Human-Centered Development of Wellbeing and Vitality in Cities

BUSINESS TECHNOLOGY STANDARD

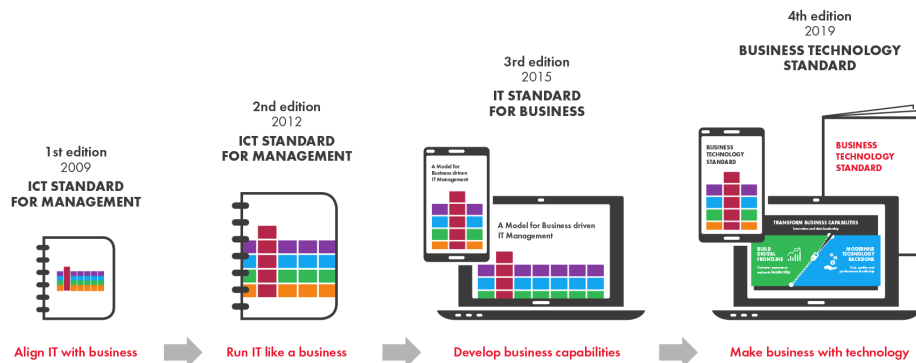ARTICLE

BT Standard

The Business Technology Standard (or BT Standard for short) is an open management framework that enables the co-development of services with the whole ecosystem - customers, stakeholders, IT, the third sector and external suppliers. It is based on a clear set of policies and practices that support the development of services in both the private and public sectors that are responsive to people and customer needs.

The Business Technology Standard is developed and maintained by a non-profit, Business Technology Forum community. The model is developed in partnership with a range of organisations and refinements and updates to the various aspects of the development are shared openly as part of a publication which can be found at www.managebt.org.

| 1st edition 2009 ICT STANDARD FOR MANAGEMENT | 2nd edition 2012 ICT STANDARD FOR MANAGEMENT | 3rd edition 2015 IT STANDARD FOR BUSINESS | 4th edition 2019 BUSINESS TECHNOLOGY STANDARD |

Align IT with business → Run IT like a business → Develop business capabilities → Make business with technology

The implementation of the BT Standard involves adapting the model to the needs and context of the organisation. For the public sector, the model has been extended to take account of the wide range of services and functions of cities and their role in underpinning business vitality and people's wellbeing. As a result of co-operation with major Nordic cities, a value creation model that takes into account the synergies of services has been introduced, allowing service development to be managed and coordinated across sectors and service areas, with an emphasis on human-centredness. In addition to a framework for development management, this methodology, which is based on the principles of social design, includes a number of models and practices that can be used independently by those responsible for developing operations and services, thus helping to make their organisation's digital transition a reality.

Copyright notice

Contents

1   Foreword

More than half of the world's population now lives in cities. In general, economic growth, and with it economic productivity and rising living standards, has gone hand in hand with urbanisation. Citizens' daily lives are based on the services and infrastructure of society, although we may not always think of it that way. For many, social support and assistance are key elements of wellbeing or coping with everyday life. We are also living in the midst of major changes: urbanisation, globalisation and climate change will significantly alter our living environment in our lifetime.

Cities and regions are key actors in society, working with their citizens to both implement and adapt to change. In their activities, the strengthening of vitality and the promotion of wellbeing are intertwined and affect the daily lives of every citizen. In order to better understand the impact of the different activities and measures as a whole, it would be useful for those responsible for development to have a clear and understandable description of the causal relationship between wellbeing and vitality.

This article presents a description and modelling approach to managing collaborative development. The framework has been developed together with Nordic cities and modellers responsible for the development of the BT Standard. The framework provides a good starting point for describing wellbeing and vitality from the perspective of the every-day life of a citizen and provides practical modelling tools for free use by those responsible for the development of the city and regional services.

Our aim is that the model can be used throughout the EU in the future. We would now like to invite all interested cities and regions to join us in making use of the results of the development work and at the same time to further develop the model. We believe that co-development and open sharing of good practices, which are fundamental principles of the license-free BT Standard is the most effective way to ensure a safe, functional, sustainable and prosperous society.

Juha Huovinen   Katri Kolesnik   Menno Huijben   Elena Van Leemput   Markku Hugg

*All examples in this article are fictitious and for illustration purposes only.

2   Urban Services and the Future

The Cornerstone of Wellbeing and Vitality

Let's pause for a moment and think of the experience of parents with young children going to school. The child may have taken the bus while the parents may have used their own cars to go to work. Was the bus private or was it public or at least organised or financially supported by the municipality? And was it possible to pay the fare by mobile phone and was the road they were driving on in good condition? The majority of people rarely think about everyday services and the provider of the service seems a secondary issue until the services are less than satisfactory.

Cities and regions play an important role in enabling Europe's wellbeing and vitality. Public services are provided by municipalities themselves or jointly organised through cooperative networks or outsourced entirely to private actors.

Traditionally, services have been provided from the point of view of the duties of the municipality: the law prescribes the tasks, the city or region carries them out and the resident receives the mandatory services. Increasingly, however, instead of providing the services by legal obligations they are being provided from the perspective of the needs of the resident. This article uses concrete examples to illustrate how human-centered management and planning link the strategy of a city or region to enhance people's everyday lives, and additionally, how people's everyday needs should guide the setting of strategic priorities.

Value	Mission	Development vision	Service promise	Feedback
Objectives	Situation awareness	Roadmap	Supply	Access rights
Strategy	Portfolio management	Aggregated impact	Processes	Interaction and dynamics
Budgeting	Investment monitoring	Benefit tracking	Quality monitoring	Data analytics

CITY	**VALUE STREAM**	**DEVELOPMENT COLLECTIVE**	**SERVICES**	**EVERYDAY LIFE**
City Strategy	Everyday life of a family with children	Studying in a primary school	School transport	Our family

Figure 1 *From strategy to people's daily lives and back*

The proportion of elderly people is increasing rapidly in Europe. The challenge for the future is to maintain and even increase service provision while the number of taxpayers is diminishing. Private services are shaping the expectations of citizens. In particular, the good customer experience in private digital services is reflected in our expectations for city and regional services. The traditional funding and delivery model is therefore facing a challenge: even with less funding, it should respond to the ever-increasing expectations of citizens. Combining citizens' expectations of quality of service with cost-effective service delivery requires new and bold thinking and the use of new technologies.

3   A Symbiosis of Wellbeing and Vitality

Wellbeing and Vitality Form a Network of Synergies

The city has two basic missions: to strengthen the vitality of the region and to promote the wellbeing of its population. These two functions are interlinked because a vibrant economic area generates tax revenue that can be used to provide services that promote wellbeing. On the other hand, people who feel well and are healthy are the basis of a prosperous economic region. Vitality and wellbeing are complex issues and require co-operation between citizens, the city, the private sector and regional actors. However, the city has a specific role to play as the local public authority is best placed to promote synergies between the two.
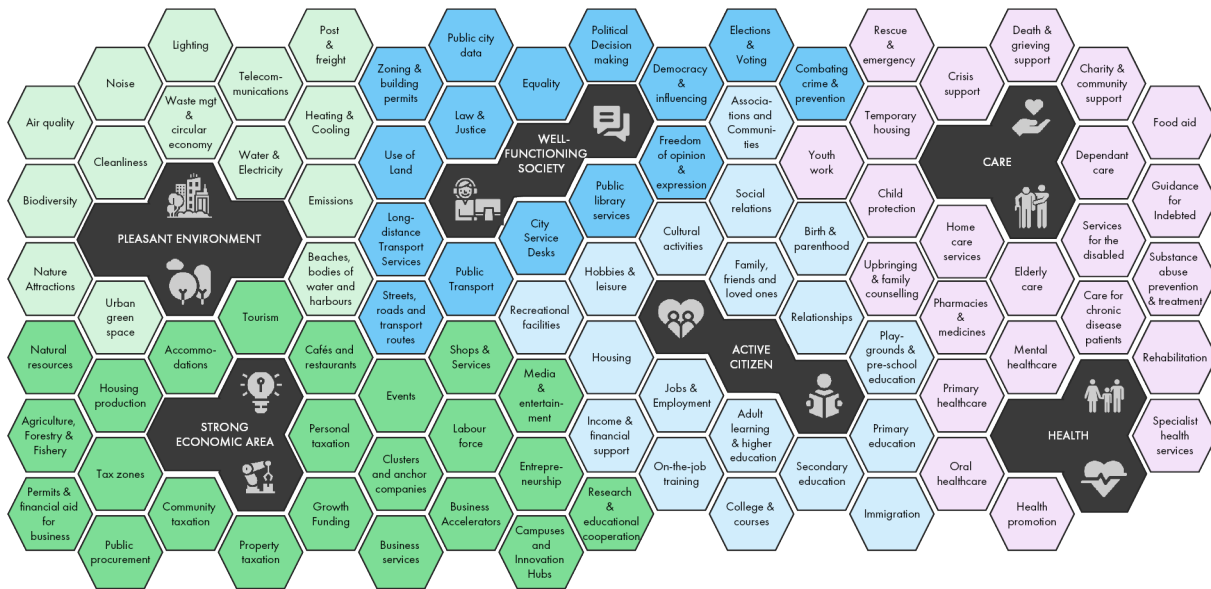
Figure 2 *Synergetic model of wellbeing and vitality**

Wellbeing and vitality are multi-faceted and interactive. This is well illustrated by the synergetic model of wellbeing and vitality (see the figure above). Vitality and wellbeing are built around six core themes: a pleasant environment, a strong economic area, a well-functioning society, an active citizen, care and health.

A strong economic area is built on top of the service infrastructure built by the city that the businesses and communities use as a foundation for prosperity. In addition, the government controls economic development through taxation and legislation. A strong economy is self-reinforcing because the strengthening of the individual, community and city economy encourages new investment in service infrastructure and welfare, while at the same time attracting new taxpayers and thus creating a stronger economy. Of course, the same logic works in the other direction and therefore populations are concentrated in growth centres that are positively boosted by a strong economy.

A pleasant environment is both the natural and constructed environment surrounding us as well as our personal experience. The factors that contribute to a pleasant environment include a beautiful urban landscape, good services and leisure facilities, and the cultural and entertainment offerings of the area. While a strong economic area increases leisure opportunities, the feeling of living in an idyllic, smaller community can also be an important factor in the appreciation of your communal environment. Another important factor influencing amenities is the spaciousness of housing, which may be more readily available outside of growth centres.

A well-functioning society creates a framework for people, businesses and public organisations to work. It elects people to decide on common issues and ensures that the laws governing society and individual behaviour are defined and respected. A well-functioning society is a key element that divides the world's countries into democratic and undemocratic ones, and cities into safe and unsafe ones. Society provides the framework for human activity.

The active citizen includes people working, studying, doing voluntary work, and interacting - in general, the activities that keep the wheels of society turning. Work is also the main source of income for most people, so a person's activity is a key factor in maintaining and promoting vitality. It also contributes to a person's wellbeing, as long as work, study or other activity does not become a stress factor or a burden and the person stays healthy.

Health is the cornerstone of wellbeing, often most valued when you lose it, are at risk of losing it or are otherwise affected by it. There are many services involved in maintaining health and treating illness. Preventive health promotion relies on personal action, while the treatment of illness often relies on health care services and support. Illness reduces a person's ability to be active and therefore has a double impact on society: reduced activity and increased costs. Therefore, investing in disease prevention and health maintenance makes sense from both a welfare and an economic point of view.

Every person needs **care** during childhood and often as they grow older. A central part of the Nordic welfare approach is that society bears a major responsibility for care. The need for support and care can be complex and therefore the synergy of services in this area of wellbeing is an important aspect. Long-term unemployment, illness, social exclusion or poverty can also easily accumulate care needs and lead to long-term and heavy dependency.

A Synergetic Model to Understand Changes and Phenomena

Major changes in service structures are often difficult to perceive. The synergetic model of vitality and wellbeing brings a helicopter perspective, making major structural changes easier to see and understand. For example, when Finland is now re-organising the responsibility of social and healthcare services from municipalities to welfare regions, the model can be used to show which areas are affected and where the co-operation of the two actors is vital.
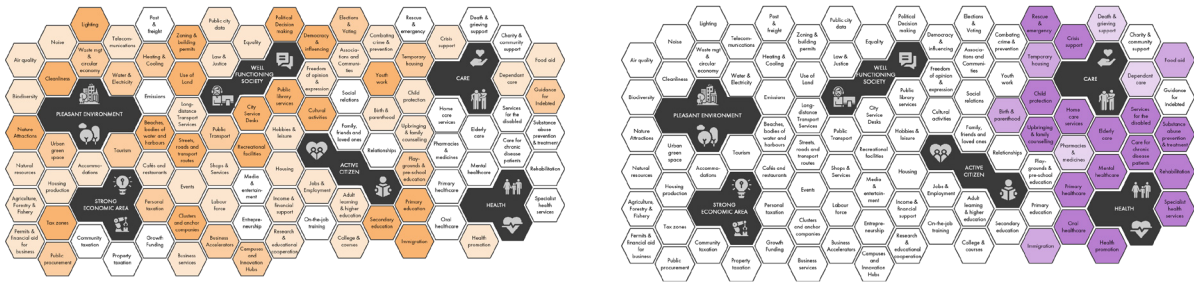
Figure 3 *Division of responsibilities between the municipality (left) and the welfare region (right)* *

The picture illustrates the boundary between services and raises the essential question: how to ensure that there is no gap between services and that the starting point for the provision of services is the everyday life of the citizen?
The synergetic model can also be used to illustrate societal decisions and their impact on wellbeing and vitality. Take the example of free school meals, which the Nordic countries take for granted, but which significance we rarely consider. However, this is a topical issue in many other European countries where there is no such practice.
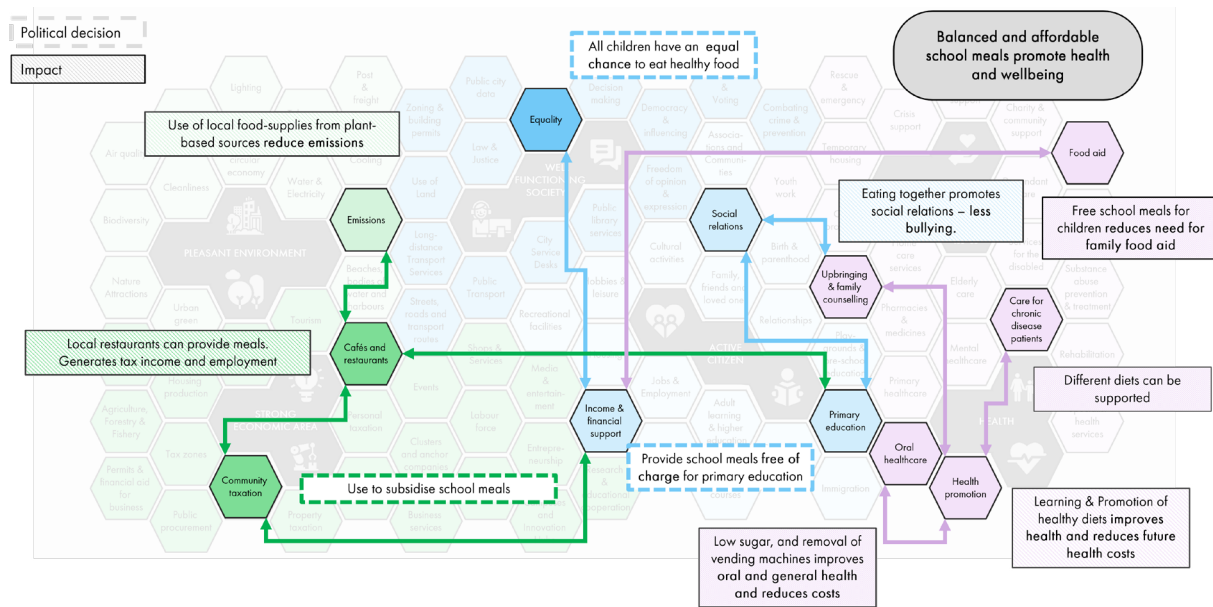
Figure 4 *Example of dynamics for free school meal benefits* *

In this simplified example, the vitality and wellbeing model is used to show how balanced and affordable school meals promote health and wellbeing as well as learning. The model provides a visual representation of the impact of school meals in different areas, the relationships between them and the expected effects. The model can further be used to design policy measures and prioritise developmental needs.

Life events at the personal level can also trigger the chain of events that appear in this synergetic model. The birth of a child, the break-up of a relationship or a serious illness often starts from a single 'cell' and expands into a multidimensional life change, which, as a series of similar events, even can have an impact on the vitality of a city. However, it is essential for the individual that in the midst of a major life change, the services that support that life event are easy to find, rather than being siloed into disconnected cells that are not linked to each other.

Phenomena describe the mass use or drift of people into a 'state' over a longer period. Phenomena are typically the subject of research and the synergetic model can be used to illustrate and popularise research findings. For example, it can be asked where in all 'cells' it is important to respond to the needs of internationalisation, which in turn can set the conditions for developing, for example, English language skills. Similarly, one can ask what causes social exclusion and what preventive services can be provided to prevent that.

The starting point for developing services is people's everyday lives.

Value Streams to Guide Service Development

The synergies of services are the result of many people and organisations working together. The balance of a child's normal life can be upset by financial difficulties, illness, bullying at school or a combination of these. The child's daily life is then affected both by the employment of the parents and by the co-operation between the teacher and the healthcare service at school. These events are part of a family's everyday life and society with its services has a major impact on the course of events.

However, a holistic understanding and development of the everyday life of the family with children is not typically defined as the task of any individual social actor, and there is therefore a clear and recognised need for a synergetic development of vitality and wellbeing. Many working groups and projects have been set up to address pheno- mena such as social exclusion, loneliness and poverty. Although the working groups have no real decision-making or executive powers, their reports and recommendations can lead to a project aimed at achieving concrete results and improvements on the issues identified. However, the challenge of projects and working groups is that they are limited in time, which often makes it difficult to achieve lasting results. When funding runs out, the working group becomes fragmented, even though a good start has been made.

To help with this problem, an operating model based on value streams has been designed to bring decision-makers and the resources (money, people, services) together to make decisions that have a collective impact. The model does not require changes to the city's cash flows or structures, but rather the idea is to bring the right people together to agree on issues and focus development efforts in a coordinated way on a common cause. By doing so, solutions can be found that transcend sectoral boundaries. At the same time, duplication and fragmentation are reduced, which also leads to cost savings.

Managing value streams and coordinating development work do require resources, but the tasks can usually be filled by people who already plan, lead and carry out development work. Value stream management is the main job of around 3 to 5 people, who coordinate the involvement of others in development activities. The number of people needed will increase as the value streams establish development frameworks to plan the implementation of the various key objectives. However, as the work coordinated by the value stream increases, the need for other teamwork de- creases, allowing for more effective results to be achieved with roughly the same overall workload.

The City's Value Streams Enable Age-Range Management

The introduction of value streams does not require a change in organisational or service structure. However, in cities, value streams bring a human-centered perspective to service development that goes beyond organisational bound- aries. Value streams aim to streamline people's daily lives. It is natural to divide people into age groups, thus creating value streams for 'children and young people', 'working age' and 'elderly people'. The word 'everyday life' also includes all those people who are part of the everyday life of a child, a person of working age or an elderly person. Thus, an adult can be part of all three, as a parent of a child, as a person of working age and as a relative of an elderly person. Cities are beginning to talk about age-range guidance and value streams are well suited to this.

Similarly, value streams are also well suited to economic development and the management of social construction. Everyday business development can be thought of as life-cycle management, moving from starting a business to supporting its growth and success, and ultimately passing it on to the next entrepreneur. Large companies, on the other

hand, need community building and innovation co-operation. The city and its universities can provide an attractive environment for companies to innovate, develop and experiment.
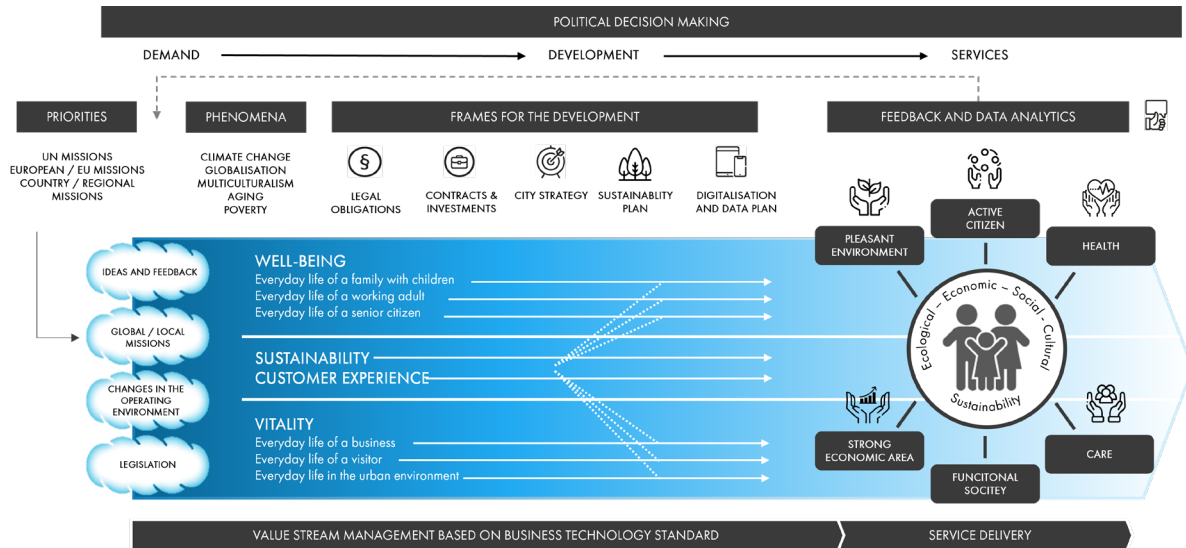
Figure 5 *Value stream model for developing city services**

Political decision-making and corporate governance set the framework for the development of value streams in the form of legislation, strategy, commitments and governance plans. The planning and implementation of issues take place in the context of the value stream management. Value streams operate on the principles of portfolio management. The value streams have an owner, who manages the activities, and a steering group, which has executive powers.

Each value stream has a specific perspective, such as the everyday life of a family with children, and a corresponding mission, which it carries out under the leadership of the value stream owner and with the support of the steering group. The value stream carries out its mission by setting up development collectives. These are planning groups that create a development vision and set out development actions in a roadmap. From there, development initiatives are taken to the value stream portfolio management for decision-making.

The realisation of the mission is assessed and monitored by the value stream through a snapshot of the situation. This snapshot measures the daily lives of residents and their use of services: air quality, rising costs of living, and mental health service utilisation. The snapshot of the situation also seeks to take into account the wishes and feedback of customers, residents and various NGOs, for example, how satisfied people are with the services and which areas for improvement are most supported. Data also plays a key role in the development of modern customer-centered services. It can be collected through surveys or other means allowed by data protection law, such as analysing anonymous mobility data. Cities already have access to much more information about their citizens than is actively used to develop services.

Figure 6 *Principle of the value stream*

In an urban context, value streams can be divided into wellbeing and vitality entities based on the everyday lives of residents, communities or tourists. Alongside these, and supporting them, it is worth considering customer service, which focuses on improving the customer experience and providing advice, and making it an additional value stream. It aims to improve 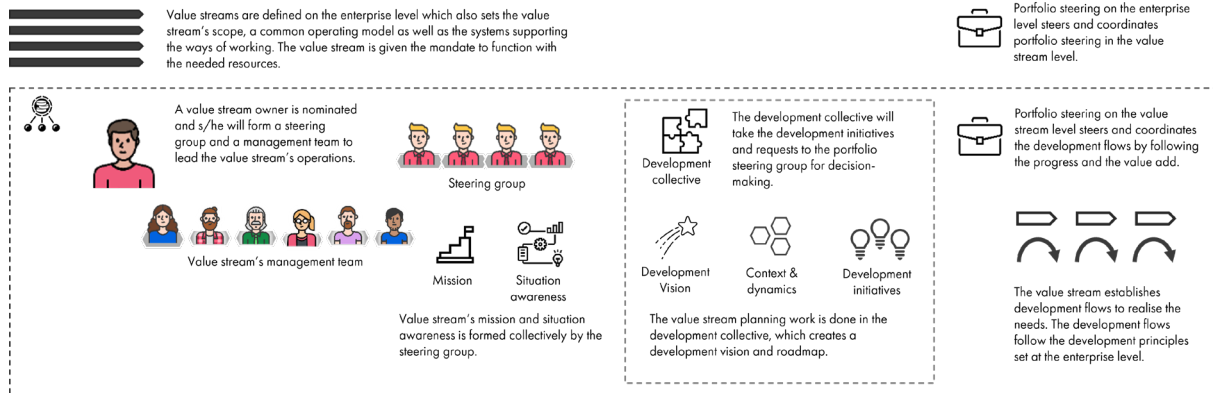and integrate the customer experience and to guide and advise people on how to use services. The second corresponding theme that links all value streams is sustainability, which operates as a stand-alone value stream but seeks to deliver results in partnership with other value streams. Service development can thus be divided into eight value streams, which bring together public and private actors, sectors and activities for joint development.

The Three Value Streams of Wellbeing: Everyday Life of a Family with Children, Everyday Life of a Working Adult and Everyday Life of a Senior Citizen

The value stream for **the everyday life of a family with children** targets the needs of children and young people and their carers. The focus is on the child's growth and development from infant to working age. Key services for families and carers include child health clinics, day care, early childhood education and learning. In addition, hobbies and healthcare are important. Young people also move around a lot in urban environments, so light transport, such as cycling, and public transport are important aspects for them. Parents' wellbeing, health, lifestyle and economic situation are all important factors in the everyday life of a family with children and should therefore be taken into account.

The value stream for **the everyday life of a working adult** looks at people's activities and the services that support them. It focuses on work, further education, voluntary work, housing, economic livelihoods, as well as leisure, health, social relationships, family and social participation. For working people, the city's infrastructure and transport links with the rest of the world are important issues. The range of needs and services is diverse and it may therefore be appropriate to develop services based on life events. A life event can be, for example, the start of a relationship, the birth of a child, unemployment, serious illness, divorce or the death of a loved one.

The value stream for **the everyday life of a senior citizen** is particularly focused on the needs that come with ageing. In the case of older people, relatives are a particularly important stakeholder and many things and services

are provided in co-operation with them. Services focus on supporting health and basic everyday needs, including more comprehensive care services. The elderly population is very diverse and many of them can remain active into old age. An increasing proportion of senior citizens are now used to using technology and digital services, which provides opportunities for a whole new range of service experiences not previously seen in services for older age groups.

The three value streams of wellbeing – families with children, working adult and senior citizen - focus on promoting people's wellbeing. The same person can belong to more than one value stream; both young and old can be of working age, and many people of working age live the daily life of a family with children or are close relatives of an elderly person.

The Three Value Streams of Vitality: Everyday Life of a Business, Everyday Life of a Visitor and Everyday Life in the Urban Environment

The value stream for the **everyday life of a business** focuses on the needs of businesses, employers and traders. The aim is to create a cycle of economic strengthening, where business thrives and creates jobs, thereby increasing tax revenues, which in turn enables investment in strengthening the economy. This includes licensing, zoning, pilot environments and the promotion of networking. Ensuring access to labour and smooth co-operation with educational and research institutions are also important. Functioning infrastructure, such as information/communication links to the world, water, energy, cooling and heating, and their cost, are important issues for many.

The value stream for the **everyday life of a visitor** looks at the needs and services of the visitor. Tourism is an important contributor to the vitality of many towns and cities, and it also contributes to the wellbeing of their citizens. Visitors need information about attractions, accommodation, dining and entertainment. In addition, natural and urban tourist attractions need to be well maintained and accessible. Public events should also be organised in good co-operation with the city.

The value stream for **everyday life in the urban environment** focuses on long-term urban development and attractiveness projects. These include the planning and establishment of a completely new urban area or the promotion of a major construction project that changes the urban landscape, but also roads, communications, energy production, water and other related urban infrastructure that enable the smooth and safe daily life of citizens. This value stream also includes many smart city projects that create a new urban image. Another key issue is the streamlining of small-scale construction, with its permit procedures and service needs.

Between wellbeing and vitality, the value streams of sustainable development and customer management and experience are placed.

Sustainability and Customer Experience Value Streams Serve All Other Value Streams

Sustainable development is usually a UN and EU-led commitment to a global effort to limit climate change, conserve biodiversity and promote a more equal society. To achieve these objectives at the city level, the sustainability value stream requires co-operation with other value streams.

The customer experience is the result of the interaction between the organisation and the customer. The customer

experience consists of the perceptions and feelings that the customer has of all encounters with the organisation's representatives, channels and services.

The customer journey describes the whole chain of events from identifying the need to the use of the service and post-use behaviour. It includes all encounters and contacts with the organisation providing the service.

A life event is a major event in people's daily lives that leads to the need to use several services. Many of these services may be new to the person and their use may occur in a situation where the person's own functional or attentional capacity is impaired. Therefore, thinking about the customer journey, particularly in terms of life events, is one of the best ways to develop human-centered services.

The use of public services is often perceived as rigid, due to the fact that services are often implemented from the point of view of how the services are produced and organised. The municipality thinks about school enrolment, while the family with children thinks about starting school. Using value streams, such as the everyday life of a senior citizen for example, and within that, a life event such as the sickness of a loved one creates the basis for a more human-centered design and outcome. The key is to deliver services that the user needs and to make them known and available to the user in a way that they can use and access them.

The elements for customer-centered service delivery in municipalities are already in place, as new technologies allow for easy-to-use, simple and intuitive user interfaces and digital applications. For example, voice recognition technologies are already enabling the use of robots for customer advice. In turn, automation can be used to achieve cost savings, while AI can be used to provide 24/7/365 advisory services. Moreover, citizens are used to using global mobile services to find information, find directions and make payments, which should be taken into account when designing customer advice and customer experience.

The digital customer journey also takes into account the collection of data and the further development of data-driven services. Understanding the target audience and their perception of ease of use, convenience and speed is, therefore, a good factor to consider when designing customer advice and customer experience.

Aggregated impact is created in development collectives

Human-Centered Design in Development Collectives

Concrete development planning takes place in the development collectives set up by the value stream. A development collective is defined based on an activity or phenomenon chosen as a topic to be developed. A development collective, such as a primary school, creates a development vision for itself and a roadmap of the means to achieve it. It can also be phenomenon-based. For example, a development collective could be called 'marginalised youth' in the value stream 'family with children'. Phenomena are transformed into a working model and used to develop services through the same methodology and process as other development sets. Phenomena and human-centered thinking are also supported by modelling life events, such as starting school. Phenomena are characterised by the fact that they require co-operation and synergies between a number of different actors, and therefore value streams and development collectives are well suited to their analysis.

A working group will be set up for the development collective, consisting of representatives of different stakeholders and the organisation, and experts with a vision and understanding of the target group and its needs. The working group will create a vision, a roadmap and an action plan for the development of the concept.

The pupil can view individual food recommendations on their mobile phone, taking into account their dietary needs, and get a special portion from a vending machine with a QR code if necessary.

Digital and e-learning platforms free up teacher time for individualised teaching, social skills development and well-being.

You can track your child's transportation to and from school with a mobile app.

The learning platform is always available; children use it at school for group work, at home for homework and there is a digital teacher.

VISION 2030
Studying at a primary school

Virtual field trips with pupils from other countries and cultural exchanges.

Learning in virtual reality makes studies more interesting.

If a child can't make it to school, he or she can join with an online video connection to the learning environment.

Parents use their mobile phones to monitor learning outcomes and future issues. This report is generated by an AI once a week.

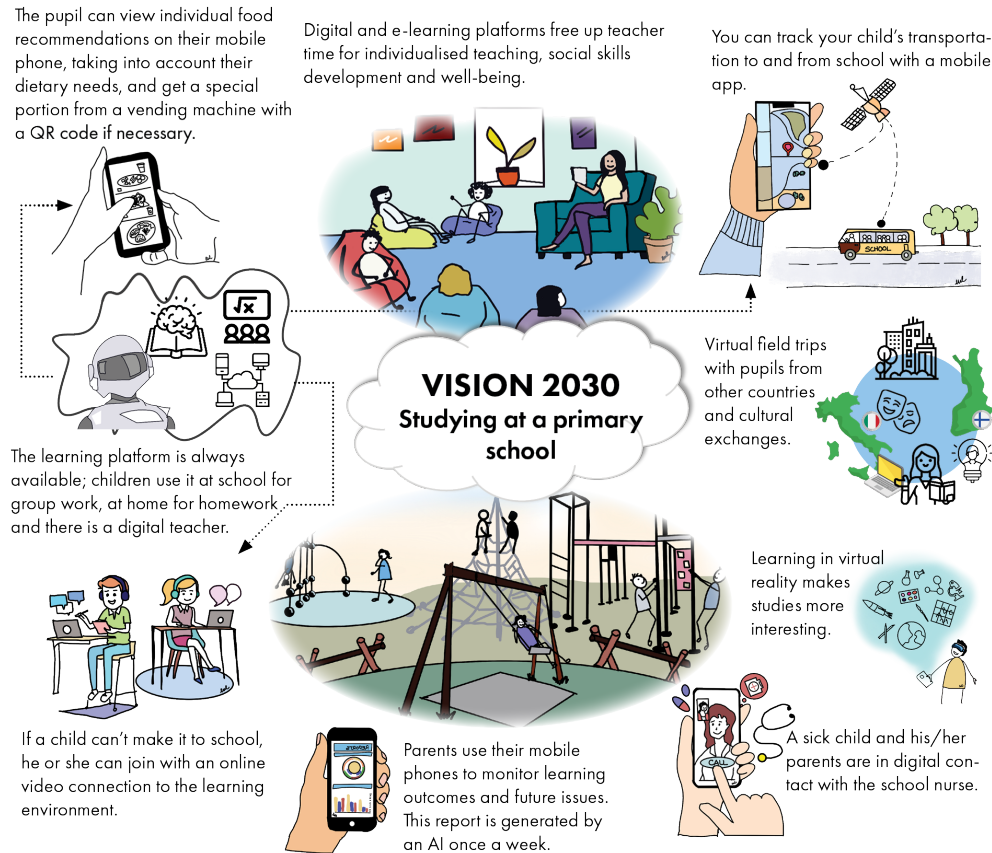A sick child and his/her parents are in digital contact with the school nurse.

Figure 7 *Development vision for the primary school development collective* *

There are different methods for designing development frameworks, but the human-centered design method defined in the BT Standard is often the most effective. It is relatively simple and therefore well suited for use by people who are not systemic development professionals. Alternatively, the overall architecture design methods can be used, but they are often perceived as too heavy and function-centric. Service design methods are human-centered, but their perspective is mainly limited to customer paths and user experience design.

The human-centered design of the BT Standard uses an easy-to-understand synergetic model, which is well suited to modelling the content and dynamics of the development process. With a little reflection, the big picture of development can be identified and then placed around the day-to-day issues. With a little bit of effort, you can put the pieces in the right place, and as a result, you will obtain the elements for the development collective as shown below.
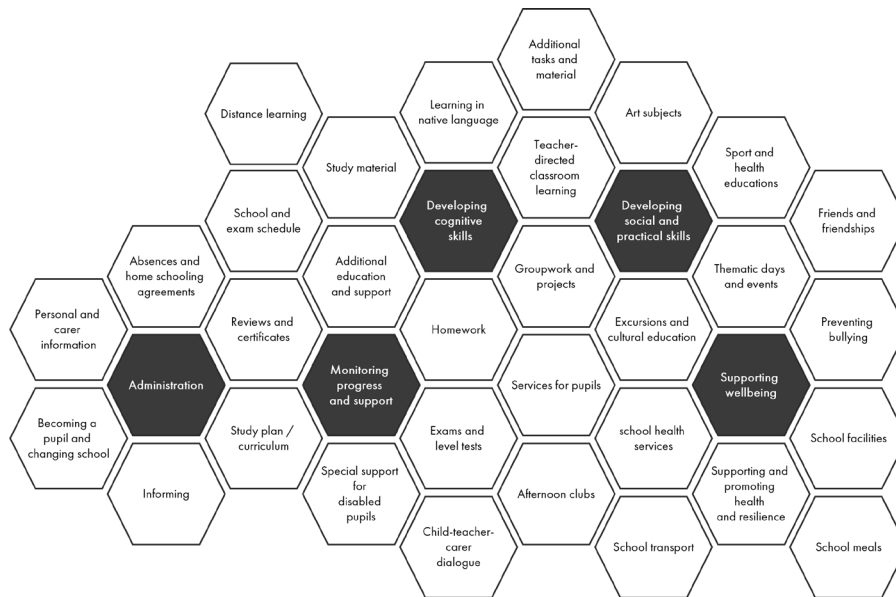
Figure 8 Content of the Primary School Development Collective*

These elements should be described in the language people use and present their expectations. Therefore, the content of a development collective is typically broader than the service offerings of a city or organisation. At the same time, the content may exclude issues internal to the organisation that are not visible or do not affect people's daily lives. Once the content is defined, it can be used to describe the relationship of the key elements to be developed in primary school. It also provides content for the different aspects of the development vision as shown in the figure below.
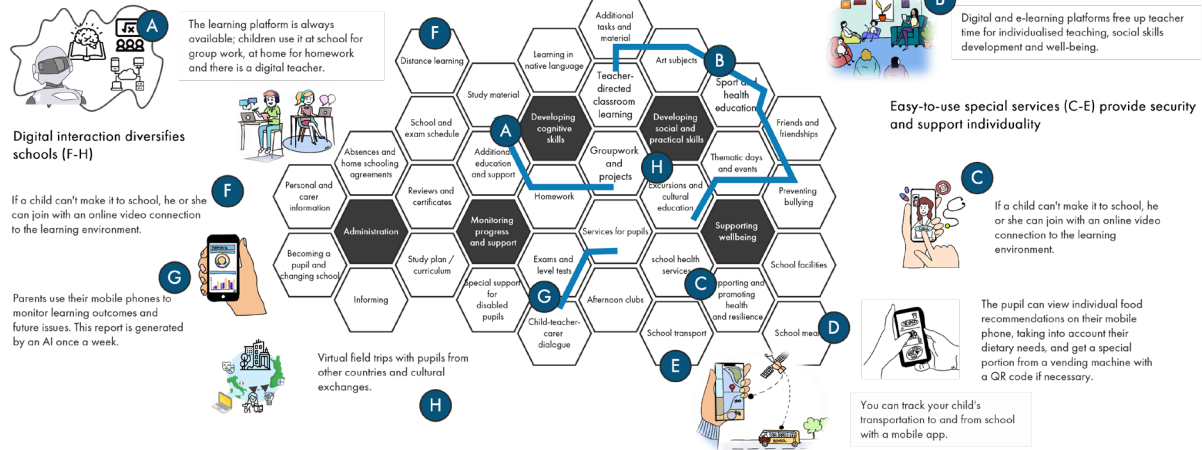
Figure 9 *Describing the dynamics of the vision for everyday life at primary school**

Once the content of the development collective and the dynamics of the vision have been described, we can begin to take more concrete steps. This can be done by describing the processes behind each element and the customer journey. Processes usually describe the production or organisation of the services, while customer journeys describe the consumption and use of services.

ID	Process
T1.11.5	Communication of services
Y1.15	Food services
Y3.2.1	Curriculum development at city level
Y3.2.2	Curriculum refinement for each institution
Y3.2.3	Admission
Y3.2.4	Organisation of curriculum-based teaching in primary education
Y3.2.5	Competence development
T3.2.6	Afternoon activities
Y3.2.7	Care for people with development disabilities in basic education
T3.2.8	School transports
Y3.2.9	Organizing teaching in native language
Y3.2.10	Maintenance and development of the school administrative system
Y3.2.11	Services for pupils
Y2.3.4.3	School heath services
T3.6.2	Digital development
T3.6.3	Facility management

Figure 10 *Mapping established processes for the development collective focus areas**

If the customer journeys seem way too complicated to describe the functionality associated with each element, you can also get a good result by describing the expectations of the key roles simply, as shown in the figure below. This is also a simple way to combine human-centered design with activity-based design. More important than the detailed description is to keep the human-centeredness. This is where roles and thinking through them help, as does thinking about the meaning of data. Often phrases such as "I want X amount of data in order to do the Y thing" help to make sense of the issue. Then there is a purpose for the data, the necessity and feasibility which can be assessed.

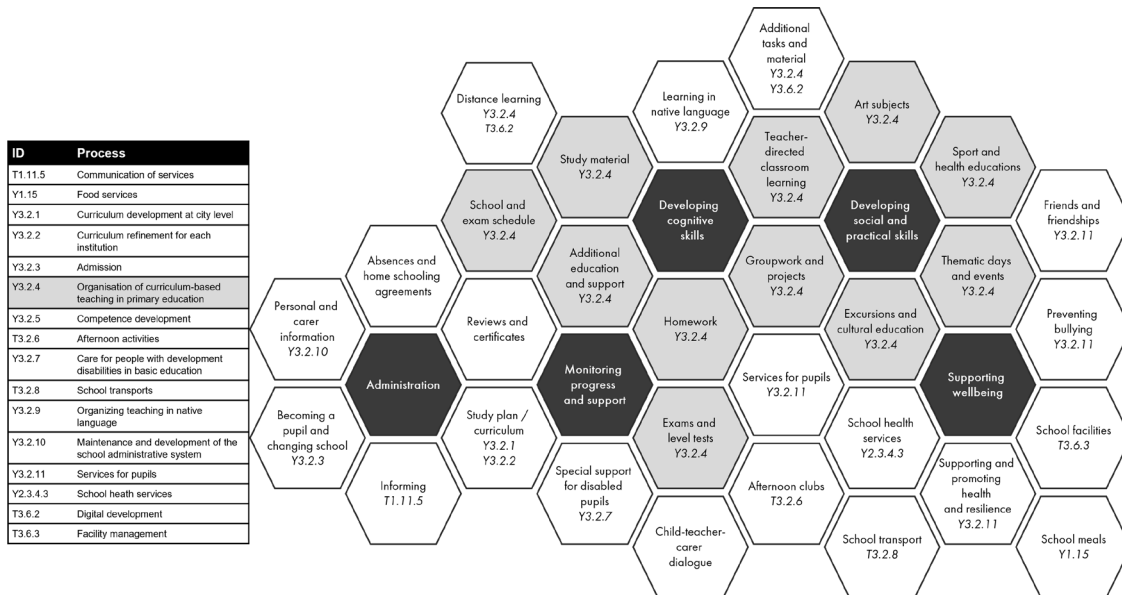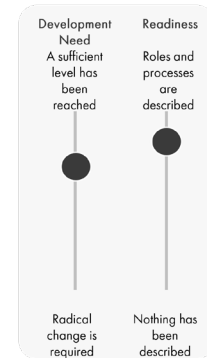| Main Outcome	In my role ...	... so that ...
A child's journey to school is safe and secure. The special needs of the transported person (e.g. wheelchair, visual impairment or other special needs) are taken into account and appropriate means of transport provided. The child's access to school and home is ensured.	**Child** I don't want to have to spend a longer school day than other children because of the school trip and I want to be able to do the same things as other schoolchildren	my transportation needs do not put me at a disadvantage compared to other children.
	Child and carers I want school transport to be well organised, so we don't have to worry about it every day	school transport is part of normal everyday life and not a special arrangement to be considered every time again.
	Carer I want to be notified if my child has not arrived at school or at home in the normal way	I can rest assured that I don't have to worry about it.
	Teacher I want that the school transportation is automatically organised based on my school schedule and the children's transportation needs	I can focus on teaching and know that my children's school journey is in good hands.
	Driver and dispatch centre I want changes to be notified in time	I can improve service quality and cost-effectiveness.

Development Need — A sufficient level has been reached / Radical change is required

Readiness — Roles and processes are described / Nothing has been described

MAIN PROCESSES
Notification of transportation needs
Change management
Transportation

KEY DATA
Transportation needs (routes and schedules)
Personal data and special needs
Realized routes and timing counters

CRITICAL TECHNOLOGY REQUIREMENTS
Online notification and change management
Automatic monitoring of transportations
Transportation contract management system

Figure 11 *Detailed description of the focus area School Transportation* *

The next step is then the concrete development of services. Many organisations already have service descriptions and service processes in place. After the modelling described above, the capacity for more people-centered development is now in place. To achieve what the vision calls for requires the simultaneous development of several services; thereby, the outcome is more aggregated services. At the same time, there is a need to ensure that data about the use of services is available, which will also contribute to maintaining a situation awareness on the value stream level.
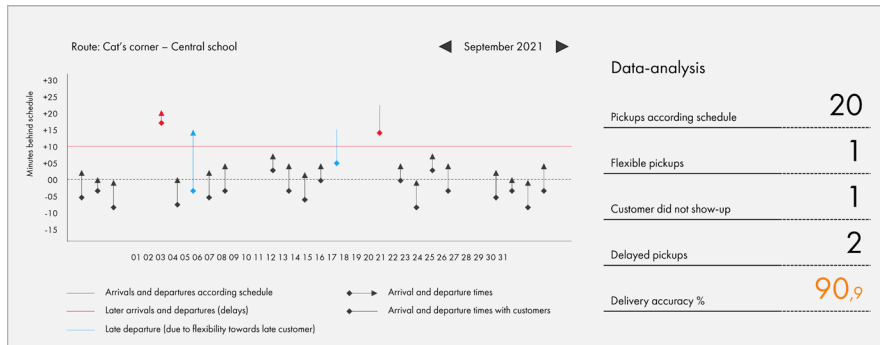
Figure 12 *Report on School Transportations* *

The Flow from City Strategy to People's Daily Lives and Back

We have illustrated with examples how value stream-based collaborative service development leads to a human-centered way of developing services. On the other hand, it is equally important to consider how data collected around the use of services as well as feedback from people can inform the planning of the city and regional strategy. This mobilises rolling strategic planning.

The synergetic model makes it possible to illustrate the strategic objectives and the interdependencies between the elements. Value streams guide co-operative development and sustain human-centered design in development collectives. These all collect data and feedback and development preferences from people. They help maintain a situational overview and prioritise development initiatives.

CITY   **VALUESTREAM**   **DEVELOPMENT COLLECTIVE**   **SERVICE**   **DAILY LIFE**

ANNUAL LEVEL

There is only **one strategy**, which is maintained according to an established strategy process.

Significant **strategic changes** in the operating environment.

The city follows annual financial planning and allocates funds to activities from its **budget**.

QUARTERLY LEVEL

Twice a year, the value stream holds a **strategy meeting** where any necessary reorientations are made.

The development collectives are based on a development vision that looks several years ahead and is implemented according the agreed **roadmap** by the value stream.

The value stream handles investment proposals and carries out **investment monitoring** based on portfolio management principles.

The development collectives draw up the **investment proposals**, describing the strategic importance and benefit calculation.

WEEKLY LEVEL

Service development is a continuous process and involves everything from **annual planning to weekly planning**. Strategic changes and decisions come from the level of the development collective

Data and customer feedback are the basis for all design.

The benefits of development activities will be evaluated, allowing the achievement of strategic objectives to be measured.
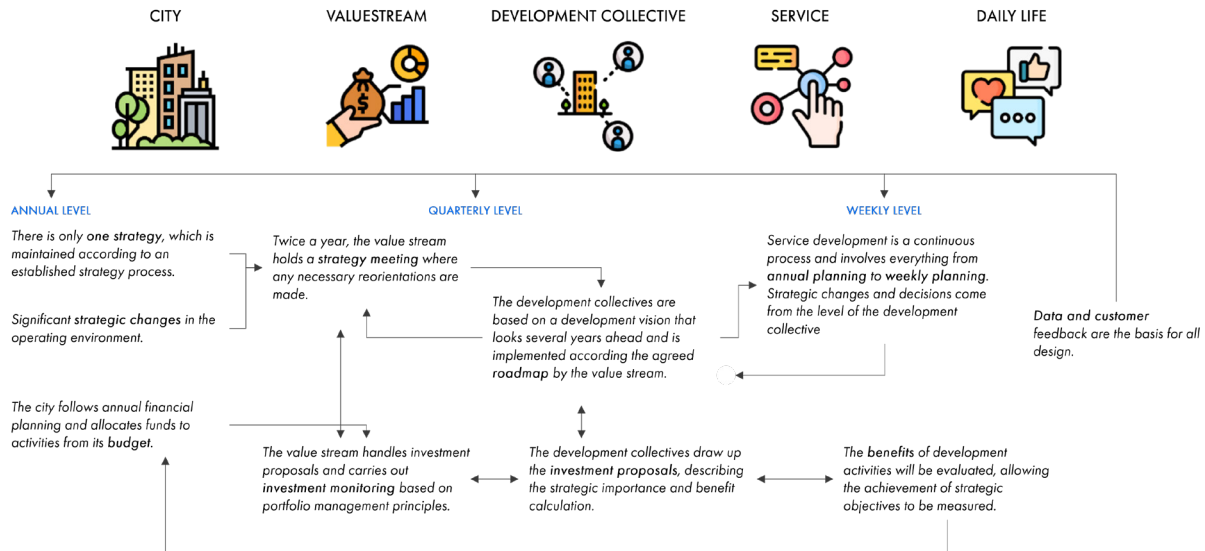
Figure 13 A rolling strategy plan

to provide all stakeholders with the up-to-date service information they need. A good system could be one that allows a carer to monitor in close to real time whether an elderly person has received his or her daily meal. From the same system, the relative could also order other services for their relative and monitor the delivery.

4   Adding Value to Citizens' Daily Lives

The Changing Role of Cities

In particular, new structural arrangements will shift the responsibility for organising social services to larger regional actors. Thus, the role of the city is increasingly evolving from providing and organising services to providing and organising wellbeing. In this context, the city's role is to contribute to the smooth everyday life of the citizen and to assess services from the perspective of value creation. In this model, value creation is symbolised by the letter V.

You can think of the city as having four different service models:
1. Providing a service   V
2. Organisation of the service   V+
3. Organisation of wellbeing   Vx
4. Platform economy of wellbeing   V2

As a provider of a service the city's service areas will create value independently. An example of this can be found in municipal day-care centres, which provide early childhood education in city-owned day-care centres.

When the city is an organiser of a service the city will organise the service together with one or more service providers. In the early childhood education example, this is illustrated by the situation where a municipal day-care centre is operated by a private company that uses its employees to provide the service and the municipality pays for the service. The municipality itself may also be one of the service providers.

When the city is organising wellbeing, the city organises services across sectors in a customer-centered way. Service providers are given clear objectives connected to the performance of services, so that the smooth running of everyday life is emphasised as the starting point for the development of services. An example of this could be, for example, joint lectures for children and parents in day-care centres, or visits by speakers on topics that promote the wellbeing of the whole family, such as exercise, healthy eating, social skills, etc.

When moving into a platform economy-based wellbeing role, the city can add a variety of additional services to the basic services. For example, a day-care service could be managed on a digital platform and used to enrol a child in a language immersion program, drama club or any other activity that inspires the child. Of course, these services should then consider the principles of equal accessibility.

In this classification, the abbreviations V, V+, Vx and V2 are used to describe the model of value (V=Value) delivery. The more we move towards a platform economy role, the more possibilities we have in order to create value and variations in services. In the platform economy, we could see, in the best-case scenario, the value and variations raising to the power of two.
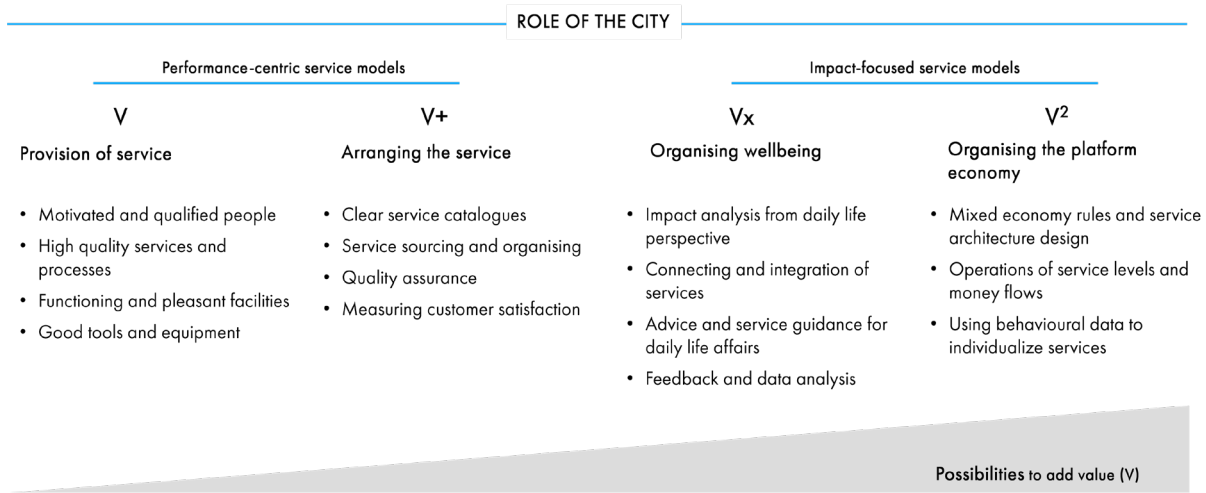
──────── ROLE OF THE CITY ────────

Performance-centric service models		Impact-focused service models	
V	**V+**	**Vx**	**V²**
Provision of service	Arranging the service	Organising wellbeing	Organising the platform economy
• Motivated and qualified people • High quality services and processes • Functioning and pleasant facilities • Good tools and equipment	• Clear service catalogues • Service sourcing and organising • Quality assurance • Measuring customer satisfaction	• Impact analysis from daily life perspective • Connecting and integration of services • Advice and service guidance for daily life affairs • Feedback and data analysis	• Mixed economy rules and service architecture design • Operations of service levels and money flows • Using behavioural data to individualize services

Possibilities to add value (V)

Figure 14 *Four service models**

This classification of the diversity of value creation does not imply that the quality, reliability or ease of use of the service will improve as we move towards a platform economy. In fact, the opposite may be true: if diversity is not properly managed, the result may be a deterioration in service quality or even service interruption. However, diversity and the potential for value creation increas as we move toward a platform economy model which often means the potential for better value for the citizen.

The Increasing Importance of Data

The role of data will become even more important as we move towards a platform economy service model. When the role of the city is to provide a service (V), the importance of data is usually linked to the provision of the service. When the role of the city becomes that of a service provider (V+), services become more specific and the city collects data and customer feedback to assess the quality of the service.

When a city operates as the organiser of wellbeing (Vx) the perspective on data is quite different and attention is focused on, for example, how to use the data to improve the service and to better support the wellbeing of city residents.

In the platform economy service model (V2) the city has commoditised the data and the data flow between different services through interfaces within the limits of data protection. Citizens can link and automate services themselves.

However, the increasing role of data is not without its problems, as there are still many unanswered questions, such as data protection and privacy. The trade-off is not necessarily between the interests of the customer and the service provider, but between what the law and its interpretation allow. Even if a resident gives consent to the use of his or her data to obtain a personalised and better service, the law and its interpretation do not necessarily allow it.

Efficiency Through Service Management Platform and Automation

Managing and responding to thousands of service requests is not possible without a service management system and the automation to support it. Automation directs service requests to the right person and keeps the service process moving forward within agreed timeframes. If this is not the case, the service centre will be notified and can take the necessary action.

Advanced service management automation helps users with self-service and can advise users with the help of artificial intelligence. The user can use the self-service to book services or perform automated pre-checking of the service. This saves human labour from routine tasks and allows labour to be reallocated to more value-added tasks.

Service management is also needed to manage processes and responsibilities across organisational boundaries and to provide all stakeholders with the up-to-date service information they need. A good system could allow a carer to monitor in close to real-time whether an elderly person has received his or her daily meal. From the same system, the relative could also order other services for their relative and monitor the delivery.

5   In conclusion

The performance and success of cities in promoting the wellbeing and vitality of their citizens is not only a legal obligation but also in everyone's interest. However, service delivery is a complex equation involving many actors, sectors, systems, laws and regulations, making it sometimes difficult for the ordinary citizen to understand how different things are interlinked and how it all works.

The primary objective of the model presented in this article is to clarify and describe the basic principles of service delivery in the city from the perspective of the citizen and thereby guide the development of services towards more human-centered and cross-sectoral operations.

Who We Are

The Business Technology Forum (or BT Forum) is a non-profit professional organisation consisting of a community of forerunner companies, and public organisations collaborating according to platform economy model.

The BT Forum provides business and technology leaders with an open-source technology management framework called the Business Technology Standard. The BT Standard consists of best practices, models and tools developed together with the BT Forum community in order to plan, build and run information technology in today's technology-driven business world.

The BT Forum coordinates the development work within the community members and publishes an upgraded version of the BT Standard twice a year. In addition the BT Forum also organises events and conferences, publishes educational materials and offers training courses to advance the business technology management profession.

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