FROM CHOLERA TO DIGITALISATION
HELSENKI’S DIGITAL STRATEGY
Mikko Rusama, Chief Digital Officer @ City of Helsinki
Japan, June 2019
Maria01 - Building Europe’s Largest Startup Campus
City of Helsinki is Growing
650 000 / 1,2m
Annually 5000-8000 New Citizens
38 000 people at your service
Helsinki claims several top positions in 2018 smart city comparisons

1. Best in smart tourism (European Capital of Smart Tourism Competition)
2. Best digital mobility services (Juniper Research’s study)
3. Best place for foreign investments (Financial Times’ comparison)
4. Second best smart city in Europe (Eden Strategy Institute)
5. Second best city for startups (Valuer’s)
6. The fifth best in smart city government (Smart City Governments Top 50)
7. The best smart neighbourhood Kalasatama (KNX Award)
8. The most locally connected startup ecosystem in the world. (Startup Genome award)
9. Number one in social cohesion of smart cities (IESE Business School’s Cities in Motion Indexissa)
Common city challenges?

For Customers
• Too many digital services that are difficult to find and use

Technical
• Fragmentation, a lot of overlapping systems and services
• Legacy systems that are not working well together

Internally
• Hierarchical and siloed organisation
• Risk-averse and slow decision-making.
• Agile testing is challenging
• Unclear product ownership – who is responsible for the customer experience?
• Lack of competencies
• Procurement, lock-in
The Most Functional City in the World that Makes the Best Use of Digitalisation
Know your customer and his/her living context

City Services
>
500

Matching

Residents

Own employees

Visitors

Companies
“We are on the road to a society that is proactively identifying service needs and that can better and more effectively respond to varying needs of every citizen”

The Ministry of Economic Affairs and Employment, AI Report 41/2017 Suomen tekoälyaika
In Finland, tax authorities offer a personalised tax proposal
Hi, your child, Elsa Rusama (born 10/2011) is at the right age of starting school this August. We have reserved a school placement for Elsa at the Lauttasaari Elementary School (Myllykalliontie 3, Helsinki), which is closest to your home. The school starts on 5 August 2019. If you are OK with this suggestion, you do not have to do anything. Otherwise, please contact Helsinki City Education tel. 123 2455.
Oodi library with an AI-based intelligent material management system directs books to the correct location based on the anticipated needs.
10% of people generate 80% of the social and health care costs

"Identifying and treating these people well in advance would be beneficial for the state economy"
Cervical cancer screening in Finland avoids 250 deaths each year
FROM REACTIVE TO PROACTIVE CITY
Helsinki’s Digital Strategy in 1 Page: From Reactive to Proactive City

Why?
City Strategy

The most functional city in the world that makes the best use of digitalisation

What?
Strategic Objectives

- Proactive and targeted services
- Automation and scalable 24/7 self-services
- Data-driven city: Management, decision-making and service development utilising data
- Digital twin: Helsinki produces, utilises and shares the best open data in the world
- The city utilises the potential of platform economy, services are produced with the ecosystem

To Whom?
Impact on different Stakeholders

- Citizens are served proactively and more personalised way, often without filling forms. Digital self-services are available 24/7.
- Employees have more time for customers. Operations can be targeted where the need is greatest. Manual tasks are automated.
- Management has real-time data to support taking informed decisions. Predictive analysis applied to weigh different options.
- Businesses and communities are seamless part of the city’s service production.
- Travellers find city’s services easier, also virtually.
- For all: saves time and money, risk mitigation, better decision making

How?
Development Themes

A: Digital city services
B: User-centered agile culture
C: Data, AI and robotisation
D: Digital foundation
E: New mode of operation and organisation

Key Initiatives

A1: Pre-school placement proactively
A2: Proactive health benefit check
A3: Preventing youth exclusion
A4: Reservation system for city’s facilities
A5: Citizen engagement platform
A6: Profile and portal for consent mgmt
A7: Customer experience platform
A8: Channel strategy and domain policy
B1: Support for lean service creation
B2: Agile experiments
C1: Data strategy
C2: Data and AI ethics
C3: Data- and IoT-platforms
C4: API management
C5: Analytics and measurement
C6: Digital twin
C7: Robotics and automation
D1: One well-managed network infrastructure
D2: Cloud strategy and 0365
D3: Portfolio optimisation
D4: Centralised IT-support
D5: Multi-channel customer support
E1: Digitalisation department
E2: Digital management team
E3: Infrastructure and IT support
E4: PMO and change management training
E5: Harmonised financial reporting

Requirements: Increasing the competence level of personnel, new culture and ways of working and modern tools.
Eliminating waste and overlapping work, more focus

Values: customer-centricity openness, inclusivity, transparency
Strategic Objectives

Customer-centric

→ Proactive and personalised services

→ Residents can affect how their data is being utilised (MyData principles)

→ Automation and scalable 24/7 self-services

Data-centric

→ Data-driven city: Management, decision-making and service development utilising data

→ Digital twin: Helsinki produces, utilises and shares the best open data in the world

→ The city utilises the potential of platform economy, services are produced with the ecosystem
Focus areas

A. Digital city services
- From project to product portfolio management
- Proactive and personalised services
- Citizen engagement

B. Agile user-centered culture
- Learn from agile experiments
- User-centered service design

C. Data, AI and robotisation
- Improved services
- Automation releasing time for human encounters

D. Digital foundation
Well-functioning infrastructure and platforms enabling scalable growth

E. New mode of operation and organisation
Structures and leadership enabling the change, clarifying ownership
## Helsinki’s Digital Strategy: Benefits

<table>
<thead>
<tr>
<th>Citizens</th>
<th>Employees</th>
<th>Decision-makers</th>
<th>Companies</th>
<th>Visitors</th>
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<tbody>
<tr>
<td>- Proactive and personalised services</td>
<td>- Modern tools and better connectivity</td>
<td>- Improved decision-making with a help of the real time data</td>
<td>Build new business on the City's digital platforms and open data</td>
<td>- Find city services and attractions easier</td>
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<td>- Digital self-services available 24/7</td>
<td>- Automation frees up time for human encounters</td>
<td>- New collaboration opportunities in the city’s service production</td>
<td>- Visit Helsinki virtually</td>
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<td>- Engagement and co-creation, ability to influence on the development of new services</td>
<td>- Data helps targeting scarce resources</td>
<td>- Improved self-services</td>
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<td><strong>Customer focused and agile city that is able to react to changing environment</strong></td>
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<td><strong>Impactful City by open and transparent collaboration</strong></td>
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Proactive City

- Detect (health) risks earlier
- Save lives
- Improve quality of life
- Save time, money and energy

- Uses data and artificial intelligence in an ethical way
DO PEOPLE TRUST US AND LET US USE THEIR DATA AND AI FOR THEIR BENEFIT?
Build trust: empower individuals by improving their right to self-determination regarding their personal data (MyData Global)
Important Enablers for Helsinki’s Digital Strategy
Common platforms
Population Information System is the Master Database for the Population Information in Finland

- Maintained and developed by Population Registre Centre
  - Promotes the digitalisation of society and electronic services in Finland
  - Provides information services based on the Population Information System for authorities and companies

- City of Helsinki gets frequent updates via APIs on its residents from the Population Information System
Information in the Population Registry

Personal data:
- name
- personal identity code
- address
- citizenship
- native language
- family relations
- date of birth and death (if applicable)

Building data:
- the building code
- location
- owner
- area
- facilities
- network connections
- intended use
- year of construction
Act on the Secondary Use of Health and Social Data

- Enable the effective and secure processing of personal data stored in connection with health care and social welfare activities
  - Smoother and faster processing of data permits
  - Smoother collation of data from different registers
  - Easier and more efficient use of valuable social and health materials in research and development activities

- Complies with GDPR
Primary and Secondary Use of Personal Health and Social Data

**Primary use**
- Service to a client or patient

**Secondary use**
- Research
- Development and innovation activities
- Statistics
- Education
- Knowledge management
- Authorities’ guidance, enforcement, planning and reporting duties
Kanta produces digital services for the social welfare and healthcare sector

- Prescription service
- Pharmaceutical Database
- Patient Data Repository
- Archiving of old patient data
- Client data archive for social welfare services
- Sharing of medical certificates

Citizens store and manage data with approved wellbeing apps

National data repository is part of My Kanta Pages for citizens own health and wellbeing information

Up-to-date information available for social and healthcare professionals in support of medical care

- The users of the Kanta services include citizens, pharmacies, public and private healthcare services and social welfare services.
Towards Agile Culture

The Agile Manifesto

- Individuals and interactions over Processes and Tools
- Working Product over Comprehensive Documentation
- Customer Collaboration over Contract Negotiation
- Responding to change over Following a plan

That is, while there is value in the items on the right, we value the items on the left more.

www.agilemanifesto.org
Change in leadership paradigm

“Assessment of what is needed to produce good leadership has moved decidedly against the ‘great leader’ model – a model in which individuals are perceived, almost single-handedly, to drive organisations to success. In its place has emerged the ‘post-heroic’ model of leadership which involves multiple actors who take up leadership roles both formally and informally and importantly share leadership by working collaboratively. This takes place across organisational or professional boundaries. Thus shared and collaborative leadership is more than numerically having ‘more leaders’”

The King’s Fund (2011). Future of leadership and management in the NHS
Thank you!

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