

TEKES – THE FINNISH FUNDING AGENCY FOR INNOVATION

Business Development Study Tour to USA and Canada Seattle, Tacoma and Vancouver 15.-21.3.2015

TRAVELOGUE



THE AIM OF THE STUDY TOUR

Goals for Tekes Business Development Study Tour was to

1. Learn how cities cooperate with enterprises and support new innovations (e.g. in urban development projects)
 - a. Smart city solutions, development environments
 - b. Co-operation models and networks
 - c. Strategic development and actions plans - reflecting on Finnish smart city visions
 - d. Development projects, R&D&I-projects
2. Identify business opportunities and networks in USA and Canada
 - a. Business opportunities for Finnish companies in North America
 - b. Invest in Finland opportunities for US and Canadian companies
3. Benchmark and learn from newest development on smart and economic development in cities
4. Networking with USA – Canada hosts and among participants

The study tour was organised by Tekes, Finnish Funding Agency for Innovation.

PROGRAMME

Monday 16th of March, 2015 (Seattle)

Microsoft

Microsoft Redmond Campus is the informal name of Microsoft's corporate headquarters, located at One Microsoft Way in Redmond, Washington. Microsoft initially moved onto the grounds of the campus in 1986, and the headquarters has since experienced multiple expansions since its establishment. It is estimated to encompass over 750,000 m² of office space and 30,000-40,000 employees.



Today Microsoft may have one of the smartest corporate campuses in the world, but in 1986, its headquarters was still a grass- and forest-covered 88-acre plot of land in Redmond, a sleepy, one-stoplight suburb of Seattle.

The 88 acres of land Microsoft chose for its headquarters (the code name for the project was just that: 88 Acres) was originally supposed to be a shopping center, but that plan was bagged during hard economic times. Microsoft snapped up the land and quickly constructed its first office complex – four star-shaped buildings surrounding Lake Bill (a large pond affectionately named by employees for founder and then-CEO Bill Gates).

Today the campus spans 500 acres. There's a soccer field and cricket pitch, miles of wooded walking paths – and 14.9 million square feet of office space and labs that now function as one interconnected system.

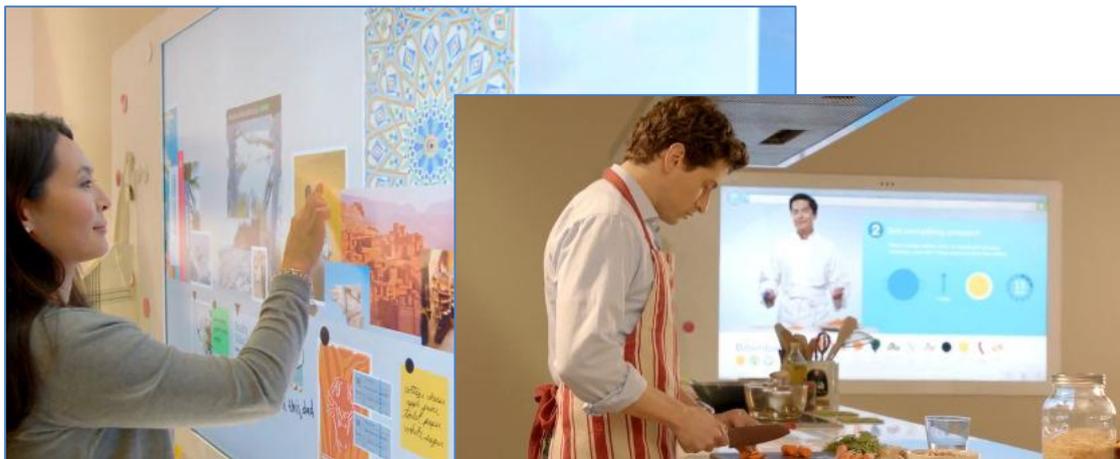


“Smart buildings will become smart cities. And smart cities will change everything.”
- Darrell Smith, Director of Facilities and Energy
Microsoft

The future of work and play is on display at **Microsoft' Envisioning Center**. Visitors can work on interactive desks, talk with colleagues through digital walls, and cook in a Kinect-enabled kitchen. Envisioning Center is all about imagining how technology could be used to make life easier and more enjoyable, sometimes in small ways and sometimes in revolutionary ones. The new center is built around Microsoft's investments in three main technological areas:



- Big data — the ability to synthesize huge amounts of data to produce information that's useful to the user.
- Natural user interface (NUI) — in which people use natural motions such as talking or gesturing to interact with computers.
- Machine learning — teaching computers how to see, listen, translate and do other tasks.



Further information:

<http://www.microsoft.com/about/companyinformation/visitorcenter/en/us/default.aspx>

<http://www.microsoft.com/en-us/stories/88acres/88-acres-how-microsoft-quietly-built-the-city-of-the-future-chapter-1.aspx>

Microsoft CityNext's platform provides citizens, businesses, and government employees—including maintenance workers, safety inspectors, case workers, and police officers—the power of cloud computing and real-time information at their fingertips. The combination of cloud based Big Data and mobile devices and services enables people to work more efficiently and to make better decisions. Today, cities can tap into data assets and harness the potential of existing infrastructure quickly and affordably with Microsoft CityNext.

Microsoft provides solutions for

- Modern cities
- Safer cities

- Healthier cities
- Educated cities

http://www.microsoft.com/global/en-us/citynext/RichMedia/Modern_Cities/CityNext_Infographic_Modern_Cities_SML_FY15.pdf

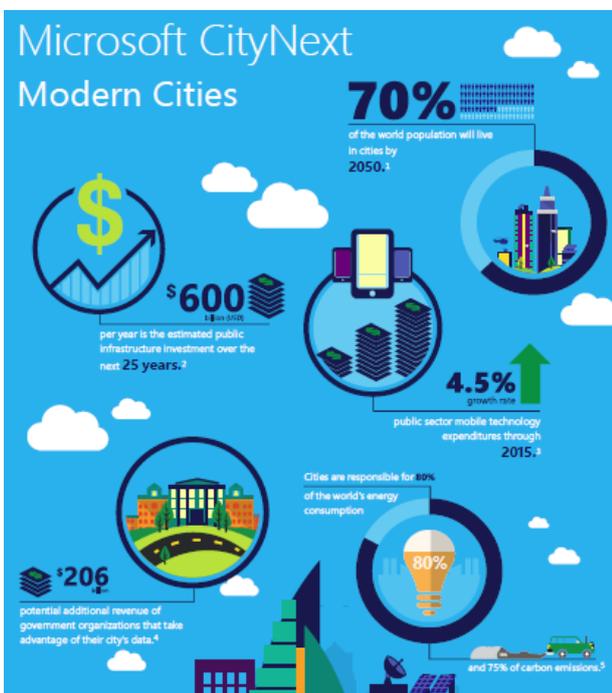
Big Data in Cities

Government organizations face the challenge of increasing access to public information. The burgeoning interest from citizens has coalesced in a global movement known as open data, which asserts that public-sector organizations must foster greater transparency, participation, and collaboration to govern effectively in the modern world.

The open-data movement creates formidable challenges and opportunities for local governments at all levels. Microsoft CityNext helps governments worldwide share information and connect with citizens through open-data solutions. Microsoft and our partners offer new public or private cloud-based technologies, application programming interfaces (APIs), dashboards, and data analysis tools that help governments improve public access to information.

Microsoft CityNext open-data solutions support innovative government initiatives that include new ways to deliver services, gain better insight into vast stores of information, and drive internal efficiencies.

<http://www.microsoft.com/en-us/citynext/government-admin.aspx#fbid=B0s3ZrqEvBo>



Key lessons learned at Microsoft

B. Issues to be adapted/not to be adapted to Finland

C. Other observations and remarks

Puget Sound Regional Council

The formation of the **Puget Sound Regional Council (PSRC)** was sparked by the Washington state Growth Management Act of 1990, which requires fast-growing counties and cities to adopt comprehensive plans that designate urban growth areas, provide transportation strategies, address affordable housing and other smart growth ideals. The Act specifically directs the counties and cities of the Puget Sound area to create a common growth management plan, and the counties and cities banded together to form PSRC as their vehicle for carrying out this mandate.

The Puget Sound Regional Council operates under a two-year (biennial) budget and work program, which currently runs from July 1, 2013 through June 30, 2015. The budget and work program supports regional objectives, local government priorities, and legal mandates associated with PSRC's responsibilities as the federal Metropolitan Planning Organization and state Regional Transportation Planning Organization. The work program is divided into three areas: regional transportation, growth and economic planning, technical and data services, and administrative services.

<http://www.psrc.org/>

STAR Communities has named Seattle the nation's most sustainable city, with the highest score to date in its program that evaluates the livability and sustainability of U.S. communities.

According to STAR Communities, Seattle stands out in several efforts:

Commitment to carbon neutrality: Seattle's publicly owned utility, Seattle City Light, was the first electric utility in the nation to become carbon neutral. Additionally, Seattle became one of the first cities in the nation to set a goal of carbon neutrality when the Seattle Climate Action Plan was adopted in 2013.



Leading-edge energy efficiency programs: Community Power Works, an innovative energy efficiency and economic development program, has led to home energy upgrades for over 3,000 families while helping grow local home contractors' businesses. Seattle's low-income residents also benefit from energy upgrades through HomeWise, a program that provides free weatherization services. Seattle's Energy Benchmarking program, which requires commercial property owners to track and report energy usage, has one of the highest compliance rates in the country.

The Green Seattle Partnership (GSP): A unique public-private partnership working to restore and maintain Seattle's forested parklands. The GSP has engaged thousands of volunteers since 2005 --resulting in nearly 650,000 volunteer hours spent planting over 150,000 trees and restoring over 1,000 acres of parkland throughout the city. GSP also partners with Seattle Goodwill Industries in a work readiness program targeting at-risk young adults and providing them with on-the-job training in restoration and trail maintenance.

Transportation choices: Seattle is one of only five cities in the nation where less than half of commuters are

driving alone to work. Since 2011, Seattle has seen a 59% increase in bicycling and a 27% increase in pedestrian traffic.

<http://smartcitiescouncil.com/>

Key lessons learned

Tuesday 17th of March, 2015 (Tacoma, Seattle)

City of Tacoma

Tacoma is a destination place with the amenities of a big city and the charm of a small town.

With an international port, a uniquely pro-business environment and some of the most livable neighborhoods in the Puget Sound area, Tacoma is home to a range of companies that compete in today's global landscape.

Tacoma's urban core is evolving and assuming its natural role as the downtown for a South Sound region of nearly one million people. An energized, high-tech industry invigorates the area and is leading to continued expansion and development. Over the last decade, Tacoma Power has invested more than \$100 million in 700 miles (1,127 km) of fiber to create Tacoma's high-speed, wired communications network. The University of Washington Tacoma's Institute of Technology produces graduates who are ready to contribute to a growing technology sector.



Tacoma's Strategic Plan is intended to set the course and guide where the City of Tacoma (as both a local government organization and a community) is going over the next 10 years, and to help the City direct its efforts and resources toward a clearly defined vision for its future that reflects community desires, current and future trends, and bolsters the City's unique position within the region. It will include benchmarks or milestones that measure the City's progress towards its clearly defined vision. And it will be a "living document" and it will undergo periodic review and adjustment to reflect progress towards achievement of goals and/or modifications of goals.

The strategic planning process and final Strategic Plan document should address the following seven Key Focus Areas:

- Health and Safety
- Human and Social Needs
- Economic Vibrancy and Employment

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- Educational and Learning
 - Arts and Cultural Vitality
 - Natural and Built Environment
 - Government Performance

Downtown Tacoma

Nestled on the shores of Puget Sound, Downtown Tacoma is a human-scale city. Smaller and less crowded than Seattle, its neighbor to the North, Tacoma offers its residents and visitors a completely different urban experience.

<http://downtowntacoma.com/>

Key lessons learned

The Trade Development Alliance of Greater Seattle

The Trade Alliance leverages over 20 years' experience in convening the Greater Seattle region for international business to promote the region internationally, connect people and institutions in Greater Seattle and the world with business and investment opportunities and educate the public on topics related to international commerce.

<http://www.seattletradealliance.com/index.php>

Key lessons learned

Wednesday 18th of March, 2015 (Vancouver)

Metro Vancouver, TransLink

Since 1886, the communities of **Metro Vancouver** have cooperated in the development and delivery of services essential to the growing region. Metro Vancouver is a partnership of 21 municipalities, one Electoral Area and one Treaty First Nation that collaboratively plans for and delivers regional-scale services. Its core services are drinking water, wastewater treatment and solid waste management. Metro Vancouver also regulates air quality, plans for urban growth, manages a regional parks system and provides affordable housing. The regional district is governed by a Board of Directors of elected officials from each local authority.

Metro Vancouver is a political body and corporate entity operating under provincial legislation as a 'regional district' and 'greater boards' that deliver regional services, policy and political leadership on behalf of 23 members.

Four separate corporate entities, each with a different set of members, operate as Metro Vancouver:

- Greater Vancouver Regional District (GVRD)
- Greater Vancouver Sewerage & Drainage District (GVS&DD)
- Greater Vancouver Water District (GVWD)
- Metro Vancouver Housing Corporation (MVHC)

Metro Vancouver has nine departments (e.g. Corporate Services, External Relations department, Planning, Policy & Environment, liquid Waste Service, Solid Waste Services) with close to 1500 employees.

<http://www.metrovancouver.org/about/Pages/default.aspx>

Overview of the Regional Growth Strategy: <http://www.metrovancouver.org/services/regional-planning/metro-vancouver-2040/about-metro-2040/Pages/rgs-overview.aspx>

TransLink is Metro Vancouver's regional transportation authority. TransLink is responsible for regional transit, cycling and commuting options as well as Intelligent Transportation System programs.

The TransLink shares responsibility for the Major Road Network (MRN) and regional cycling with municipalities in Metro Vancouver. The organization is the first North American transportation authority to be responsible for the planning, financing and managing of all public transit in addition to major regional roads and bridges.

TransLink is committed to creating a transportation system for a sustainable region. Each aspect of the organization is committed to environmentally responsible solutions by helping people make smarter transportation choices.

Metro Vancouver has set targets to reduce greenhouse gas (GHG) emissions 33 percent by 2020 and 80 percent by 2050 from 2007 levels. Over half the province's registered vehicles, which account for 35 percent of GHG emissions in the region, reside in Metro Vancouver.

TransLink has adopted a Sustainability Policy to foster development of a sustainable transportation system that aims to meet the needs of people, organizations and businesses, as well as promote the ecological, economic and social well-being of the Metro Vancouver region and beyond.

<http://www.translink.ca/>

Regional Transportation Strategy:

<http://www.translink.ca/en/Plans-and-Projects/Regional-Transportation-Strategy.aspx>

TransLink referendum approved by B.C. government/ Mayors' 10-year plan

<http://www.cbc.ca/news/canada/british-columbia/translink-referendum-approved-by-b-c-government-1.2878262>

Former Vancouver Chief Planner Brent Toderian weighs in on transit plebiscite

<http://globalnews.ca/video/1856062/former-vancouver-chief-planner-brent-toderian-weighs-in-on-transit-plebiscite>

Attention, transit-bashers: TransLink is not on referendum

ballot <http://www.biv.com/article/2015/2/attention-transit-bashers-translink-not-referendum/>

University of British Columbia (UBC)

The University of British Columbia is a global centre for research and teaching, consistently ranked among the 40 best universities in the world. Since 1915, UBC's West Coast spirit has embraced innovation and challenged the status quo. Its entrepreneurial perspective encourages students, staff and faculty to challenge convention, lead discovery and explore new ways of learning.

As a top-ranked research university, the Vancouver campus is home to some outstanding facilities, including the Centre for Interactive Research in Sustainability (CIRS).



<http://www.ubc.ca/>

Olympic Village

The Olympic Village, developed by the Millennium Development Group, is one of the greenest communities in the world, making Vancouver a leader in sustainable development. In keeping with Vancouver's Greenest City targets, the Olympic Village uses innovative energy efficiency and sustainability systems like solar heating and green roofs.



Located in Southeast False Creek, the Olympic Village was built for the 2010 Winter Olympic Games, to house athletes and Olympic officials coming from across the world.

After the Olympics, the Olympic accommodation became residential housing. The development aligns with the City's goals, addressing environmental, economic, and social issues. The Olympic Village is a mixed-use community, with

approximately 1,100 residential units, area parks, and a growing number of retail and service outlets.

<http://theolympicvillage.ca/>

False Creek and surroundings

False Creek is a short inlet in the heart of Vancouver. It separates downtown from the rest of the city. The False Creek area was the industrial heartland of Vancouver through to the 1950s. It was home to many sawmills and small port operations, as well as the western terminus of the major Canadian railways. As industry shifted to other areas, the vicinity around False Creek started to deteriorate. The area of False Creek south has subsequently shaped by debates on freeways, urban renewal, and the rise of citizen participation in urban planning.

The purpose of the ongoing Southeast False Creek (established by the City of Vancouver) is to turn Southeast False Creek into a leading model of sustainable development. It features efficient energy solutions, high performance green buildings, and easy transit access. Southeast False Creek is designed as a mixed-use community with a total population of 11,000 – 13,000 people, with a focus on residential housing.

<http://vancouverhouse.ca/>

Dubai mirrors Vancouver in Maraya:

<http://udi.bc.ca/news-central/news/dubai-mirrors-vancouver-maraya>

Granville Island

In the early 1900s, Granville Island was home to factories, plants and sawmills. At one time, its official name was actually Industrial Island. Things are a little different today, Granville Island is both a locals' favorite and a huge draw for visitors. It is centred around the Granville Island Public Market, a bevy of merchants selling seafood, fresh produce, cheese and breads. The island's offerings are much more diverse than just one of North America's best markets, with theatre, culture, restaurants and unique attractions drawing millions of people each year.



Thursday 19th of March, 2015 (Vancouver)

Vancouver Economic Commission

The Vancouver Economic Commission (VEC) connects local and international businesses in the city of Vancouver. The agency works to strengthen the city's economic future by helping existing businesses, attracting investment, researching the business environment and making policy recommendations.

<http://www.vancouvereconomic.com/>



Vancouver Economic Commission – “Innovation and Green Economy Project:

<http://www.vancouvereconomic.com/page/green-economic-development>

City of Vancouver – “Green City Action Plan

<http://vancouver.ca/green-vancouver/greenest-city-2020-action-plan.aspx>

West End Business Improvement Association – “West End Community Plan” (<http://vancouver.ca/home-property-development/west-end-community-plan.aspx>)

Key lessons learned

CEI Architecture

CEI Architecture was formed in 1996 by Richard Bolus, John Scott and Bill Locking. Three founding partners have strong experience in designing healthcare, community and commercial projects throughout Western Canada.

CEI Architecture has been awarded several times and one of the latest is the Gold award at the 2014 Tommie Awards. The Glenmore Landfill Administration Building by CEI demonstrates how a modern office environment can successfully function using significantly less energy, exploiting alternate fuels sources such as landfill gas, and elegantly incorporating a wide range of recycled materials—all within a constrained conventional budget.

<http://www.ceiarchitecture.com/project/glenmore-landfill-administration-building/>

<http://www.ceiarchitecture.com/>

ENVIRON

ENVIRON is the premier global consultancy, working with clients to manage their most challenging environmental, health and safety issues and attain their sustainability goals.

ENVIRON's Canadian operations are committed to helping our clients achieve the most efficient and cost-effective solutions to their environmental problems. We offer a comprehensive array of strategic and technical consulting services to industrial, commercial, legal, trade association and public sector clients to help them assess and manage the environmental, energy and health risks associated with their activities and products. Of particular interest to clients in Canada are e.g. the following: Air Quality Management, Carbon Management, Ecology and Sediment Management, EHS Management Services, Energy and Environmental Technology, Environmental Impact Assessment and Planning, Industrial Wastewater Management, Merger and Acquisition Due Diligence, Occupational Health and Safety/Industrial Hygiene, and Waste Management

<http://www.environcorp.com/home.aspx>

Friday 20th of March, 2015 (Vancouver)

Lessons learned