State Of Israel
Ministry of National Infrastructure
Energy and Water

Eilat Eilot 2014

The Smart cities the Israeli approached

Present By:
Eddie Bet Hazavdi

What Is Smart city Stand for?

- Sustainable Human Habitat
- Prospectively modern.
- Modern society (it can be liberal or conservative).
- A city that can economically support itself.
- A city that supply all the needed servicers on high level and low cost.
- A city that can integrate and regulate the will of its inhabitant with its development, holistically.
- More environmental aware.
- Well managed
- Secured city

Why Do We Need Smart cities

- The cities are expanding

- Rise in living standards

- The need for services - difficult to supply modern services

- Infrastructures

- Most of the cities exists

- Economy

Smart city is no longer an option but a need

Challenges

- Scarce land, Energy and water resources.
- Immigrants absorbing country.
- Non homogeneous population.
- Most of the cities are there.
- Old infrastructures.
- High Standard of Living.
- Unstable geopolitical neighborhood.
- Israel is a kind of an energy and other resources Island.
- Population growth 1.9% a year

Opportunities and strengths

- A highly educated population with a high percentage of internet, computers and smart-phone usage.

- Israelis are multi-lingual, most of them speak English and other languages in addition to Hebrew.

- High Tech Bio Tech economy specialized in software, cutting edge technologies, communication and internet technologies, water tech and sophisticated agriculture.

- Israel is known for optimizing the use and recycle of water ; 80% of the total consumed water is recycled, and in 2015 – 100% of the total drinkable water for domestic uses will be desalinated.

The Israeli government's goals

- Asressing modern services to an ever growing population with growing living standards.

- Addressing local and global growing expectations for a sustainable economy with lower use of energy and subsequent greenhouse gas emissions.

- Enhancing the use of internet, communication and management technologies in transportation, water supply, sewage treatment, energy production, supply and use, waste management and other basic public services such as, social services and education.

- Contributing to public health and cleaner environment in every aspect.

- Integrating all data and information produced in the cities and around them.

- Promoting the development of green economy and green employment true the establishment of local market for local needs.

- Developing local enterprises (social and economical).

- Enhancing ecologic neighborhoods within the existing cities.

- Upgrading the public transportation and promoting green transportation.

Obstacles in applying Smart Cities Policy

- Central government leaves little space for local authorities.

- Regulatory barriers.

- Existing old infrastructures in most of the cities.

- Socio- economical barriers.

- Cultural barriers

- Insufficient coordination between various data sources, need to be regulated and standard.

- National limitations such as security installations which are located inside the municipal areas.

Benefits in promoting Smart Cities

- Cleaner cities and environment.

- More justice society that shares the wealth.

- Maximizing the local resources such as land, infrastructures, man power and budgets.

- Supplying high standards services.

- Presenting high standards and goals for the cities.

- Creating a healthy competition between the cities.

- Finding and addressing various inefficiencies in the cities and their interaction with the government.

- **Developing green, sustainable and smart economy**.
- Public participation in decision making, may improve it's satisfaction from the city's services .
- Encouraging the private sector to develop relevant High Tech solutions and products .
- Encouraging high-tech innovation.
- Preparedness for emergency situations.
- Improving the image of Israel.

The Israeli government's policy

Towards this end , the government decided on:

The establishment of "**smart cities administration**".

- The smart cities administration operate under the mandate of Prime Minister Office and the Ministry of National Infrastructures Energy and Water.

- Member of the administration are from all major ministries , the union of local authorities, the Academia and the Israeli Standards Institute.

The Israeli government's policy tools

- The government has allotted financing for research and development on "smart cities", including pilot projects in some cities for :
  - Transportation.
  - Smart lighting.
  - City energy monitoring and management
  - Wide bandwidth "free Wi -Fi"
  - An information data center.
  - Smart Grid
  - Smart water cycle
  - Socio-economical academic researches.
  - Adopting international standards.

  Local, as well as imported technologies are being used.

Standards and National Plan

- New standards for green buildings and green neighborhoods are being considered - ISI 5281.

- Energy Standards in Buildings ISI 5280 will soon be adopted to be mandatory.

- Standards for Energy ratting in Building 5282

- ISO.IEC 14543-5 Information technology - Home electronic system (HES) architecture.

- Implementing ISO and other international standards such as ISO14000, ISO 50001 and ISO 13201.

- National plan for smart grid is now discussed.

- Local accreditation for smart cities.

- Specification for Smart city audit.

- Pilots for smart cities
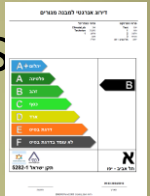
International Standards for smart cities that will adopt in Israel in 2014-2015

- Guidance for community sustainable development "BS 8904 (2011)"

- Sustainable development and resilience of communities - Management systems - General principles and requirements ISO 37101

- Sustainable development and resilience of communities - Global city indicators for city services and quality of life ISO/DIS 37120

- Harmonized metrics for benchmarking smartness of infrastructures ISO/AWI 37151

Digital Israel – Smart Cities Administration
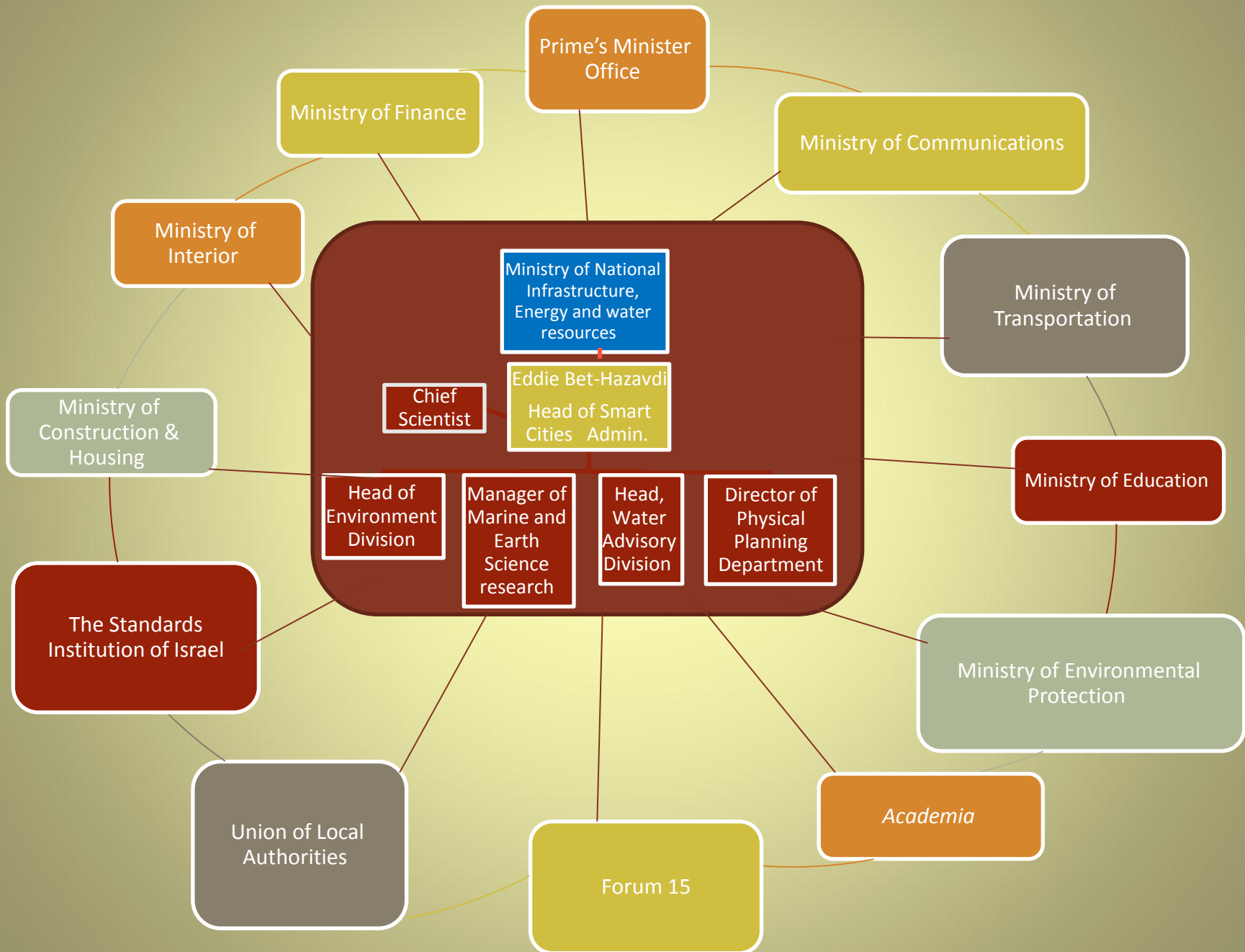
an interface to standards smart cities in Israel
A dual-language (Hebrew & English) screen for updating categories, subcategories and specific parameters
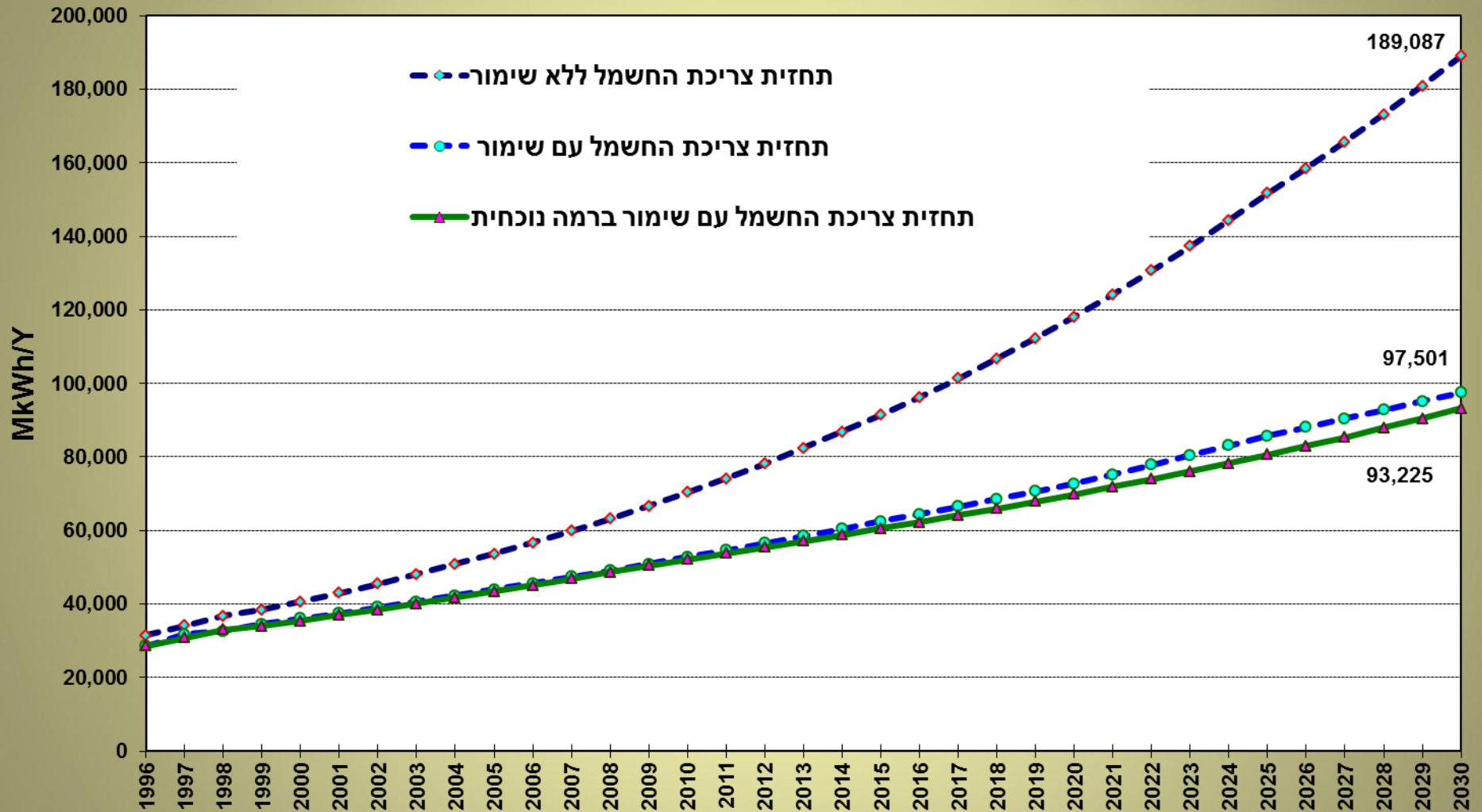
Energy Conservation in the cities

- Until recently, we used to import about 97% of our energy. Although we are rich with solar radiation (about 300 sunny days a year), although we were the first and the only country for many years that used solar installation (85% of all households), the use of renewable was limited to that.

- Energy conservation was at the Israeli government agenda since 1983, with energy conservation we manage to decrease primary energy per capita by 5% in the last 6 years by that time our GDP grew by 9.6%

- In 2010 a national program to reduce electricity consumption by 20% until 2020 was published and since majors activities were taken.

- A lot of activates to reduce energy consumption in the cities were done and we plan for more.

- We were and still involve in may project on the demand side. However using NG for electricity production increase efficiency by 60% on the supply side as well.

- With the expansion of the use of NG we promote the use of NG in cities, new neighborhoods, industrial zones, hospital hotels and others.

- A project of Co-generation to supply all the 13 hotels by the Dead Sea, with district heating cooling and electricity is now discussed.

תחזית צריכת החשמל ושימור אנרגיה

Opportunities for decreasing Energy consumption in the cities

- More than 80% of the energy is consumed in the cities.

  Using the energy as we do right now, is inefficient and very low.

- Distributed production, local grid (energy and electricity) smart consumers can increase efficiency and reduce dramatically the energy consumption in the cities.

- Smart grid and smart management will no doubt contribute to efficiency by 5%-10%.

- Smart home, smart metering and monitoring (elec. water, and LPG and or NG) will provide better information and energy management.

Thank you for Listening

Eddie Bet Hazavdi

Phone: +972-2-5316043

Mob: +972-506206011

Ebet-hazavdi@energy.gov.il