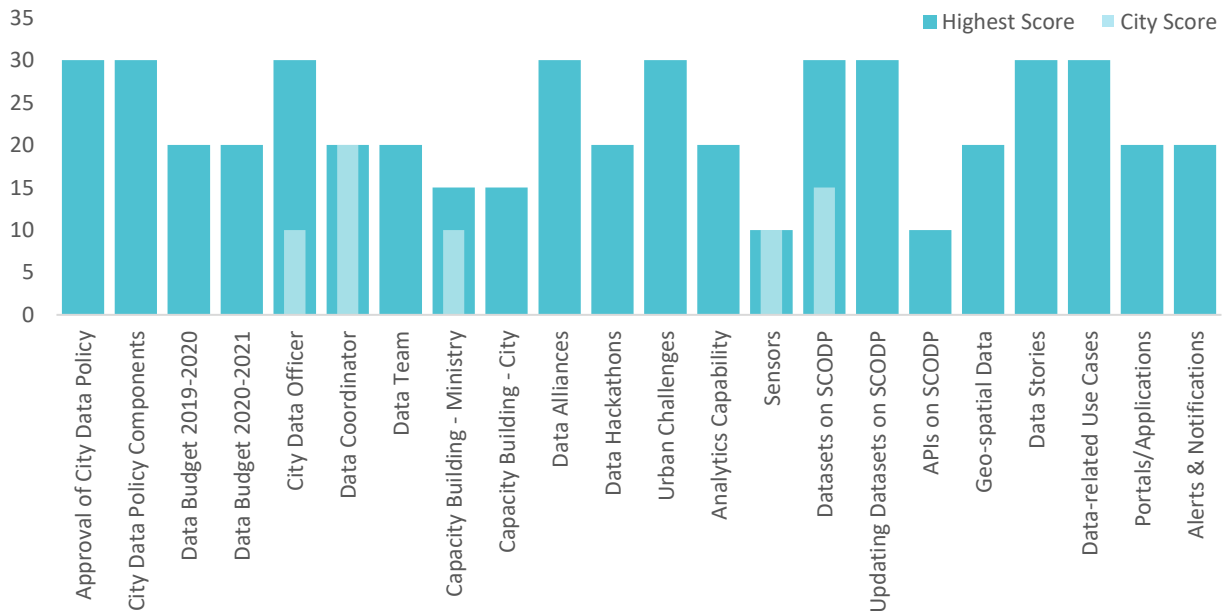
Beginner
Certificate

19
Score

City Ranks across Components

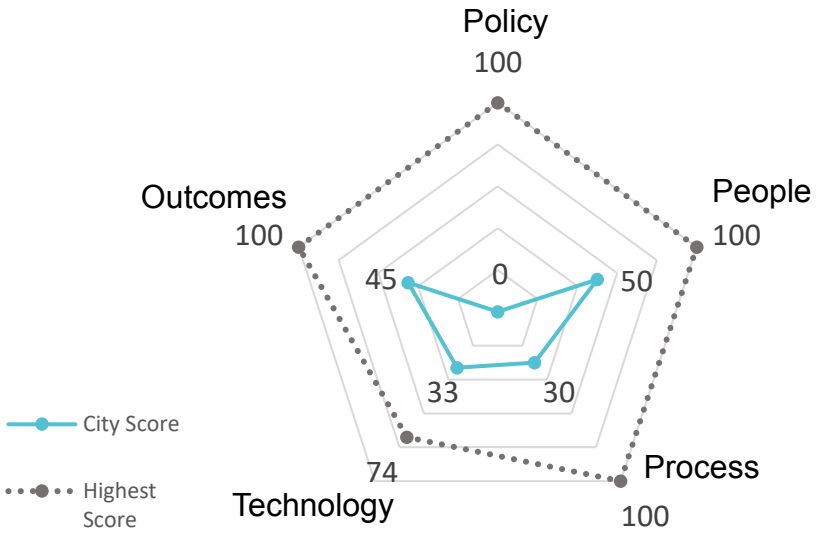
Policy	People	Process	Technology	Outcomes
54th	42nd	44th	60th	67th

City Score vs Highest across Indicators



DEHRADUN | UTTARAKHAND

City Scores across Components



City Engagement Score (out of 100): 80

31st
Rank

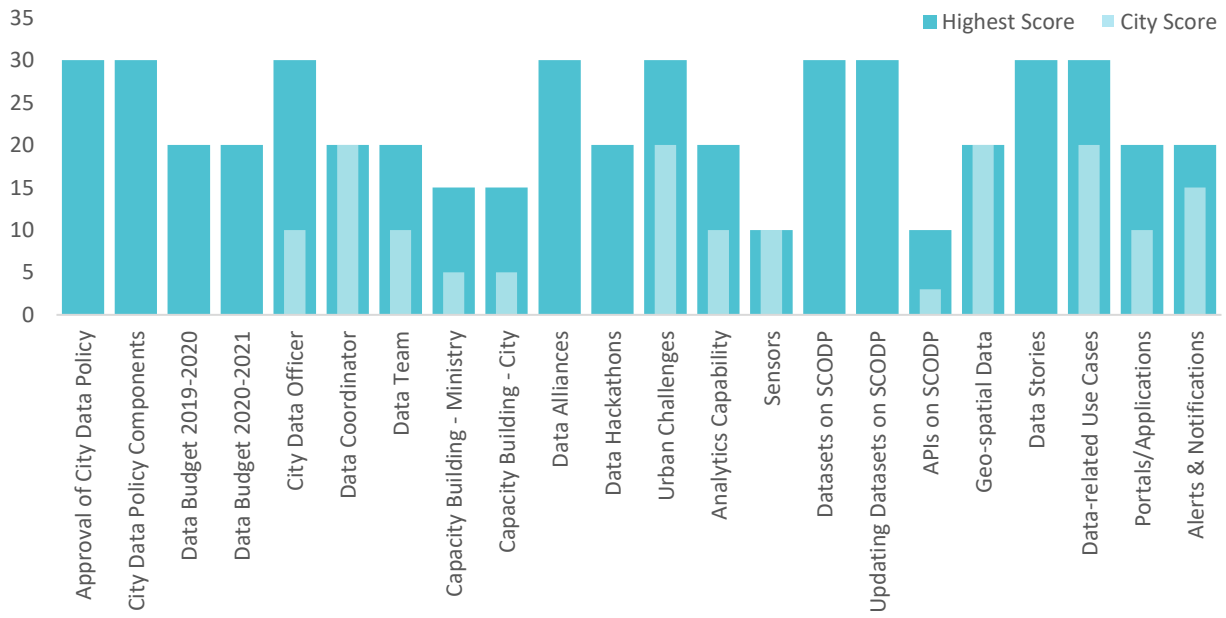
Initiator
Certificate

38
Score

City Ranks across Components

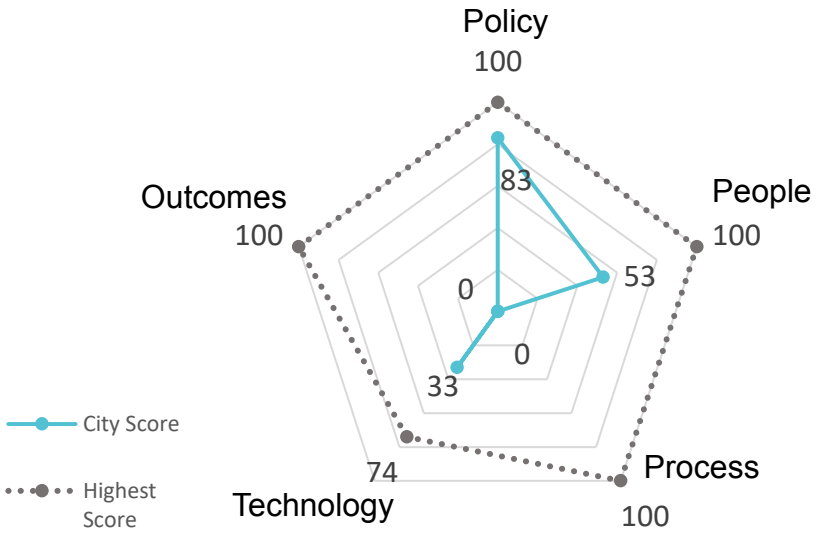
Policy	People	Process	Technology	Outcomes
54th	30th	21st	43rd	20th

City Score vs Highest across Indicators



DHARAMSHALA | HIMACHAL PRADESH

City Scores across Components



City Engagement Score (out of 100): 70

39th
Rank

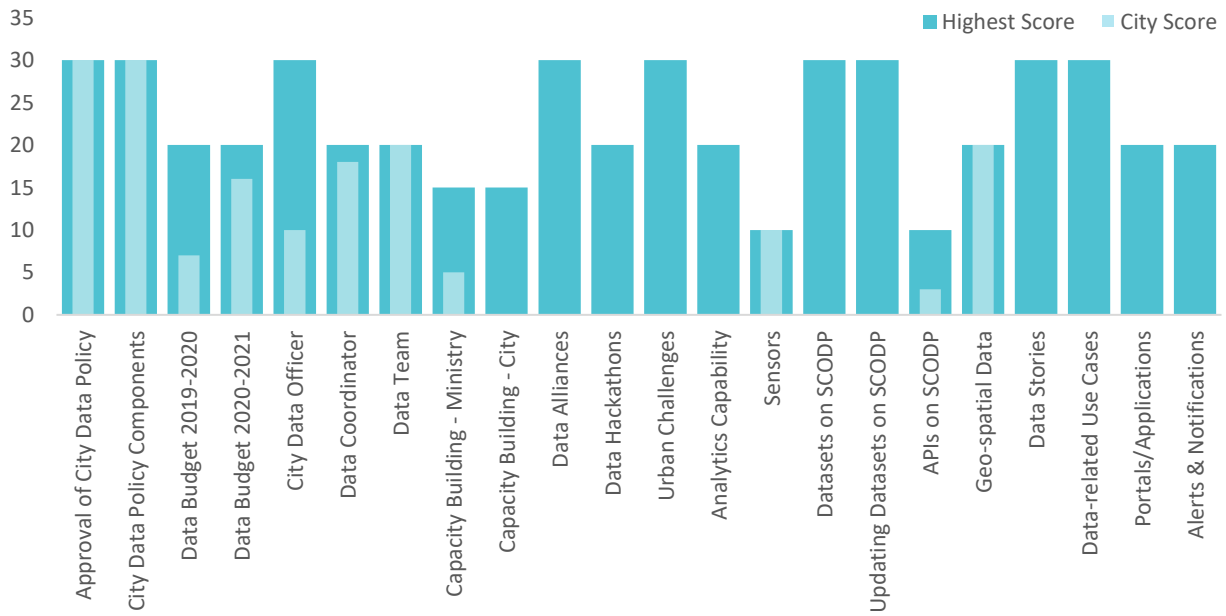
Initiator
Certificate

33
Score

City Ranks across Components

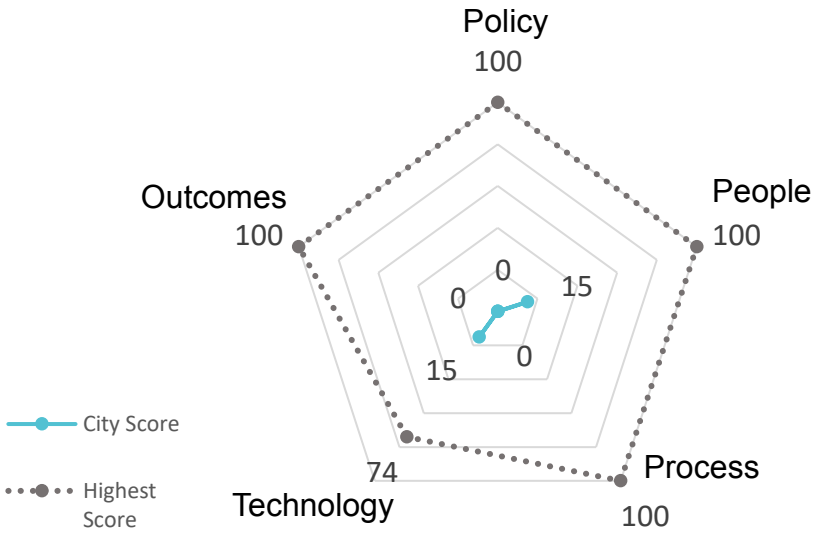
Policy	People	Process	Technology	Outcomes
7th	27th	44th	43rd	67th

City Score vs Highest across Indicators



DIU | DAMAN & DIU

City Scores across Components



City Engagement Score (out of 100): 60

93rd
Rank

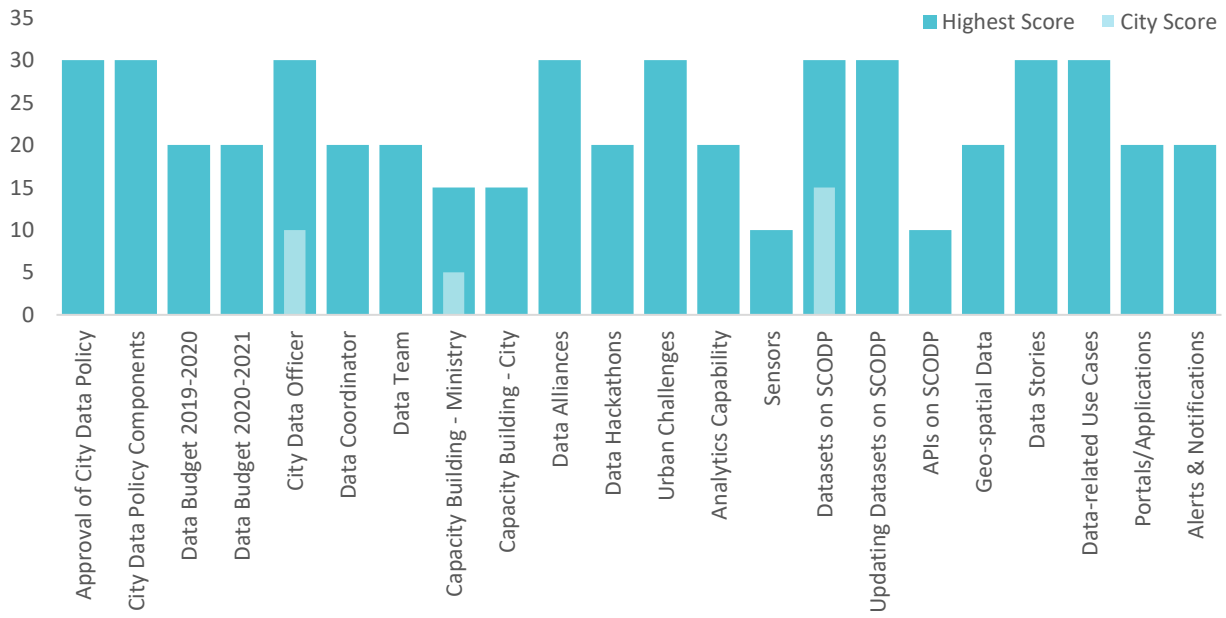
Beginner
Certificate

11
Score

City Ranks across Components

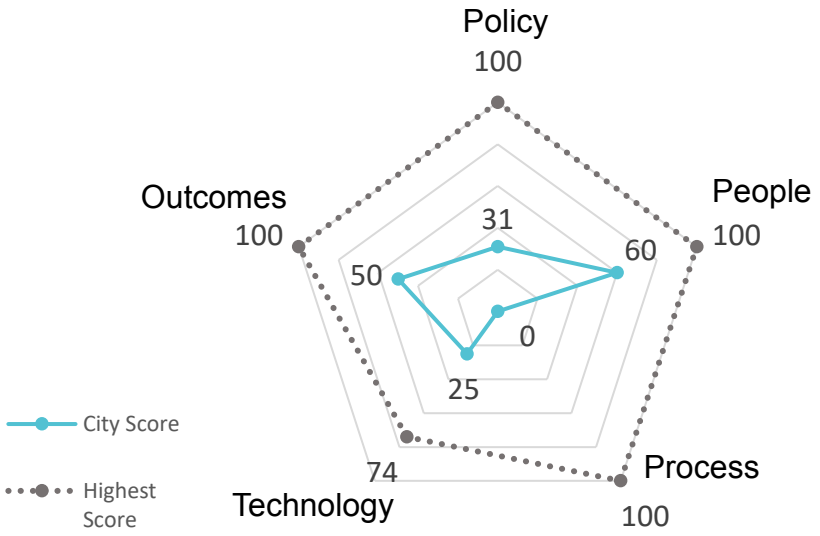
Policy	People	Process	Technology	Outcomes
54th	79th	44th	76th	67th

City Score vs Highest across Indicators



ERODE| TAMIL NADU

City Scores across Components



City Engagement Score (out of 100): 70

33rd

Rank

Initiator

Certificate

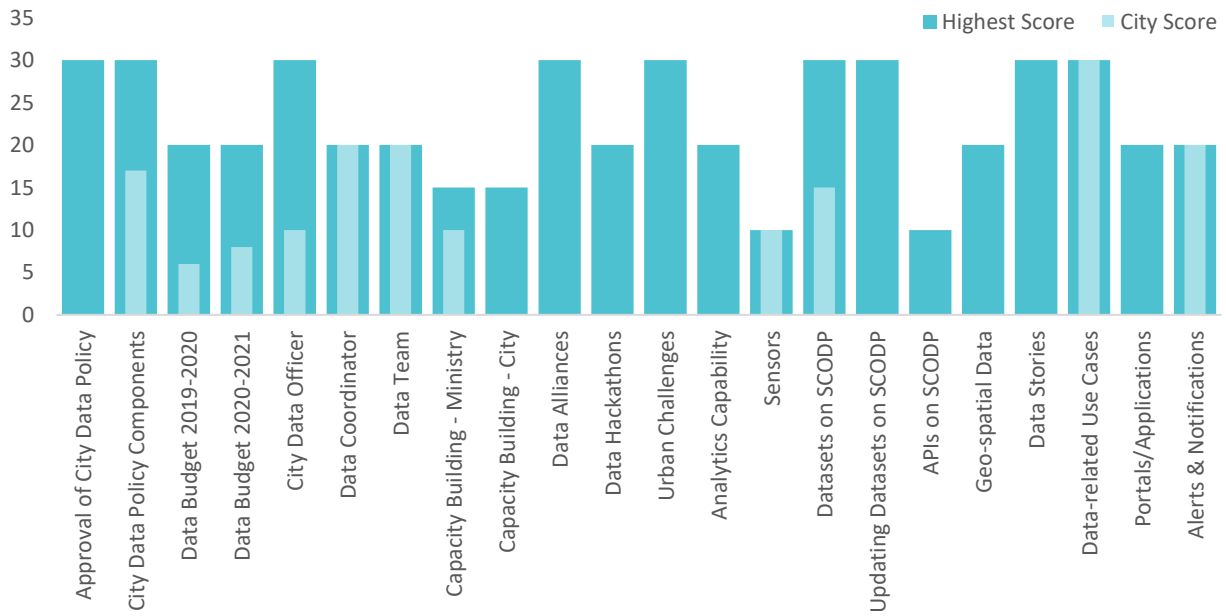
36

Score

City Ranks across Components

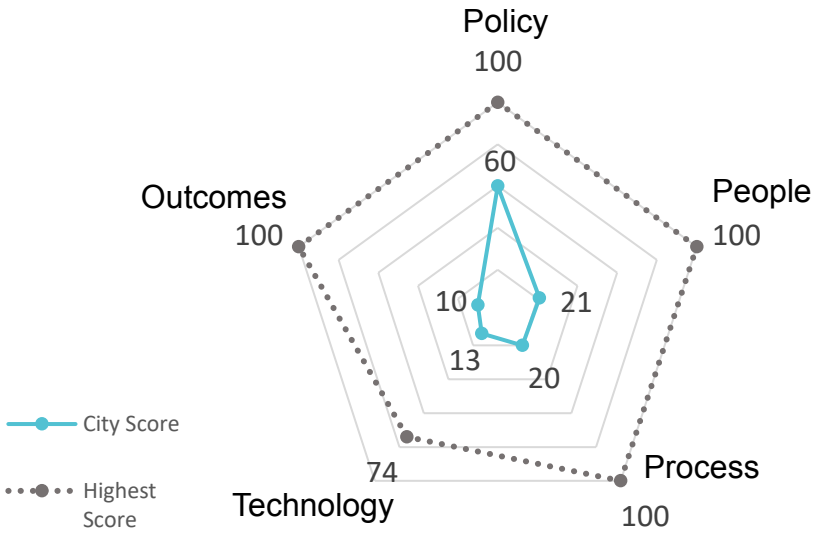
Policy	People	Process	Technology	Outcomes
40th	18th	44th	60th	16th

City Score vs Highest across Indicators



FARIDABAD | HARYANA

City Scores across Components



City Engagement Score (out of 100): 90

46th
Rank

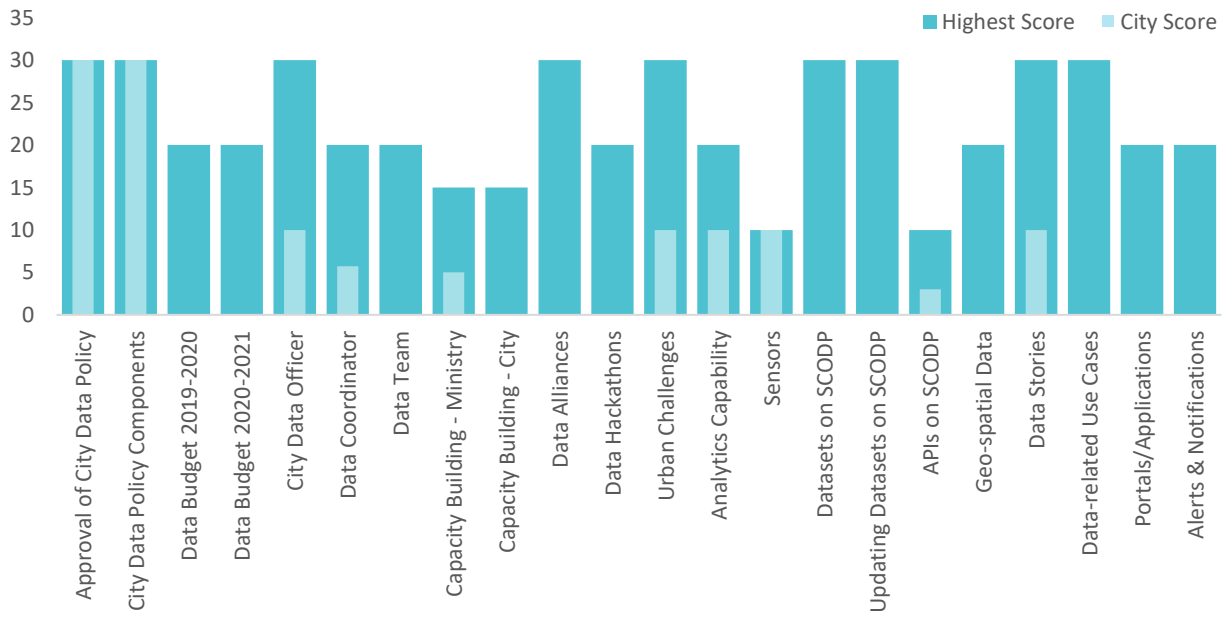
Beginner
Certificate

29
Score

City Ranks across Components

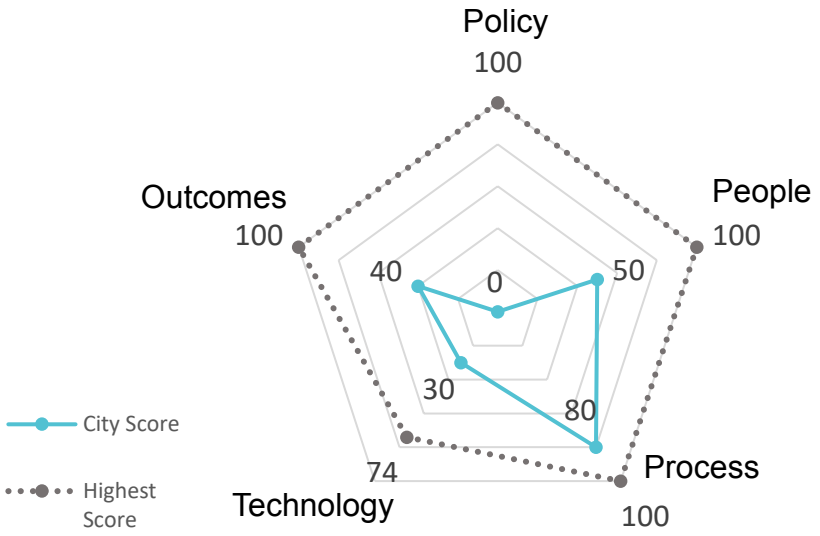
Policy	People	Process	Technology	Outcomes
21st	71st	28th	85th	53rd

City Score vs Highest across Indicators



GANDHINAGAR | GUJARAT

City Scores across Components



City Engagement Score (out of 100): 70

24th
Rank

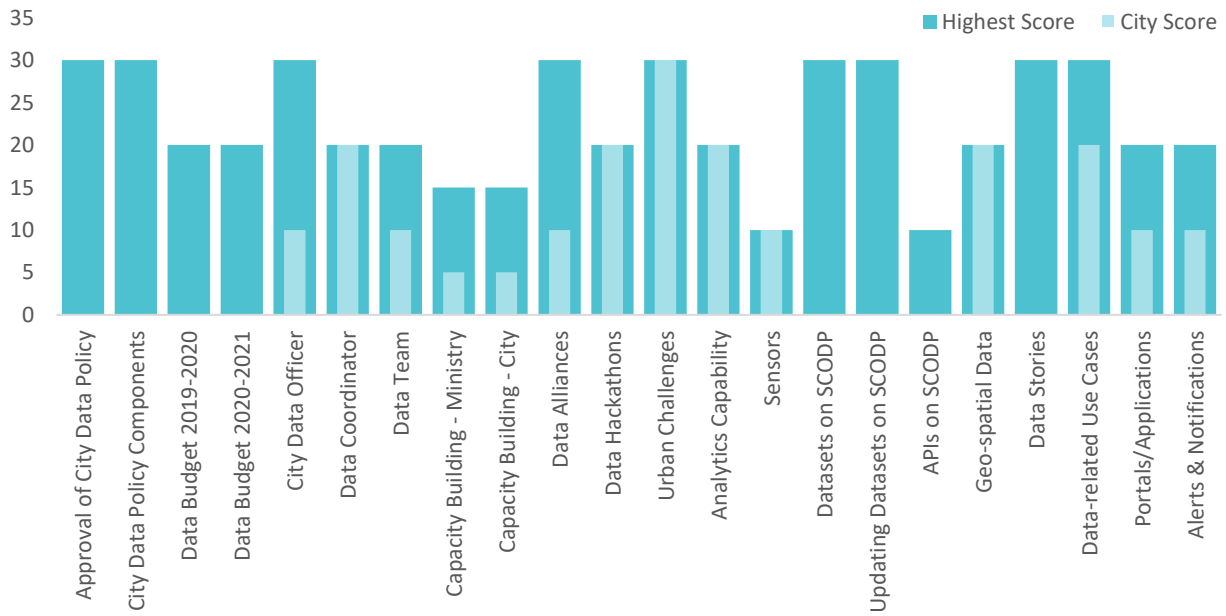
Initiator
Certificate

44
Score

City Ranks across Components

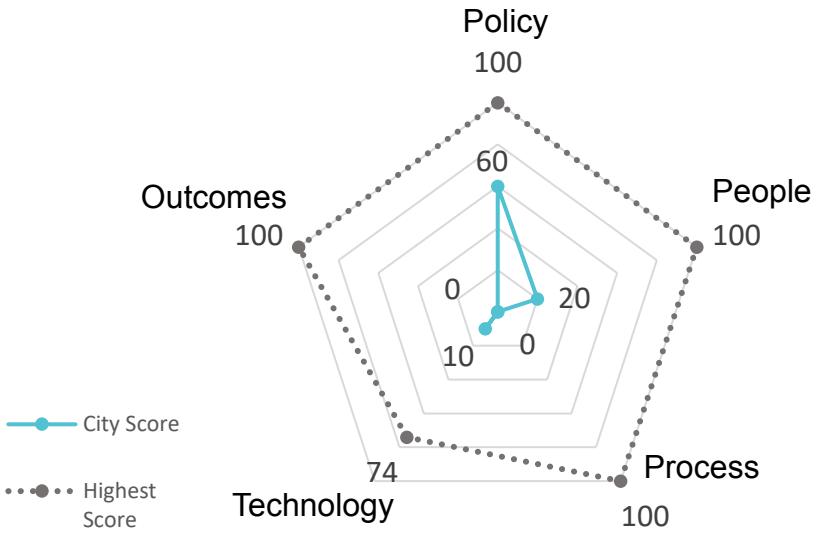
Policy	People	Process	Technology	Outcomes
54th	30th	1st	46th	23rd

City Score vs Highest across Indicators



GANGTOK | SIKKIM

City Scores across Components



City Engagement Score (out of 100): 70

66th
Rank

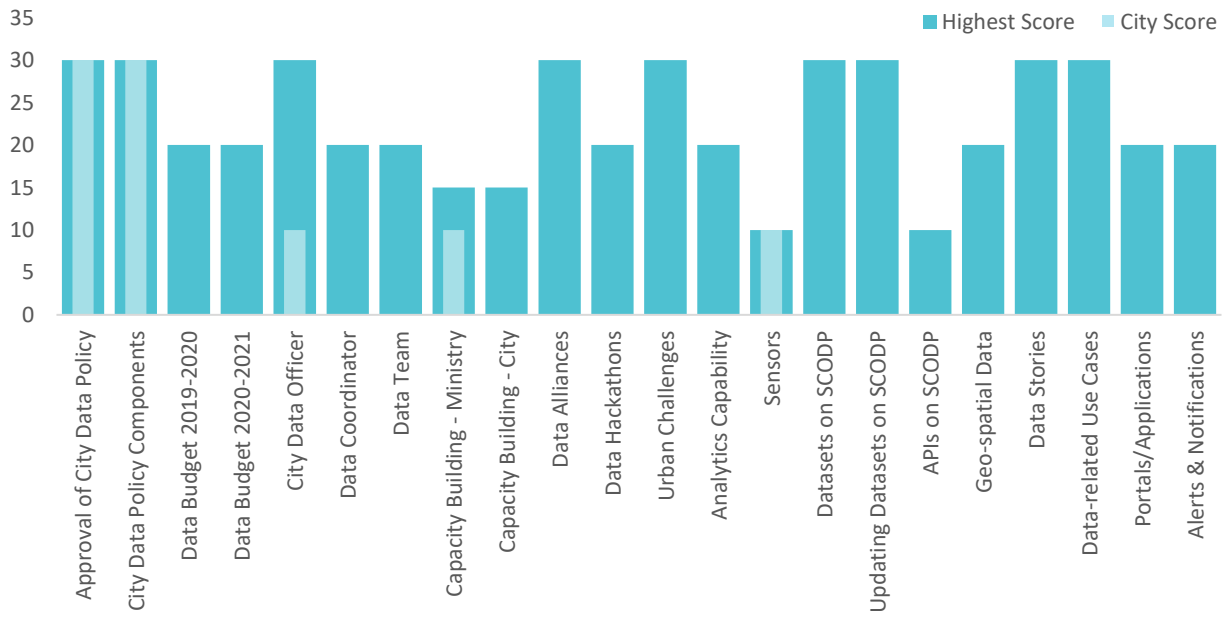
Beginner
Certificate

20
Score

City Ranks across Components

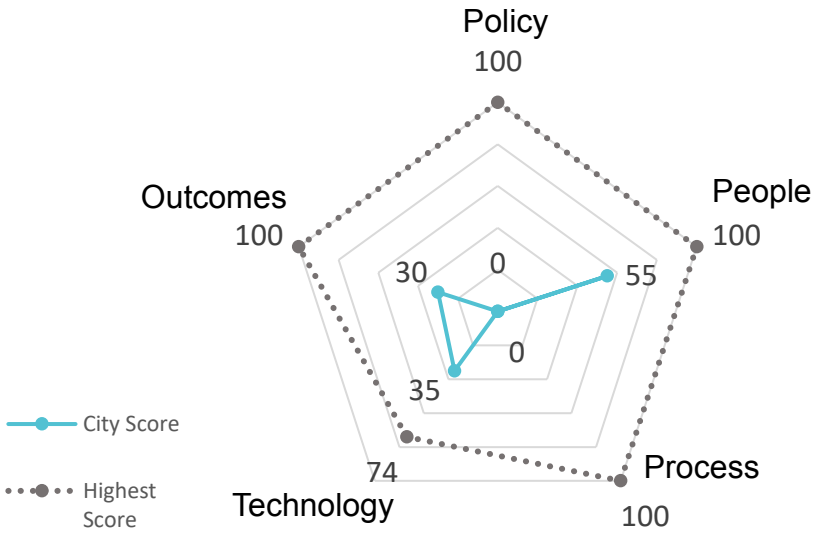
Policy	People	Process	Technology	Outcomes
21st	73rd	44th	86th	67th

City Score vs Highest across Indicators



GREATER WARANGAL | TELANGANA

City Scores across Components



City Engagement Score (out of 100): 70

46th
Rank

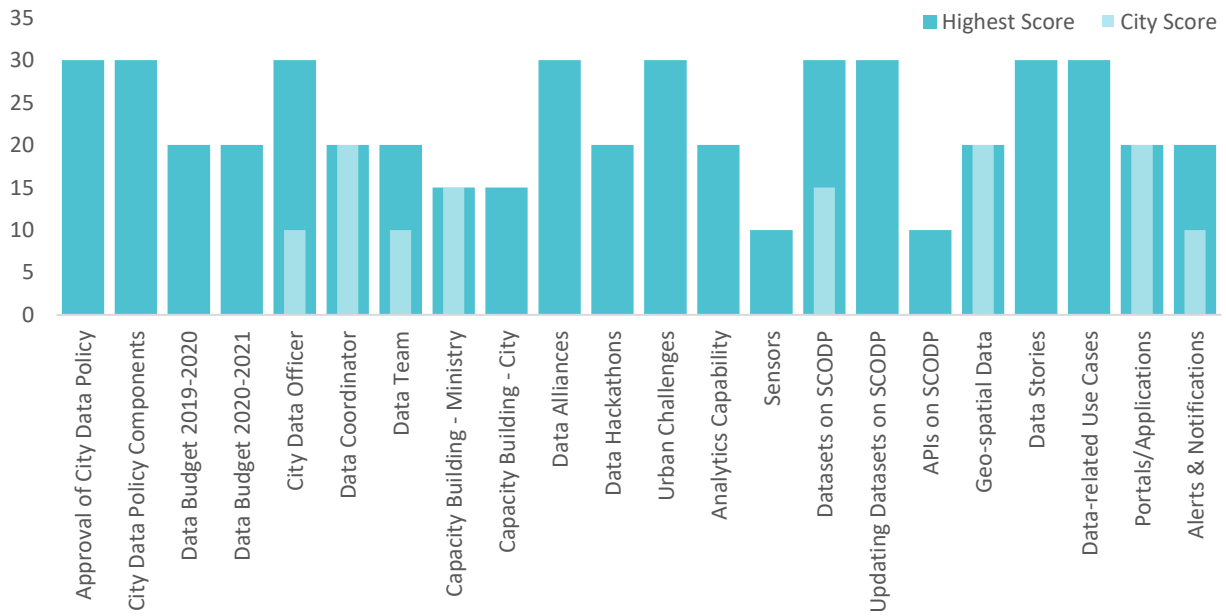
Beginner
Certificate

29
Score

City Ranks across Components

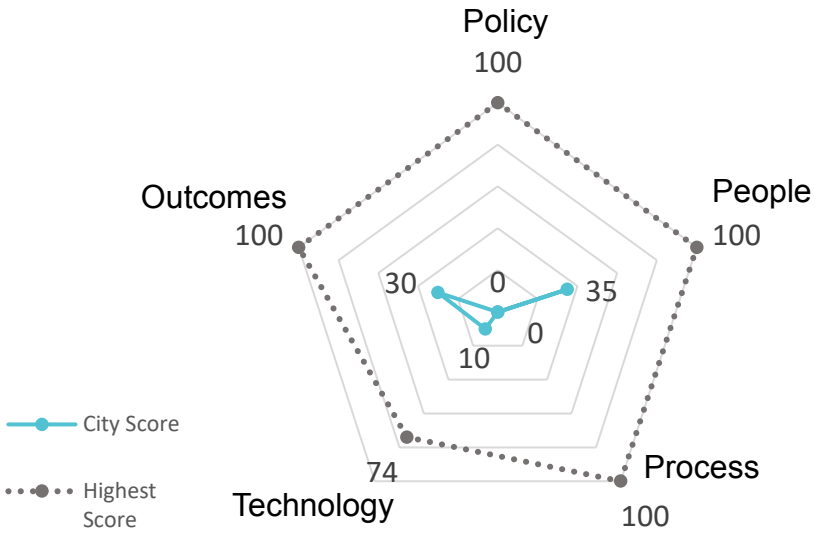
Policy	People	Process	Technology	Outcomes
54th	20th	44th	39th	34th

City Score vs Highest across Indicators



GUWAHATI | ASSAM

City Scores across Components



City Engagement Score (out of 100): 70

62nd
Rank

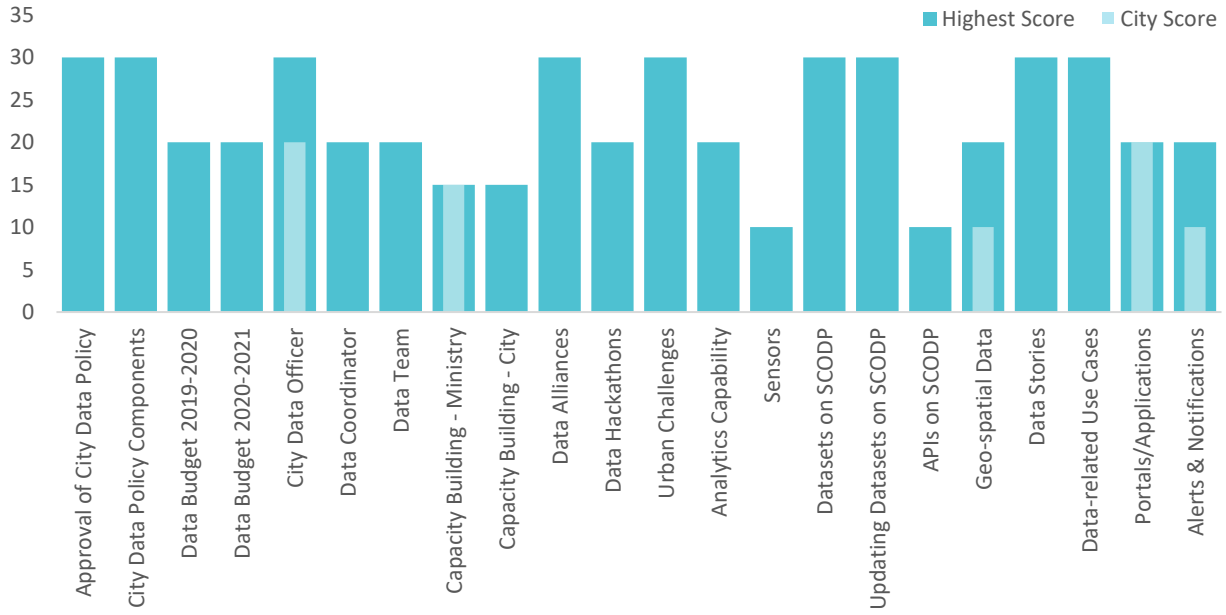
Beginner
Certificate

21
Score

City Ranks across Components

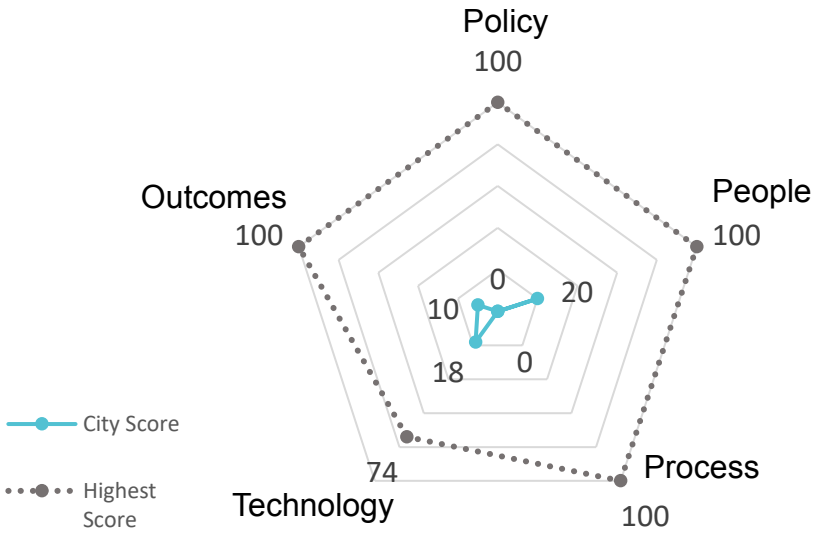
Policy	People	Process	Technology	Outcomes
54th	46th	44th	86th	34th

City Score vs Highest across Indicators



GWALIOR | MADHYA PRADESH

City Scores across Components



City Engagement Score (out of 100): 80

70th
Rank

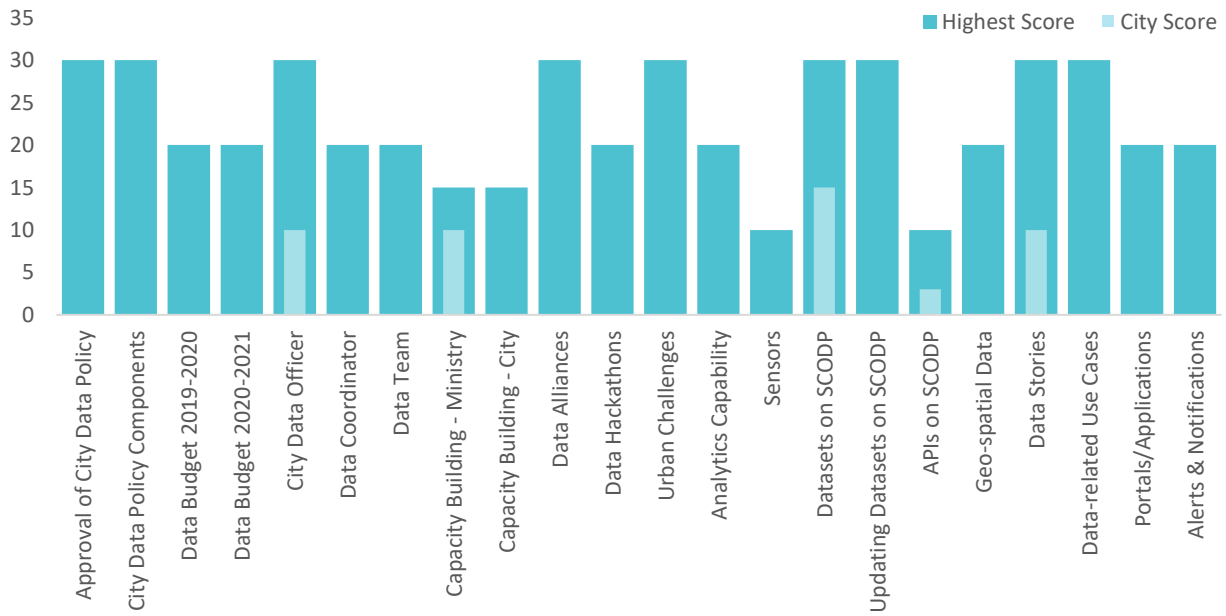
Beginner
Certificate

17
Score

City Ranks across Components

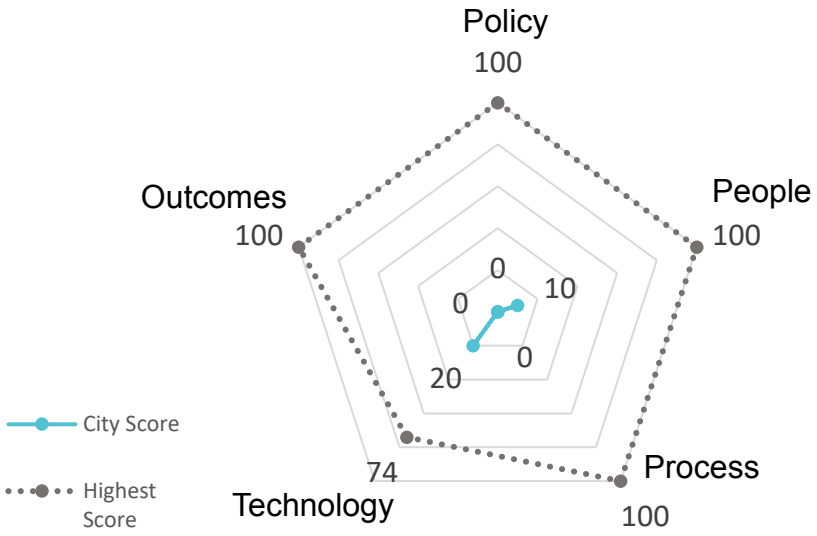
Policy	People	Process	Technology	Outcomes
54th	73rd	44th	74th	53rd

City Score vs Highest across Indicators



HUBLI DHARWAD | KARNATAKA

City Scores across Components



City Engagement Score (out of 100): 70

87th
Rank

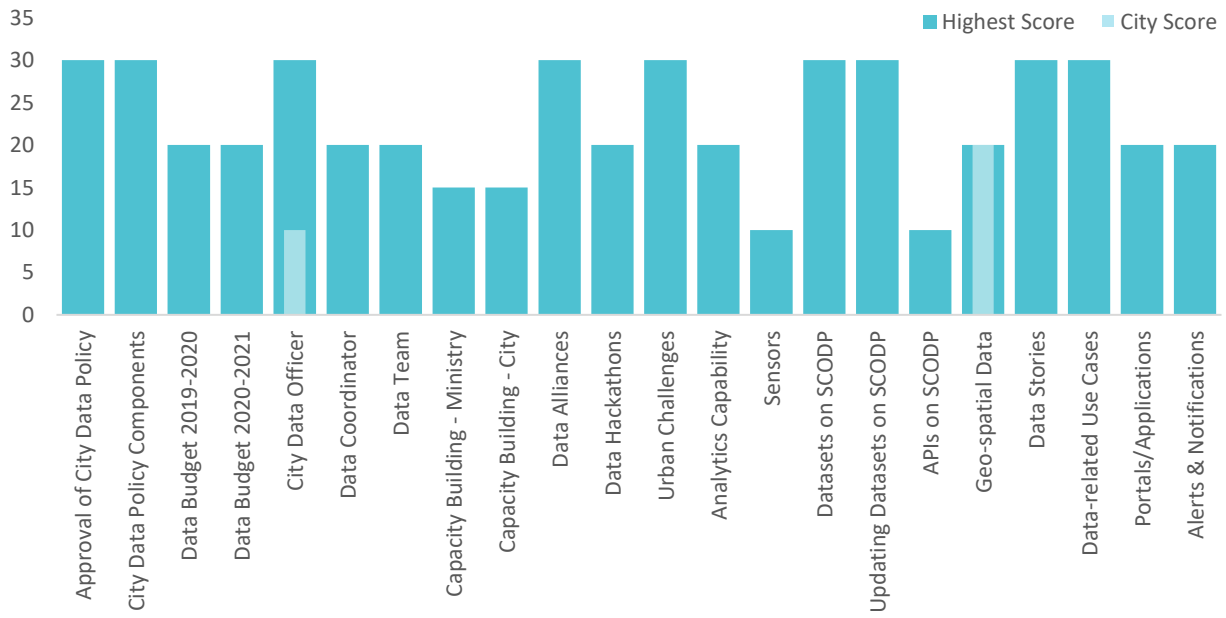
Beginner
Certificate

13
Score

City Ranks across Components

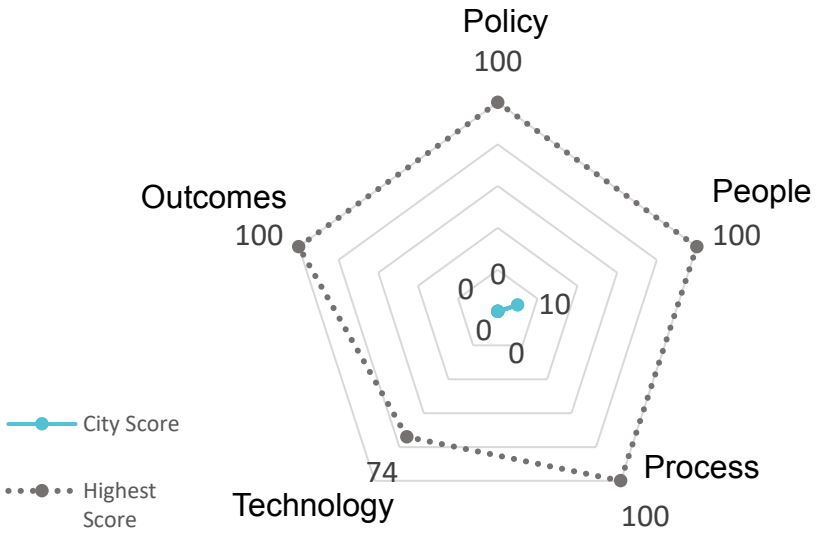
Policy	People	Process	Technology	Outcomes
54th	94th	44th	67th	67th

City Score vs Highest across Indicators



IMPHAL | MANIPUR

City Scores across Components



City Engagement Score (out of 100): 70

98th
Rank

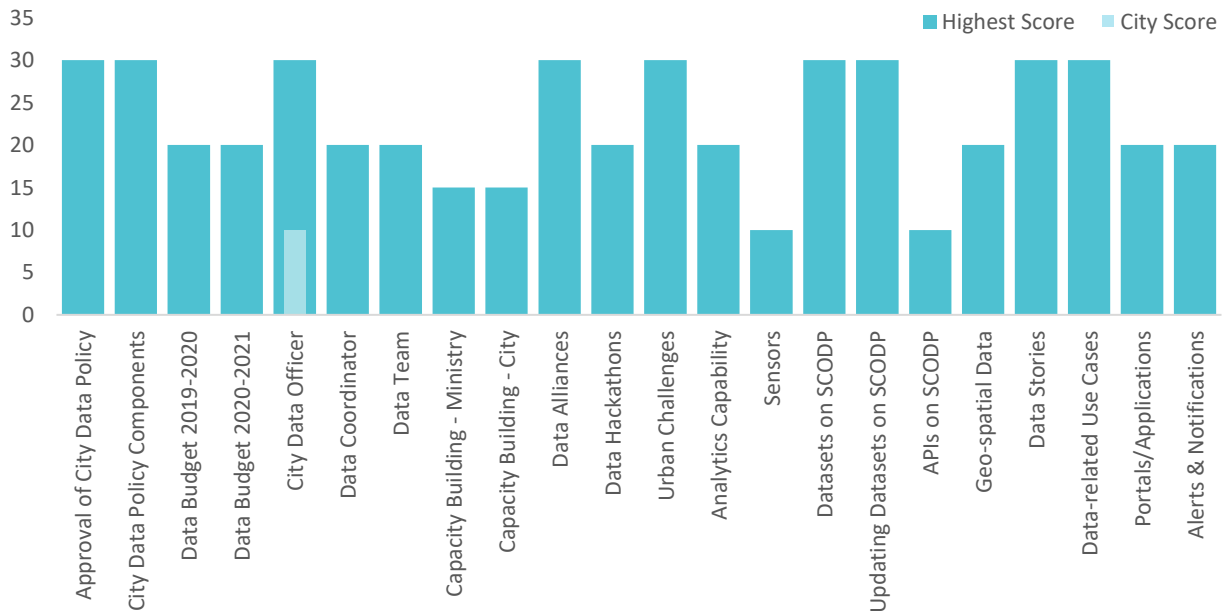
Beginner
Certificate

8
Score

City Ranks across Components

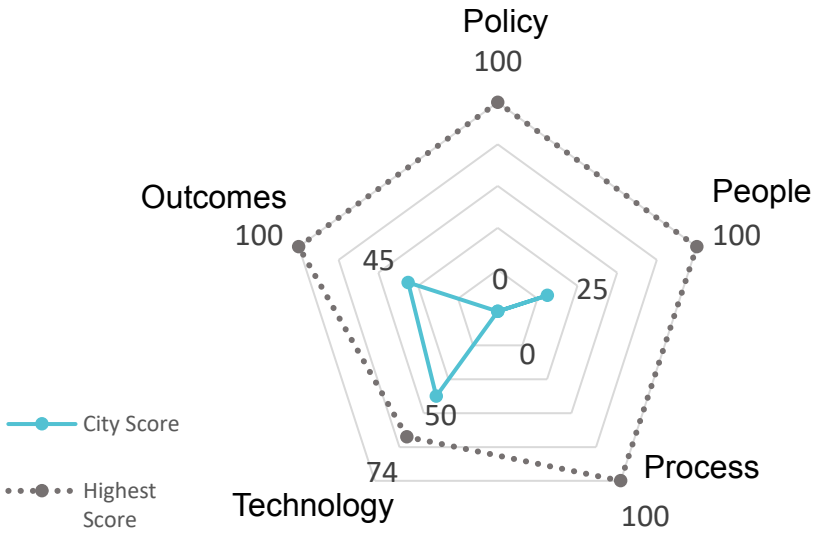
Policy	People	Process	Technology	Outcomes
54th	94th	44th	92nd	67th

City Score vs Highest across Indicators



INDORE | MADHYA PRADESH

City Scores across Components



City Engagement Score (out of 100): 80

39th
Rank

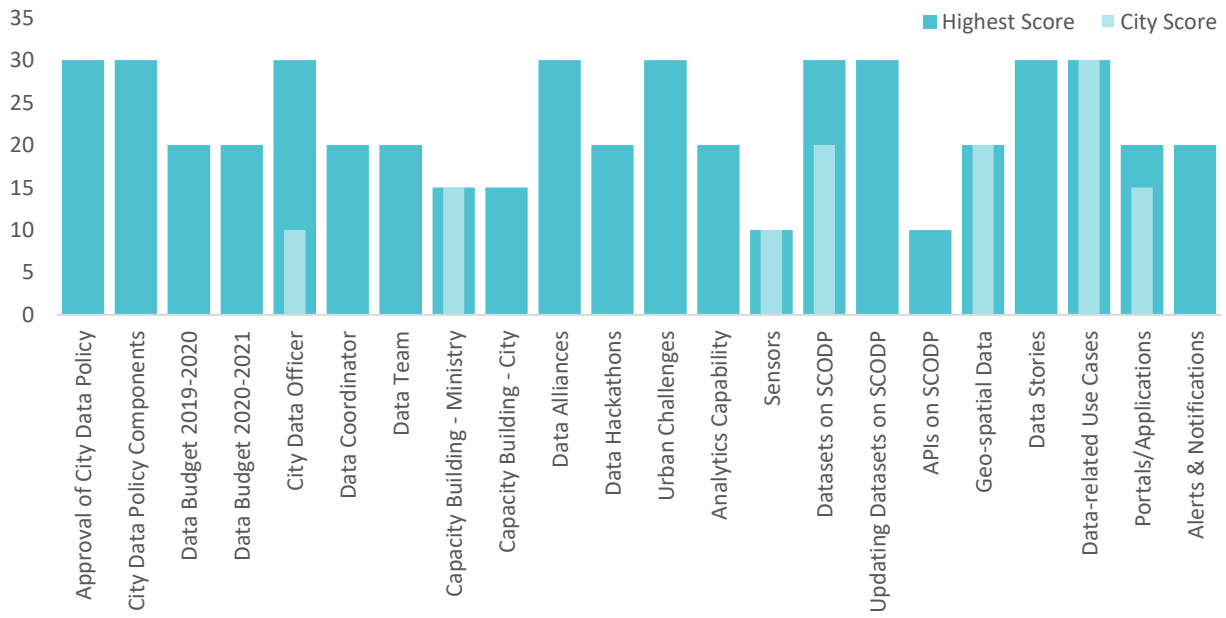
Initiator
Certificate

33
Score

City Ranks across Components

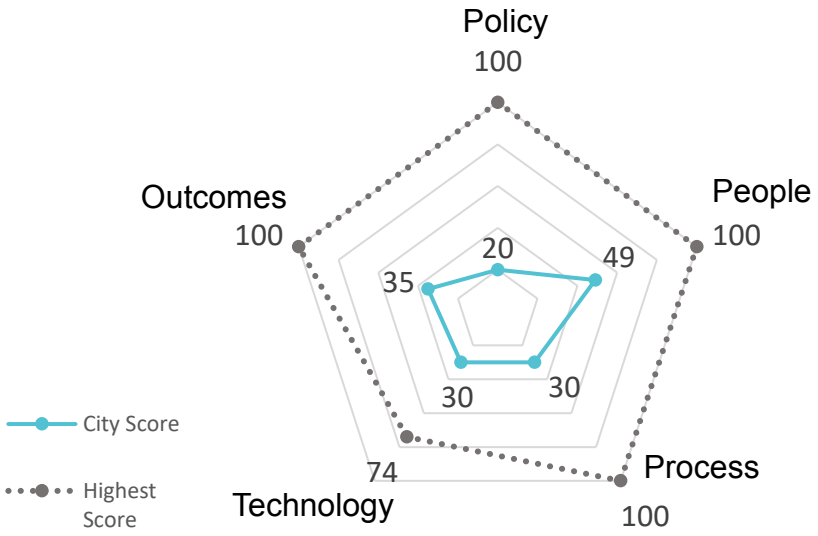
Policy	People	Process	Technology	Outcomes
54th	61st	44th	11th	20th

City Score vs Highest across Indicators



ITANAGAR | ARUNACHAL PRADESH

City Scores across Components



City Engagement Score (out of 100): 60

36th
Rank

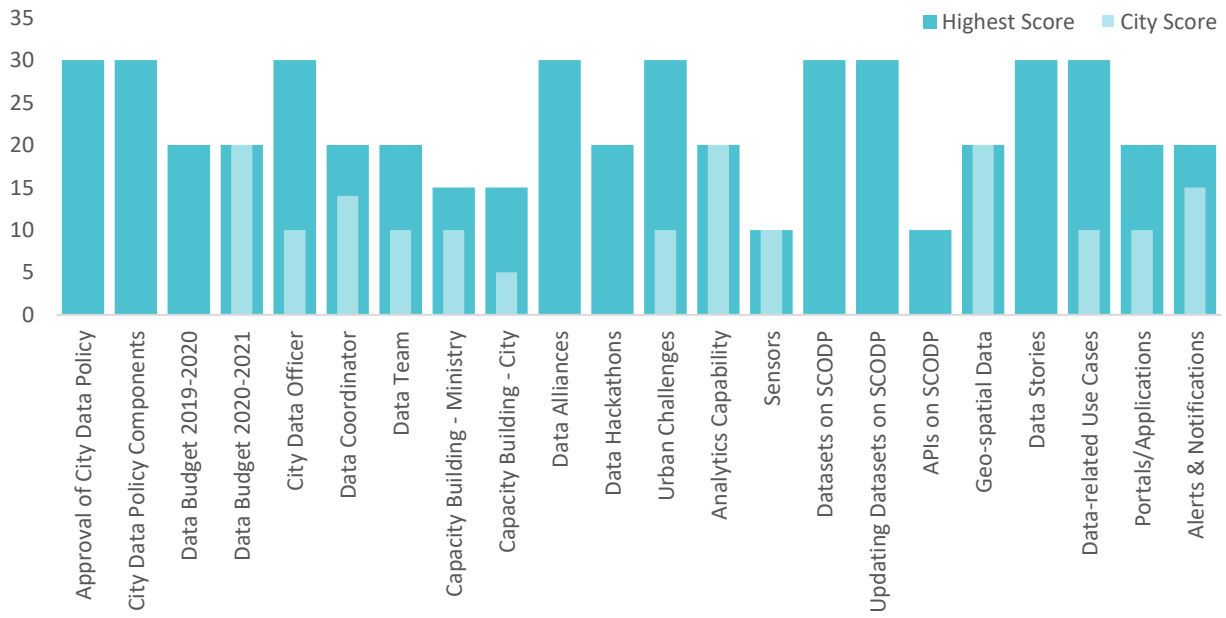
Initiator
Certificate

35
Score

City Ranks across Components

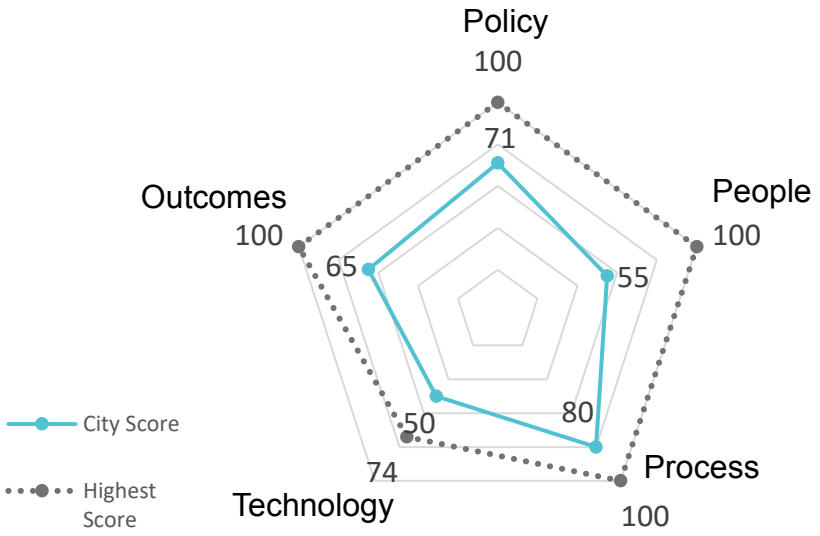
Policy	People	Process	Technology	Outcomes
50th	35th	21st	46th	31st

City Score vs Highest across Indicators



JABALPUR | MADHIYA PRADESH

City Scores across Components



City Engagement Score (out of 100): 90

7th
Rank

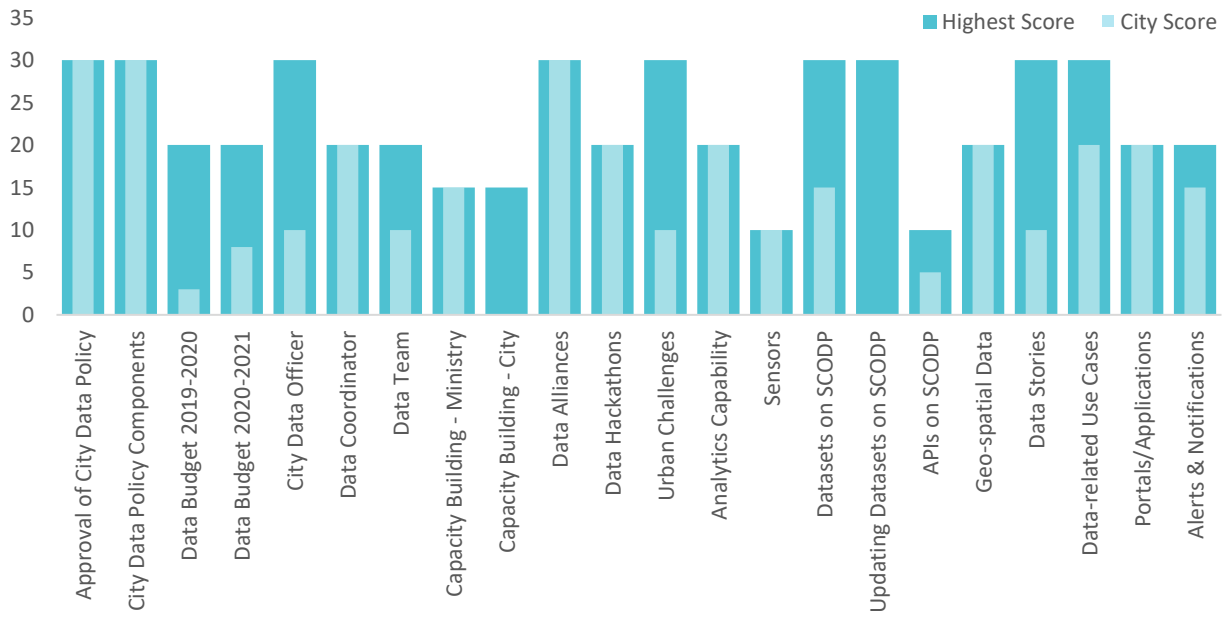
Enabled
Certificate

66
Score

City Ranks across Components

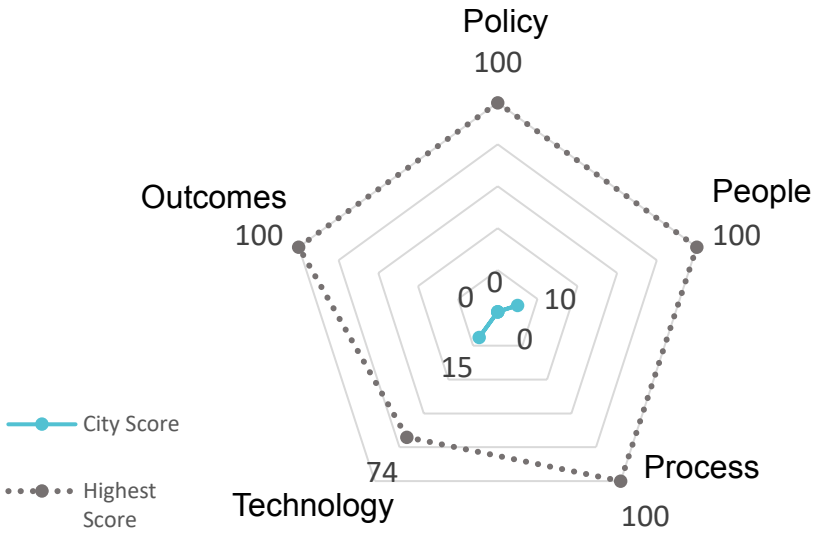
Policy	People	Process	Technology	Outcomes
15th	20th	1st	11th	12th

City Score vs Highest across Indicators



JAIPUR | RAJASTHAN

City Scores across Components



City Engagement Score (out of 100): 90

84th
Rank

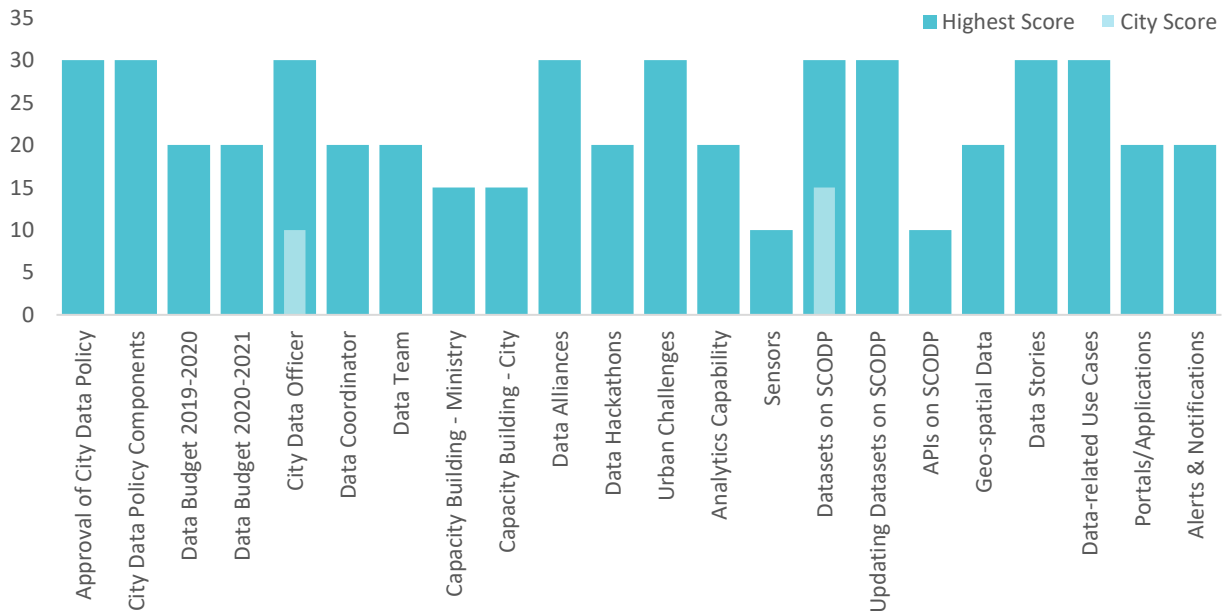
Beginner
Certificate

14
Score

City Ranks across Components

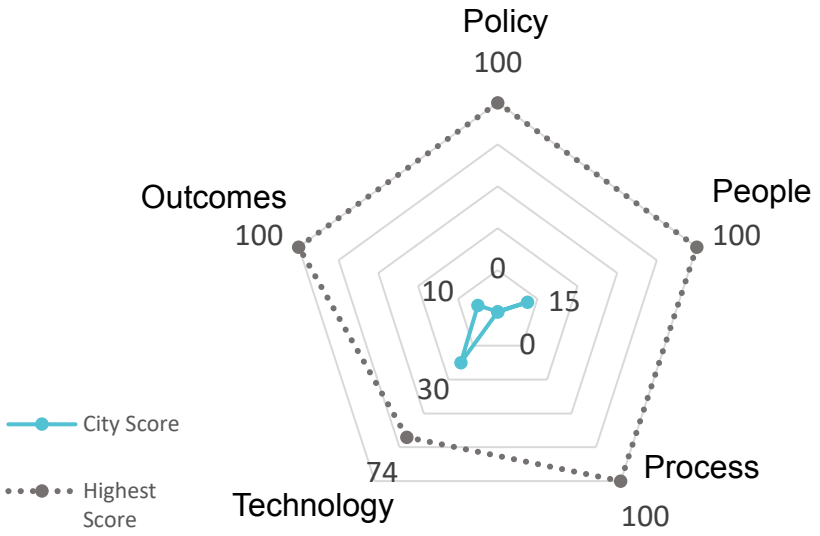
Policy	People	Process	Technology	Outcomes
54th	94th	44th	76th	67th

City Score vs Highest across Indicators



JALANDHAR | PUNJAB

City Scores across Components



City Engagement Score (out of 100): 60

70th
Rank

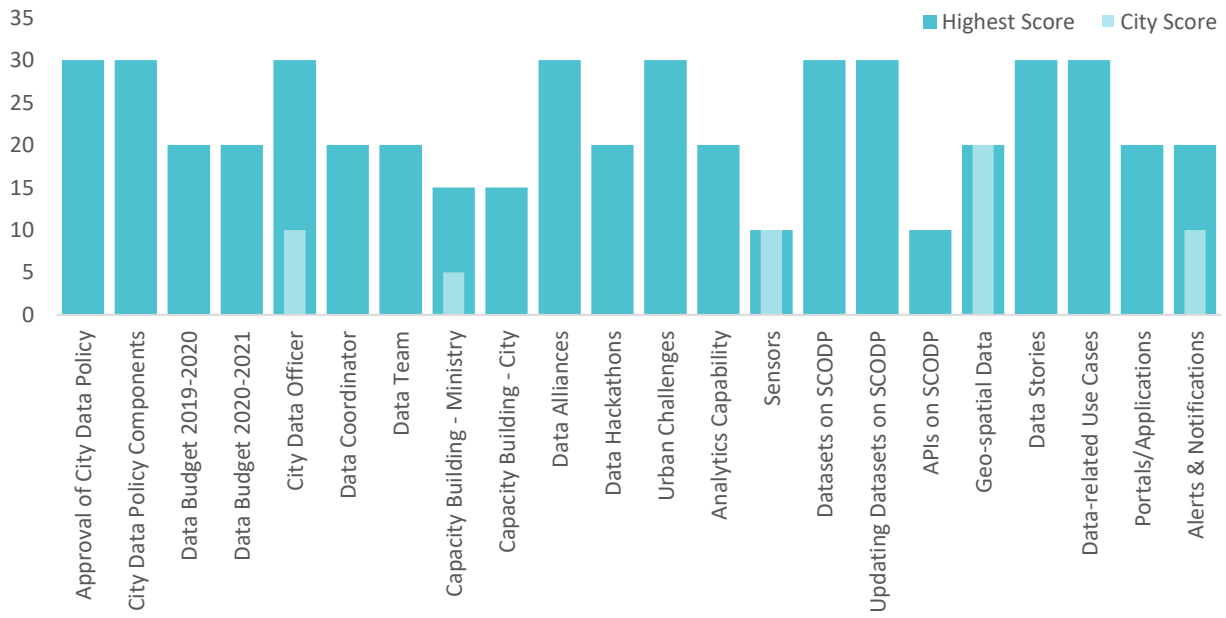
Beginner
Certificate

17
Score

City Ranks across Components

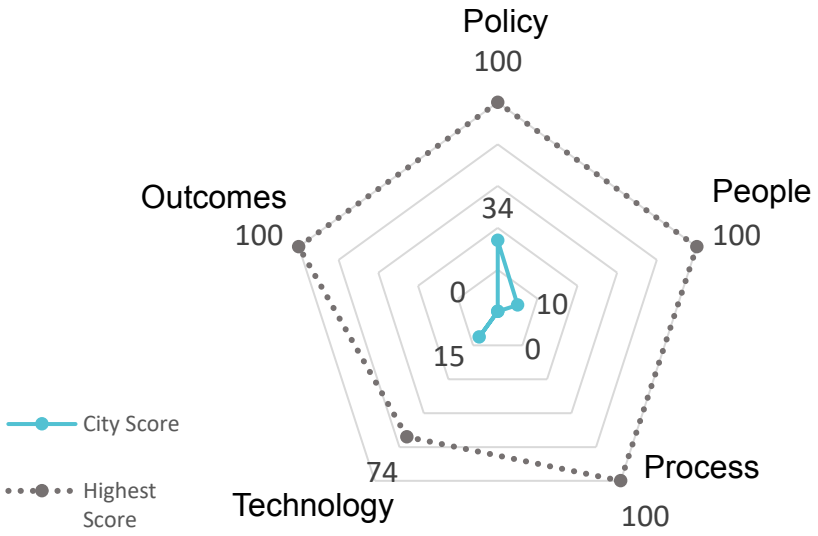
Policy	People	Process	Technology	Outcomes
54th	79th	44th	46th	53rd

City Score vs Highest across Indicators



JAMMU | JAMMU & KASHMIR

City Scores across Components



City Engagement Score (out of 100): 60

81st
Rank

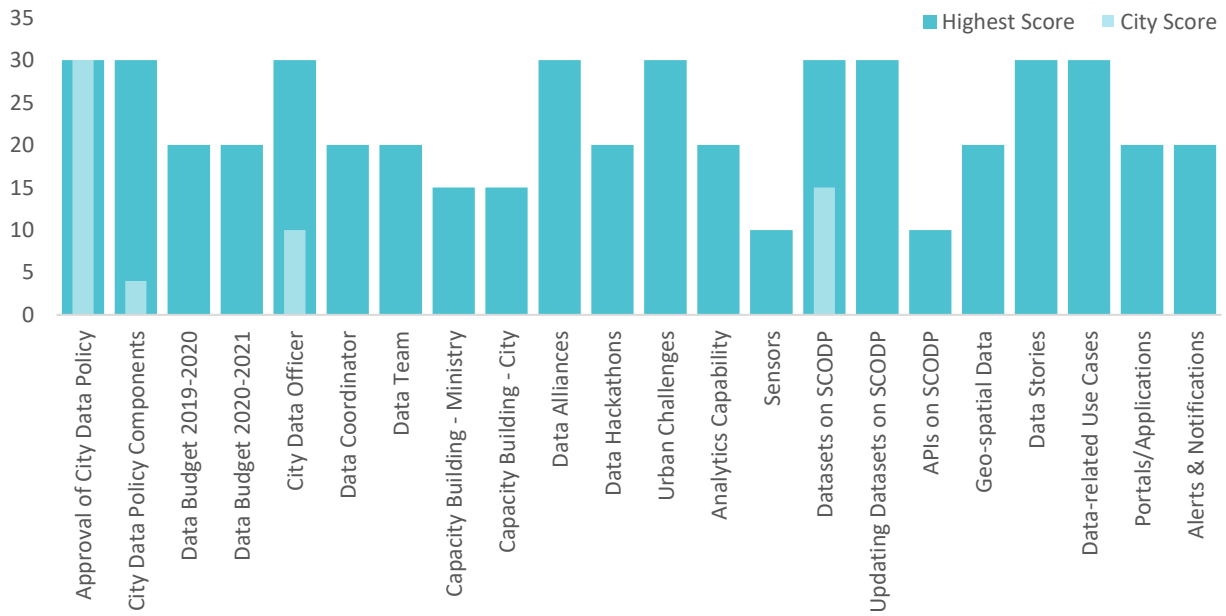
Beginner
Certificate

15
Score

City Ranks across Components

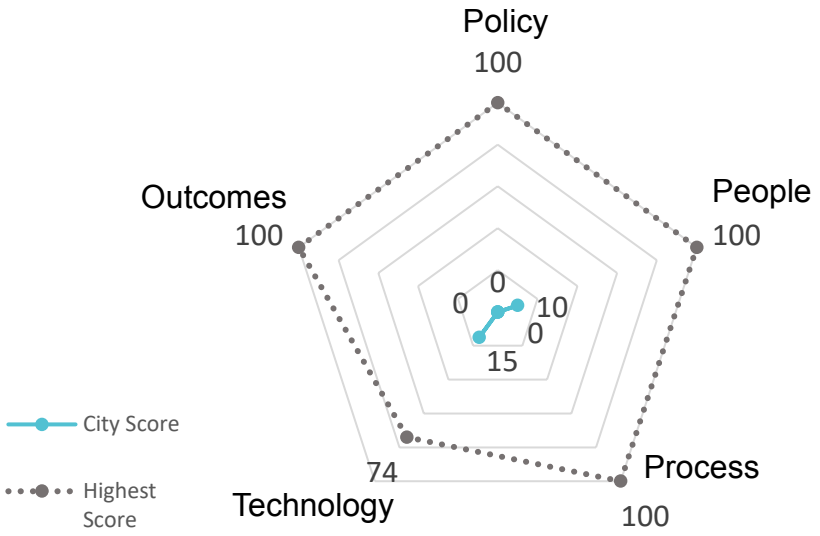
Policy	People	Process	Technology	Outcomes
38th	94th	44th	76th	67th

City Score vs Highest across Indicators



JHANSI | UTTAR PRADESH

City Scores across Components



City Engagement Score (out of 100): 60

93rd
Rank

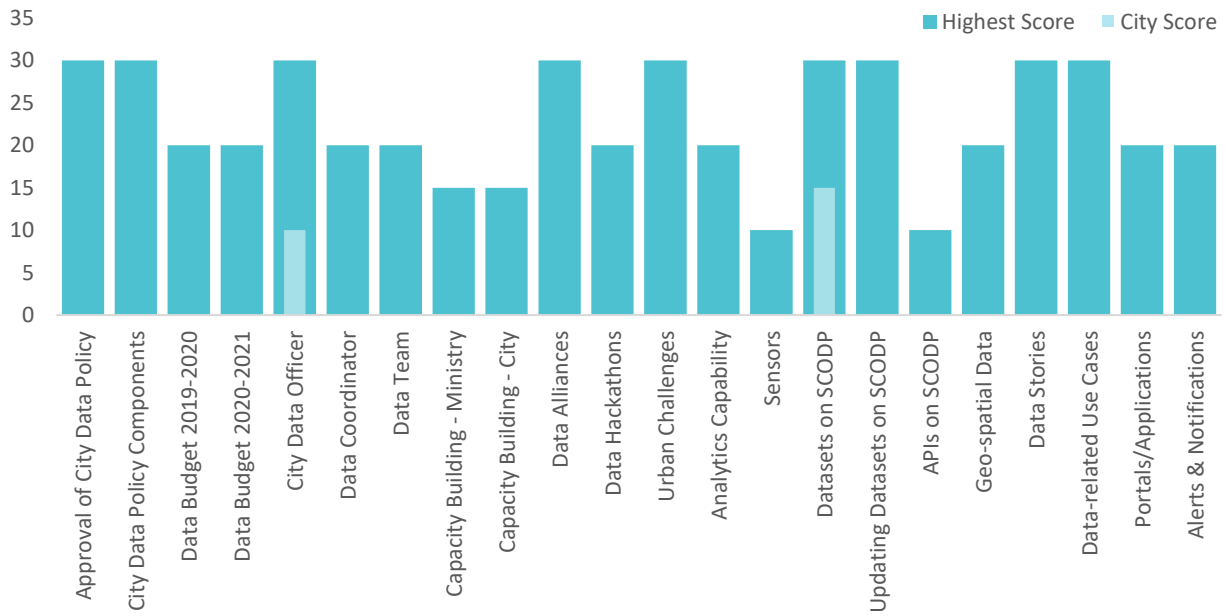
Beginner
Certificate

11
Score

City Ranks across Components

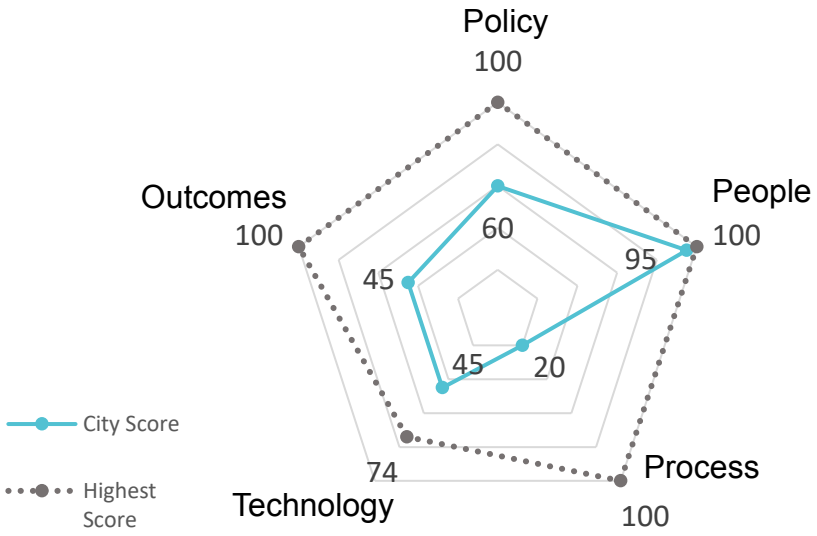
Policy	People	Process	Technology	Outcomes
54th	94th	44th	76th	67th

City Score vs Highest across Indicators



KAKINADA | ANDHRA PRADESH

City Scores across Components



City Engagement Score (out of 100): 80

19th
Rank

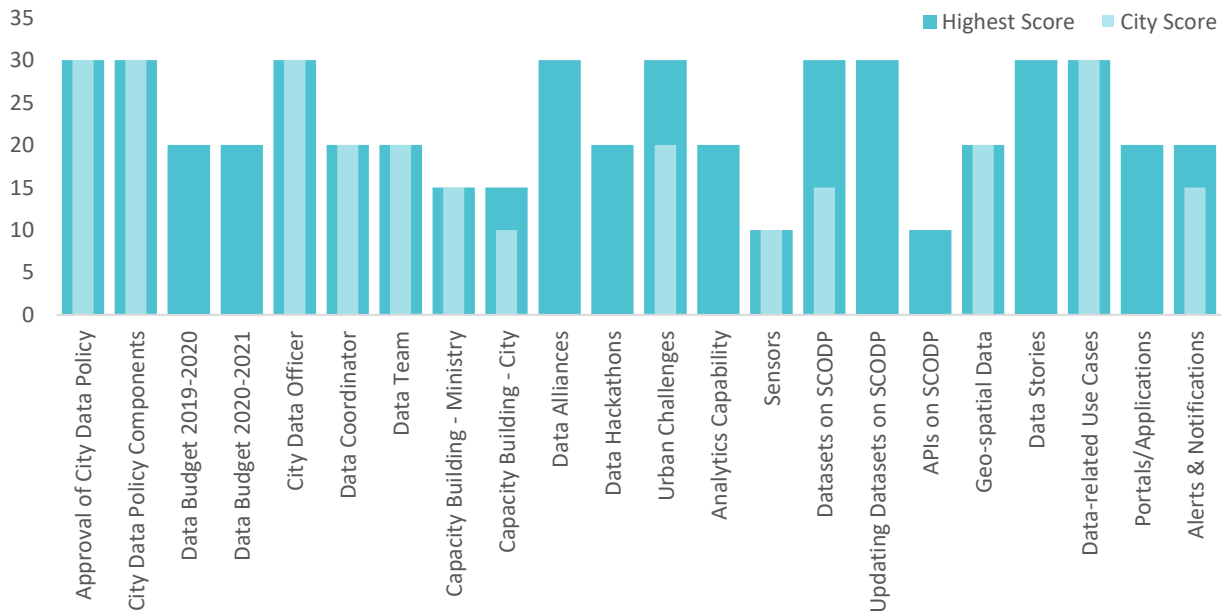
Explorer
Certificate

53
Score

City Ranks across Components

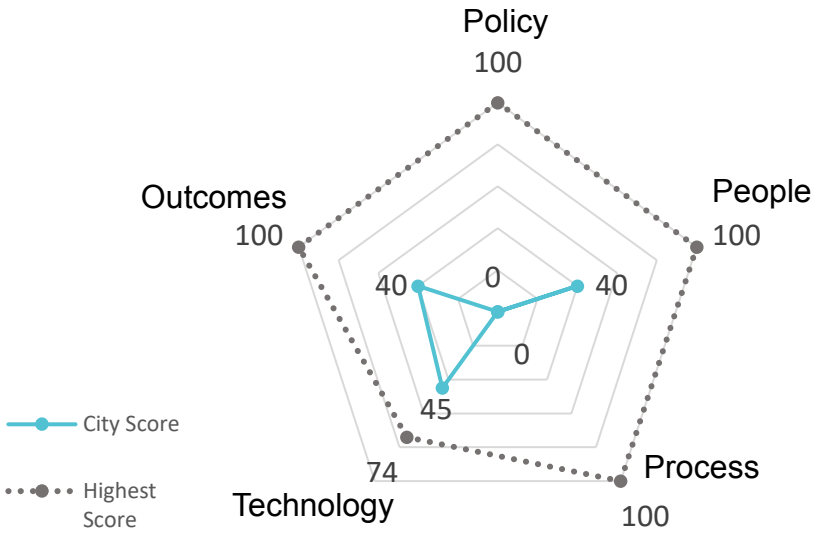
Policy	People	Process	Technology	Outcomes
21st	2nd	28th	17th	20th

City Score vs Highest across Indicators



KALYAN DOMBIVLI | MAHARASHTRA

City Scores across Components



City Engagement Score (out of 100): 70

43rd
Rank

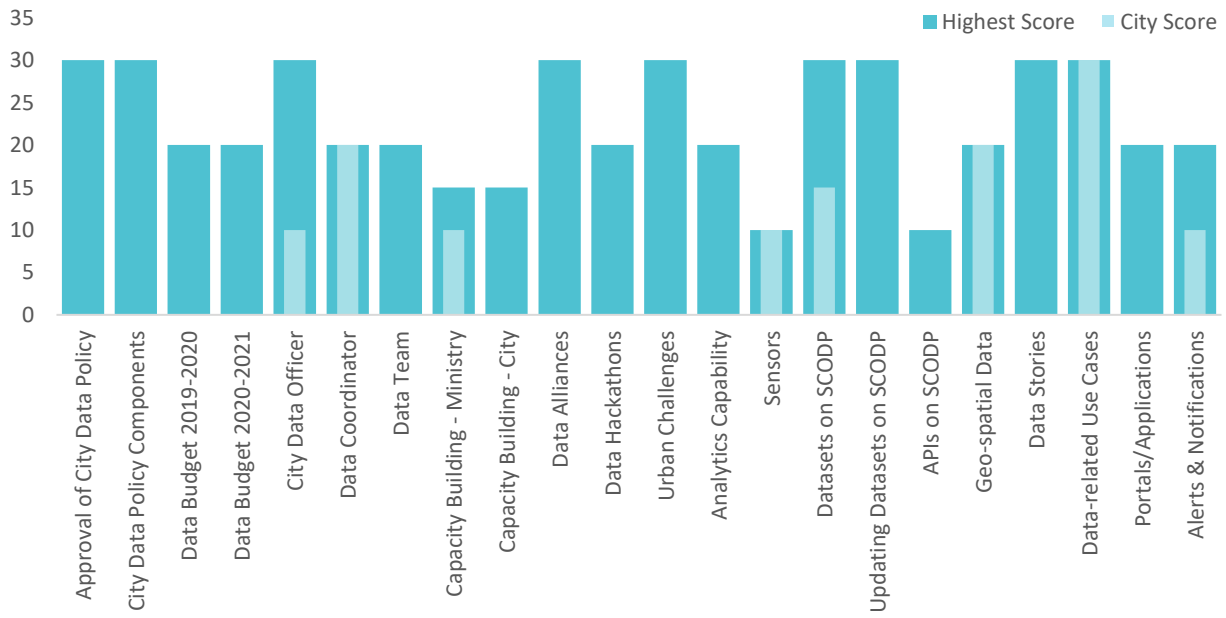
Beginner
Certificate

32
Score

City Ranks across Components

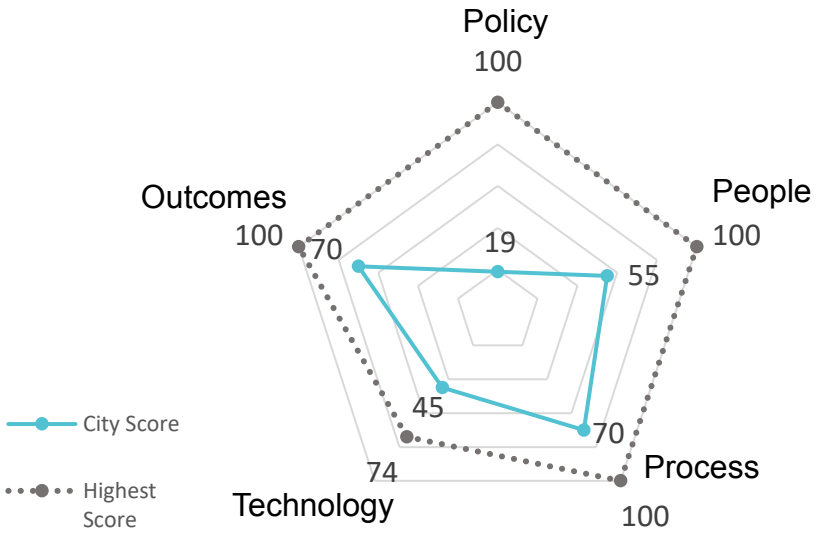
Policy	People	Process	Technology	Outcomes
54th	42nd	44th	17th	23rd

City Score vs Highest across Indicators



KANPUR | UTTAR PRADESH

City Scores across Components



City Engagement Score (out of 100): 90

13th
Rank

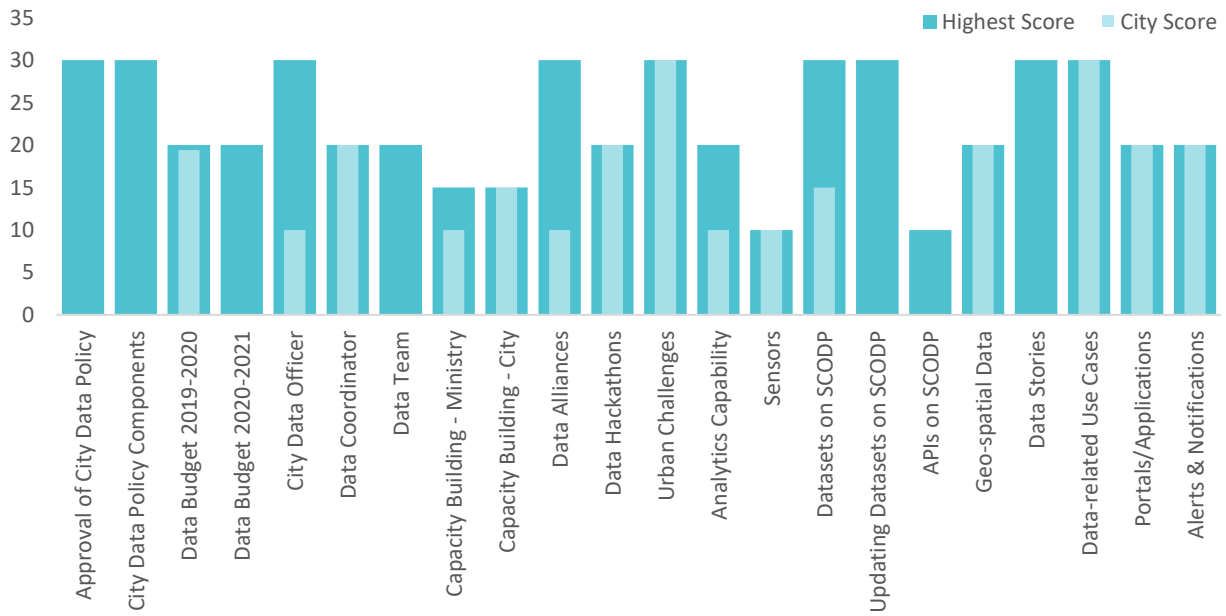
Explorer
Certificate

57
Score

City Ranks across Components

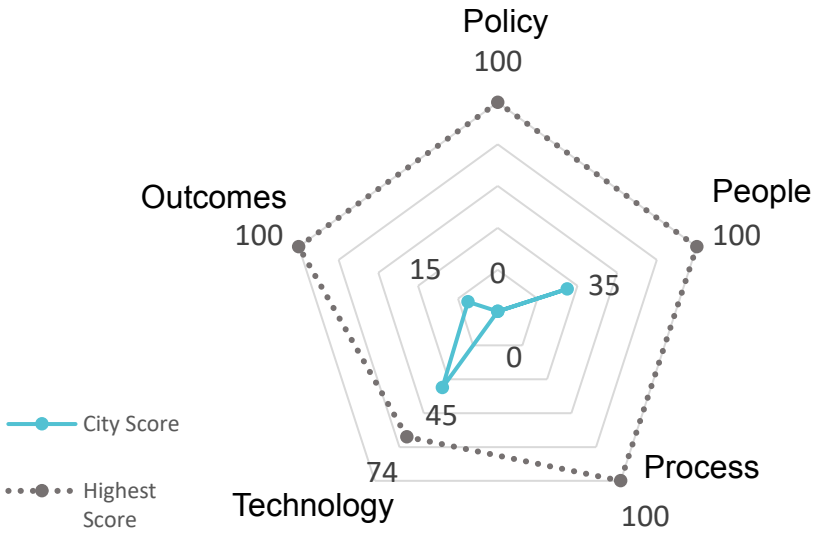
Policy	People	Process	Technology	Outcomes
51st	20th	5th	17th	9th

City Score vs Highest across Indicators



KARIMNAGAR | TELANGANA

City Scores across Components



City Engagement Score (out of 100): 70

54th
Rank

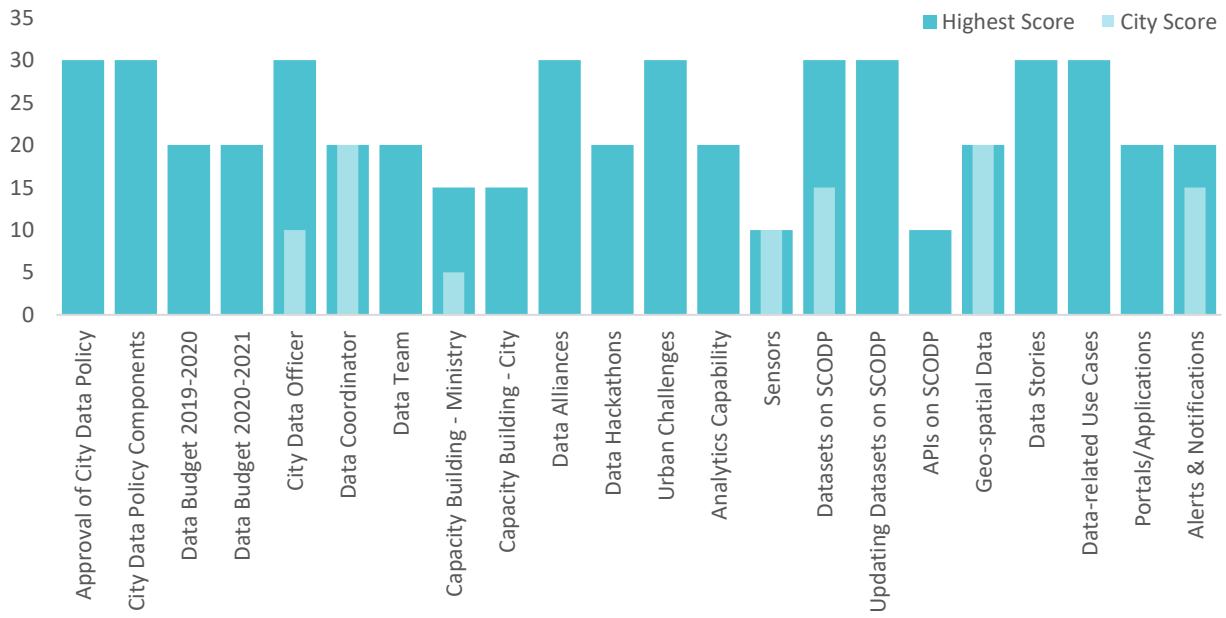
Beginner
Certificate

25
Score

City Ranks across Components

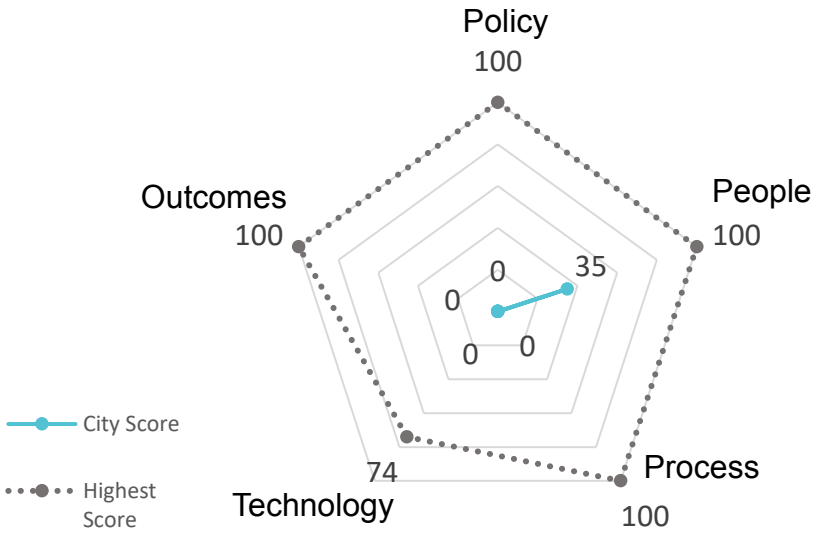
Policy	People	Process	Technology	Outcomes
54th	46th	44th	17th	50th

City Score vs Highest across Indicators



KARNAL | HARYANA

City Scores across Components



City Engagement Score (out of 100): 70

90th
Rank

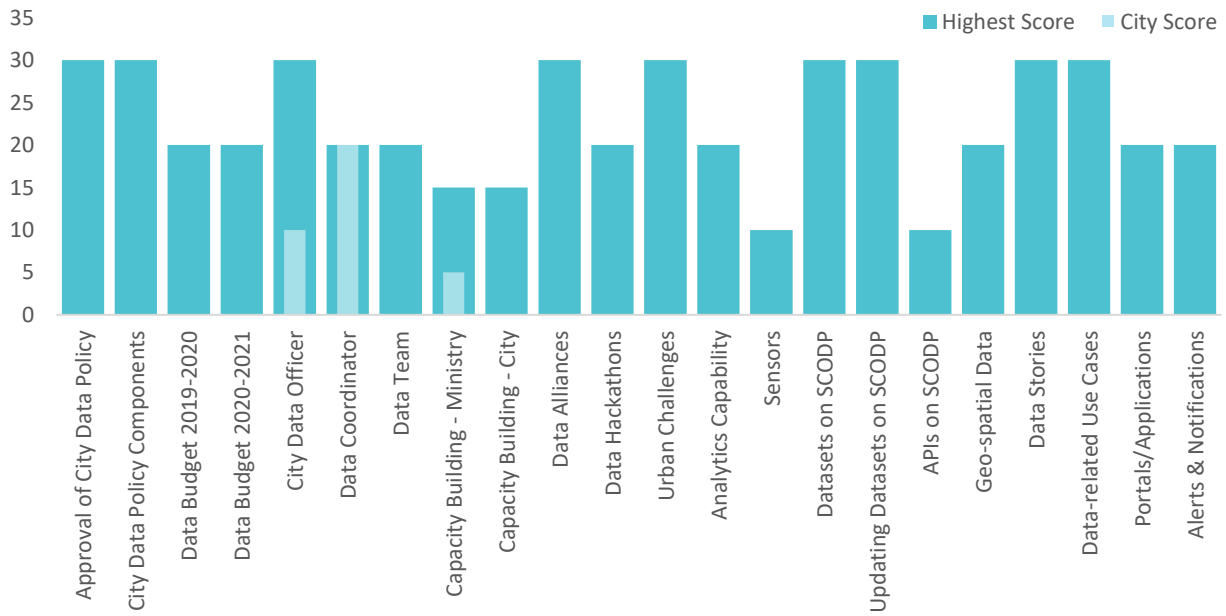
Beginner
Certificate

12
Score

City Ranks across Components

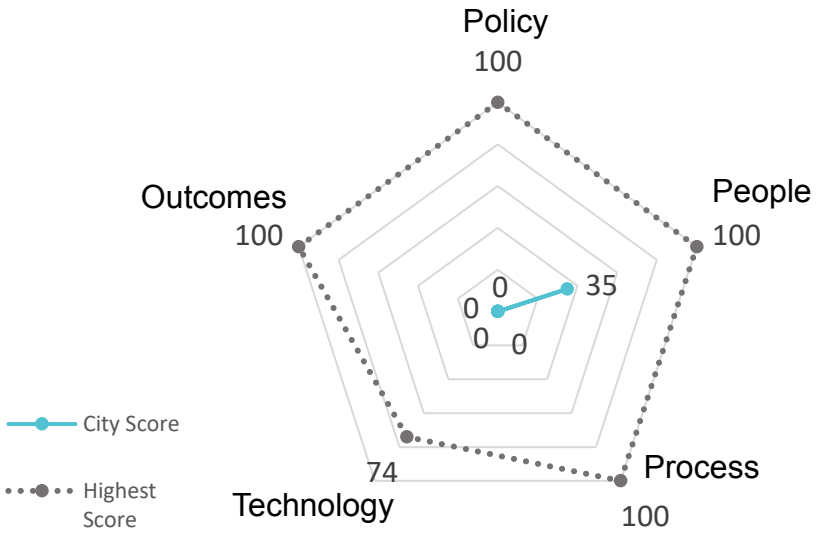
Policy	People	Process	Technology	Outcomes
54th	46th	44th	92nd	67th

City Score vs Highest across Indicators



KAVARATTI | LAKSHADWEEP

City Scores across Components



City Engagement Score (out of 100): 70

90th
Rank

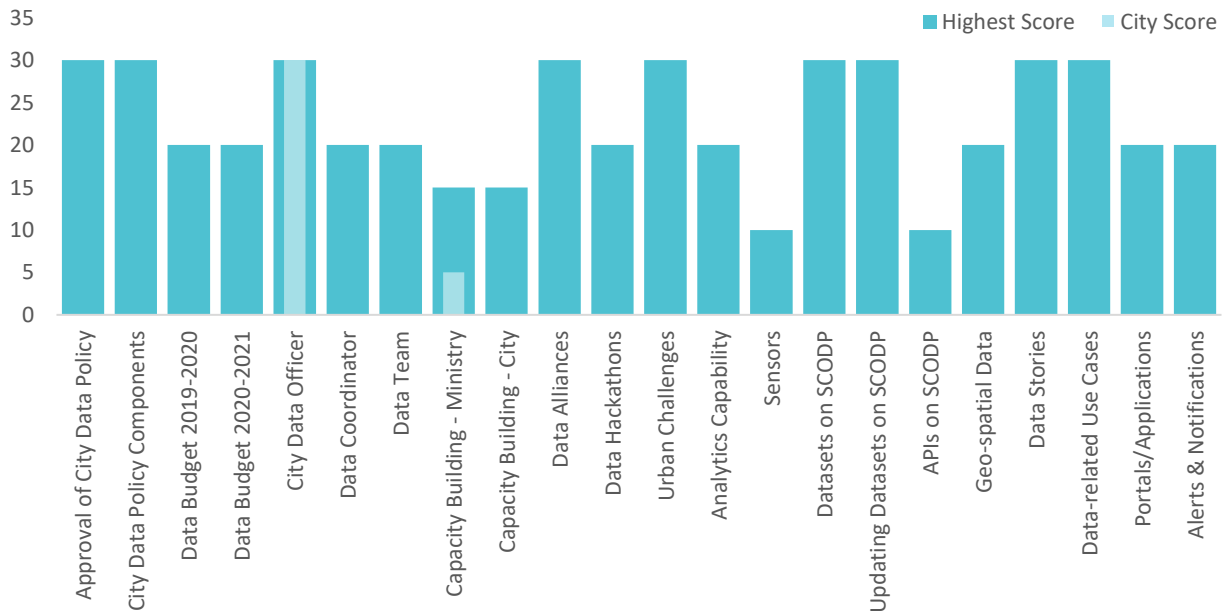
Beginner
Certificate

12
Score

City Ranks across Components

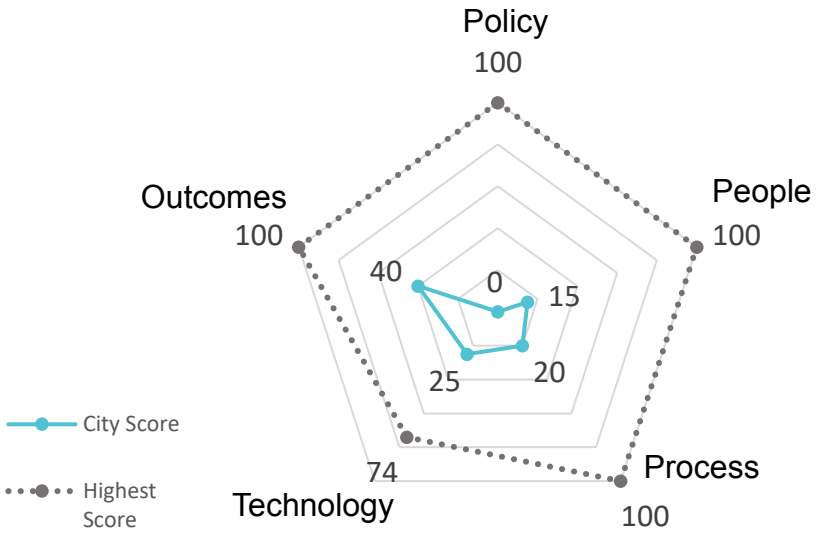
Policy	People	Process	Technology	Outcomes
54th	46th	44th	92nd	67th

City Score vs Highest across Indicators



KOCHI | KERALA

City Scores across Components



City Engagement Score (out of 100): 80

51st
Rank

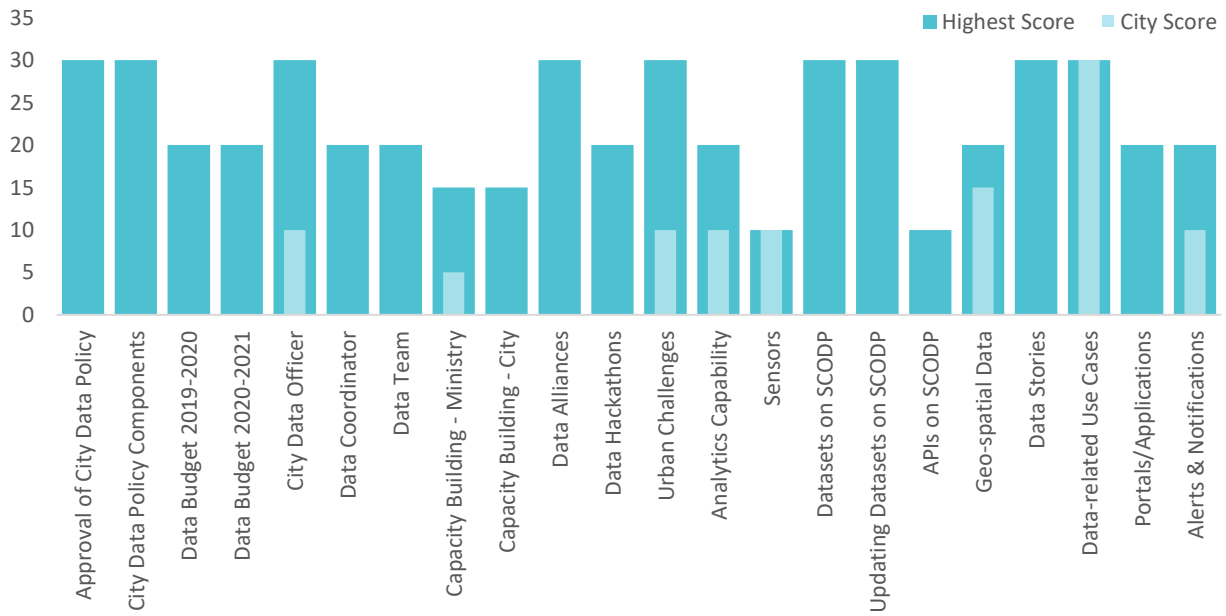
Beginner
Certificate

28
Score

City Ranks across Components

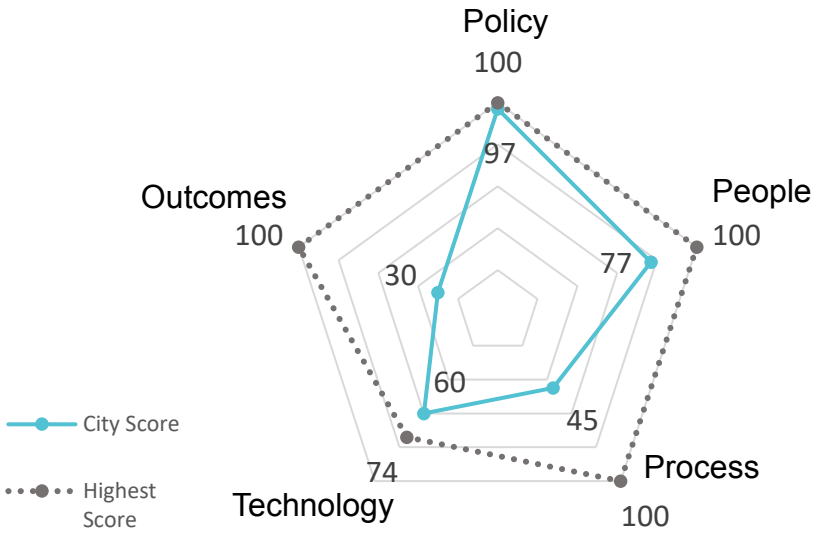
Policy	People	Process	Technology	Outcomes
54th	79th	28th	60th	23rd

City Score vs Highest across Indicators



KOHIMA | NAGALAND

City Scores across Components



City Engagement Score (out of 100): 80

10th
Rank

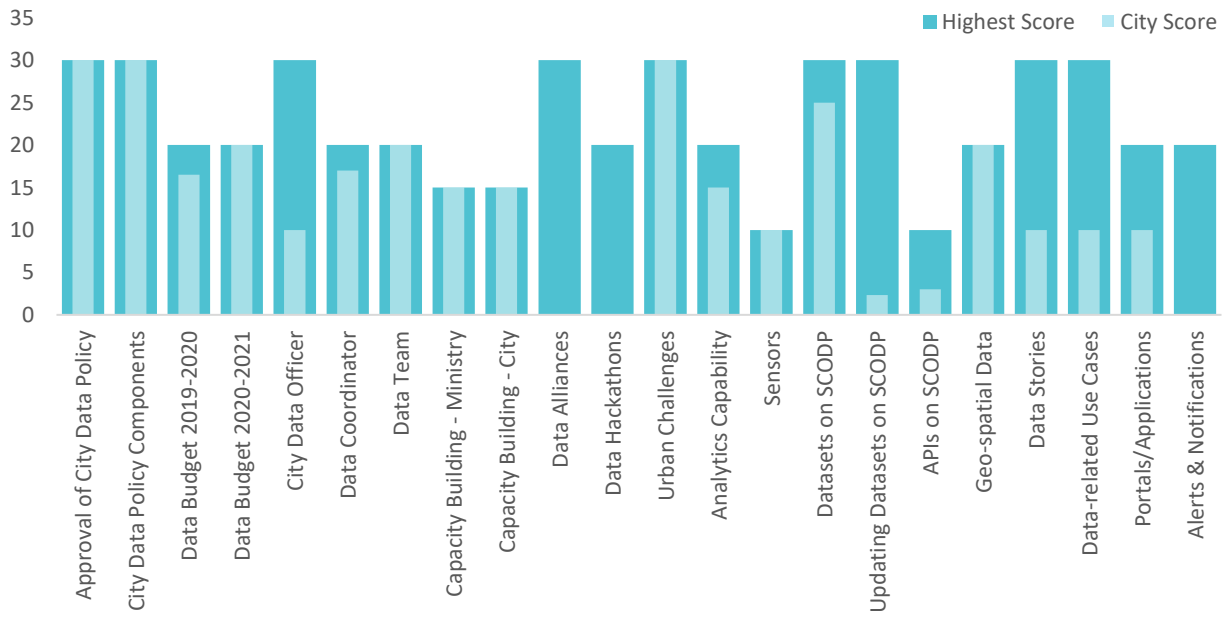
Enabled
Certificate

60
Score

City Ranks across Components

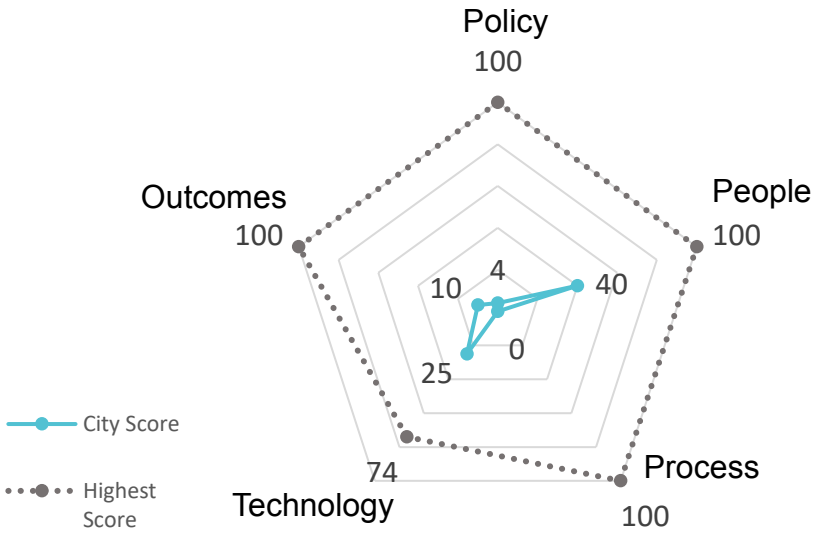
Policy	People	Process	Technology	Outcomes
2nd	8th	13th	3rd	34th

City Score vs Highest across Indicators



KOTA | RAJASTHAN

City Scores across Components



City Engagement Score (out of 100): 80

60th
Rank

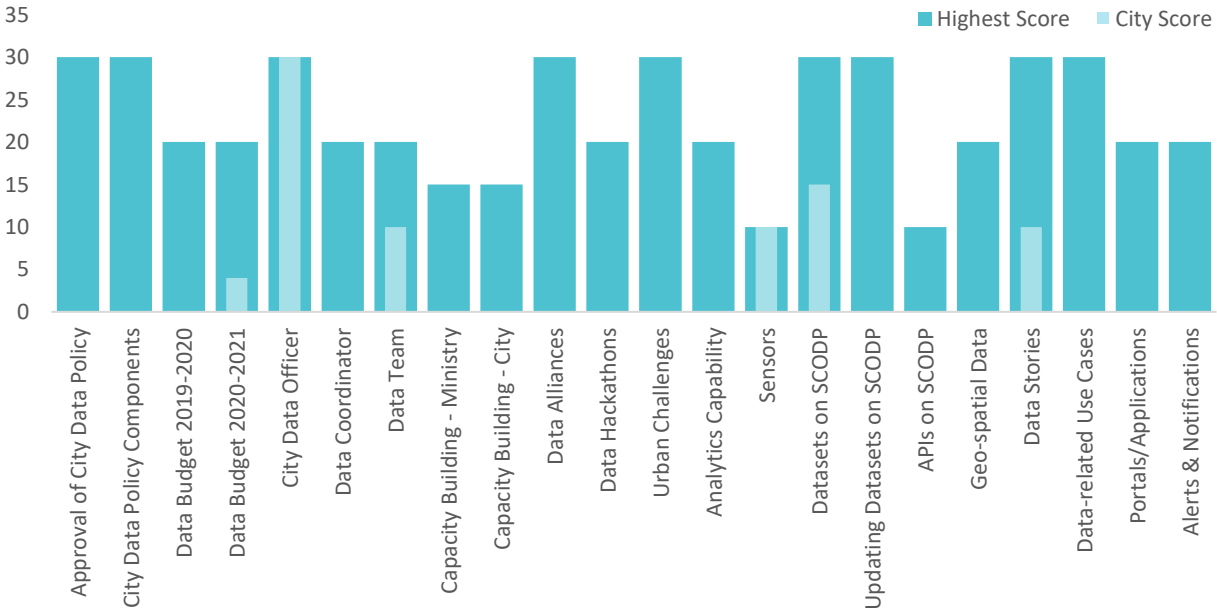
Beginner
Certificate

22
Score

City Ranks across Components

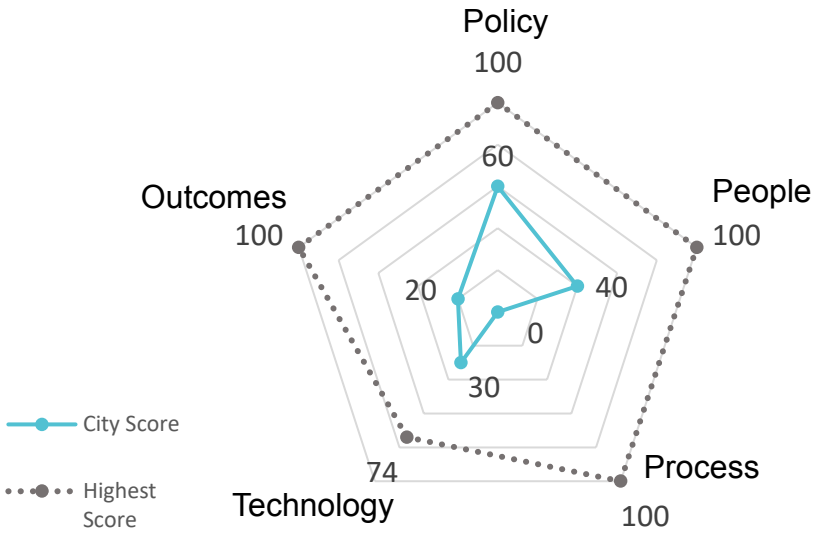
Policy	People	Process	Technology	Outcomes
53rd	42nd	44th	60th	53rd

City Score vs Highest across Indicators



LUCKNOW | UTTAR PRADESH

City Scores across Components



City Engagement Score (out of 100): 70

43rd
Rank

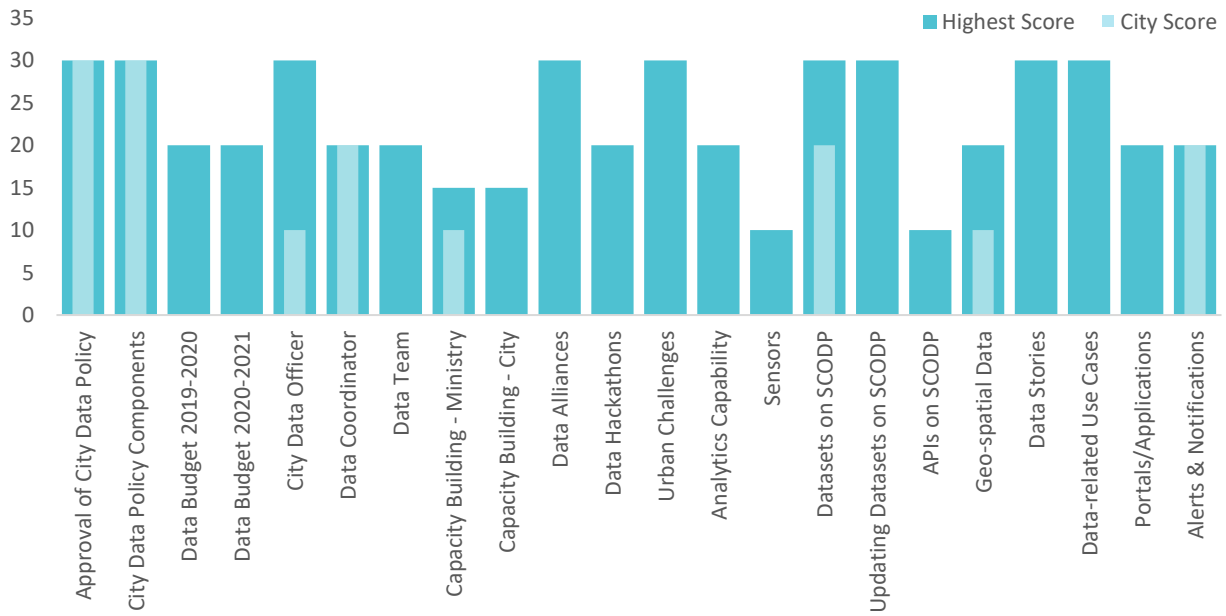
Beginner
Certificate

32
Score

City Ranks across Components

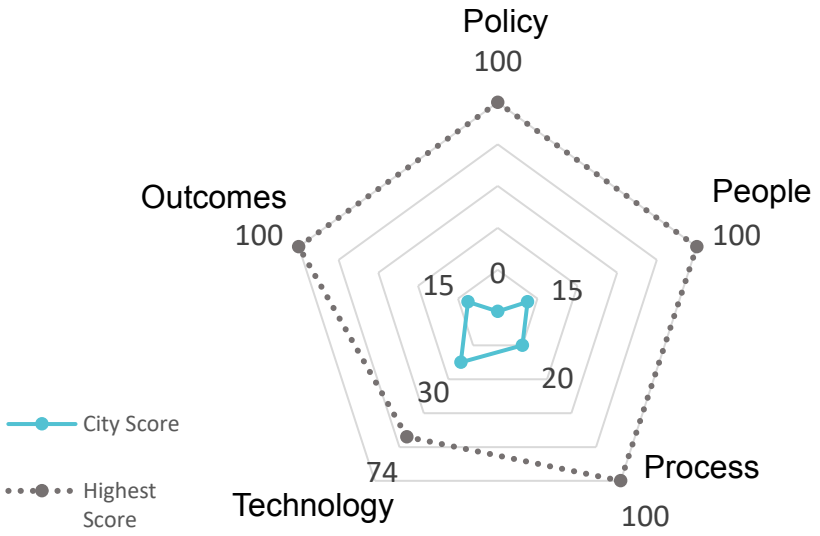
Policy	People	Process	Technology	Outcomes
21st	42nd	44th	46th	45th

City Score vs Highest across Indicators



LUDHIANA | PUNJAB

City Scores across Components



City Engagement Score (out of 100): 60

60th
Rank

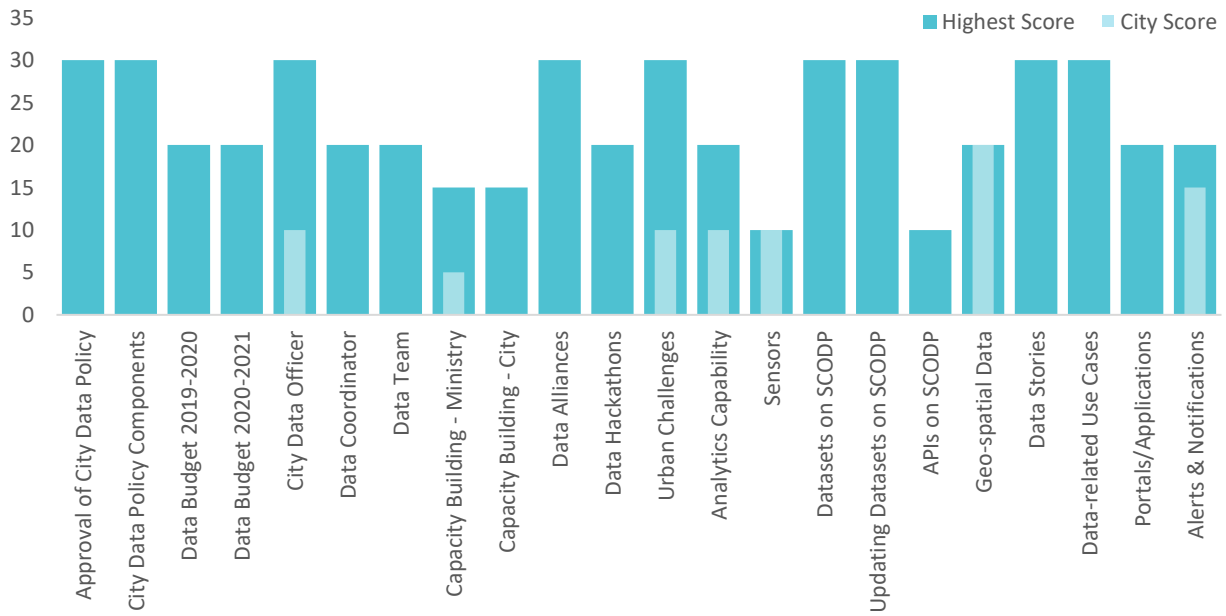
Beginner
Certificate

22
Score

City Ranks across Components

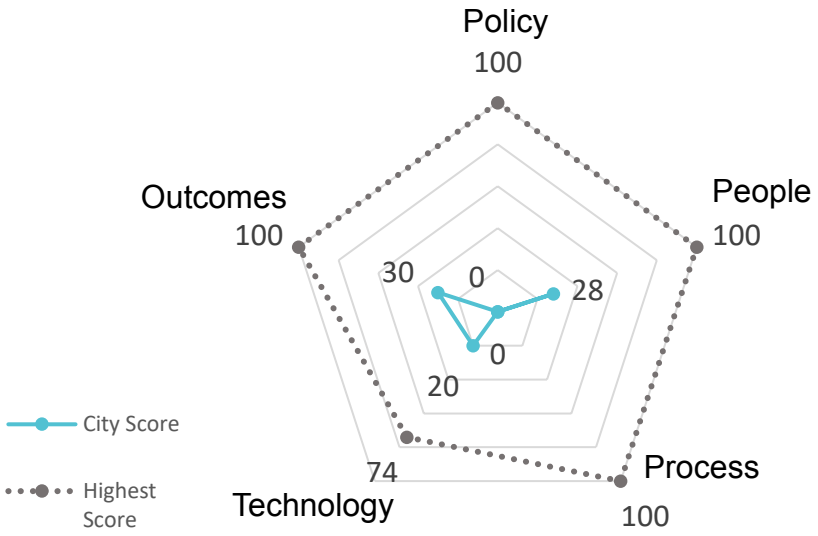
Policy	People	Process	Technology	Outcomes
54th	79th	28th	46th	50th

City Score vs Highest across Indicators



MADURAI | TAMIL NADU

City Scores across Components



City Engagement Score (out of 100): 60

62nd
Rank

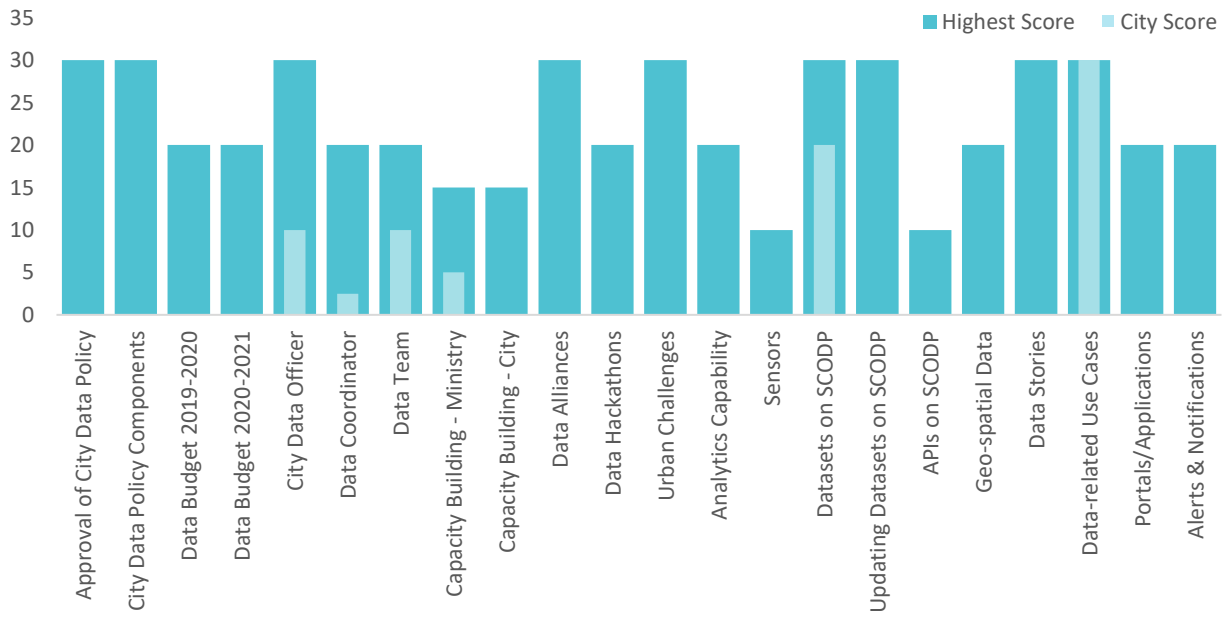
Beginner
Certificate

21
Score

City Ranks across Components

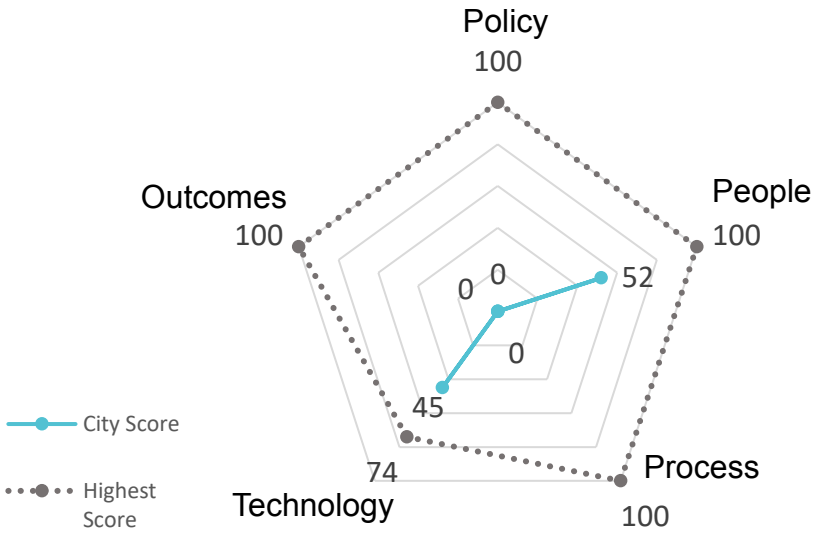
Policy	People	Process	Technology	Outcomes
54th	58th	44th	67th	34th

City Score vs Highest across Indicators



MANGALORE | KARNATAKA

City Scores across Components



City Engagement Score (out of 100): 70

56th
Rank

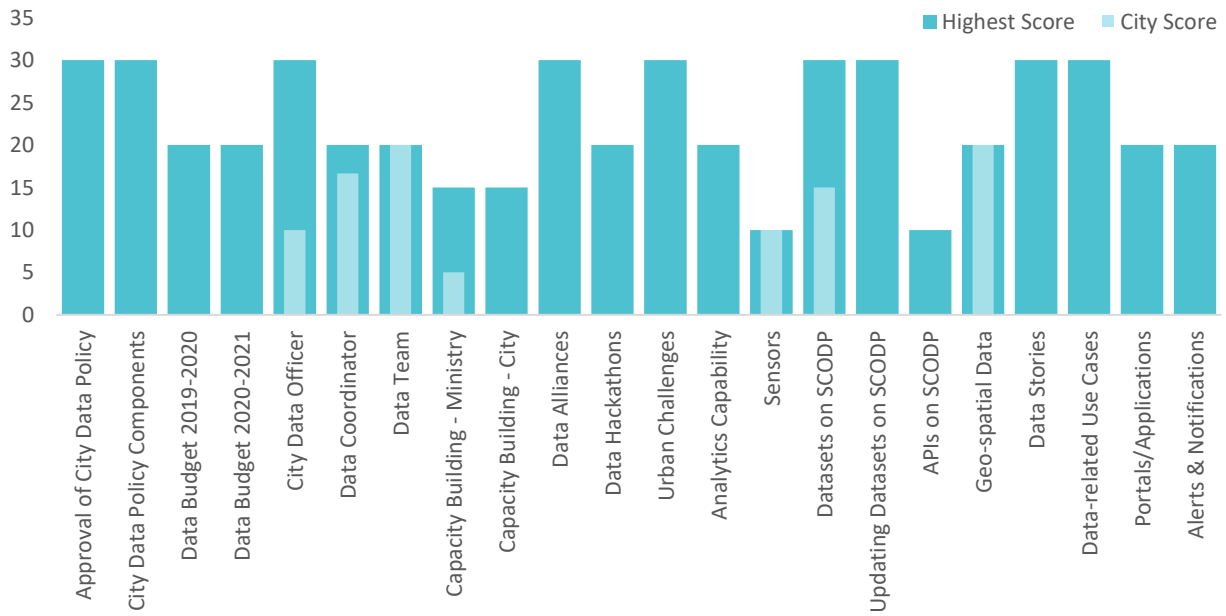
Beginner
Certificate

24
Score

City Ranks across Components

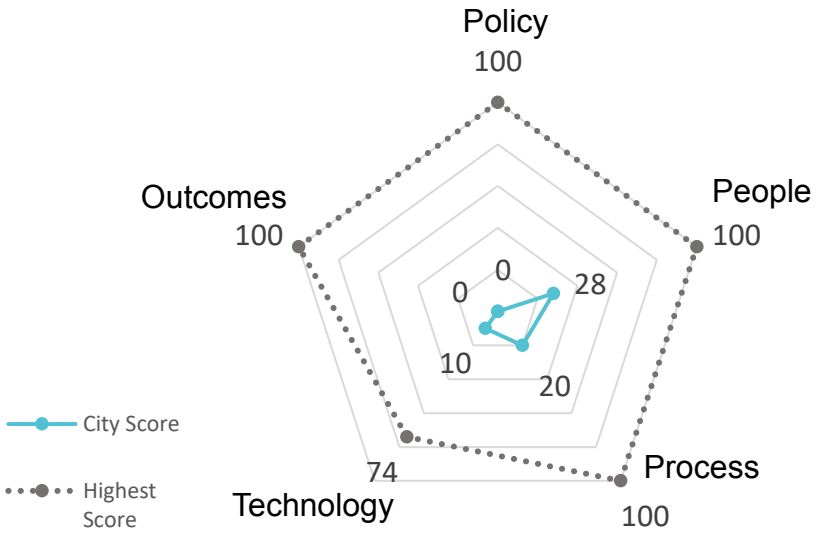
Policy	People	Process	Technology	Outcomes
54th	28th	44th	17th	67th

City Score vs Highest across Indicators



MORADABAD | UTTAR PRADESH

City Scores across Components



City Engagement Score (out of 100): 70

70th
Rank

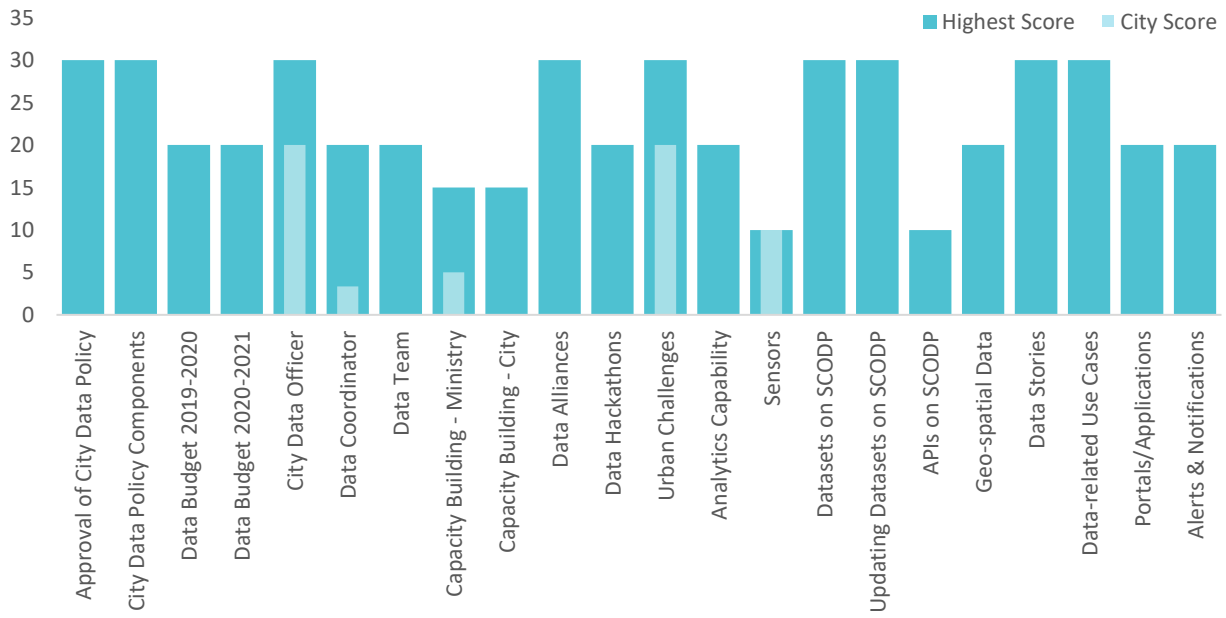
Beginner
Certificate

17
Score

City Ranks across Components

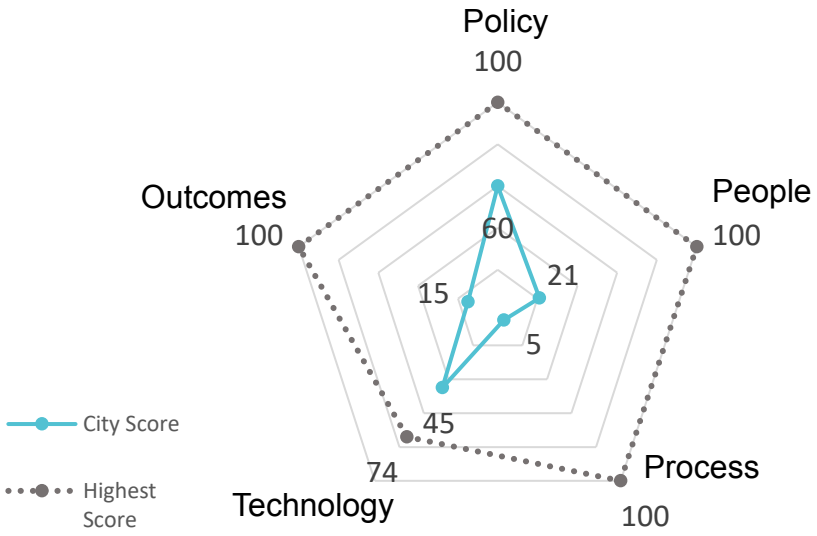
Policy	People	Process	Technology	Outcomes
54th	58th	28th	86th	67th

City Score vs Highest across Indicators



MUZAFFARPUR | BIHAR

City Scores across Components



City Engagement Score (out of 100): 80

39th
Rank

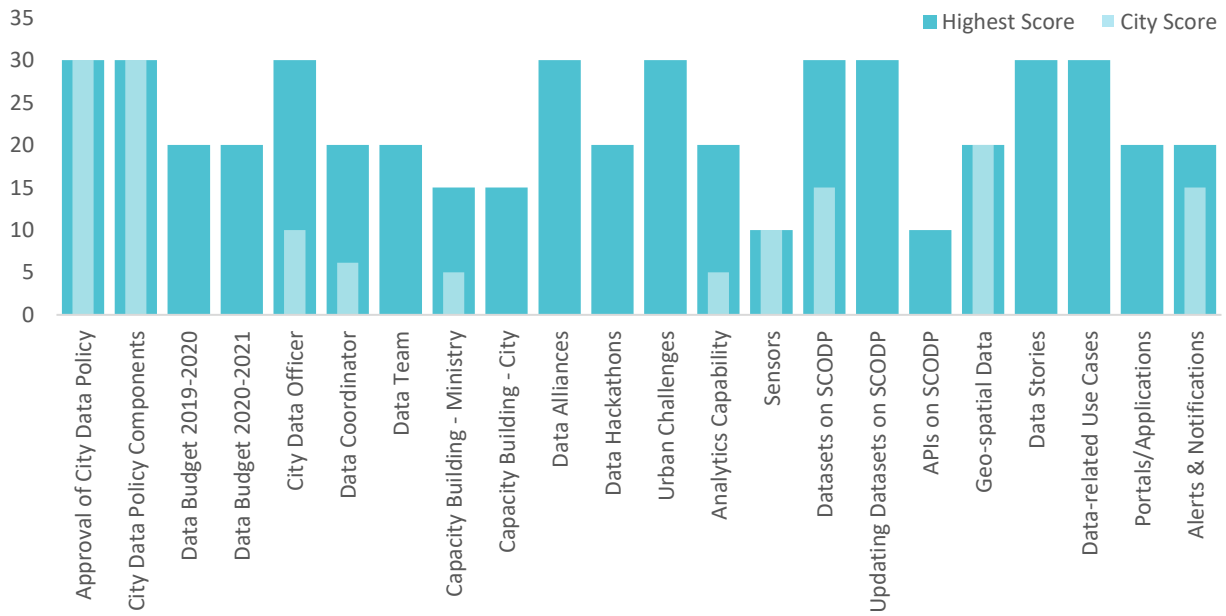
Initiator
Certificate

33
Score

City Ranks across Components

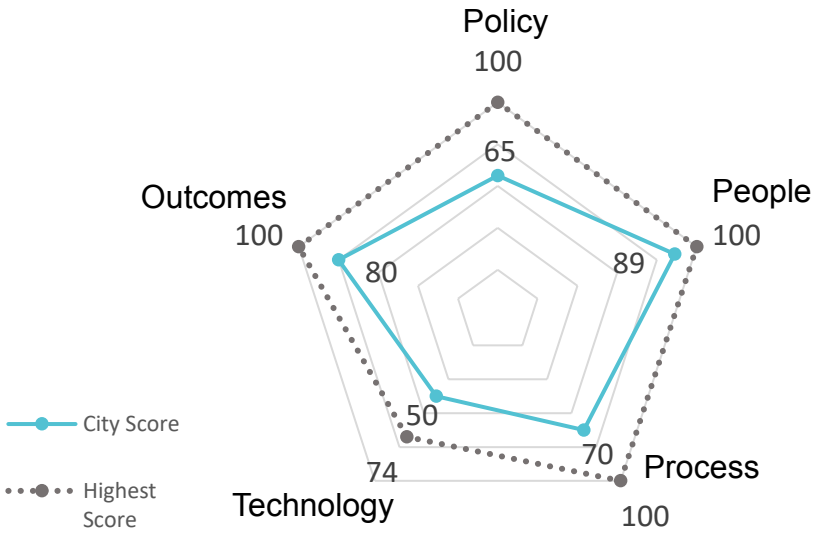
Policy	People	Process	Technology	Outcomes
21st	71st	43rd	17th	50th

City Score vs Highest across Indicators



NAGPUR | MAHARASHTRA

City Scores across Components



City Engagement Score (out of 100): 90

5th
Rank

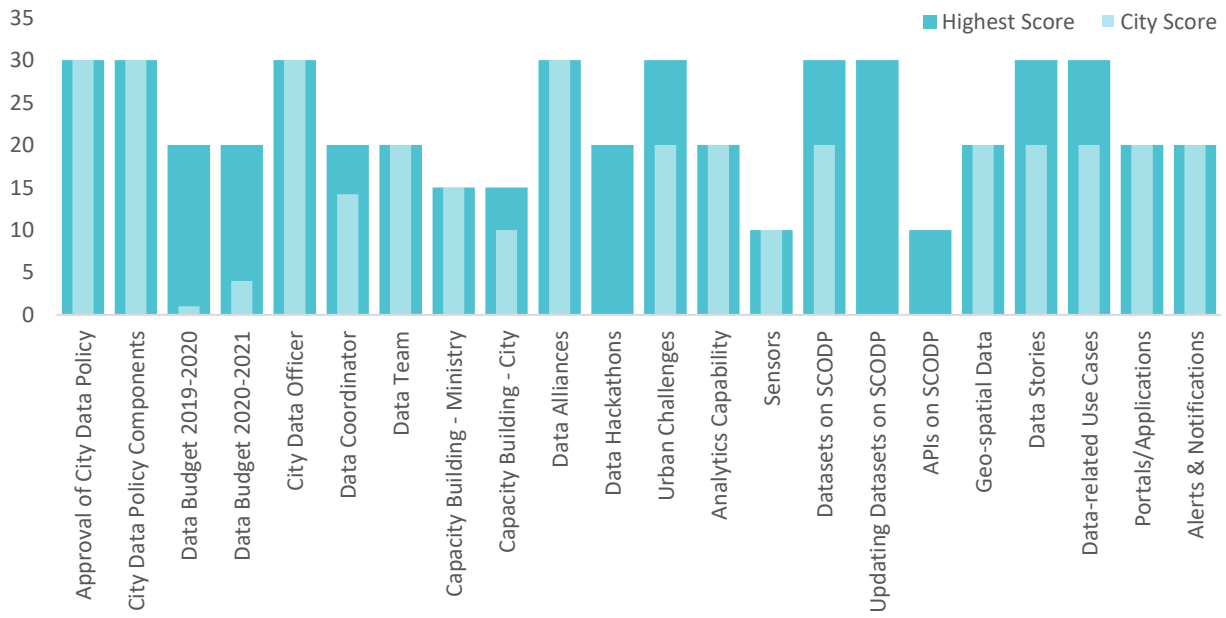
Enabled
Certificate

72
Score

City Ranks across Components

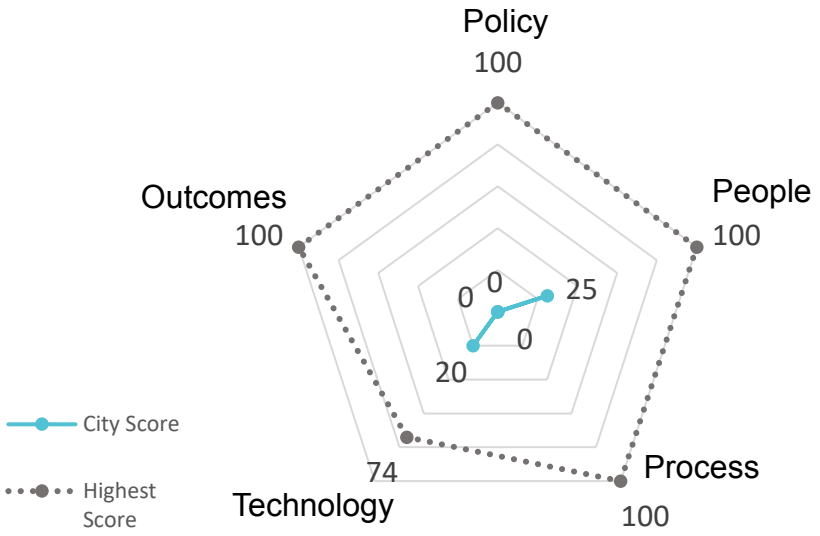
Policy	People	Process	Technology	Outcomes
19th	5th	5th	11th	7th

City Score vs Highest across Indicators



NAMCHI | SIKKIM

City Scores across Components



City Engagement Score (out of 100): 70

81st
Rank

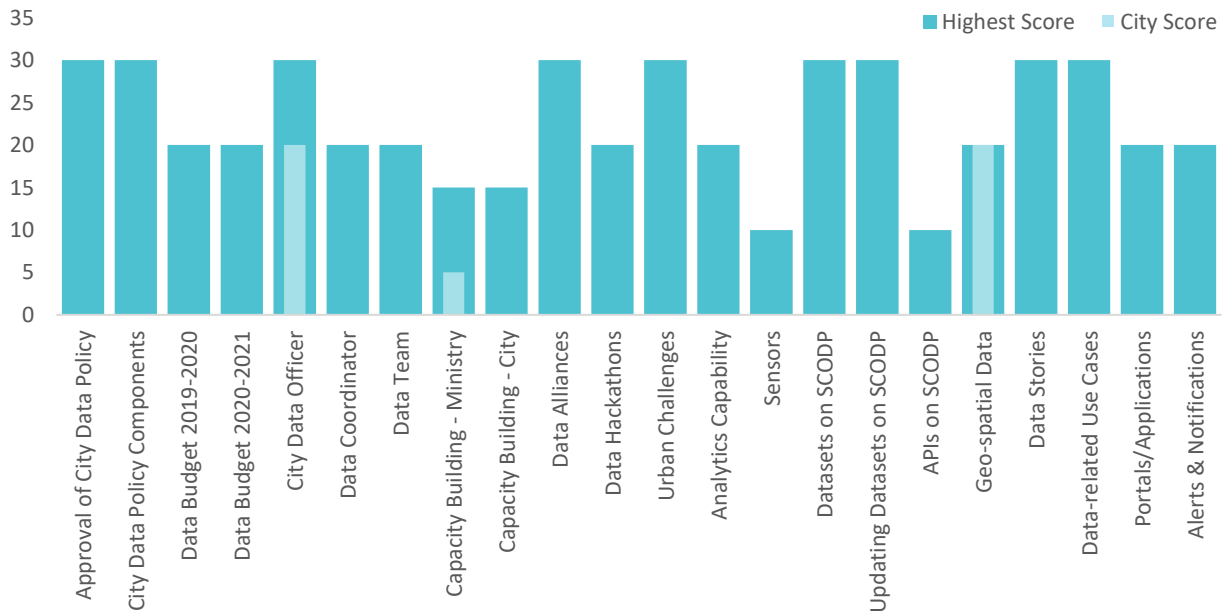
Beginner
Certificate

15
Score

City Ranks across Components

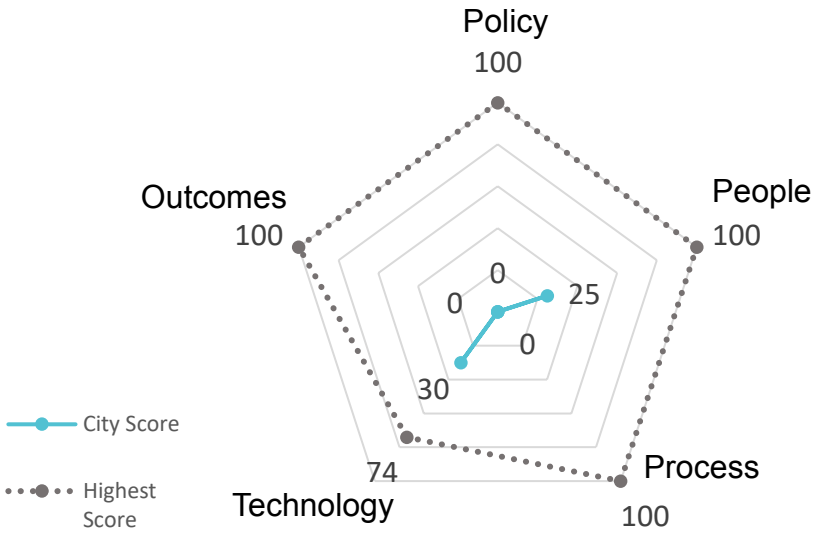
Policy	People	Process	Technology	Outcomes
54th	61st	44th	67th	67th

City Score vs Highest across Indicators



NASHIK | MAHARASHTRA

City Scores across Components



City Engagement Score (out of 100): 70

70th
Rank

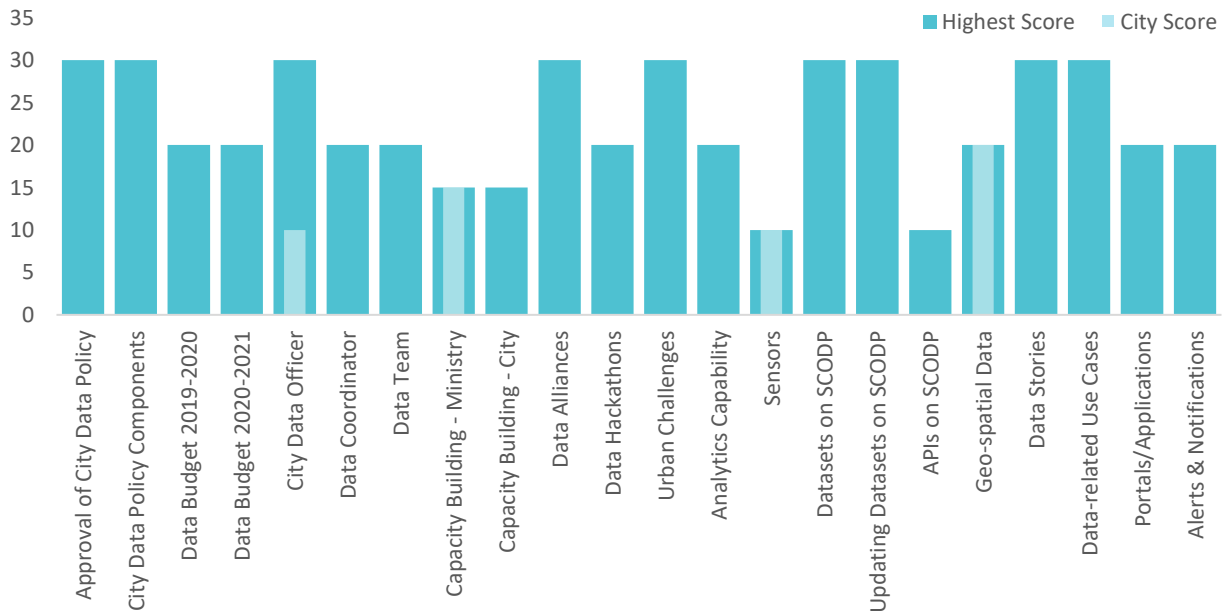
Beginner
Certificate

17
Score

City Ranks across Components

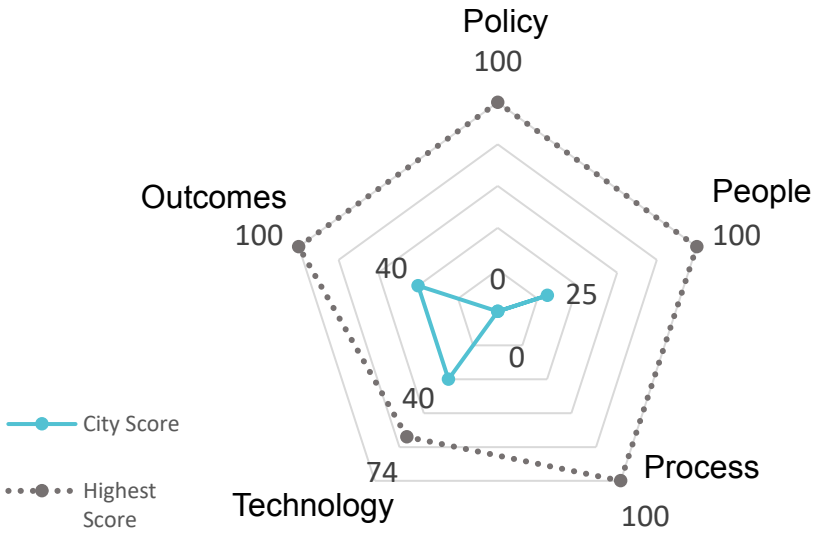
Policy	People	Process	Technology	Outcomes
54th	61st	44th	46th	67th

City Score vs Highest across Indicators



NAYA RAIPUR | CHHATTISGARH

City Scores across Components



City Engagement Score (out of 100): 90

45th
Rank

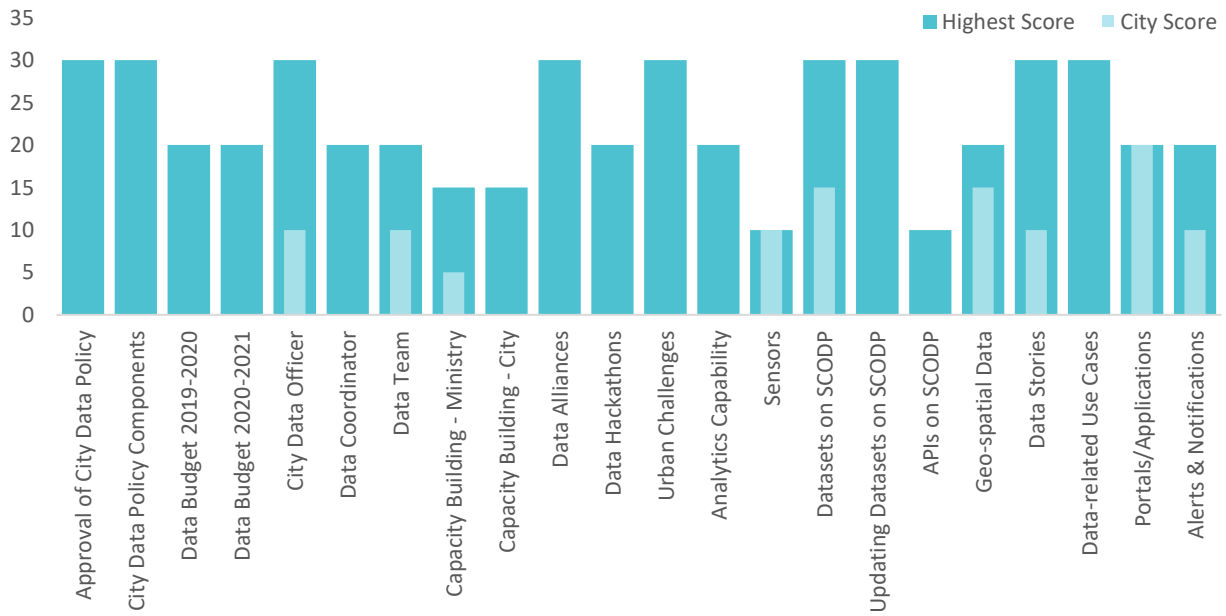
Beginner
Certificate

30
Score

City Ranks across Components

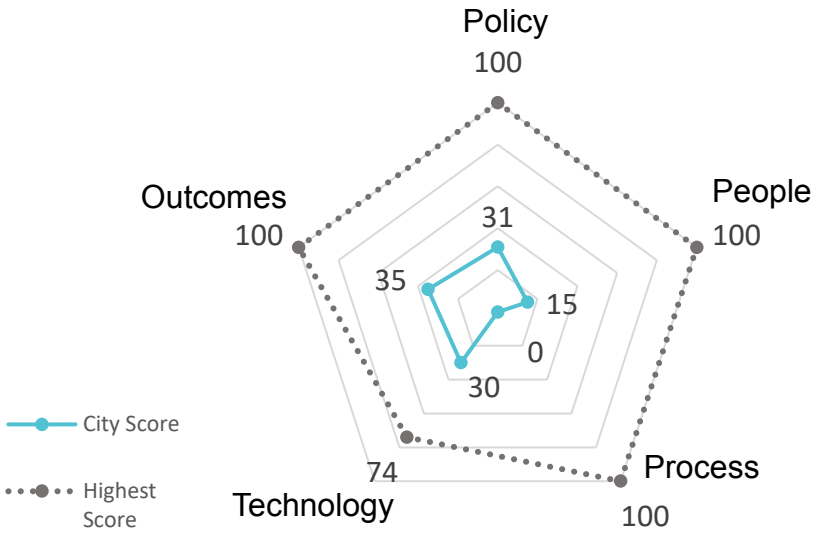
Policy	People	Process	Technology	Outcomes
54th	61st	44th	33rd	23rd

City Score vs Highest across Indicators



NEW DELHI | DELHI

City Scores across Components



City Engagement Score (out of 100): 80

46th
Rank

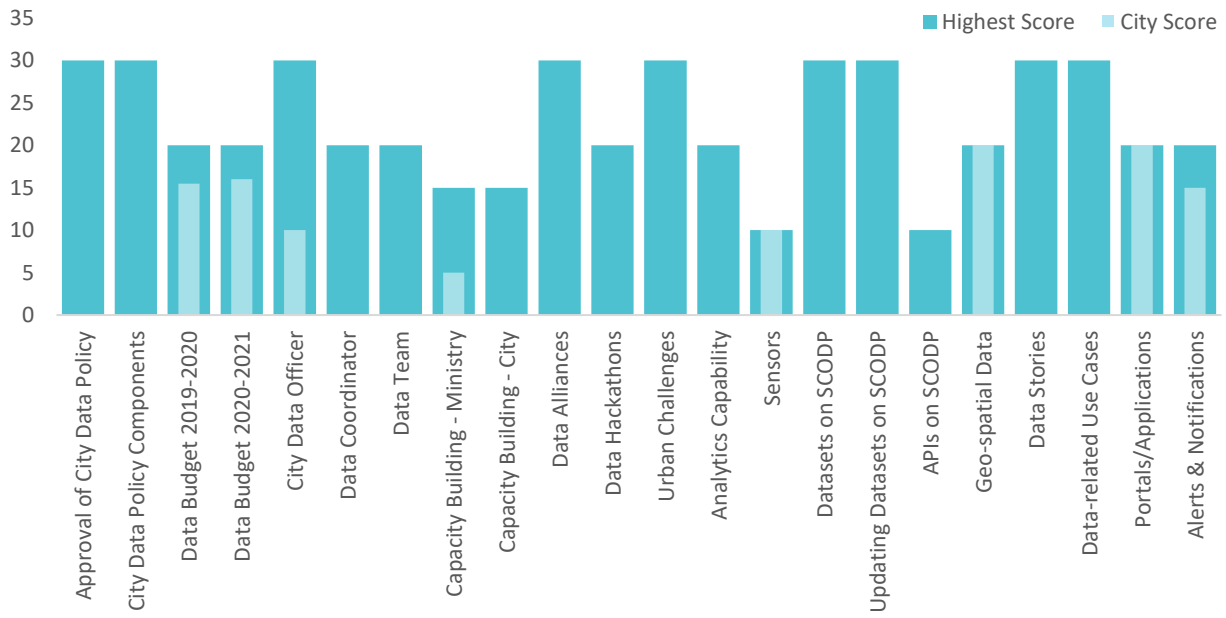
Beginner
Certificate

29
Score

City Ranks across Components

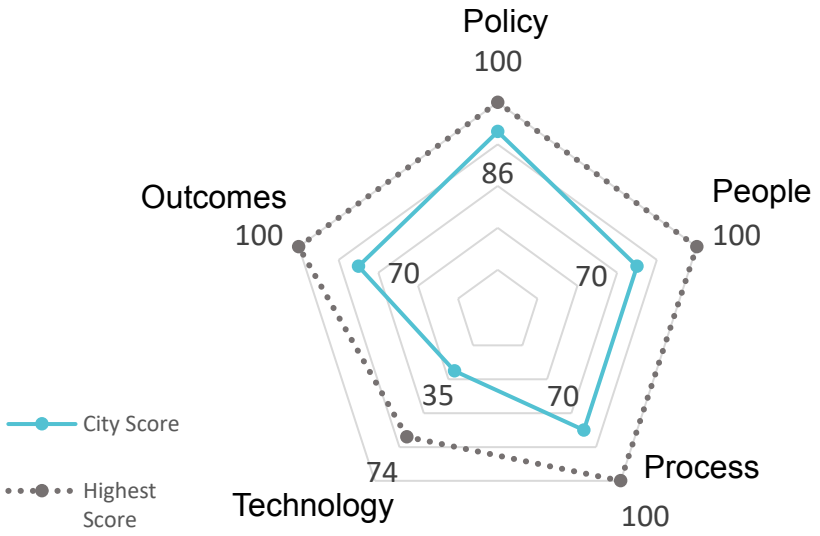
Policy	People	Process	Technology	Outcomes
40th	79th	44th	46th	31st

City Score vs Highest across Indicators



NEW TOWN KOLKATA | WEST BENGAL

City Scores across Components



City Engagement Score (out of 100): 80

8th
Rank

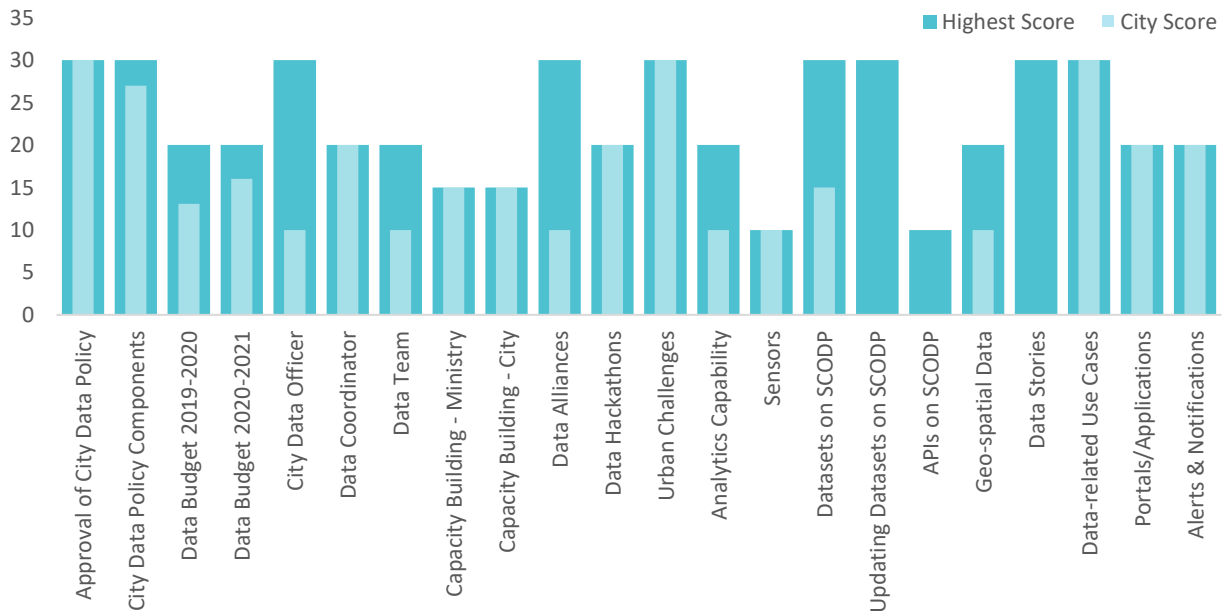
Enabled
Certificate

65
Score

City Ranks across Components

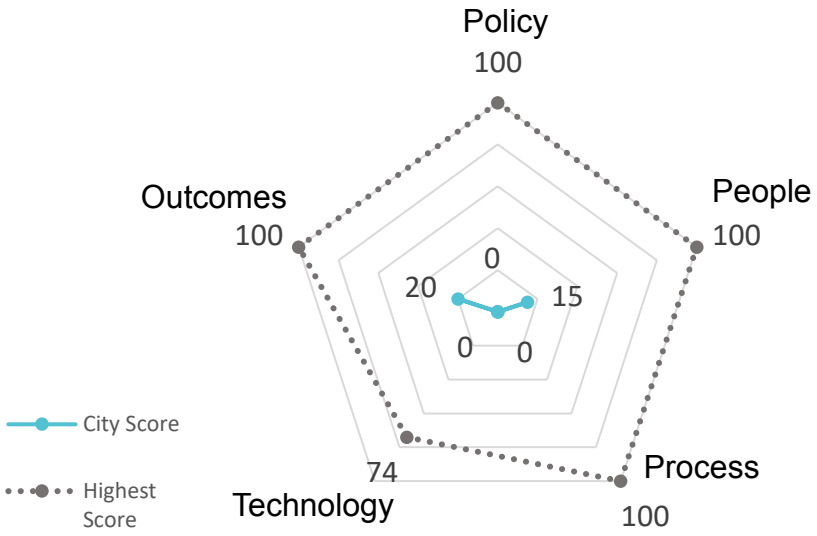
Policy	People	Process	Technology	Outcomes
3rd	11th	5th	39th	9th

City Score vs Highest across Indicators



PANAJI | GOA

City Scores across Components



City Engagement Score (out of 100): 100

70th
Rank

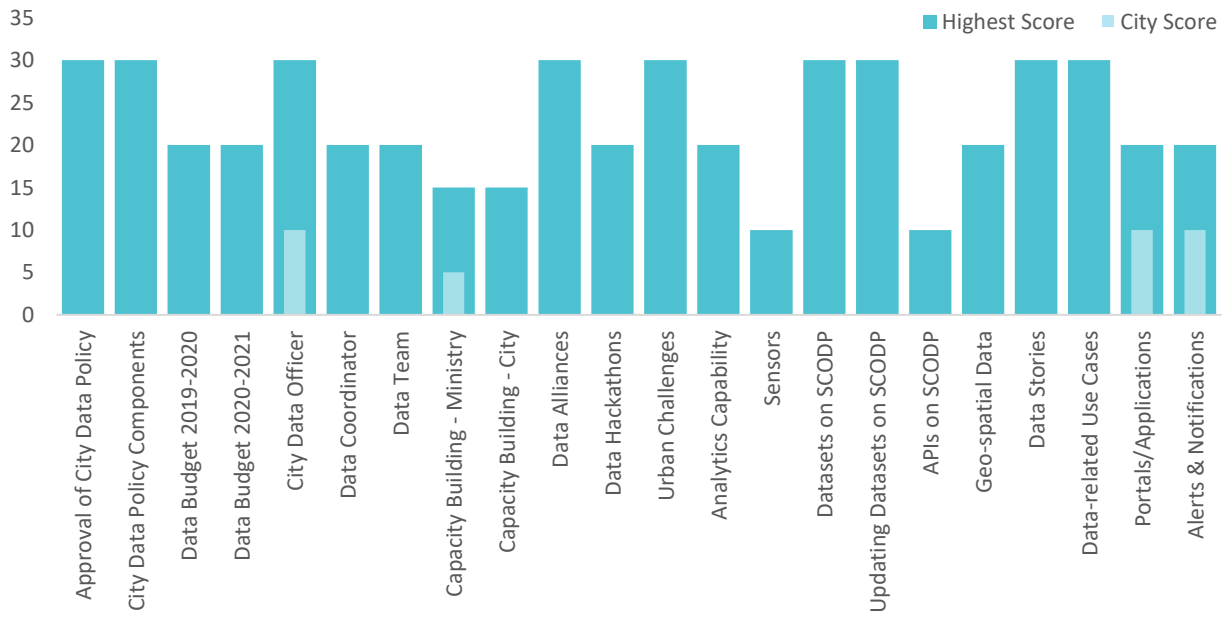
Beginner
Certificate

17
Score

City Ranks across Components

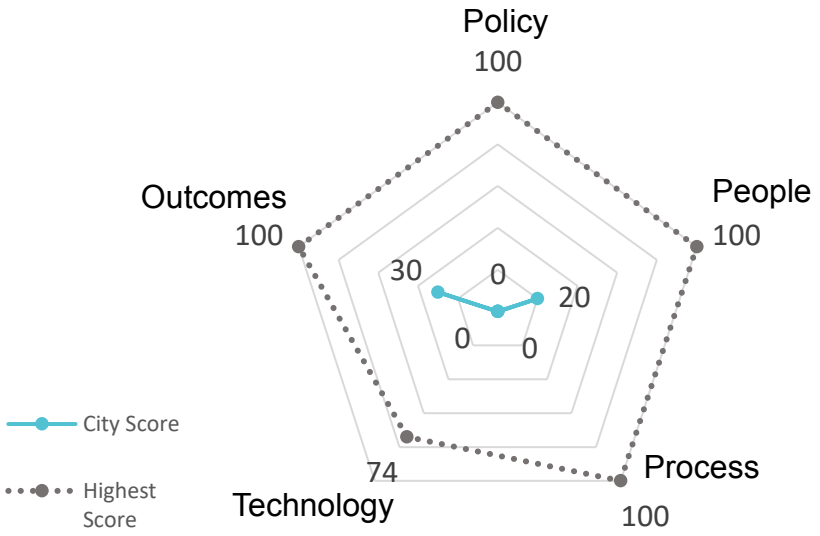
Policy	People	Process	Technology	Outcomes
54th	79th	44th	92nd	45th

City Score vs Highest across Indicators



PASIGHAT | ARUNACHAL PRADESH

City Scores across Components



City Engagement Score (out of 100): 70

76th
Rank

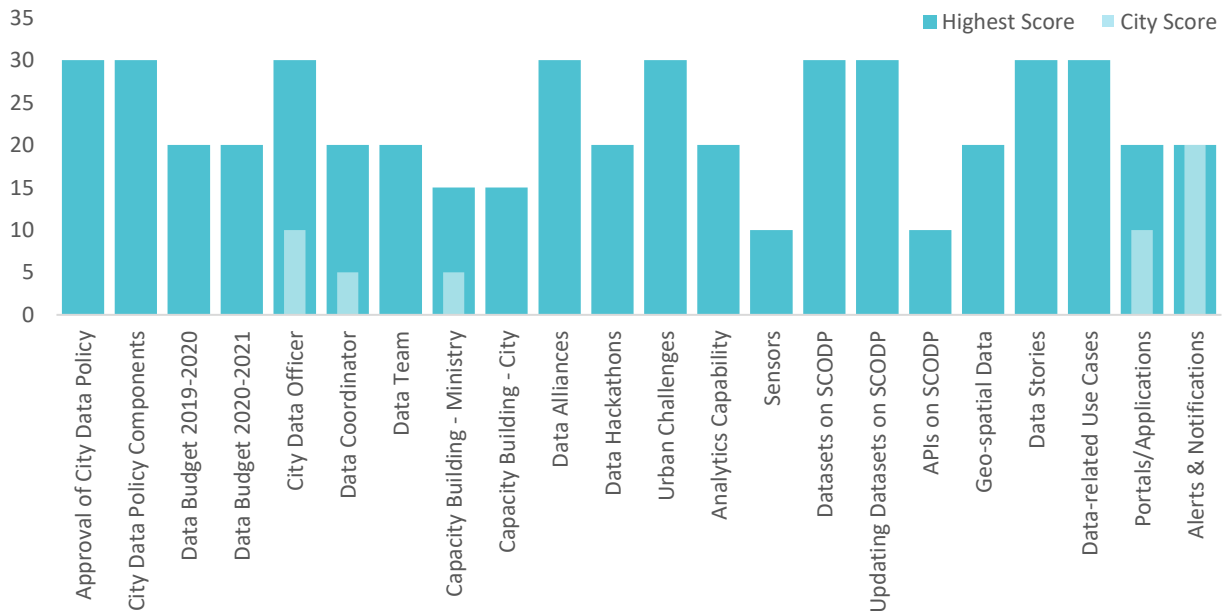
Beginner
Certificate

16
Score

City Ranks across Components

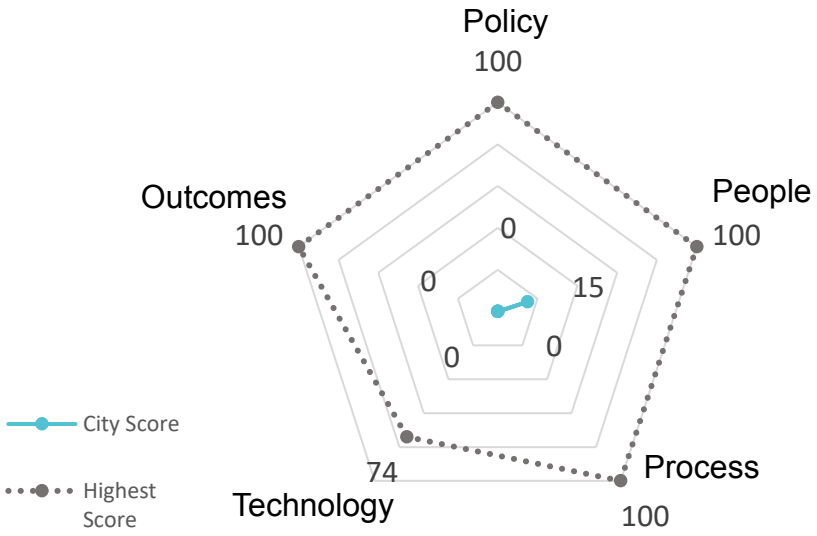
Policy	People	Process	Technology	Outcomes
54th	73rd	44th	92nd	34th

City Score vs Highest across Indicators



PATNA | BIHAR

City Scores across Components



City Engagement Score (out of 100): 60

98th
Rank

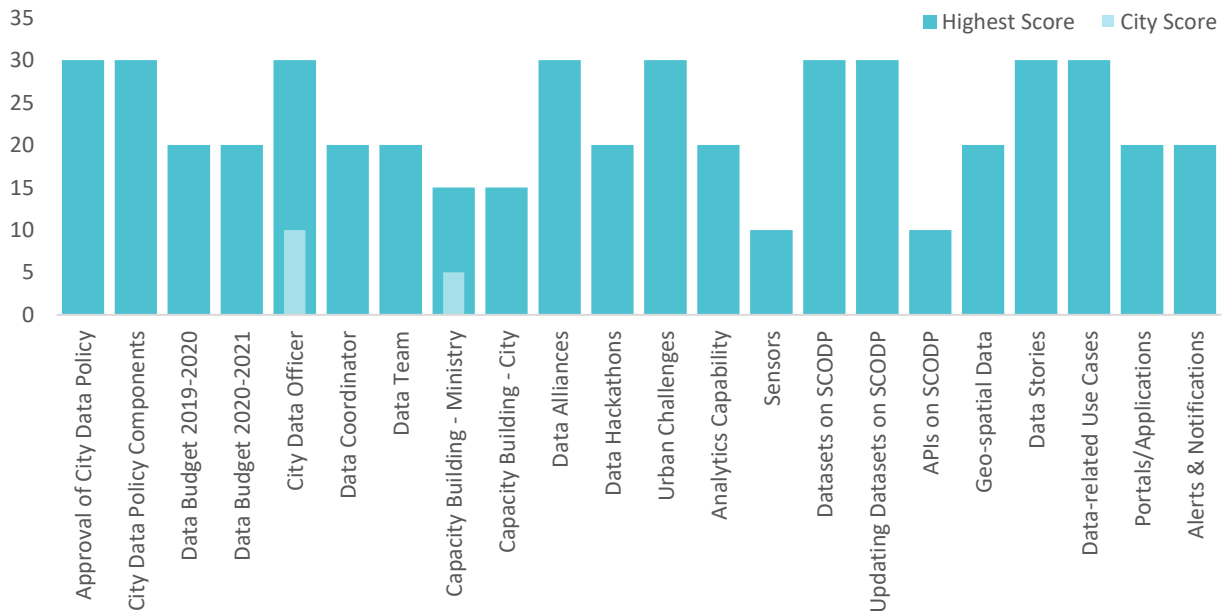
Beginner
Certificate

8
Score

City Ranks across Components

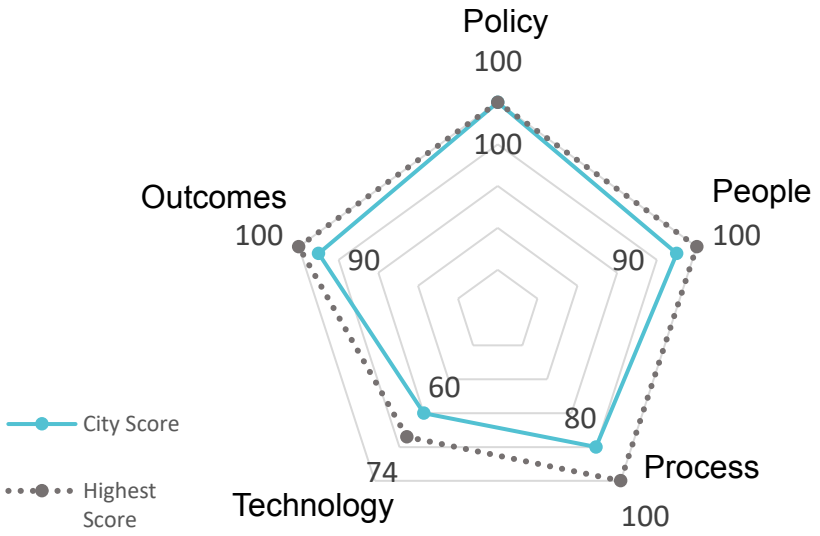
Policy	People	Process	Technology	Outcomes
54th	79th	44th	92nd	67th

City Score vs Highest across Indicators



PIMPRI CHINCHWAD | MAHARASHTRA

City Scores across Components



City Engagement Score (out of 100): 50

2nd
Rank

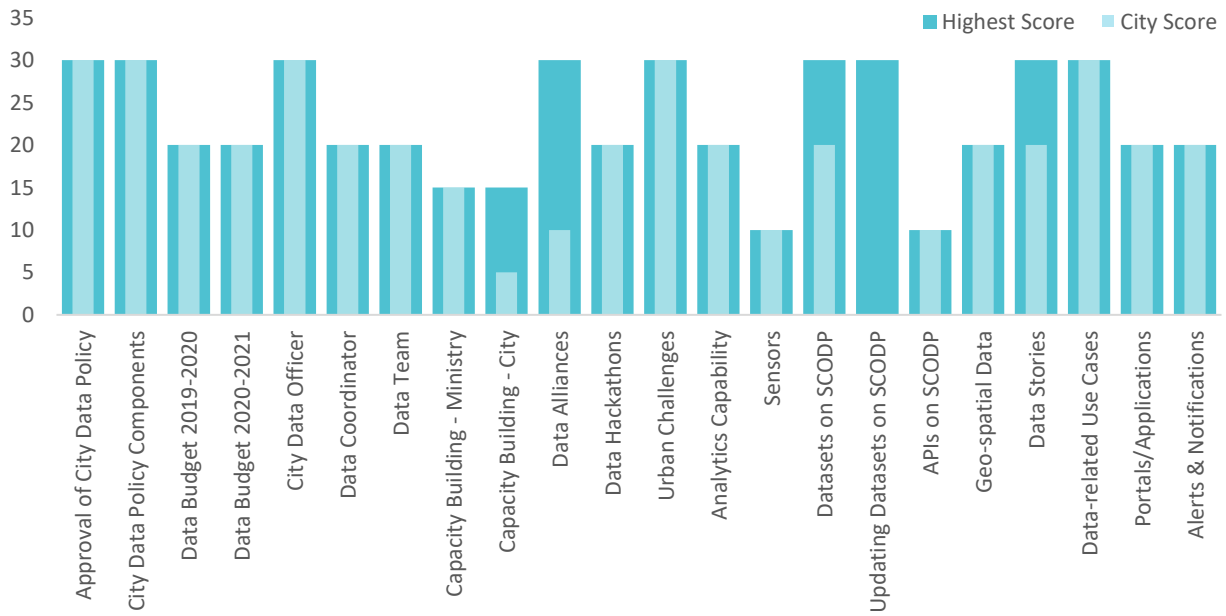
Connected
Certificate

79
Score

City Ranks across Components

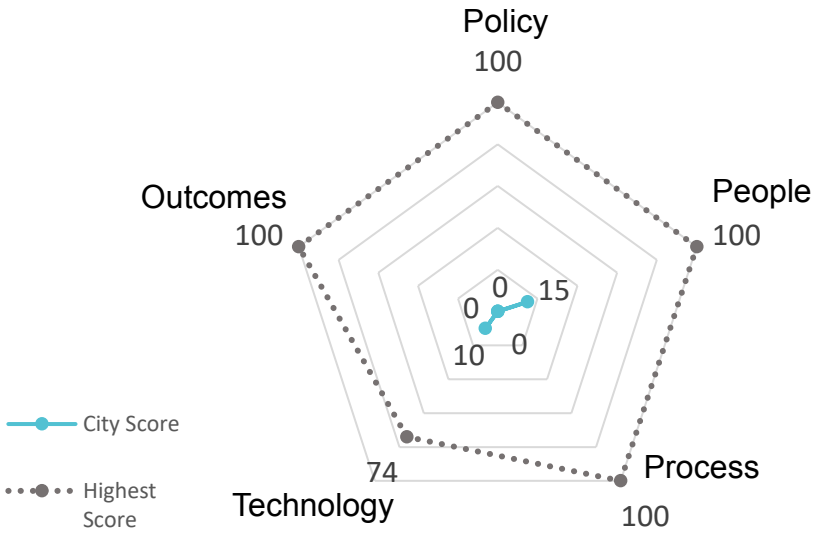
Policy	People	Process	Technology	Outcomes
1st	3rd	1st	3rd	4th

City Score vs Highest across Indicators



PORT BLAIR | ANDAMAN & NICOBAR ISLANDS

City Scores across Components



City Engagement Score (out of 100): 60

97th
Rank

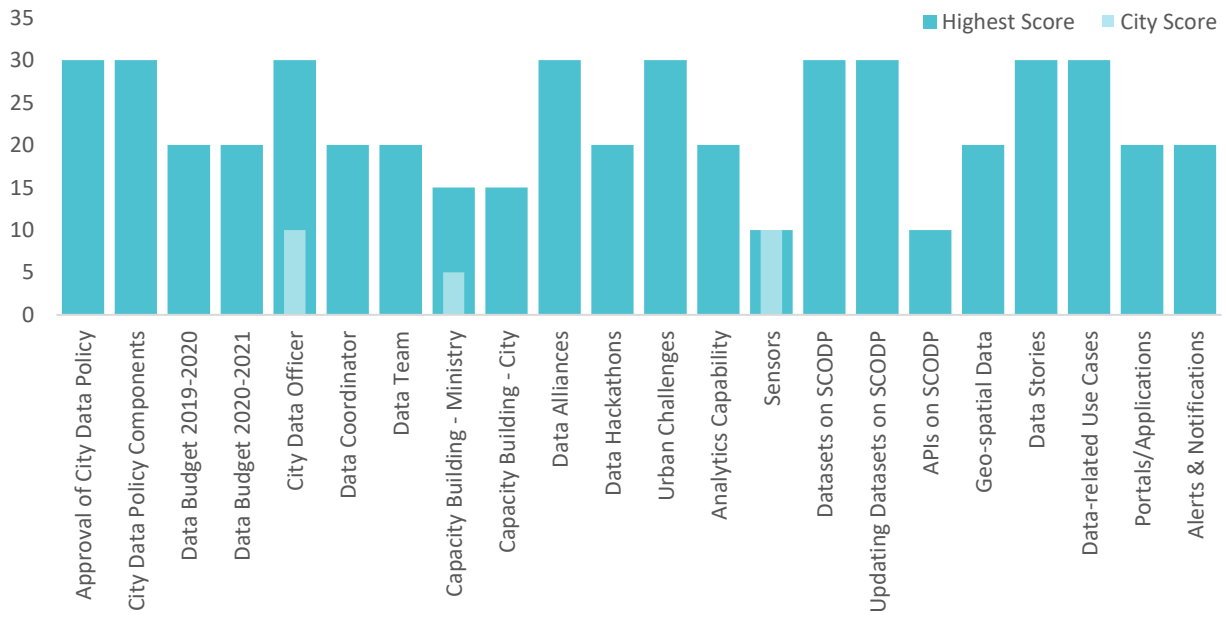
Beginner
Certificate

10
Score

City Ranks across Components

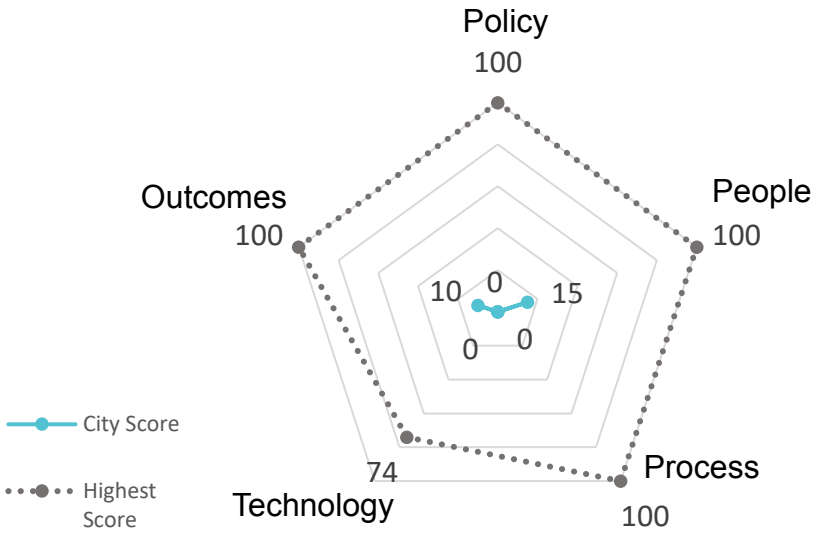
Policy	People	Process	Technology	Outcomes
54th	79th	44th	86th	67th

City Score vs Highest across Indicators



PRAYAGRAJ | UTTAR PRADESH

City Scores across Components



City Engagement Score (out of 100): 80

90th
Rank

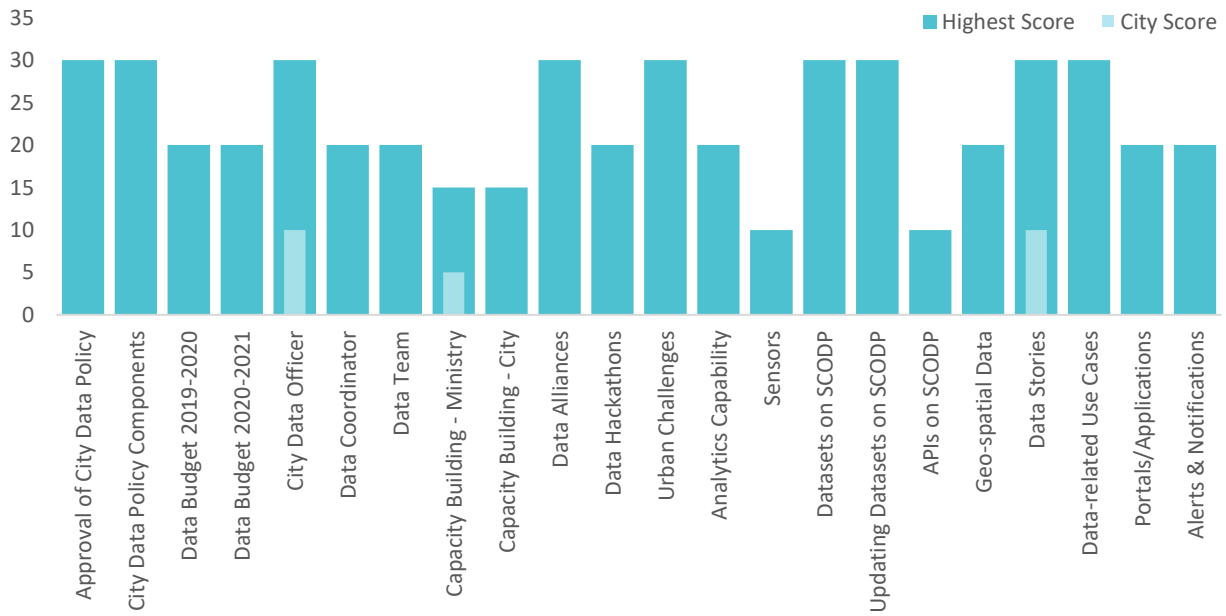
Beginner
Certificate

12
Score

City Ranks across Components

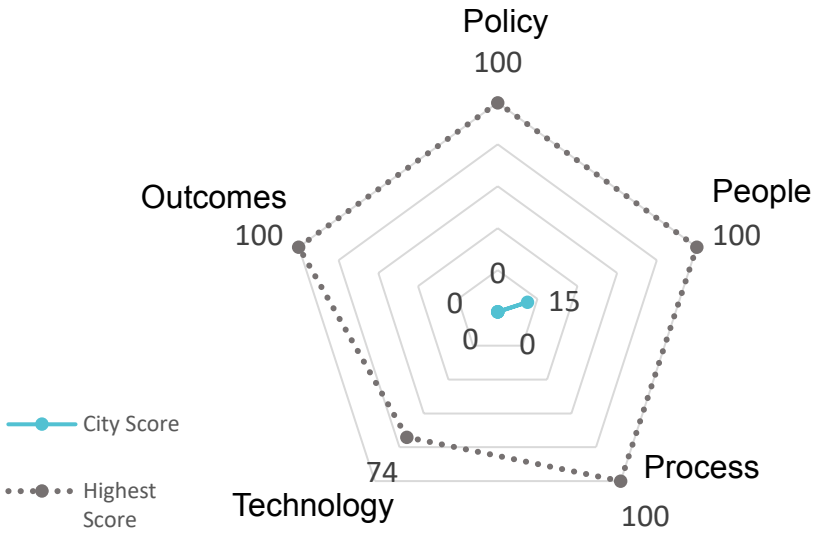
Policy	People	Process	Technology	Outcomes
54th	79th	44th	92nd	53rd

City Score vs Highest across Indicators



PUDUCHERRY | PUDUCHERRY

City Scores across Components



City Engagement Score (out of 100): 60

98th
Rank

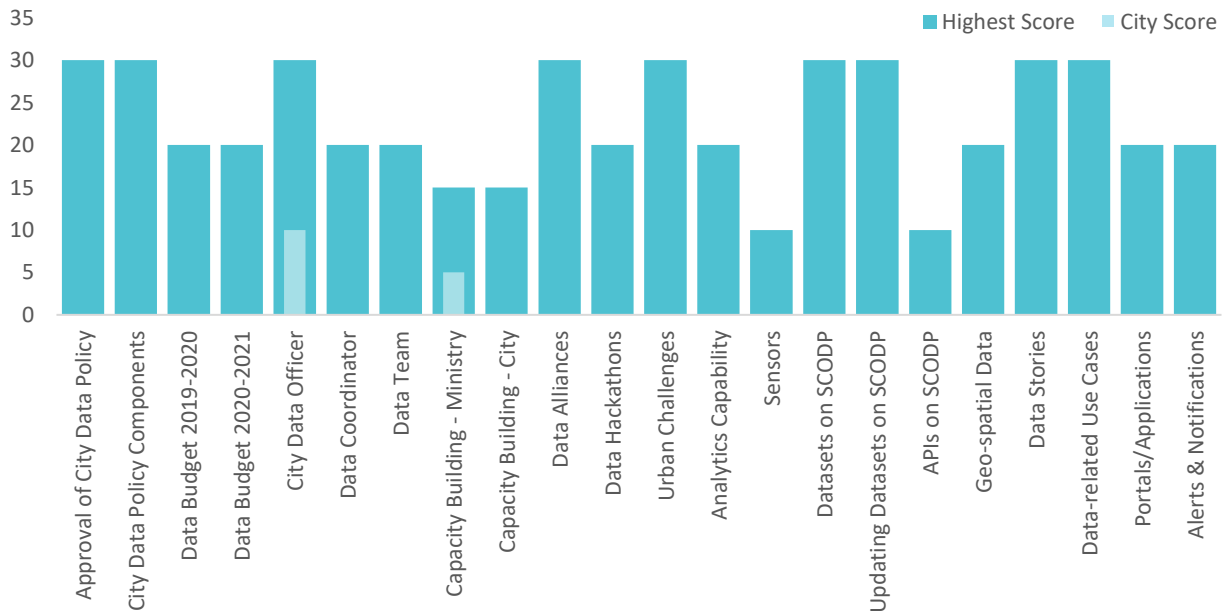
Beginner
Certificate

8
Score

City Ranks across Components

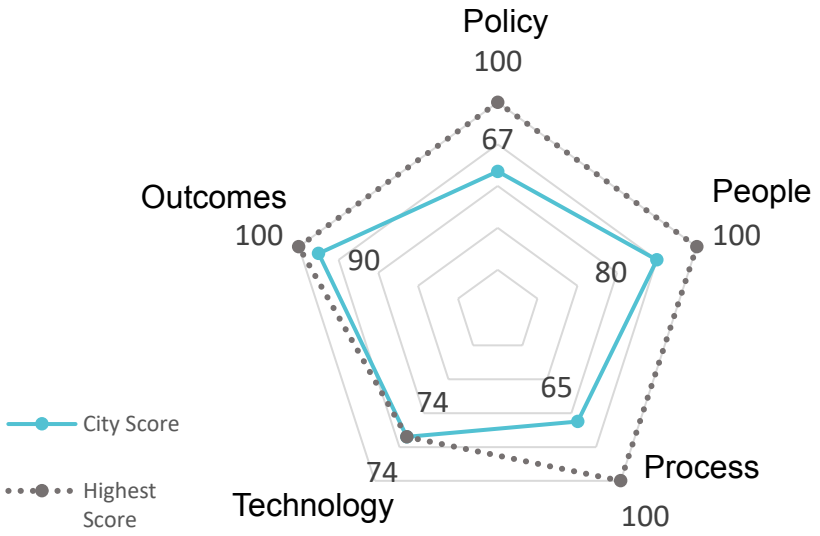
Policy	People	Process	Technology	Outcomes
54th	79th	44th	92nd	67th

City Score vs Highest across Indicators



PUNE | MAHARASHTRA

City Scores across Components



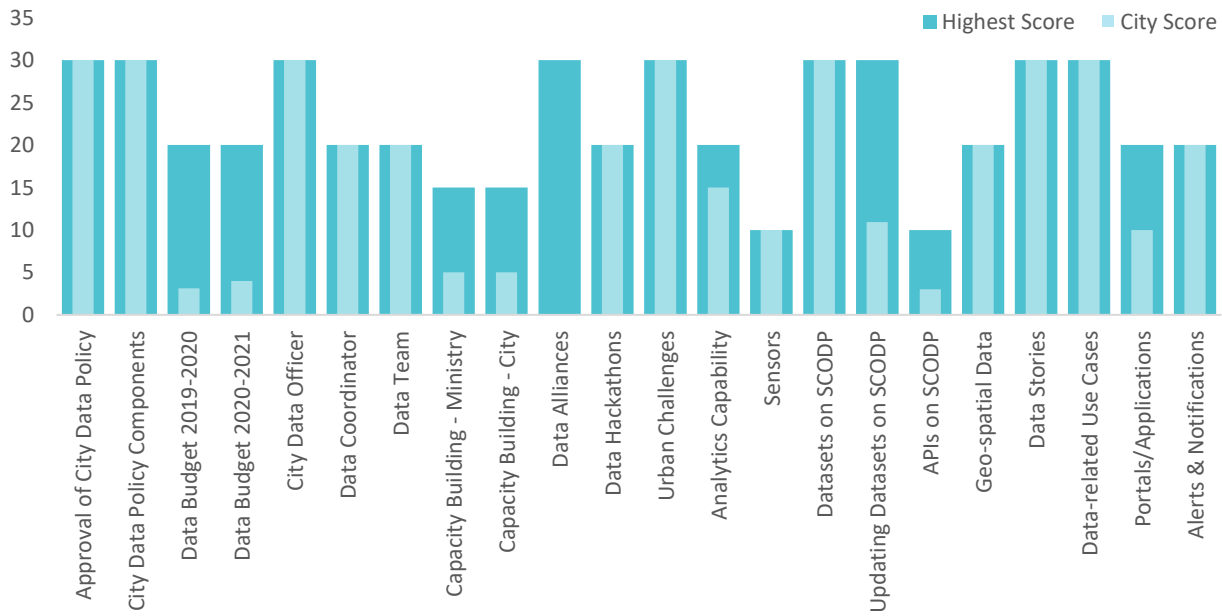
City Engagement Score (out of 100): 70

4th
Rank
Connected
Certificate
75
Score

City Ranks across Components

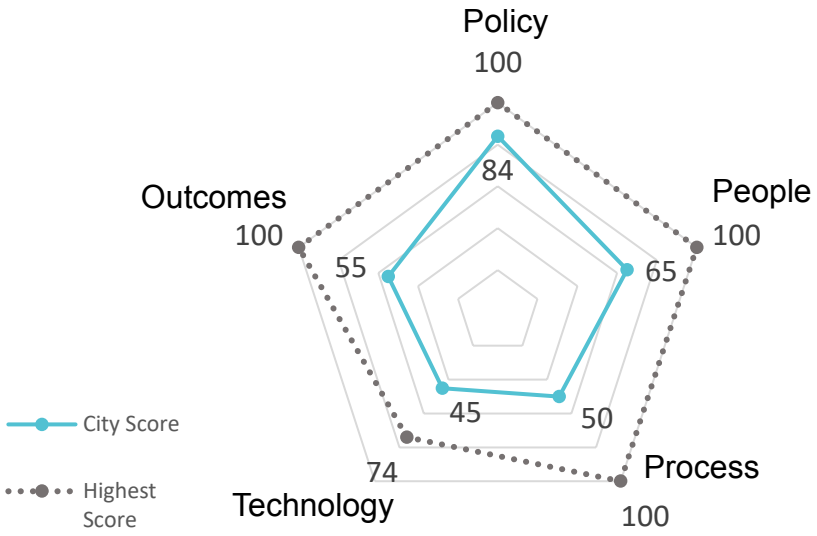
Policy	People	Process	Technology	Outcomes
18th	7th	9th	1st	4th

City Score vs Highest across Indicators



RAIPUR | CHHATTISGARH

City Scores across Components



City Engagement Score (out of 100): 80

10th
Rank

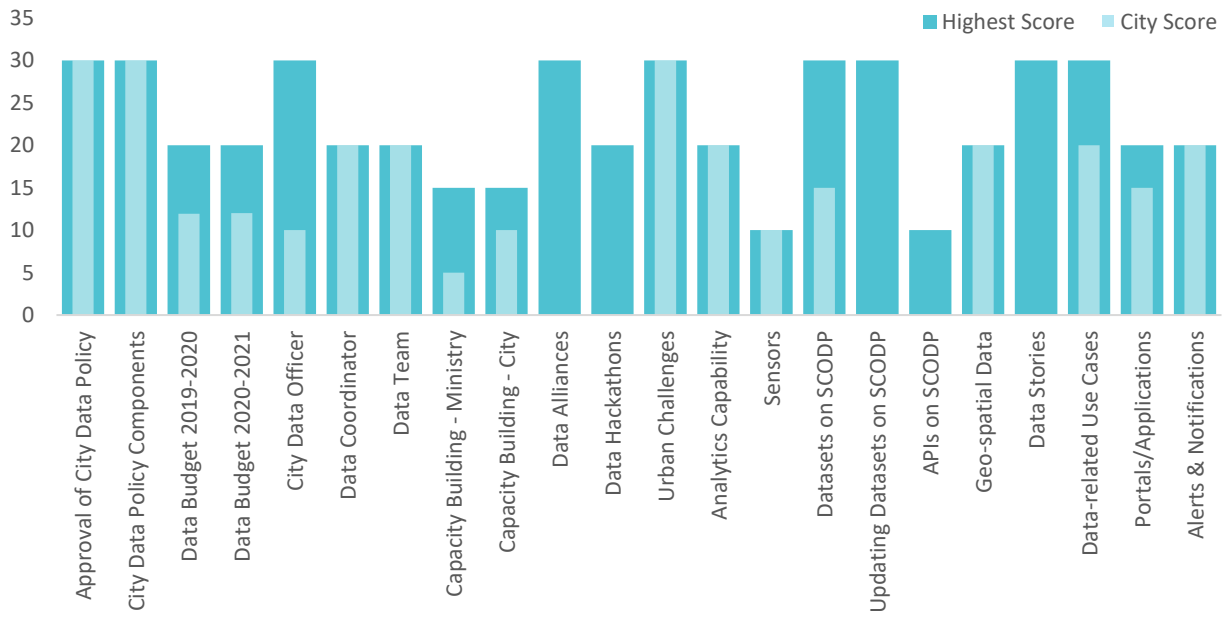
Enabled
Certificate

60
Score

City Ranks across Components

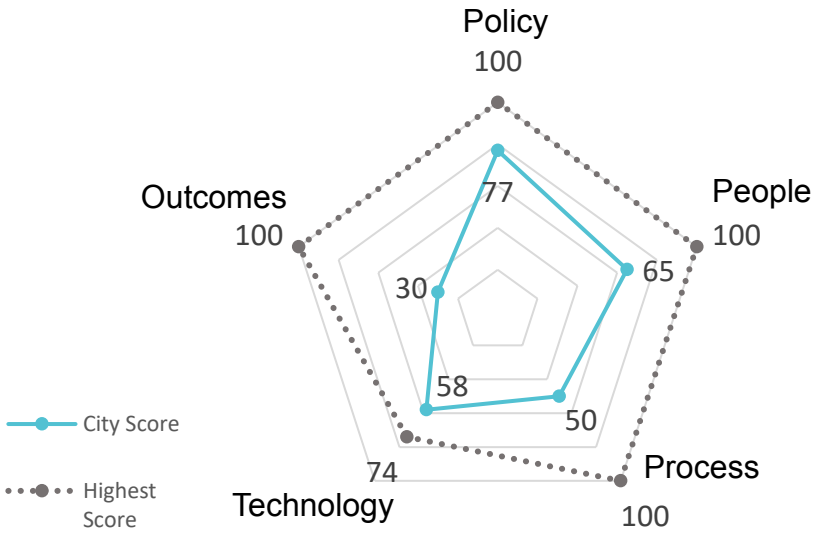
Policy	People	Process	Technology	Outcomes
6th	13th	10th	17th	14th

City Score vs Highest across Indicators



RAJKOT | GUJARAT

City Scores across Components



City Engagement Score (out of 100): 80

14th
Rank

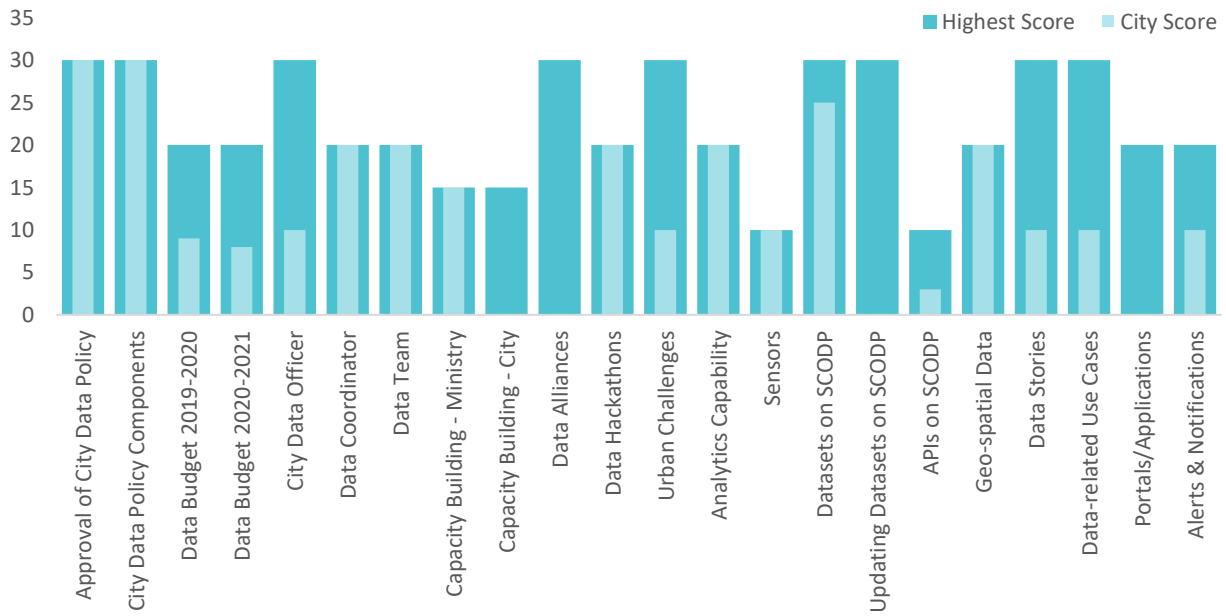
Explorer
Certificate

56
Score

City Ranks across Components

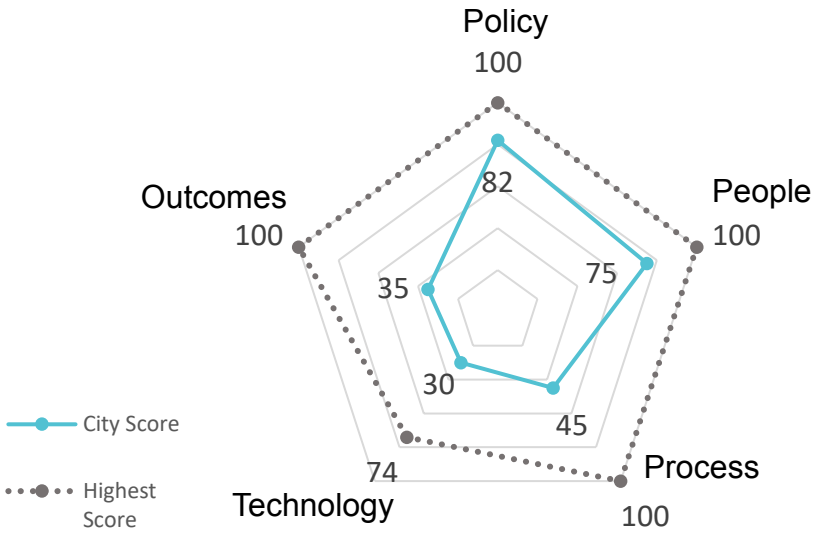
Policy	People	Process	Technology	Outcomes
11th	13th	10th	6th	34th

City Score vs Highest across Indicators



RANCHI | JHARKHAND

City Scores across Components



City Engagement Score (out of 100): 80

22nd
Rank

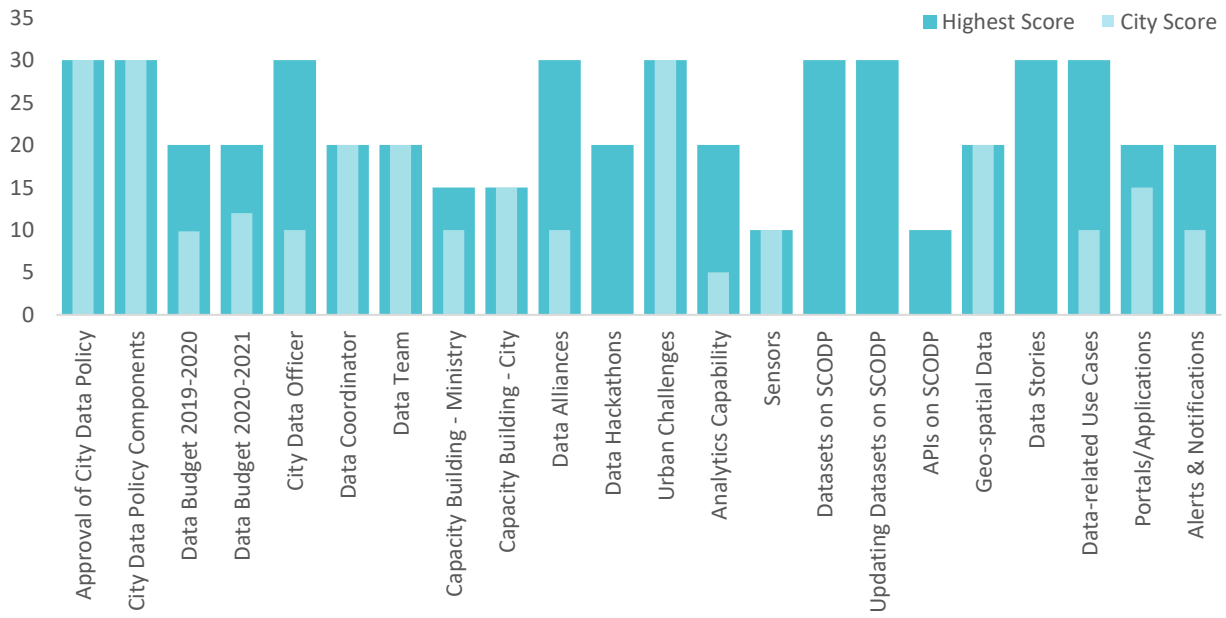
Explorer
Certificate

52
Score

City Ranks across Components

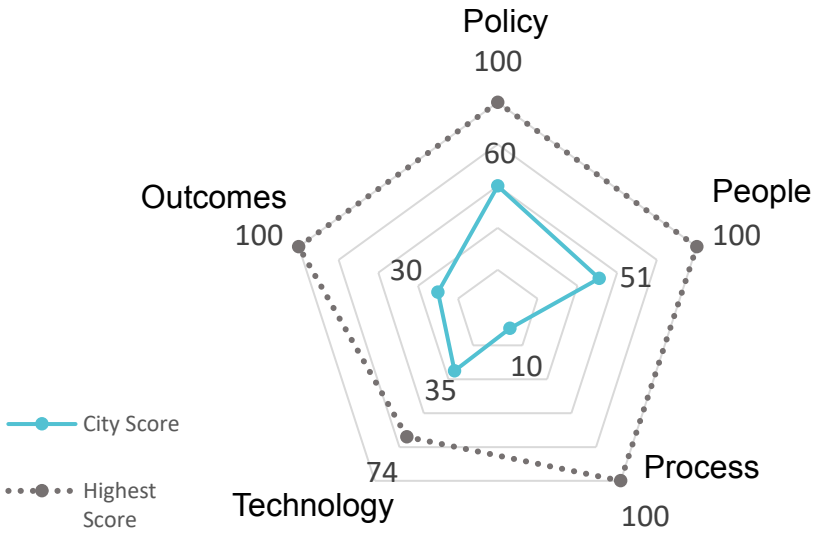
Policy	People	Process	Technology	Outcomes
8th	9th	13th	46th	31st

City Score vs Highest across Indicators



ROURKELA | ODISHA

City Scores across Components



City Engagement Score (out of 100): 80

28th
Rank

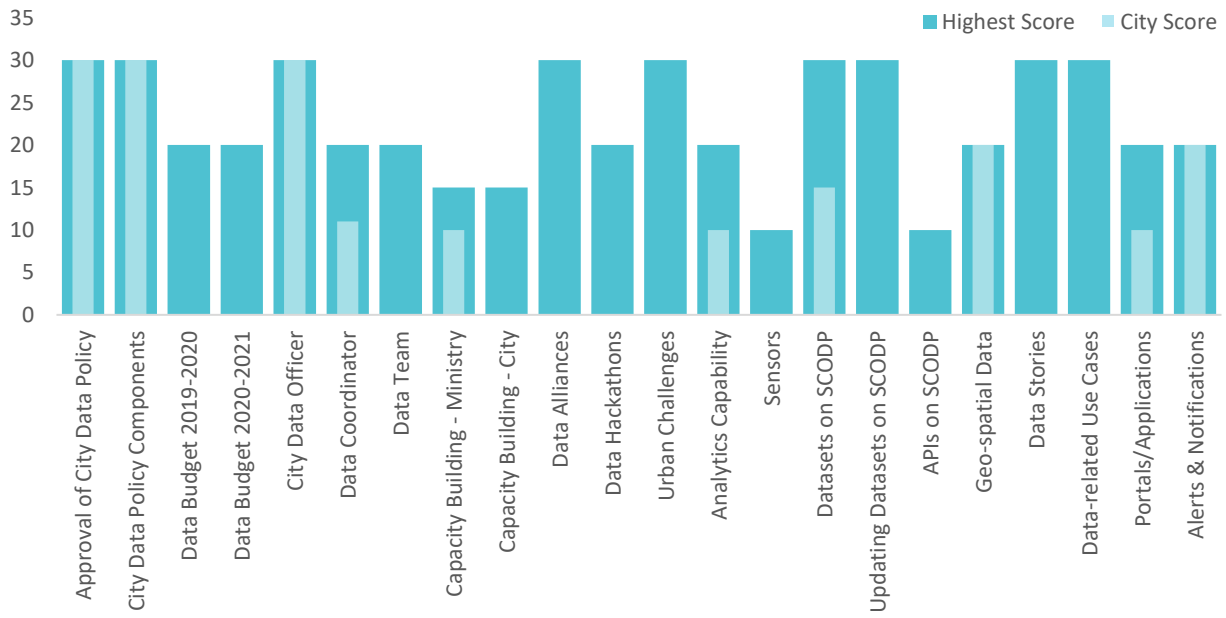
Initiator
Certificate

39
Score

City Ranks across Components

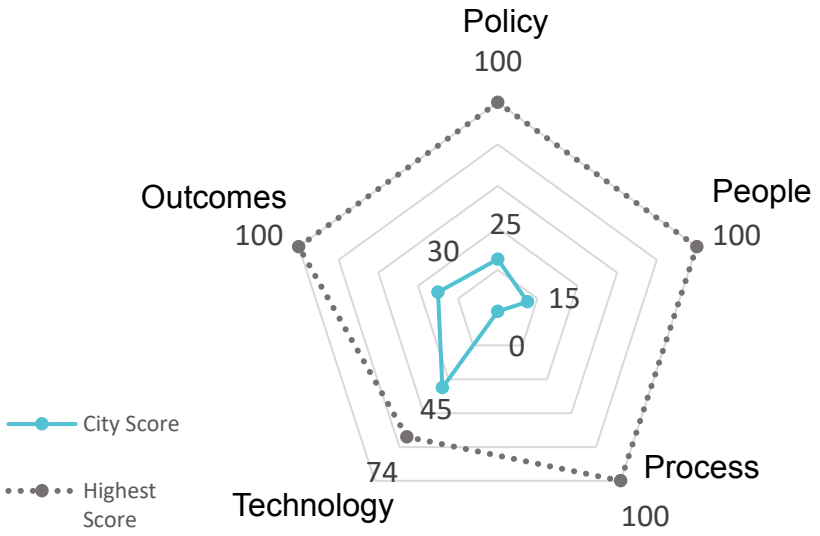
Policy	People	Process	Technology	Outcomes
21st	29th	40th	39th	34th

City Score vs Highest across Indicators



SAGAR | MADHYA PRADESH

City Scores across Components



City Engagement Score (out of 100): 70

46th
Rank

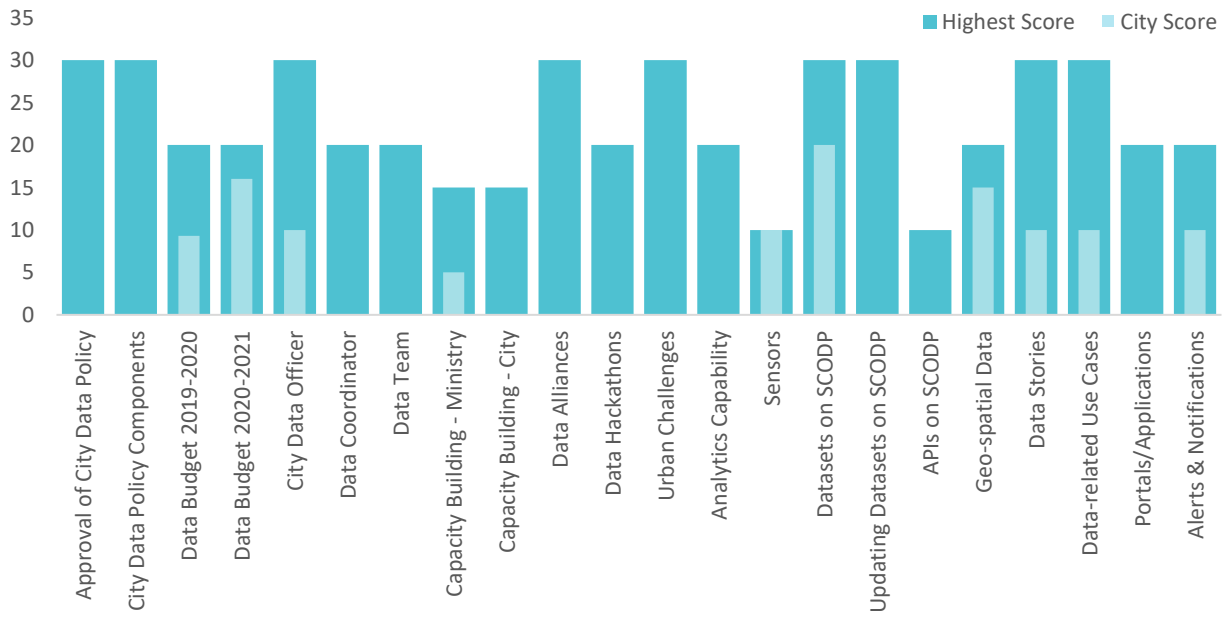
Beginner
Certificate

29
Score

City Ranks across Components

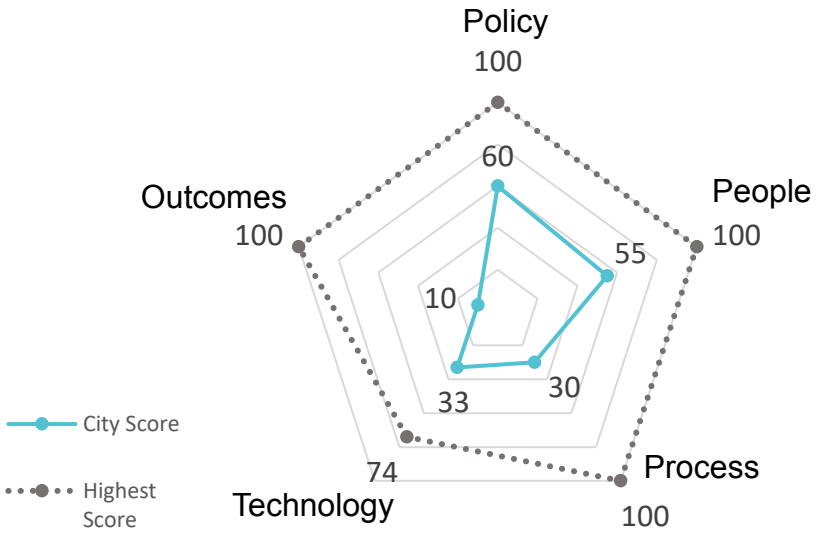
Policy	People	Process	Technology	Outcomes
48th	79th	44th	17th	34th

City Score vs Highest across Indicators



SAHARANPUR | UTTAR PRADESH

City Scores across Components



City Engagement Score (out of 100): 80

28th
Rank

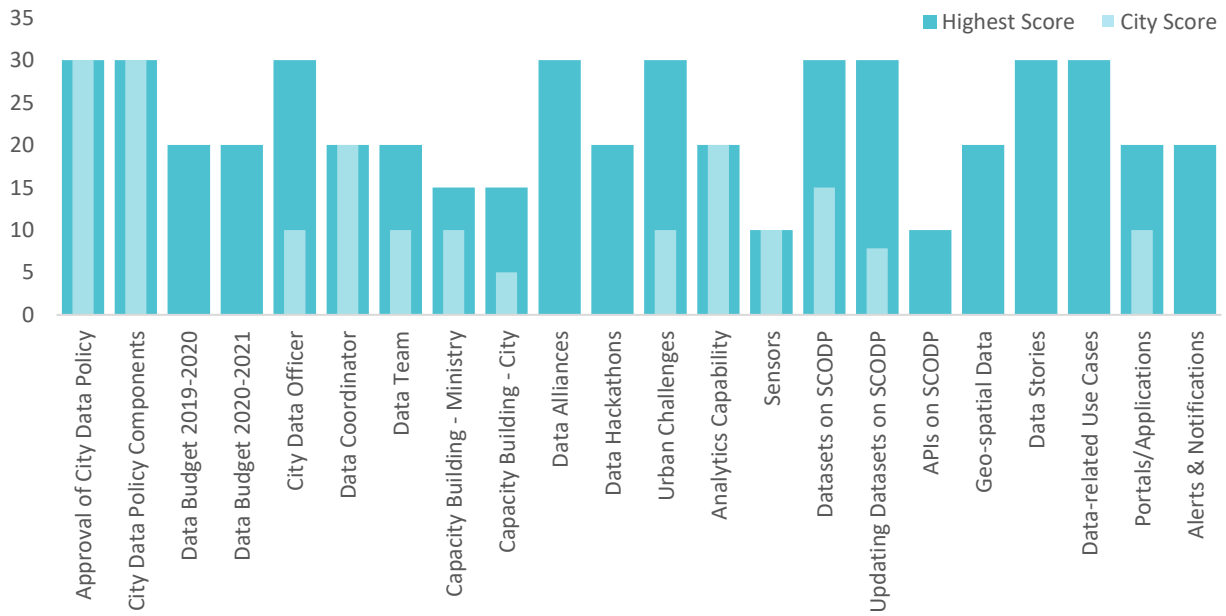
Initiator
Certificate

39
Score

City Ranks across Components

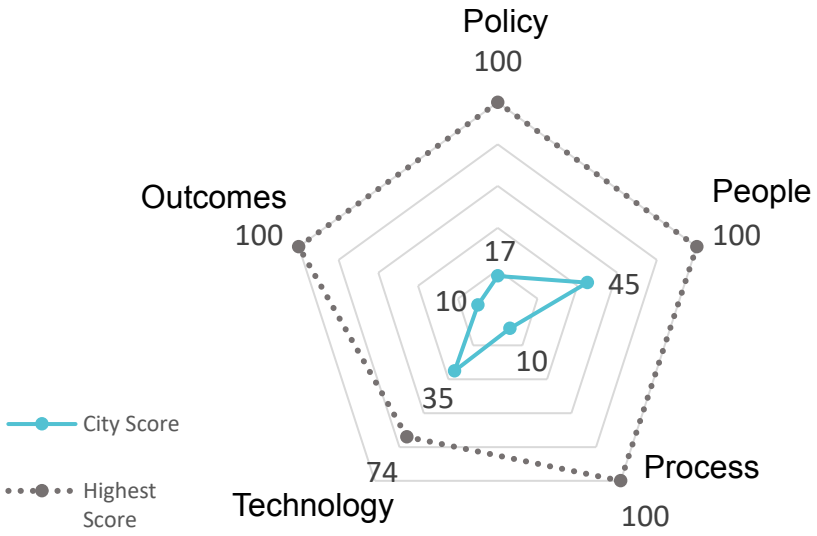
Policy	People	Process	Technology	Outcomes
21st	20th	21st	43rd	53rd

City Score vs Highest across Indicators



SALEM | TAMIL NADU

City Scores across Components



City Engagement Score (out of 100): 70

53rd
Rank

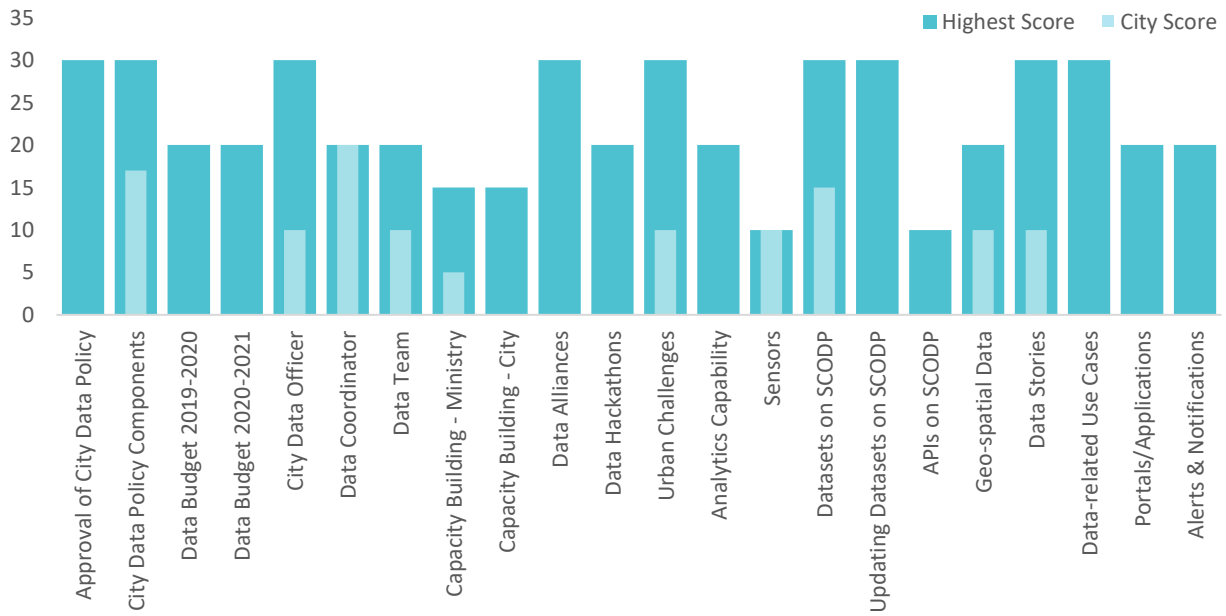
Beginner
Certificate

27
Score

City Ranks across Components

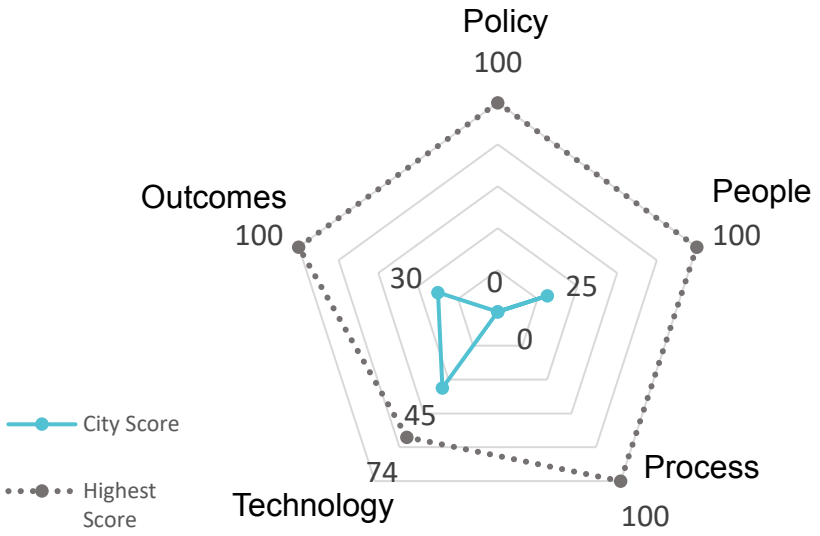
Policy	People	Process	Technology	Outcomes
52nd	39th	40th	39th	53rd

City Score vs Highest across Indicators



SATNA | MADHYA PRADESH

City Scores across Components



City Engagement Score (out of 100): 80

51st
Rank

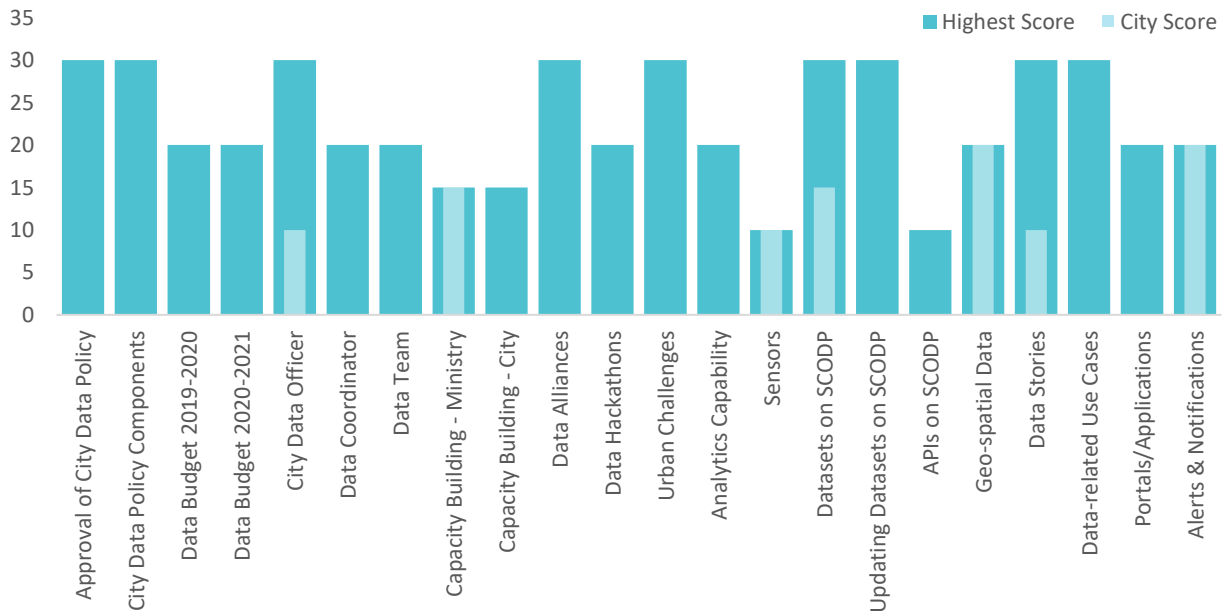
Beginner
Certificate

28
Score

City Ranks across Components

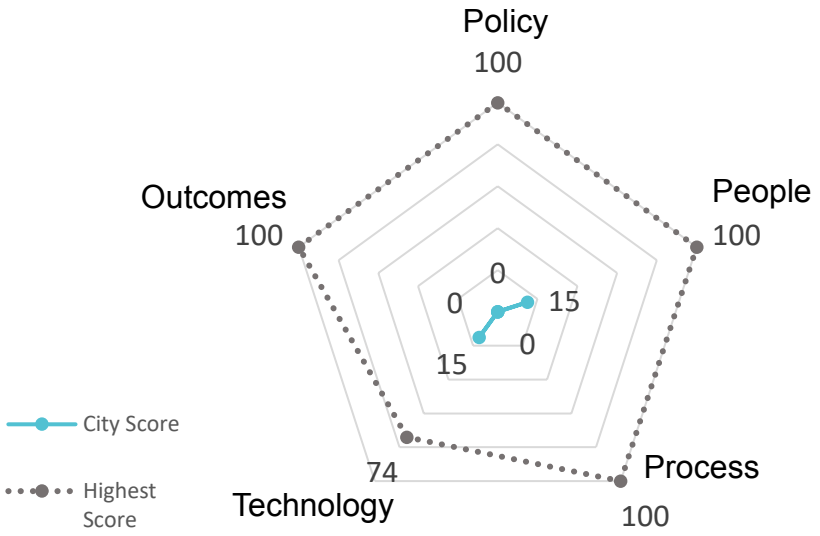
Policy	People	Process	Technology	Outcomes
54th	61st	44th	17th	34th

City Score vs Highest across Indicators



SHILLONG | MEGHALAYA

City Scores across Components



City Engagement Score (out of 100): 60

93rd
Rank

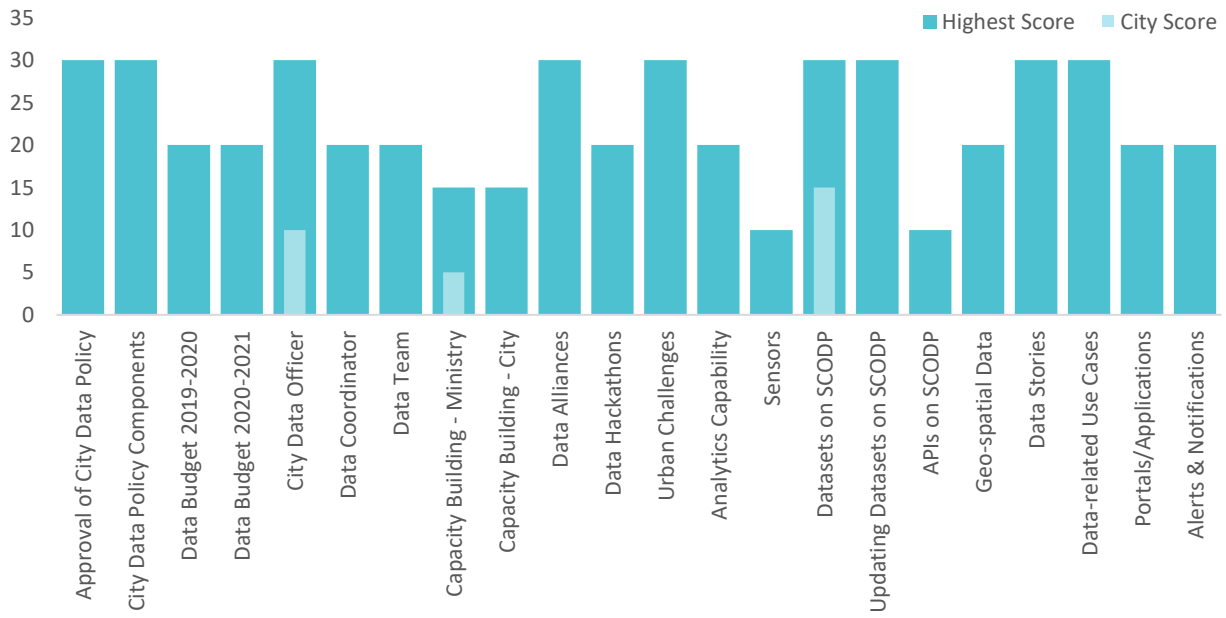
Beginner
Certificate

11
Score

City Ranks across Components

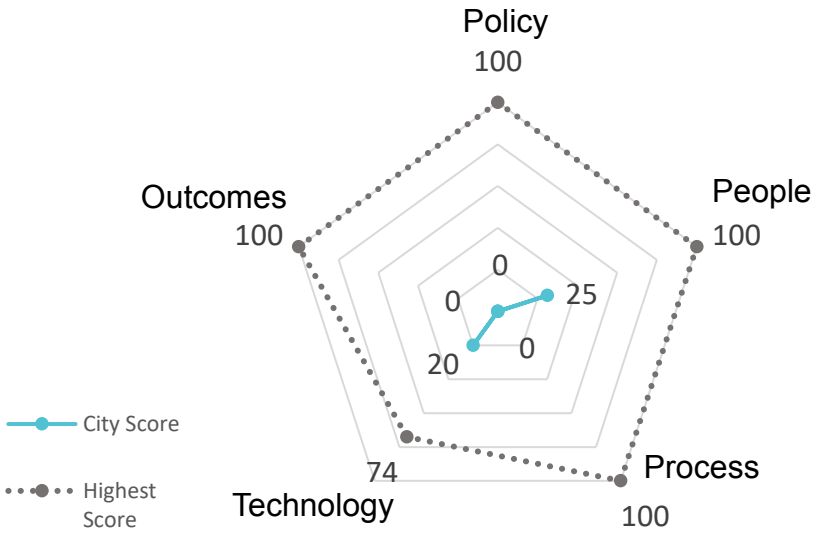
Policy	People	Process	Technology	Outcomes
54th	79th	44th	76th	67th

City Score vs Highest across Indicators



SHIMLA | HIMACHAL PRADESH

City Scores across Components



City Engagement Score (out of 100): 70

81st
Rank

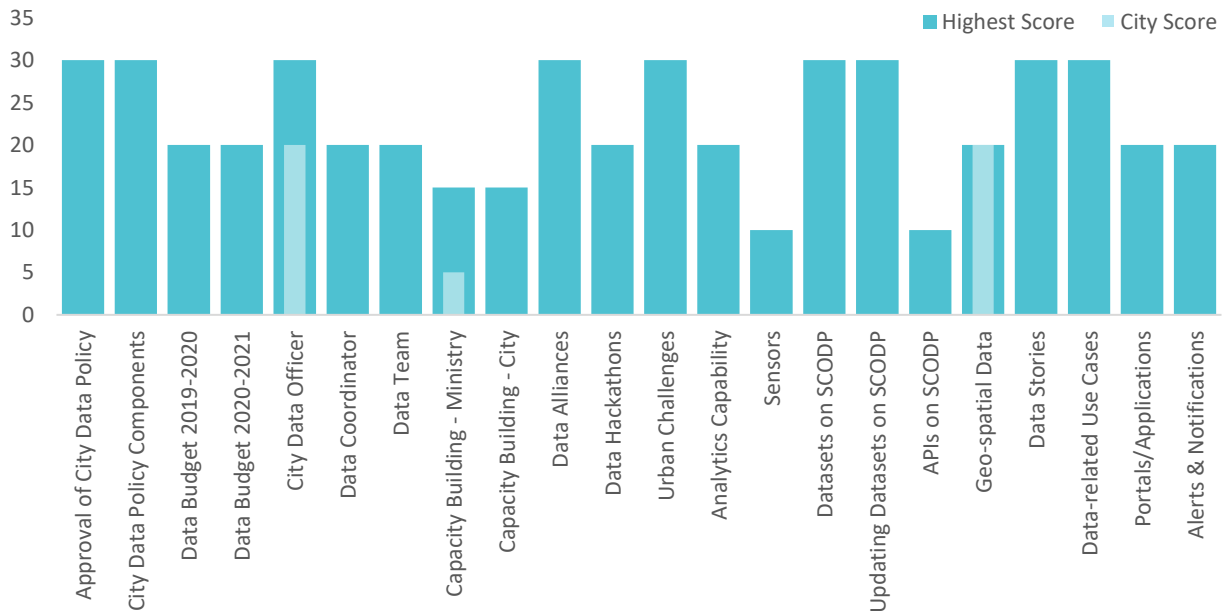
Beginner
Certificate

15
Score

City Ranks across Components

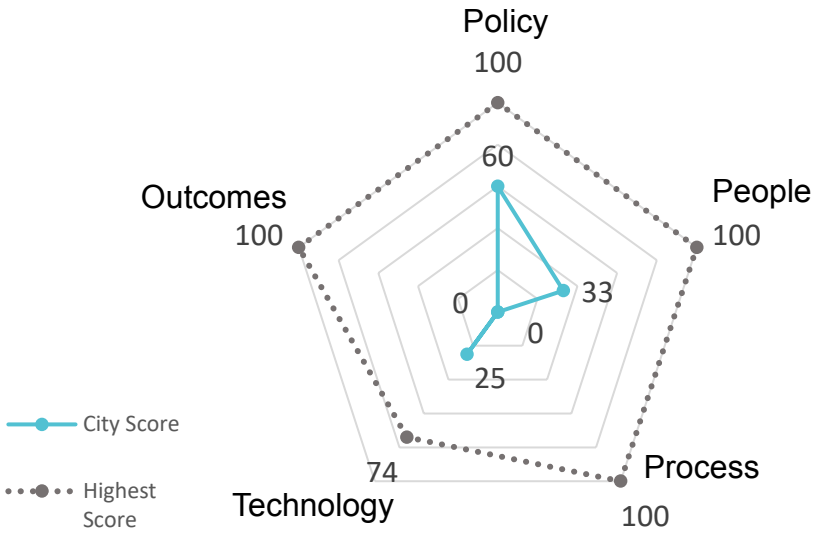
Policy	People	Process	Technology	Outcomes
54th	61st	44th	67th	67th

City Score vs Highest across Indicators



SHIVAMOGGA | KARNATAKA

City Scores across Components



City Engagement Score (out of 100): 70

54th
Rank

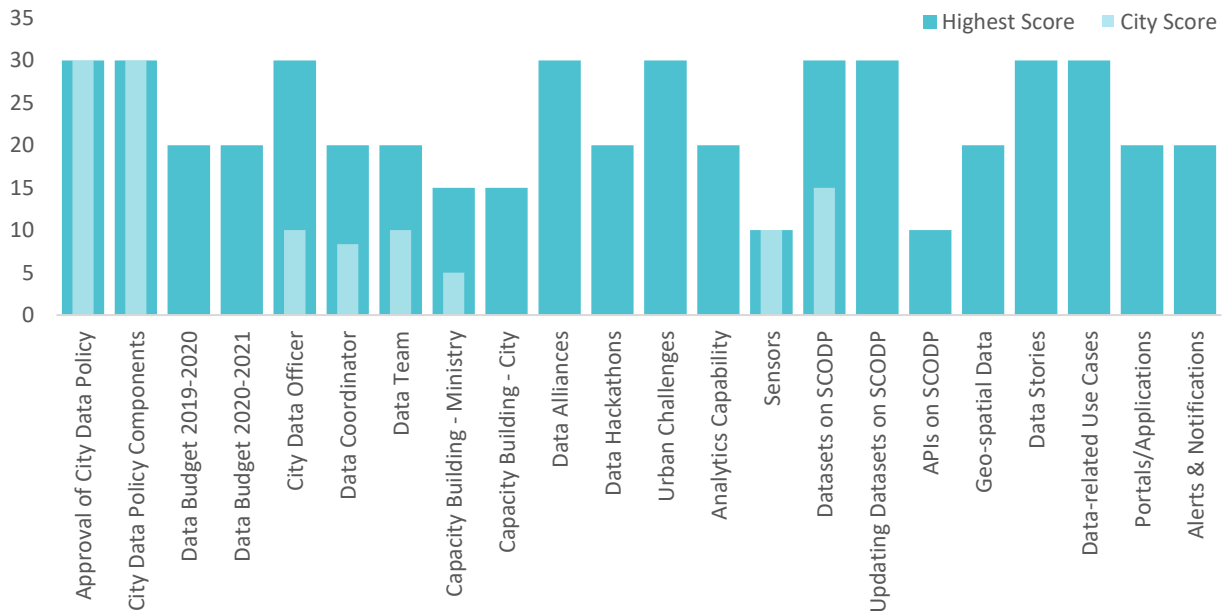
Beginner
Certificate

25
Score

City Ranks across Components

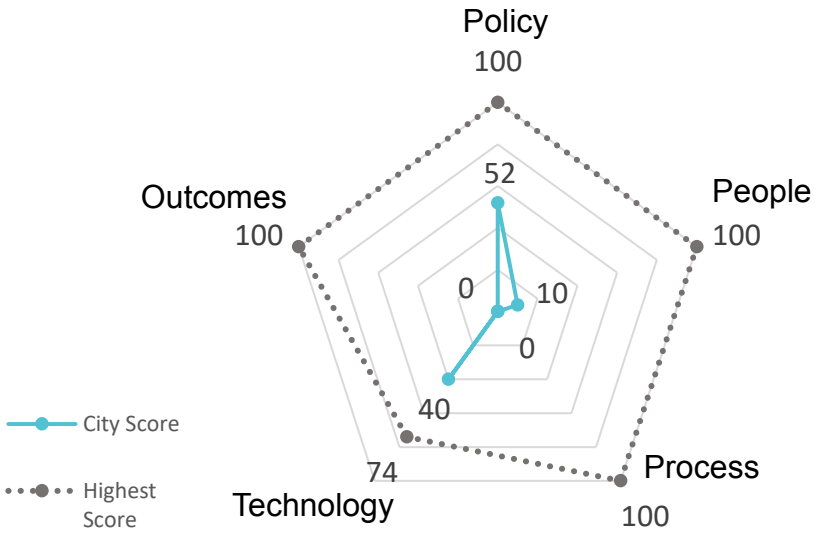
Policy	People	Process	Technology	Outcomes
21st	53rd	44th	60th	67th

City Score vs Highest across Indicators



SILVASSA | DADRA & NAGAR HAVELI

City Scores across Components



City Engagement Score (out of 100): 60

58th
Rank

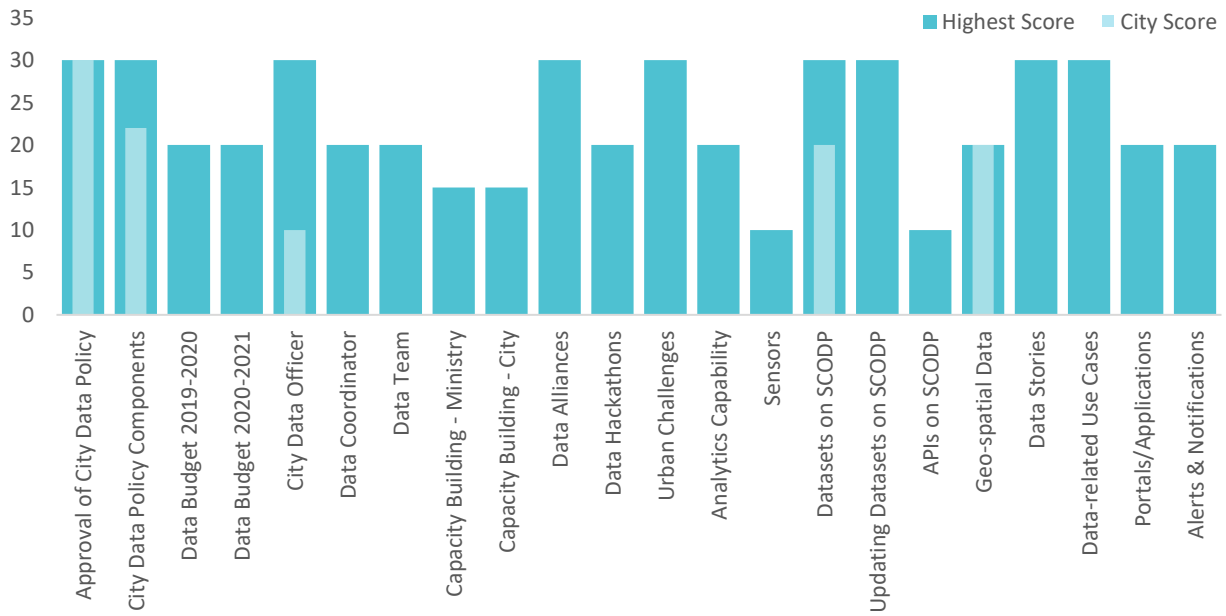
Beginner
Certificate

23
Score

City Ranks across Components

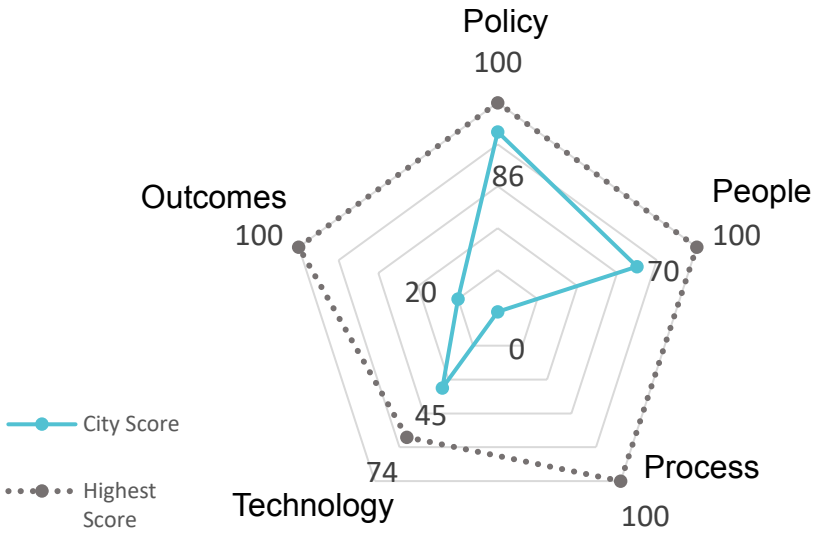
Policy	People	Process	Technology	Outcomes
33rd	94th	44th	33rd	67th

City Score vs Highest across Indicators



SOLAPUR | MAHARASHTRA

City Scores across Components



City Engagement Score (out of 100): 80

24th
Rank

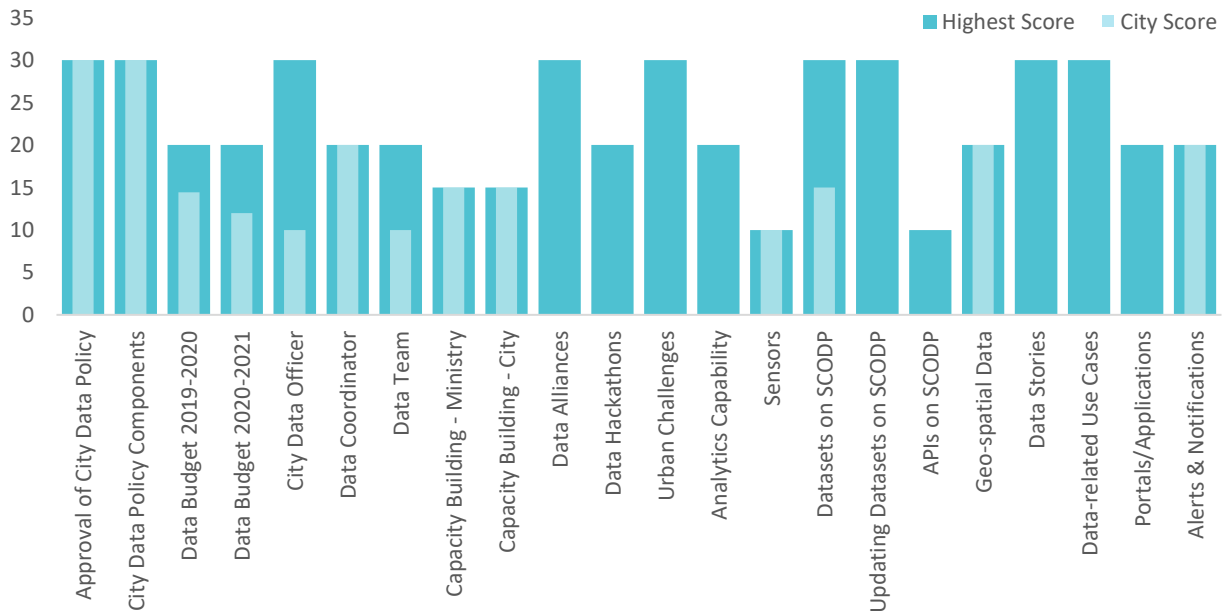
Initiator
Certificate

44
Score

City Ranks across Components

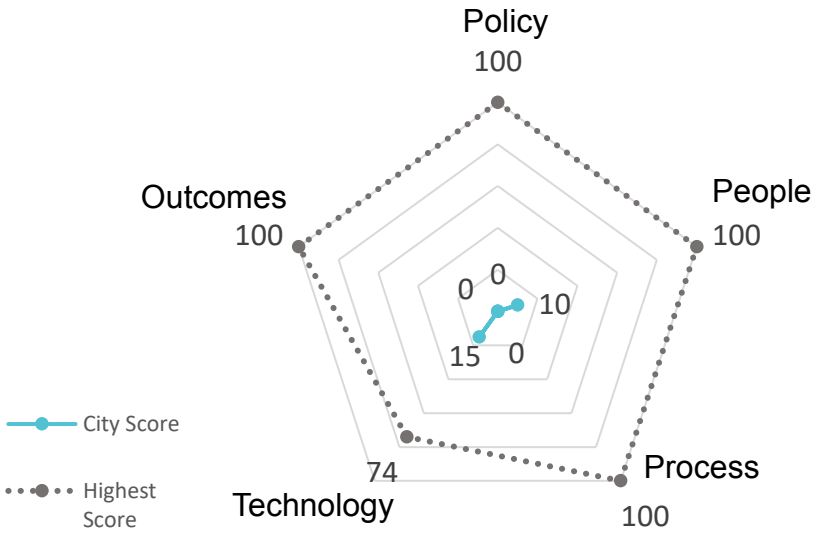
Policy	People	Process	Technology	Outcomes
3rd	11th	44th	17th	45th

City Score vs Highest across Indicators



SRINAGAR | JAMMU & KASHMIR

City Scores across Components



City Engagement Score (out of 100): 60

93rd
Rank

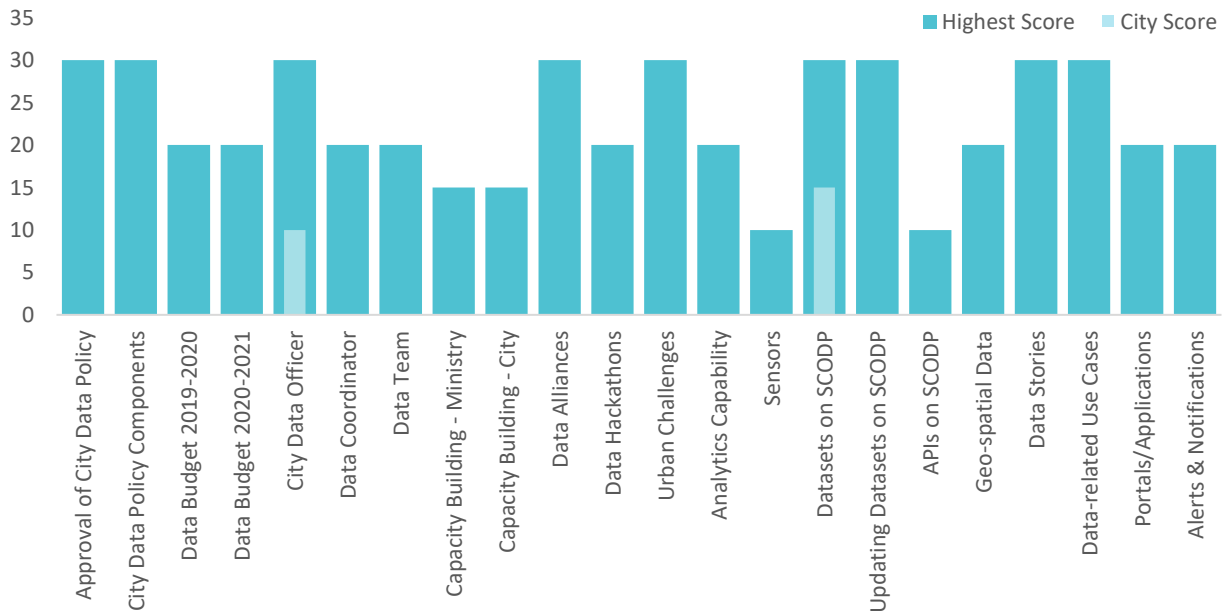
Beginner
Certificate

11
Score

City Ranks across Components

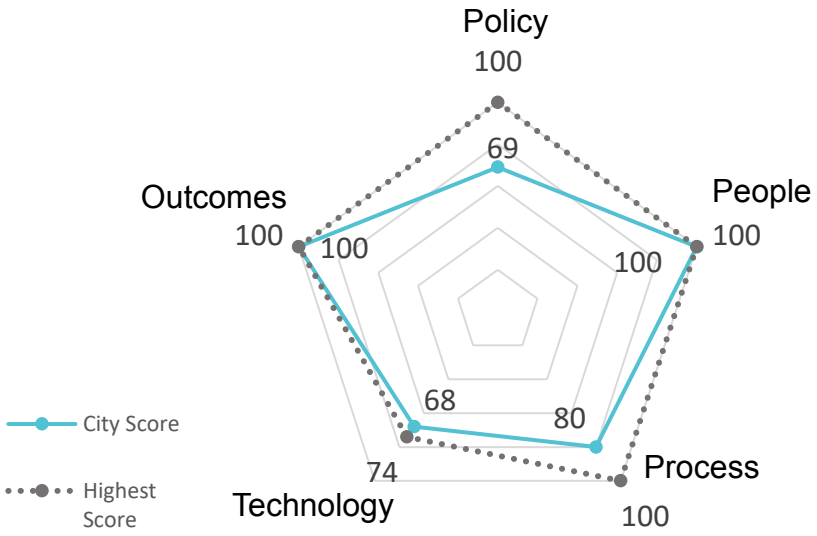
Policy	People	Process	Technology	Outcomes
54th	94th	44th	76th	67th

City Score vs Highest across Indicators



SURAT | GUJARAT

City Scores across Components



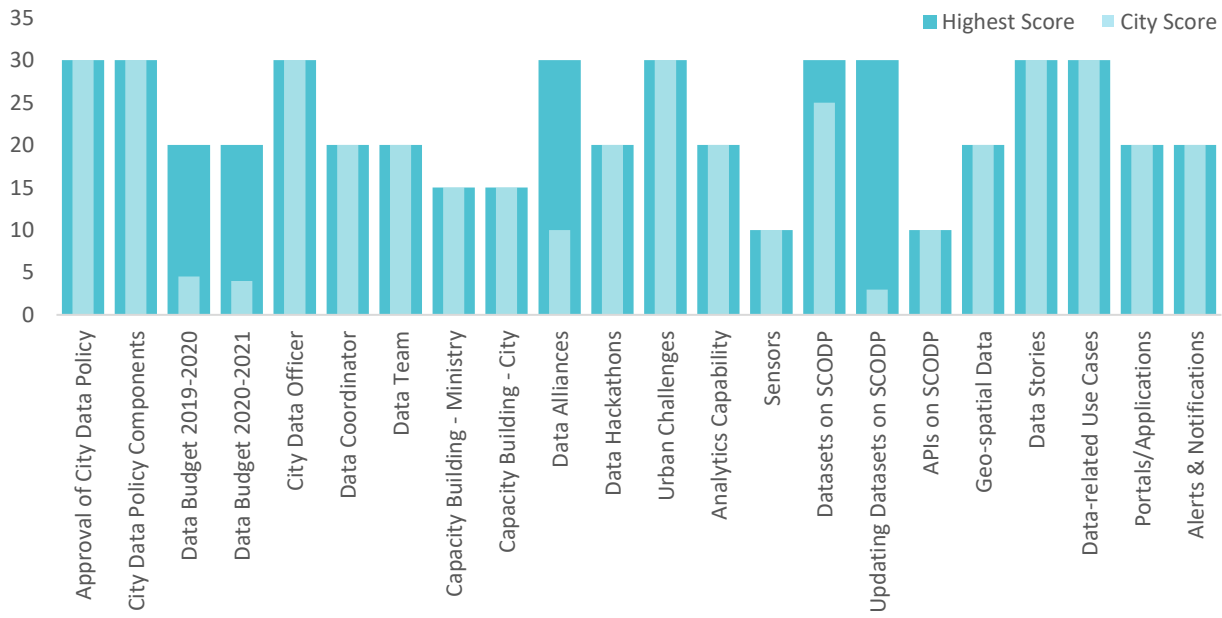
City Engagement Score (out of 100): 50

1st
Rank
Connected
Certificate
80
Score

City Ranks across Components

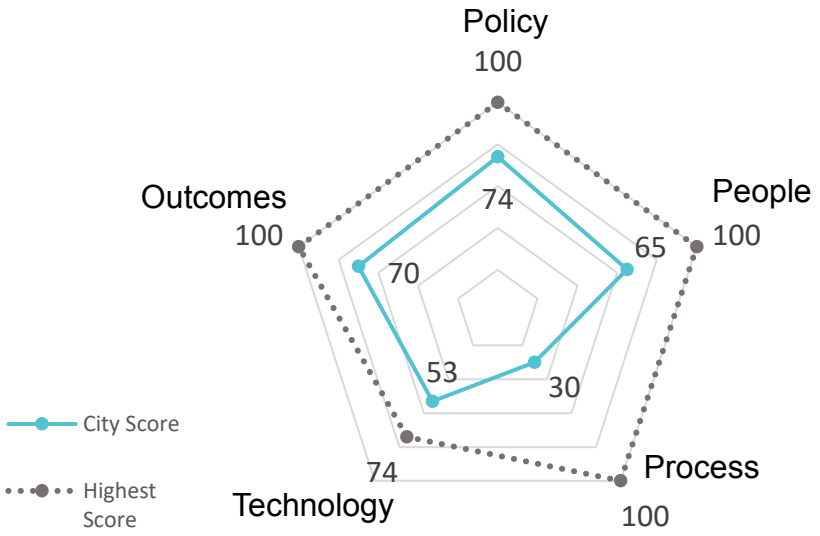
Policy	People	Process	Technology	Outcomes
16th	1st	1st	2nd	1st

City Score vs Highest across Indicators



THANE | MAHARASHTRA

City Scores across Components



City Engagement Score (out of 100): 80

10th
Rank

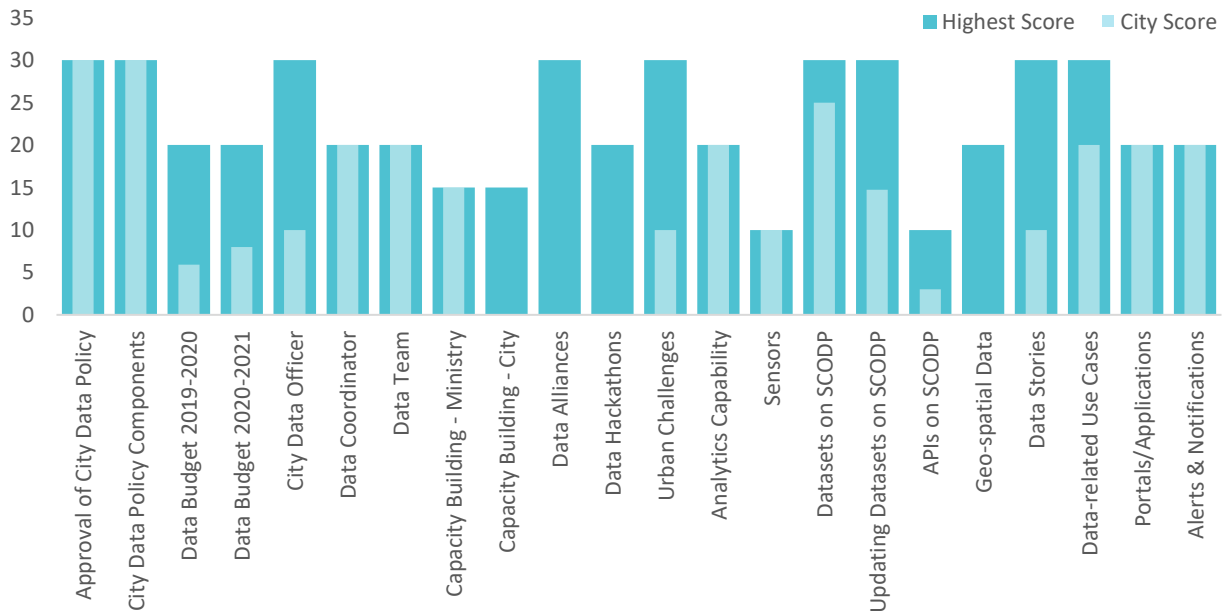
Enabled
Certificate

60
Score

City Ranks across Components

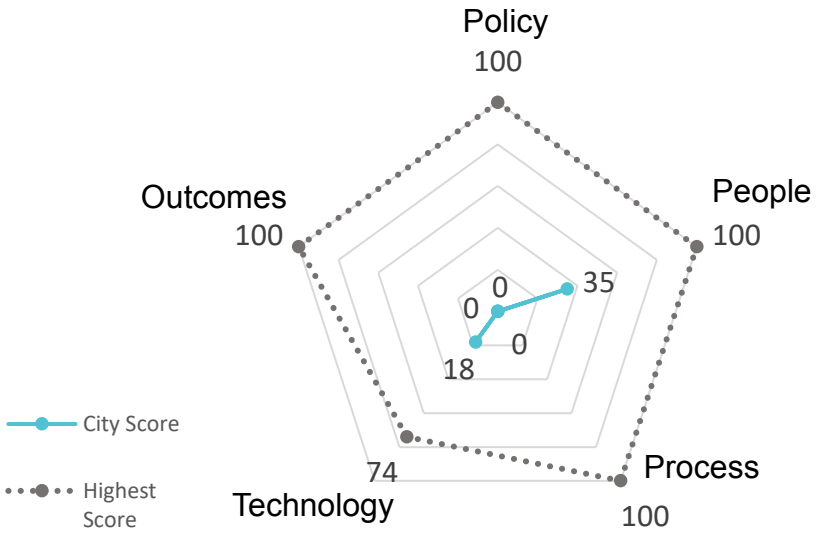
Policy	People	Process	Technology	Outcomes
13th	13th	21st	8th	9th

City Score vs Highest across Indicators



THANJAVUR | TAMIL NADU

City Scores across Components



City Engagement Score (out of 100): 70

76th
Rank

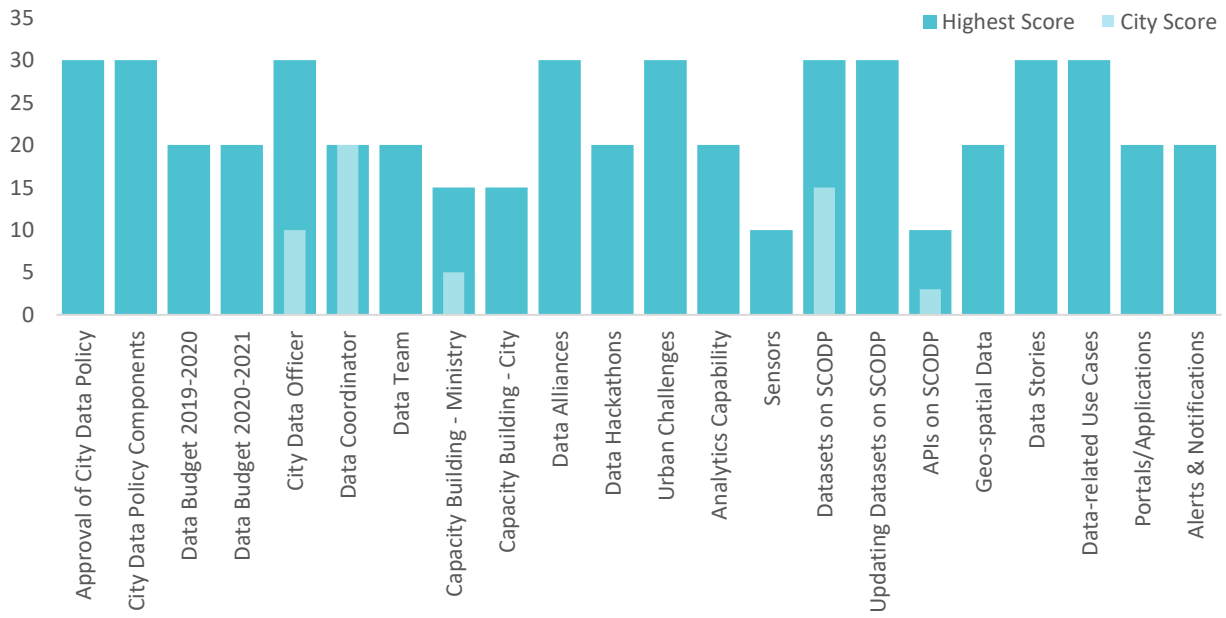
Beginner
Certificate

16
Score

City Ranks across Components

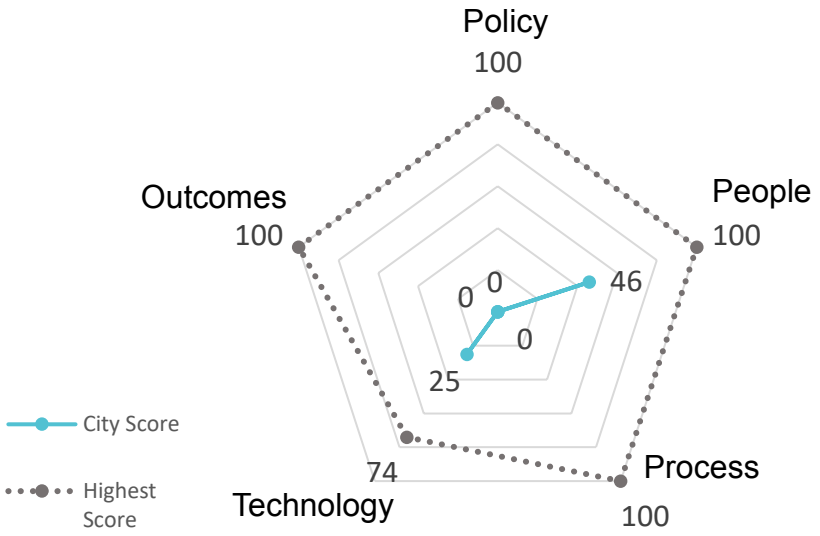
Policy	People	Process	Technology	Outcomes
54th	46th	44th	74th	67th

City Score vs Highest across Indicators



THIRUVANANTHAPURAM | KERALA

City Scores across Components



City Engagement Score (out of 100): 70

67th
Rank

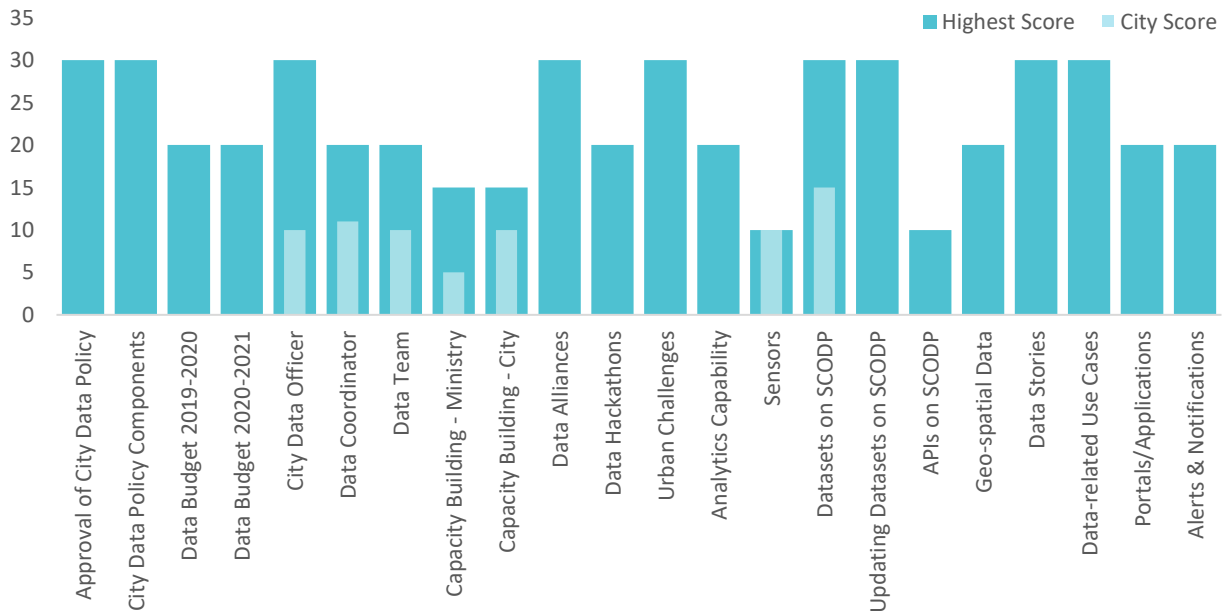
Beginner
Certificate

19
Score

City Ranks across Components

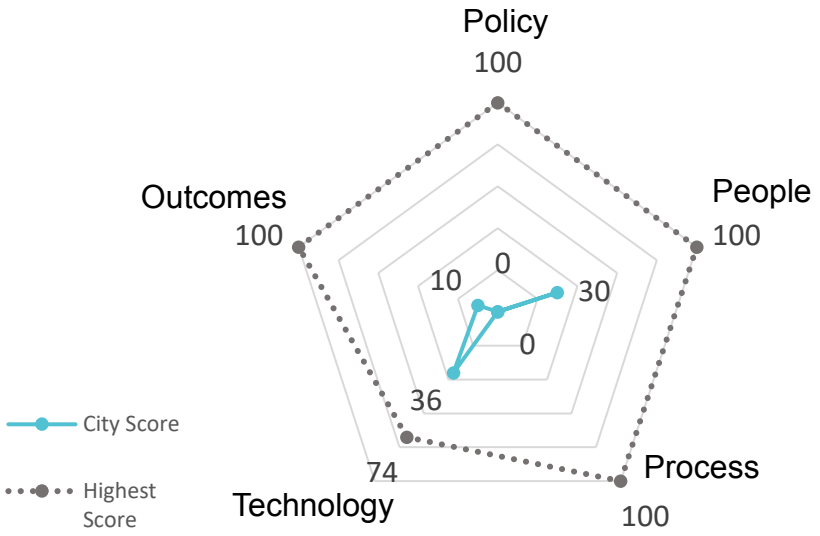
Policy	People	Process	Technology	Outcomes
54th	38th	44th	60th	67th

City Score vs Highest across Indicators



THOOTHUKUDI | TAMIL NADU

City Scores across Components



City Engagement Score (out of 100): 70

62nd
Rank

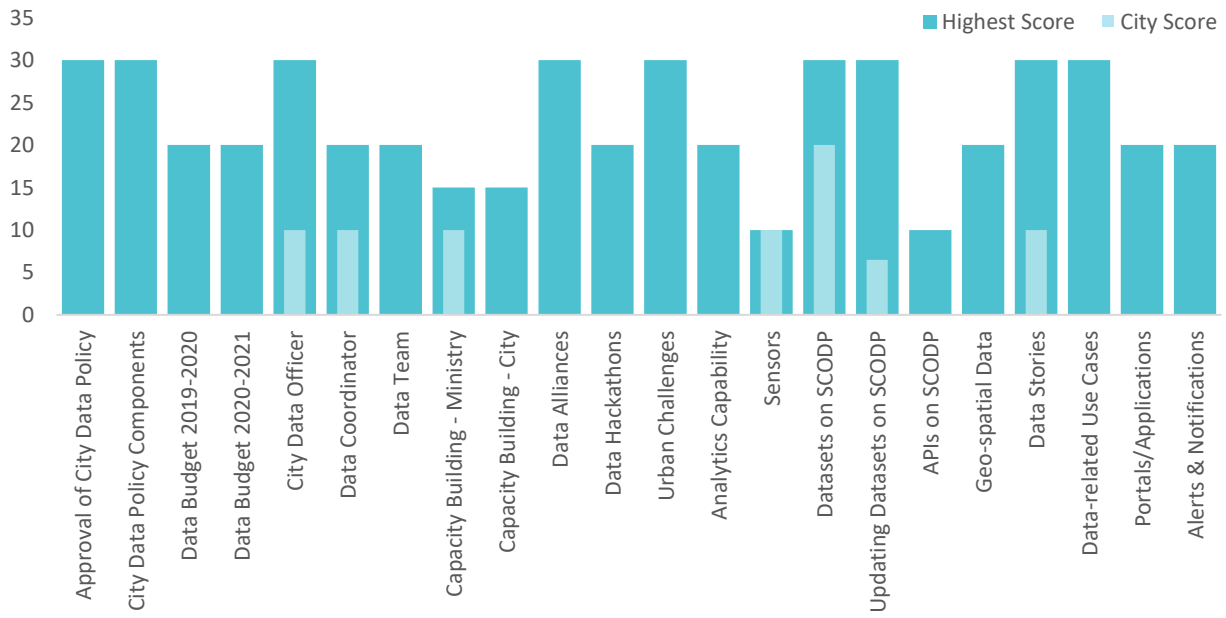
Beginner
Certificate

21
Score

City Ranks across Components

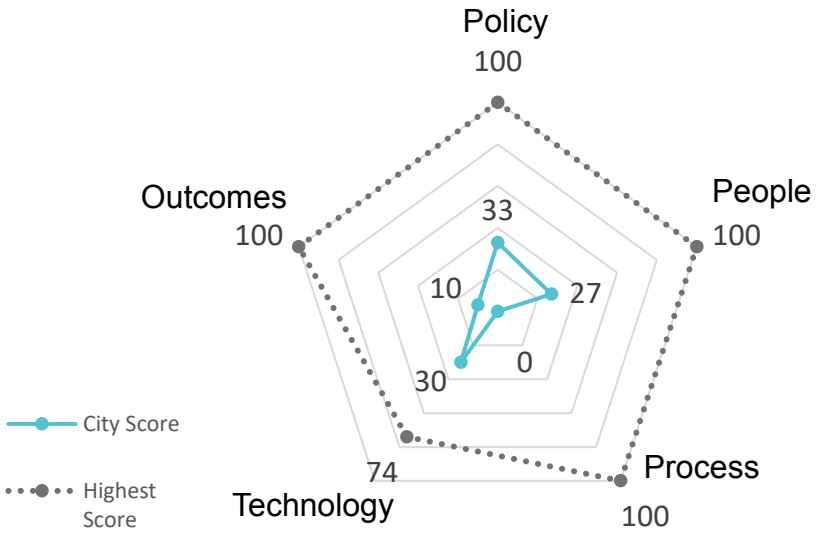
Policy	People	Process	Technology	Outcomes
54th	54th	44th	38th	53rd

City Score vs Highest across Indicators



TIRUCHIRAPPALLI | TAMIL NADU

City Scores across Components



City Engagement Score (out of 100): 70

56th
Rank

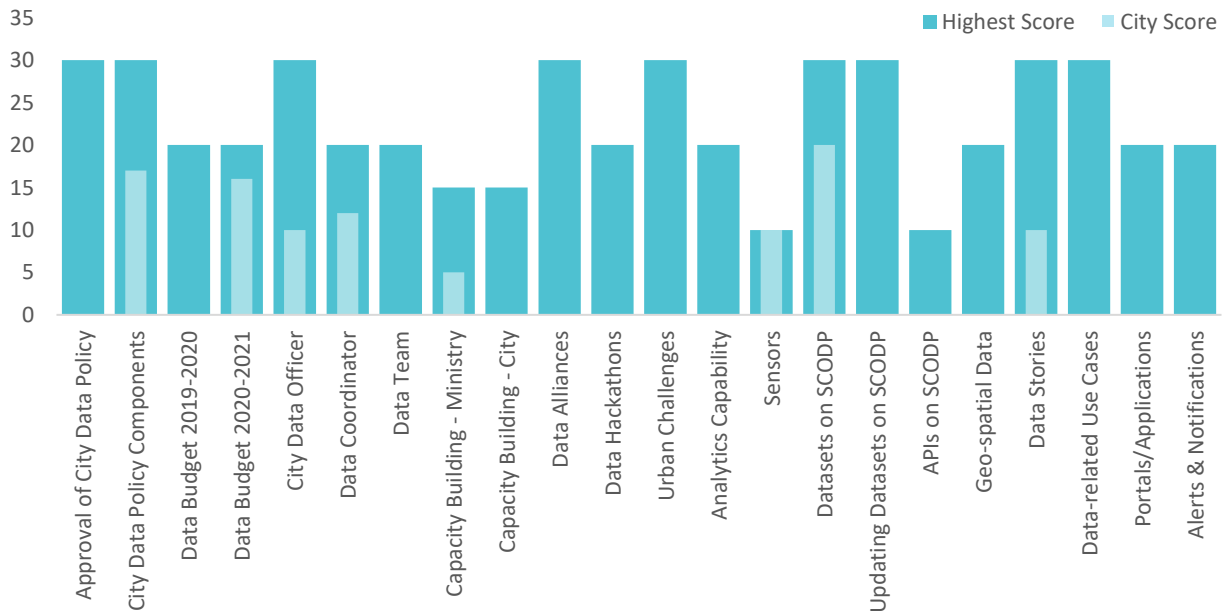
Beginner
Certificate

24
Score

City Ranks across Components

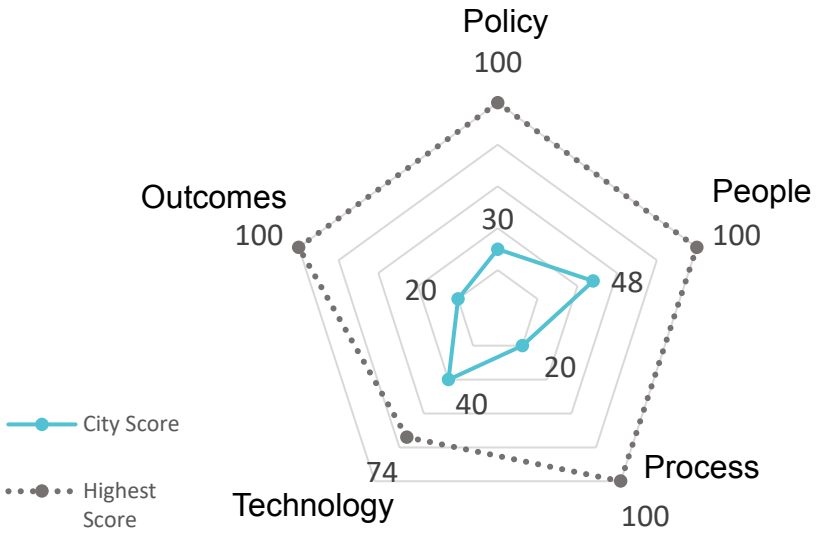
Policy	People	Process	Technology	Outcomes
39th	60th	44th	46th	53rd

City Score vs Highest across Indicators



TIRUNELVELI | TAMIL NADU

City Scores across Components



City Engagement Score (out of 100): 60

38th
Rank

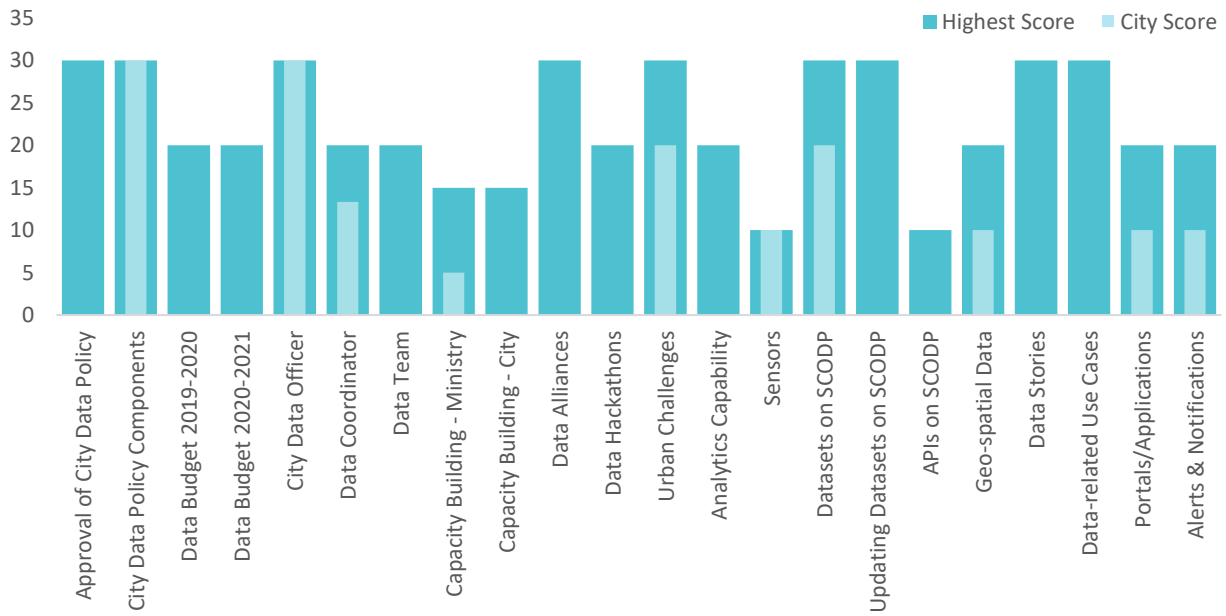
Initiator
Certificate

34
Score

City Ranks across Components

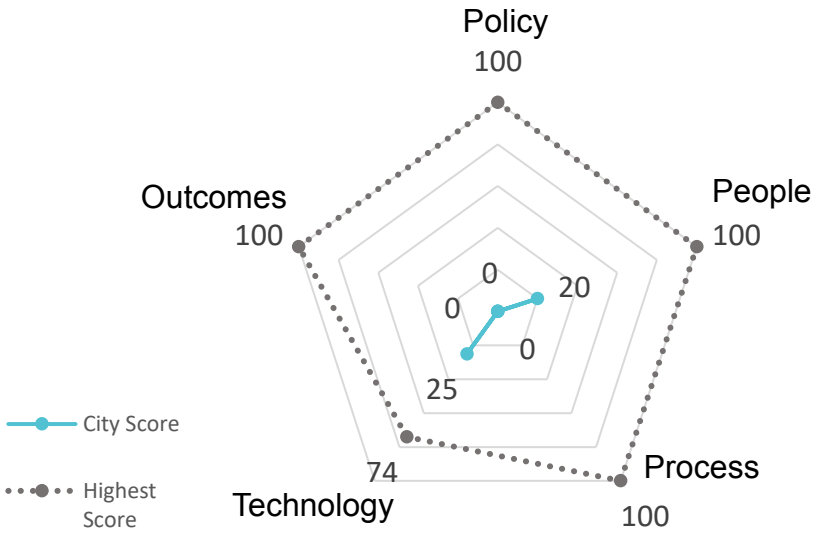
Policy	People	Process	Technology	Outcomes
42nd	36th	28th	33rd	45th

City Score vs Highest across Indicators



TIRUPATI | ANDHRA PRADESH

City Scores across Components



City Engagement Score (out of 100): 60

84th
Rank

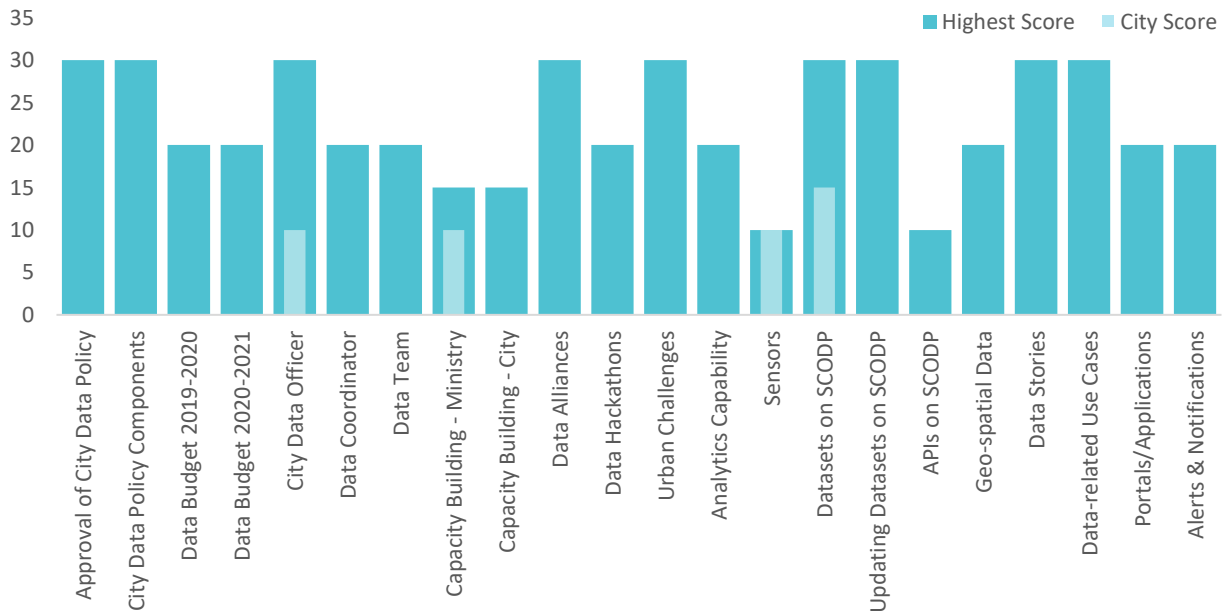
Beginner
Certificate

14
Score

City Ranks across Components

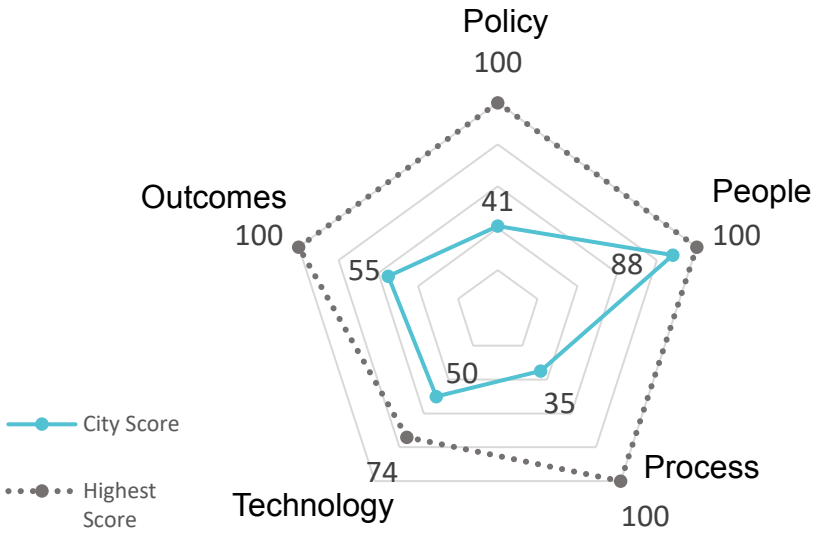
Policy	People	Process	Technology	Outcomes
54th	73rd	44th	60th	67th

City Score vs Highest across Indicators



TIRUPPUR | TAMIL NADU

City Scores across Components



City Engagement Score (out of 100): 70

17th
Rank

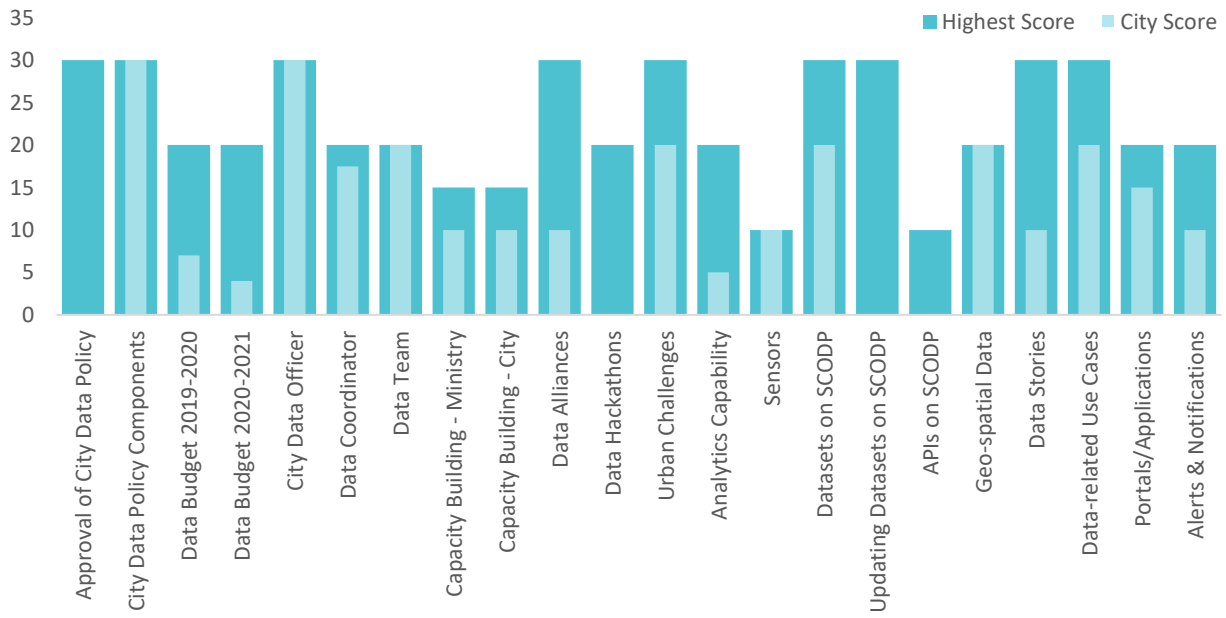
Explorer
Certificate

54
Score

City Ranks across Components

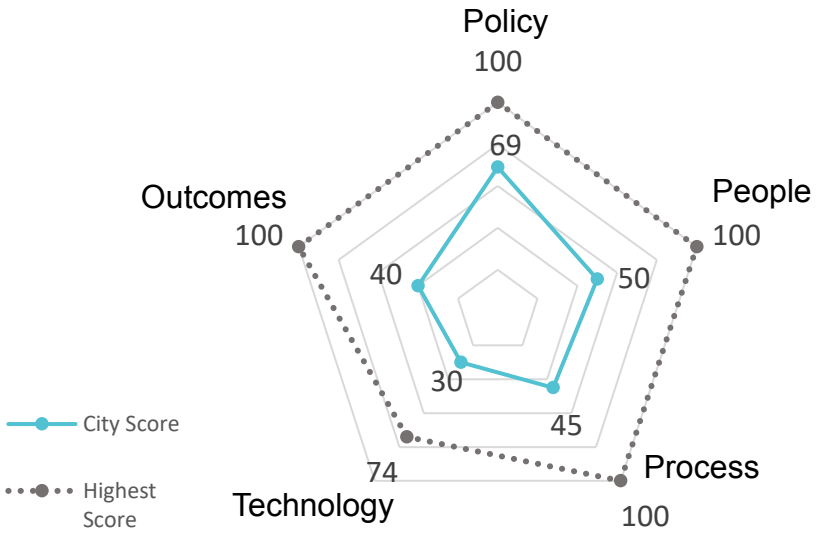
Policy	People	Process	Technology	Outcomes
36th	6th	18th	11th	14th

City Score vs Highest across Indicators



TUMAKURU | KARNATAKA

City Scores across Components



City Engagement Score (out of 100): 80

23rd
Rank

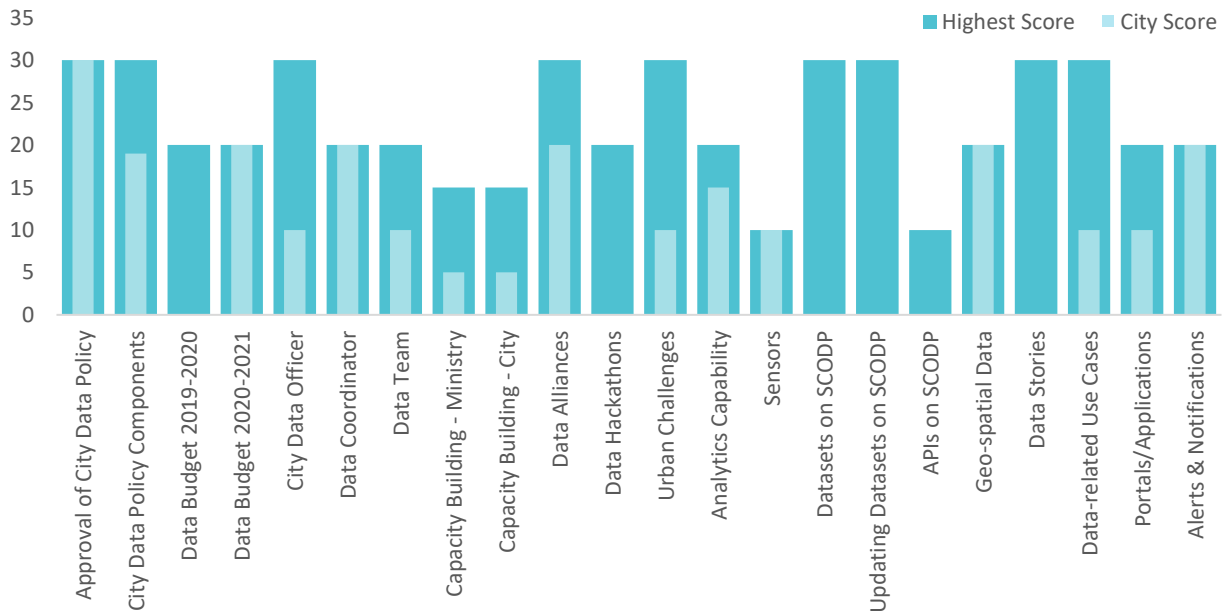
Explorer
Certificate

48
Score

City Ranks across Components

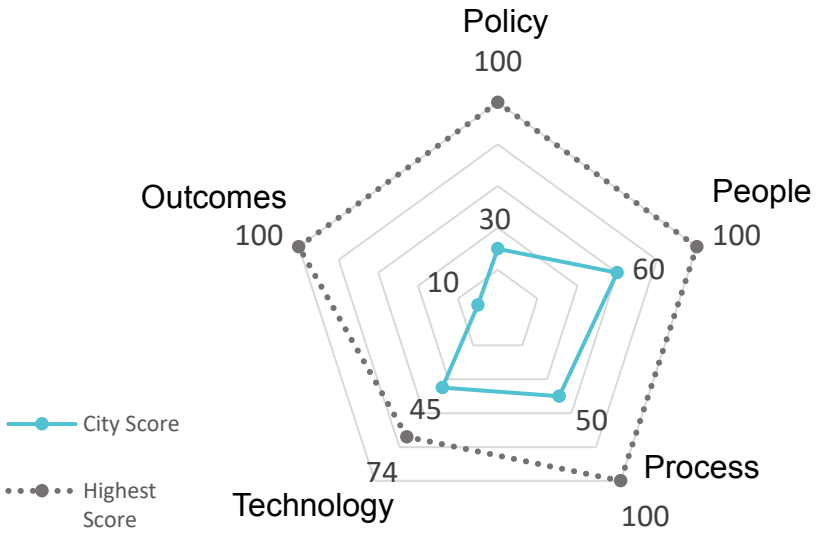
Policy	People	Process	Technology	Outcomes
16th	30th	13th	46th	23rd

City Score vs Highest across Indicators



UDAIPUR | RAJASTHAN

City Scores across Components



City Engagement Score (out of 100): 80

26th
Rank

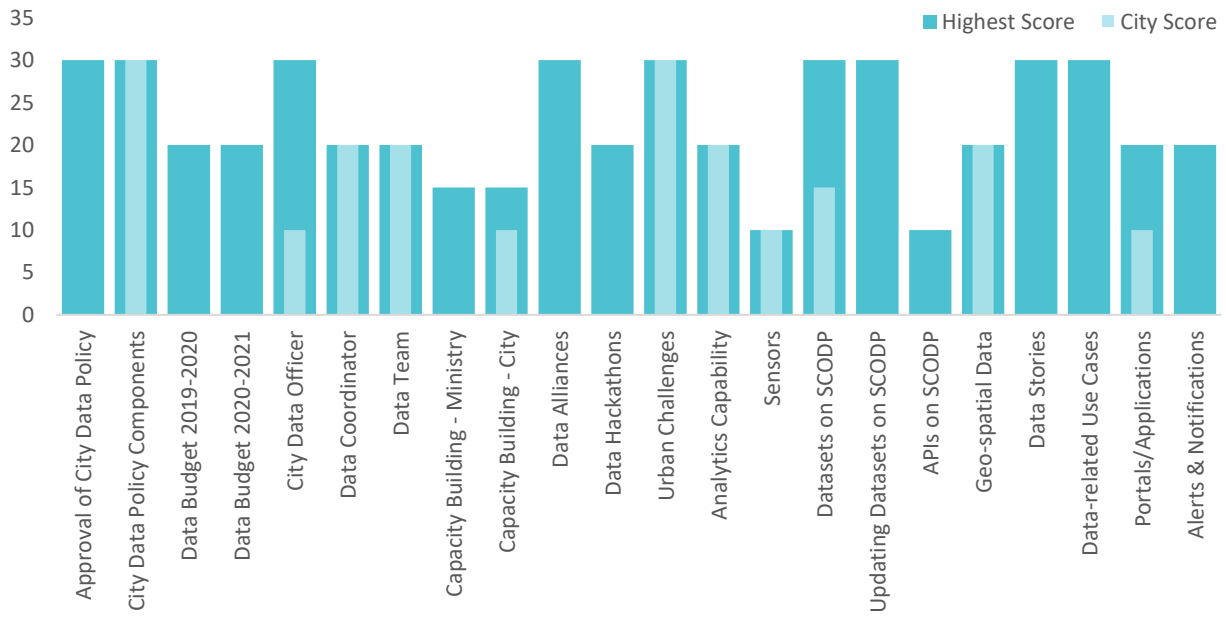
Initiator
Certificate

42
Score

City Ranks across Components

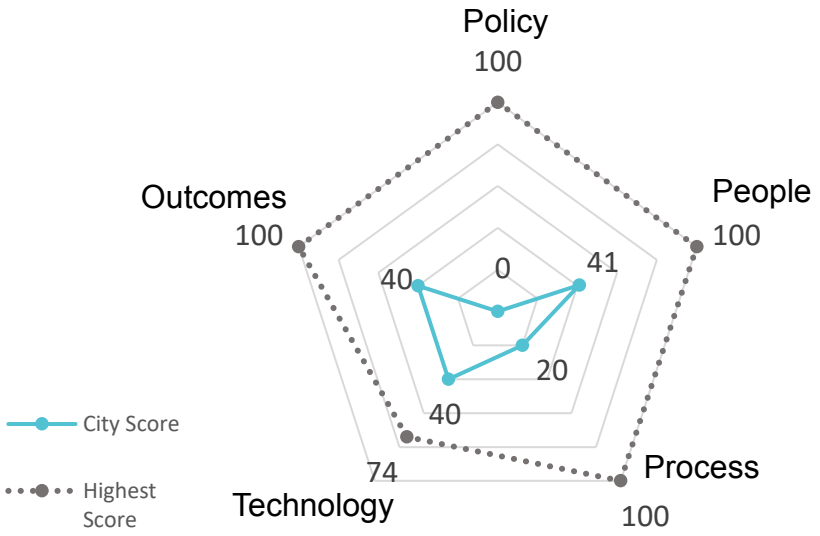
Policy	People	Process	Technology	Outcomes
42nd	18th	10th	17th	53rd

City Score vs Highest across Indicators



UJJAIN | MADHYA PRADESH

City Scores across Components



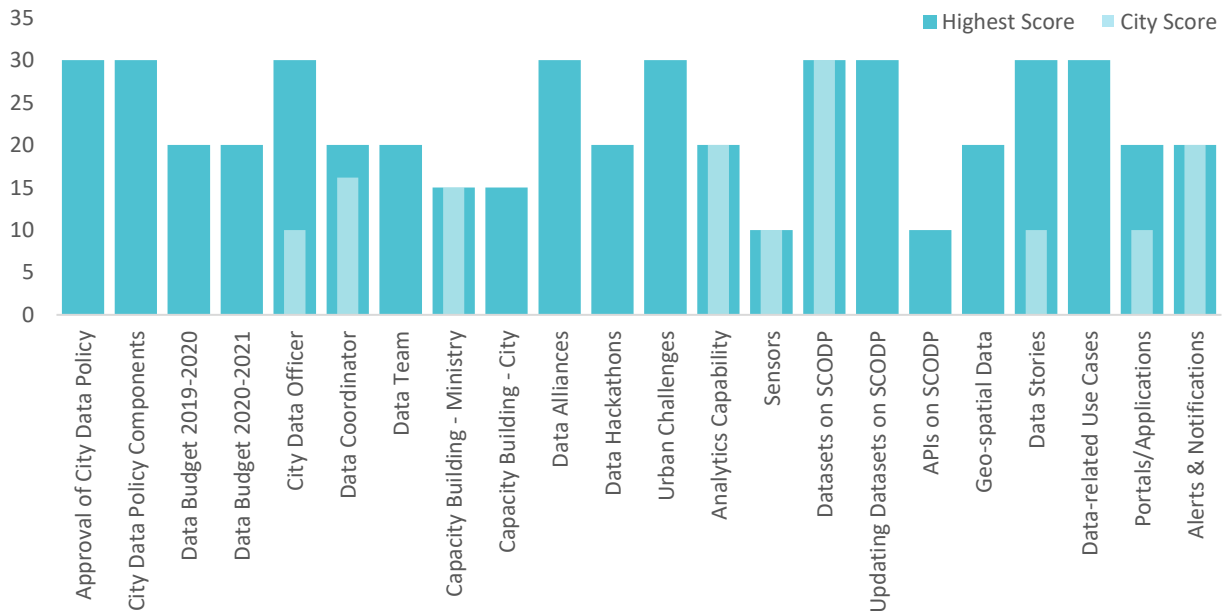
City Engagement Score (out of 100): 90

33rd
Rank
Initiator
Certificate
36
Score

City Ranks across Components

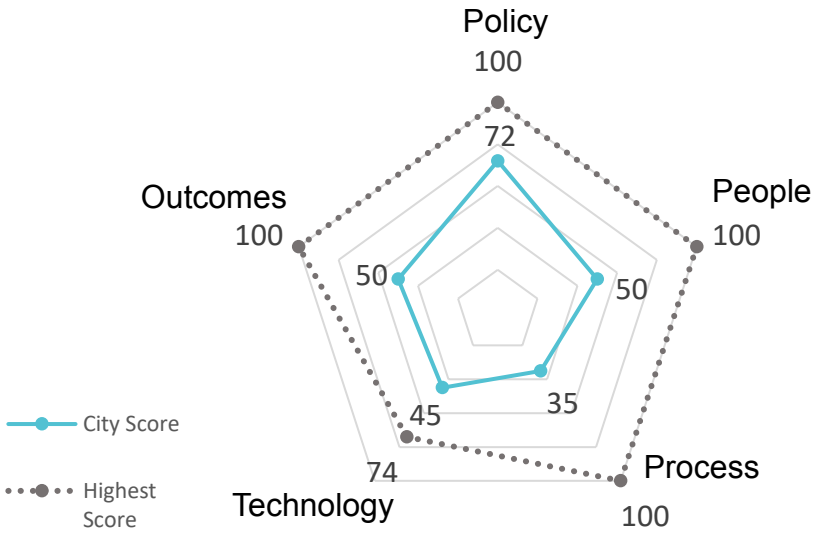
54th	41st	28th	33rd	23rd
Policy	People	Process	Technology	Outcomes

City Score vs Highest across Indicators



VADODARA | GUJARAT

City Scores across Components



City Engagement Score (out of 100): 100

17th
Rank

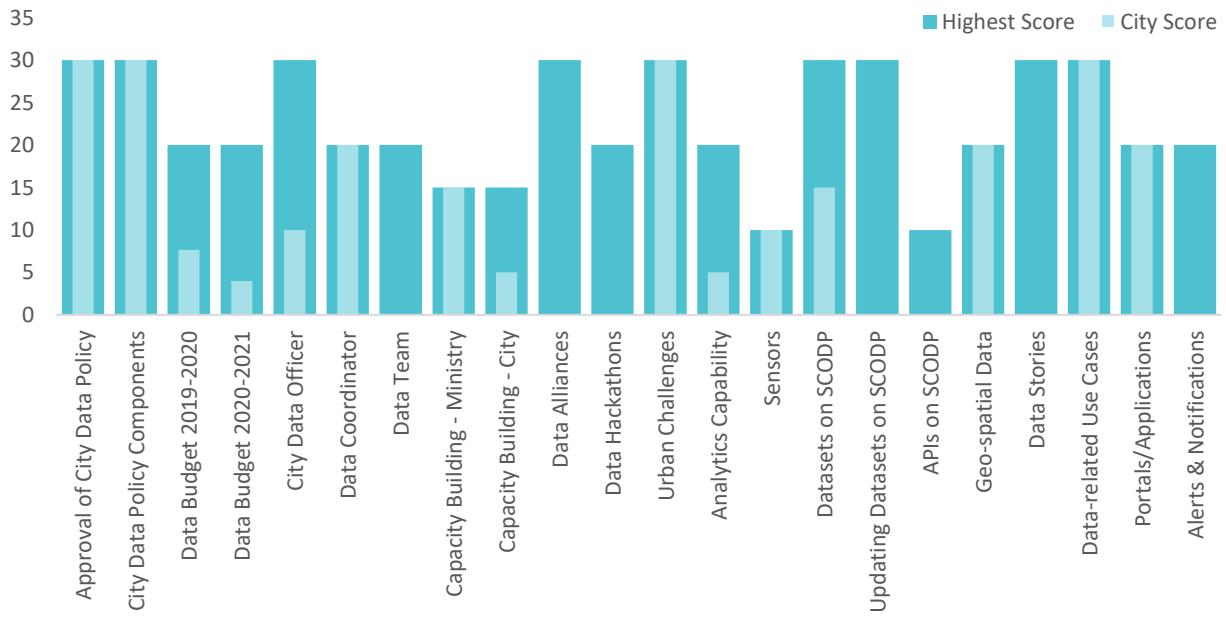
Explorer
Certificate

54
Score

City Ranks across Components

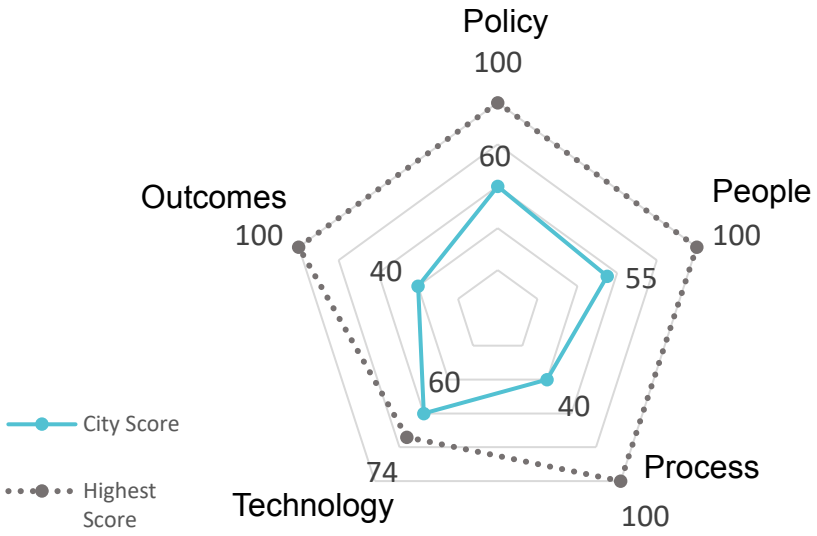
Policy	People	Process	Technology	Outcomes
14th	30th	18th	17th	16th

City Score vs Highest across Indicators



VARANASI | UTTAR PRADESH

City Scores across Components



City Engagement Score (out of 100): 100

16th
Rank

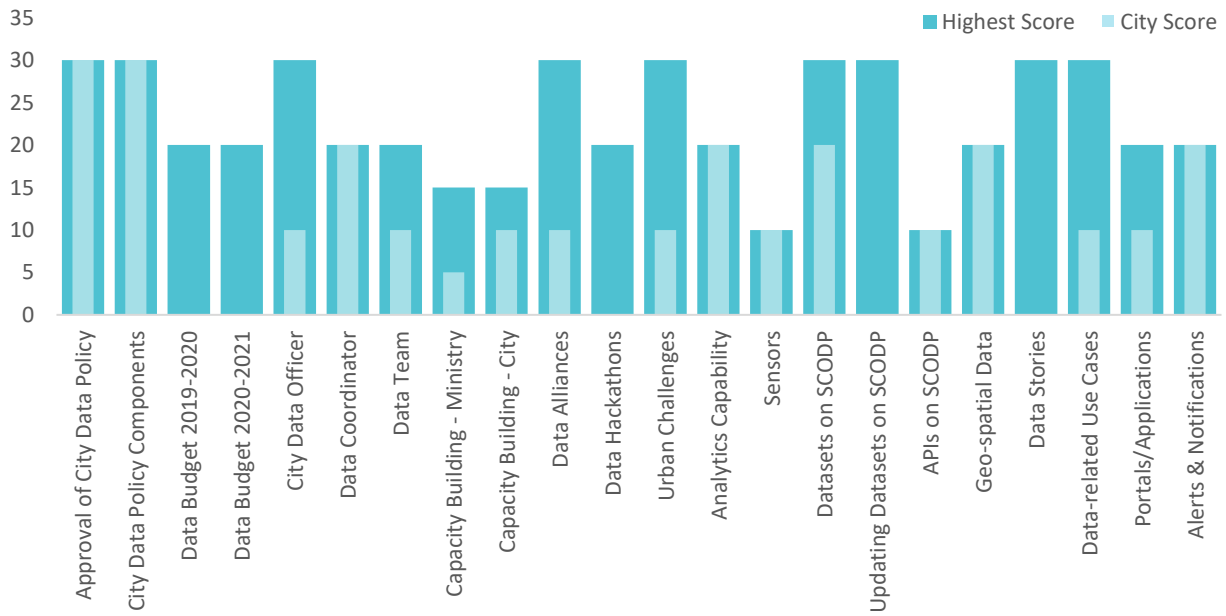
Explorer
Certificate

55
Score

City Ranks across Components

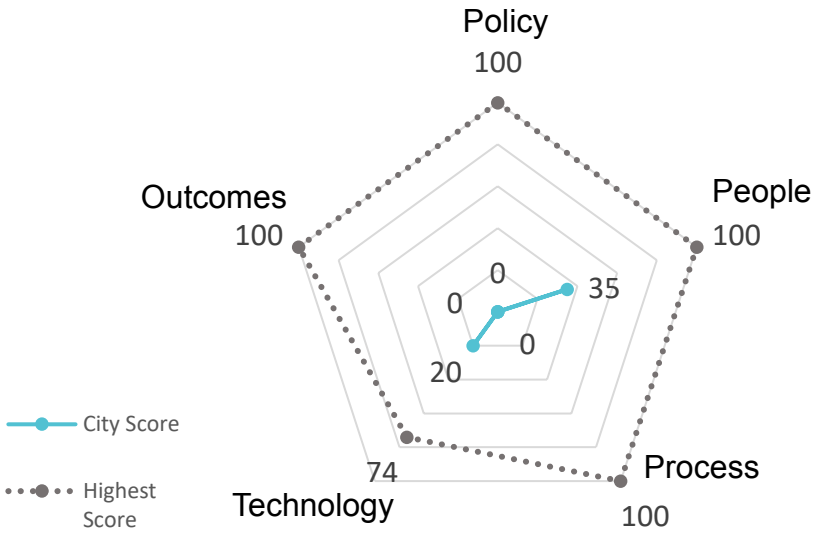
Policy	People	Process	Technology	Outcomes
21st	20th	16th	3rd	23rd

City Score vs Highest across Indicators



VELLORE | TAMIL NADU

City Scores across Components



City Engagement Score (out of 100): 70

76th
Rank

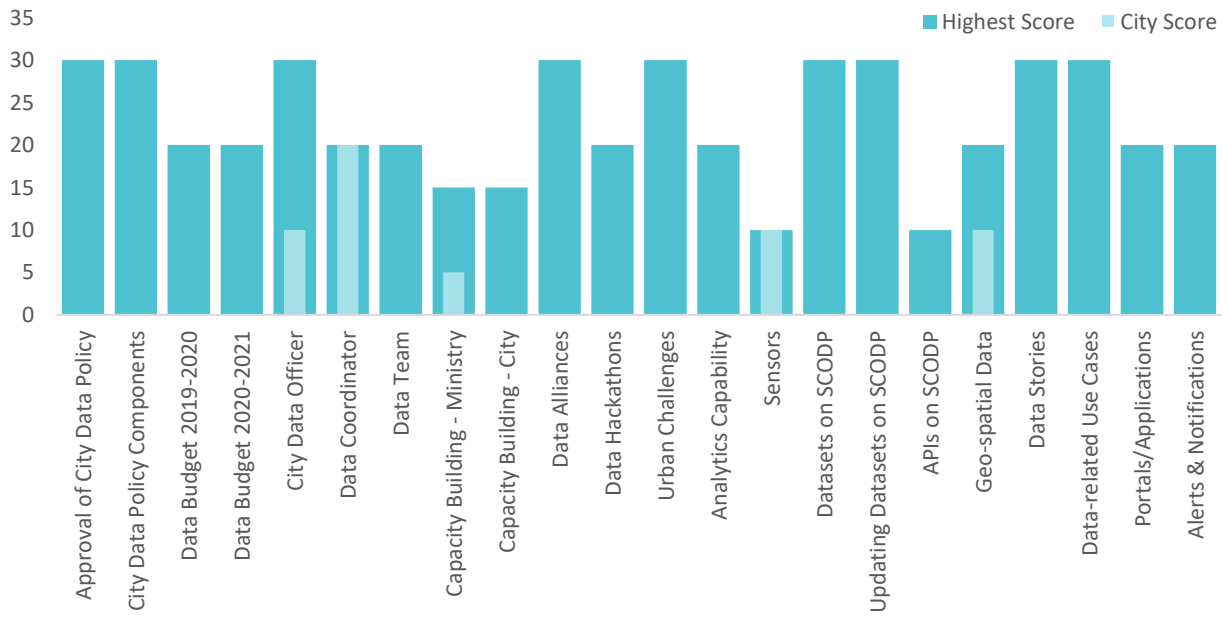
Beginner
Certificate

16
Score

City Ranks across Components

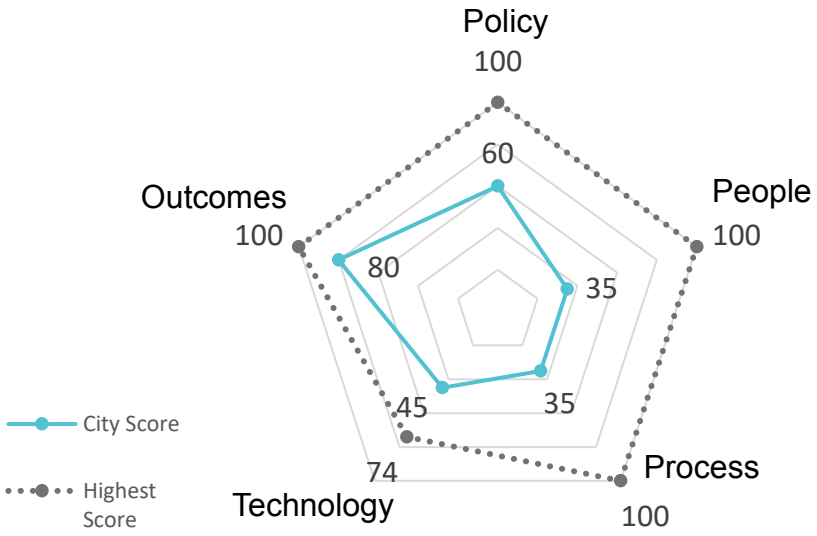
Policy	People	Process	Technology	Outcomes
54th	46th	44th	67th	67th

City Score vs Highest across Indicators



VISAKHAPATNAM | ANDHRA PRADESH

City Scores across Components



City Engagement Score (out of 100): 90

14th
Rank

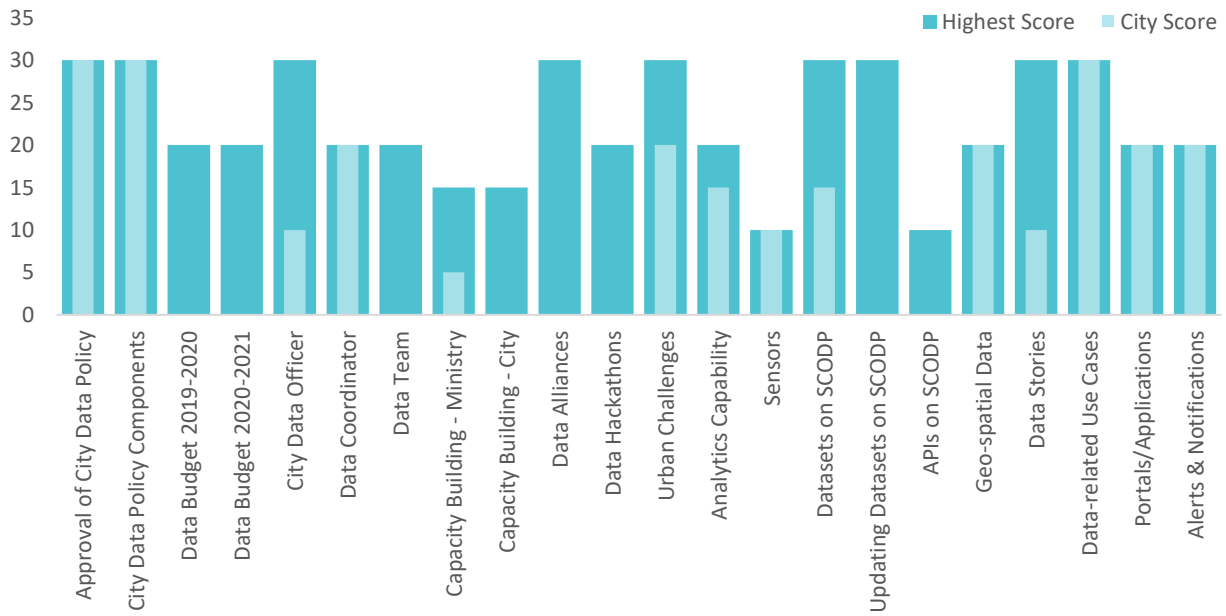
Explorer
Certificate

56
Score

City Ranks across Components

Policy	People	Process	Technology	Outcomes
21st	46th	18th	17th	7th

City Score vs Highest across Indicators



Ministry of Housing and Urban Affairs

Government of India