### **City Management**



With the increasing debt of local governments, it is necessary to holistically address problems such as hollowing-out of cities due to depopulation, and aging infrastructure, etc.

Problems such as hollowing-out and aging infrastructure in cities will become more severe in the future

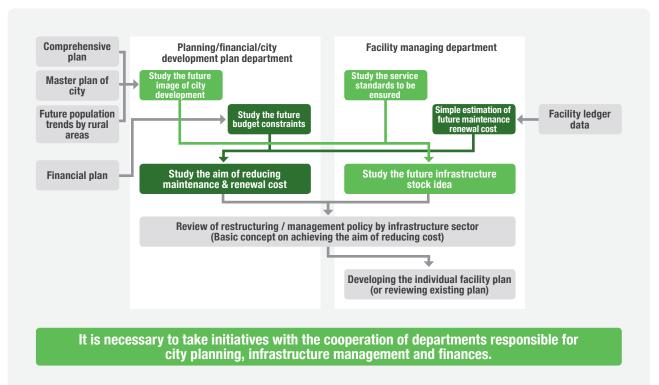
The problems such as hollowing out of local cities and outskirts of metropolitan cities will worsen in the future along with the population decline. Under such circumstances, it is necessary to develop a compact city and maintain density in cities in order to sustain the urban functions and public transportation, and to protect the livelihood.

There is high risk of problems such as aging infrastructure that support the framework of the city. For example, concrete surface peeling, damage of underground pipelines, bridge collapse, etc. The infrastructure management that minimizes life cycle costs while ensuring safety is one of the most pressing problems under the worsening financial situation of the local government. It is necessary to implement objective prediction on the image of the city decades later and create futuristic image

Both city and infrastructure require a long term planning in the scale of decades for its implementation. Therefore, it is necessary to predict the future to create a realistic future image and then, create an action plan for its implementation.

The developing countries such as in Asia are growing rapidly, following similar steps to some cities in Japan and they may also face the problems faced by Japan in near future.

Japan as a country already experiencing challenges, will develop solutions to solve the issues in the city using latest technology and it is expected to be expanded to various countries.



#### Review Process of City Infrastructure Management Plan

# NRI supports the formulation of management plan for government's mid-to-long term vision of city & infrastructure and its implementation.

## Extensive support for resolving all management issues in cities

NRI provides extensive support in resolving management issues in cities.

Following process would be proceeded to control unplanned expansion chaos and formulate appropriate management plan.

1) Analyze the current situation and future trends of a city from the viewpoint of population, economy, city functions, transportation, disaster prevention, administrative management, etc.

2) Materialize the urban structure for mid-to-long term to resolve the issues in cities.

3) Identify the areas that is attractive as the location for residency and urban function in order to implement the urban structure.

4) Develop policy options that should be implemented by the government to attract urban function and residency in the identified areas. Latest technologies such as IoT, AI, Automated driving, EMS, and etc. could be applied if its appropriate.

The mechanism of city management cannot be sustained only with government initiatives. Therefore, it is necessary to build a scheme in which public and private organizations work together while creating sufficient business opportunities for the private companies involved.

### Visualizing potential of business innovation in cities through "Growth potential city ranking"

NRI has identified the following six elements are required for business innovation in the cities, based on the analysis of growth potential of cities globally.

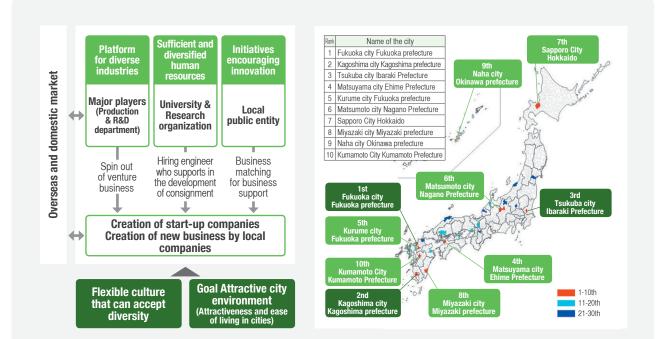
- 1) Cultural receptive to diversity
- 2) Initiatives encouraging innovation
- 3) Platform for diverse industries
- 4) Sufficient and diversified human resources
- 5) Ease of living in cities
- 6) Attractiveness of the city

Based on above elements, we conducted a proprietary survey of 100 cities in Japan to evaluate the "Growth potential city ranking". The analysis visualizes the current state and future potential for business innovation in cities.

Based on the ranking, managers in each city can quantitatively understand the strengths and weaknesses of their city, and thus can consider methods of further complementing their strengths, whilst implementing measures to overcome their weaknesses.

NRI uses this ranking to support the policy planning of cities in Japan. This ranking can be used as a KPI  $\!\!\!\!\!\!\!\!\!\!\!$ 

for city management. \*KPI: Key Performance Indicator



### "Growth Potential City Ranking by NRI"