

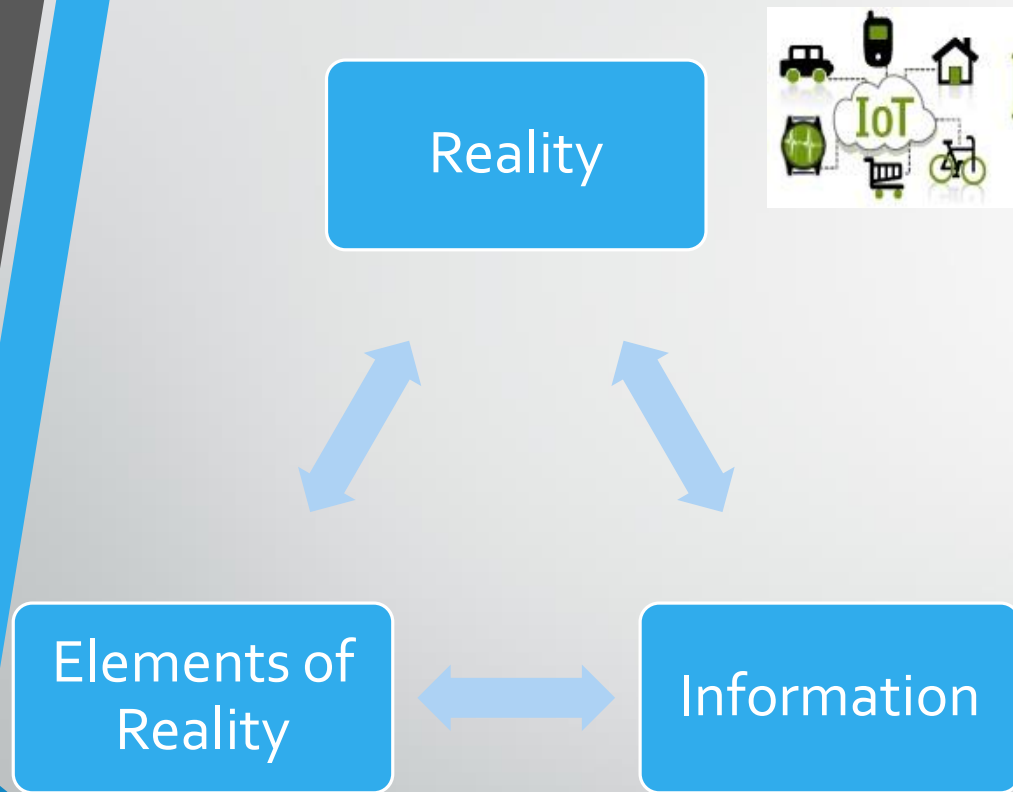


Internet of things For Businesses & Industry

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State of Palestine
2015

Looking Forward: Mobile Internet
and the Internet of Things (IoT)
MEAC-SIG 2015 Tunisia

Parts of Reality



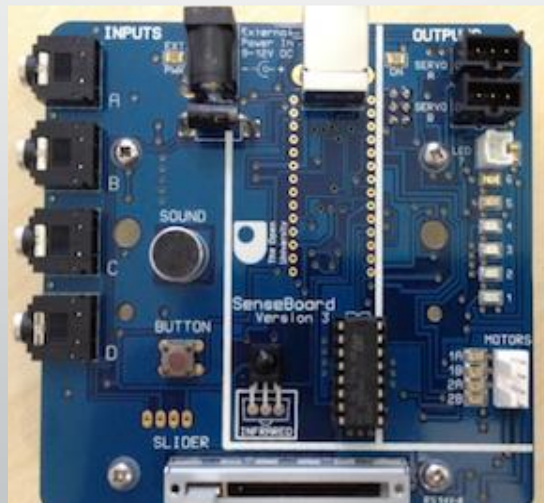
The concept of (Internet) is changing from the World Wide Web (as Information Network).

To Information and Things, as a result it became obligatory for businesses, customers and industries to interact and participate effectively in this new WEB (the New Internet)

As new Reality that effects our life.



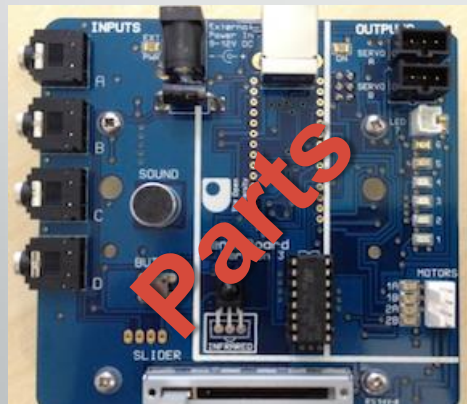
Things Core Components



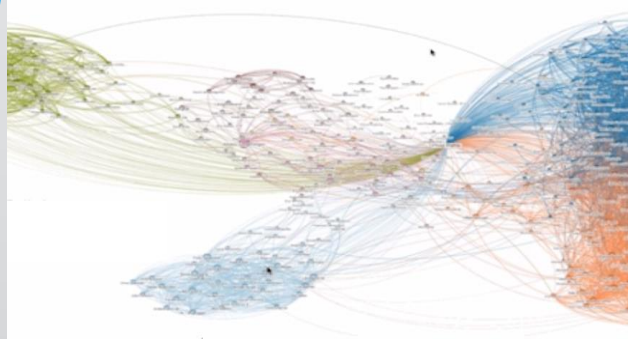
Two Examples



Terminology



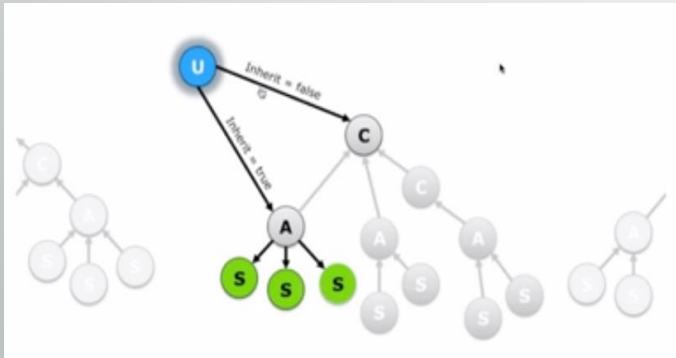
Network of Things



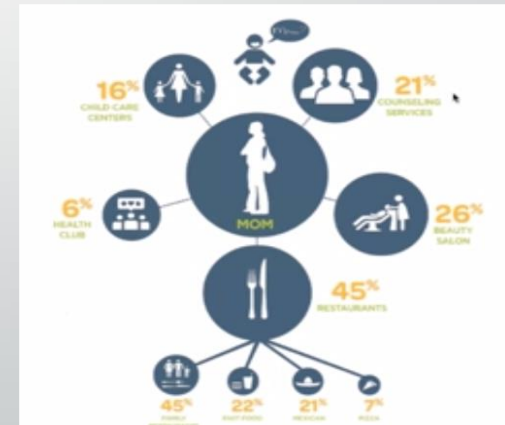
P2P



M2M



Privileges

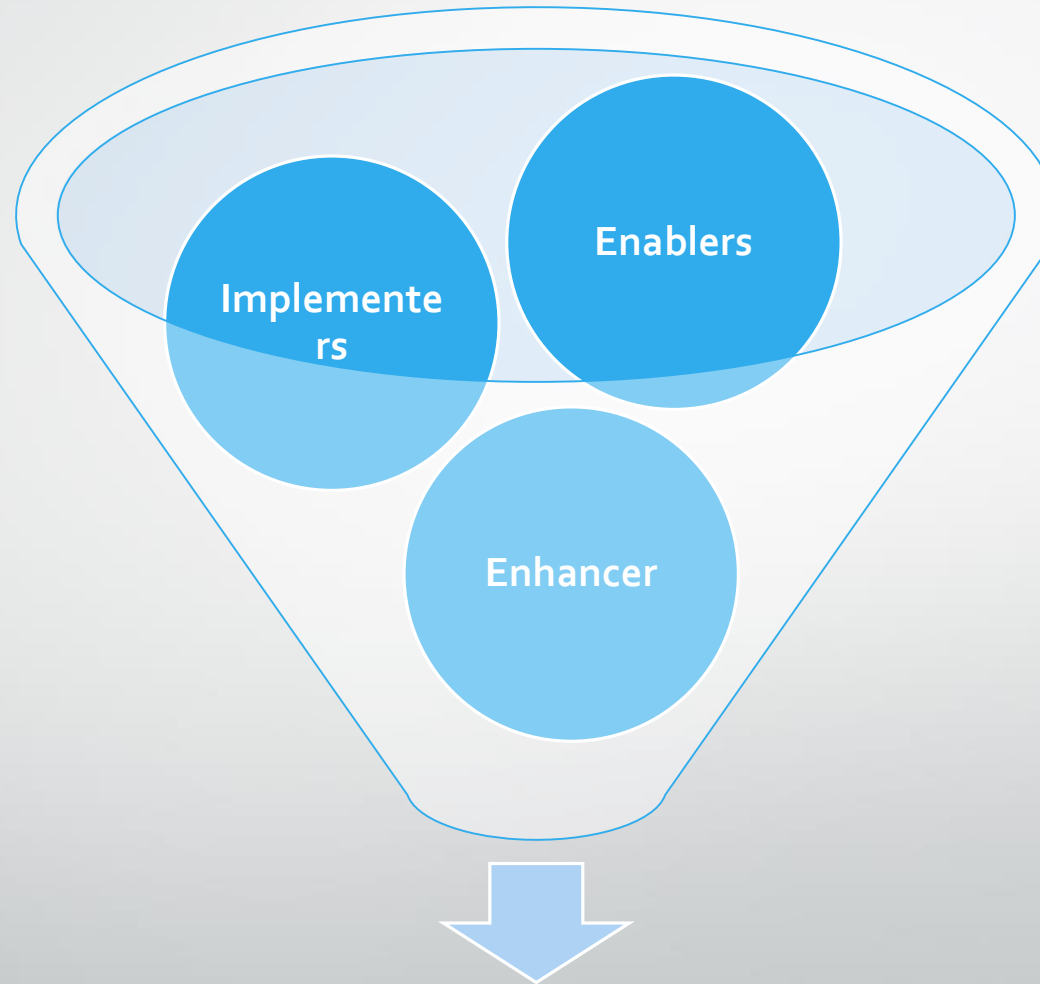


M2P



Networking

Businesses & Industries Roles.



Internet of Things Industry

Some Real Things

Cars Safety	Health care	Smart Lights	Cars Industry	Water control
Footballs player	Pets health	Eggs	Grocery tools	Recycling
Smart cups	Smart mirrors	Smart Toothbrush	Forests	Saving
Smart Pots	Smart shirts	Carly mother	Milk and food containers	Smart air conditioners
Smart watch	Smart watering	Smart Security	Eating Tools	Wastes Managements

Libelium Smart World

Air Pollution

Control of CO₂ emissions of factories, pollution emitted by cars and toxic gases generated in farms.

Forest Fire Detection

Monitoring of combustion gases and preemptive fire conditions to define alert zones.

Wine Quality Enhancing

Monitoring soil moisture and trunk diameter in vineyards to control the amount of sugar in grapes and grapevine health.

Offspring Care

Control of growing conditions of the offspring in animal farms to ensure its survival and health.

Sportsmen Care

Vital signs monitoring in high performance centers and fields.

Structural Health

Monitoring of vibrations and material conditions in buildings, bridges and historical monuments.

Quality of Shipment Conditions

Monitoring of vibrations, strokes, container openings or cold chain maintenance for insurance purposes.

Smartphones Detection

Detect iPhone and Android devices and in general any device which works with Wifi or Bluetooth interfaces.

Perimeter Access Control

Access control to restricted areas and detection of people in non-authorized areas.

Radiation Levels

Distributed measurement of radiation levels in nuclear power stations surroundings to generate leakage alerts.

Electromagnetic Levels

Measurement of the energy radiated by cell stations and WiFi routers.

Traffic Congestion

Monitoring of vehicles and pedestrian affluence to optimize driving and walking routes.

Smart Roads

Warning messages and diversions according to climate conditions and unexpected events like accidents or traffic jams.

Smart Lighting

Intelligent and weather adaptive lighting in street lights.

Intelligent Shopping

Getting advices in the point of sale according to customer habits, preferences, presence of allergic components for them or expiring dates.

Noise Urban Maps

Sound monitoring in bar areas and centric zones in real time.

Water Leakages

Detection of liquid presence outside tanks and pressure variations along pipes.

Vehicle Auto-diagnosis

Information collection from CanBus to send real time alarms to emergencies or provide advice to drivers.

Item Location

Search of individual items in big surfaces like warehouses or harbours.

Waste Management

Detection of rubbish levels in containers to optimize the trash collection routes.

Smart Parking

Monitoring of parking spaces availability in the city.

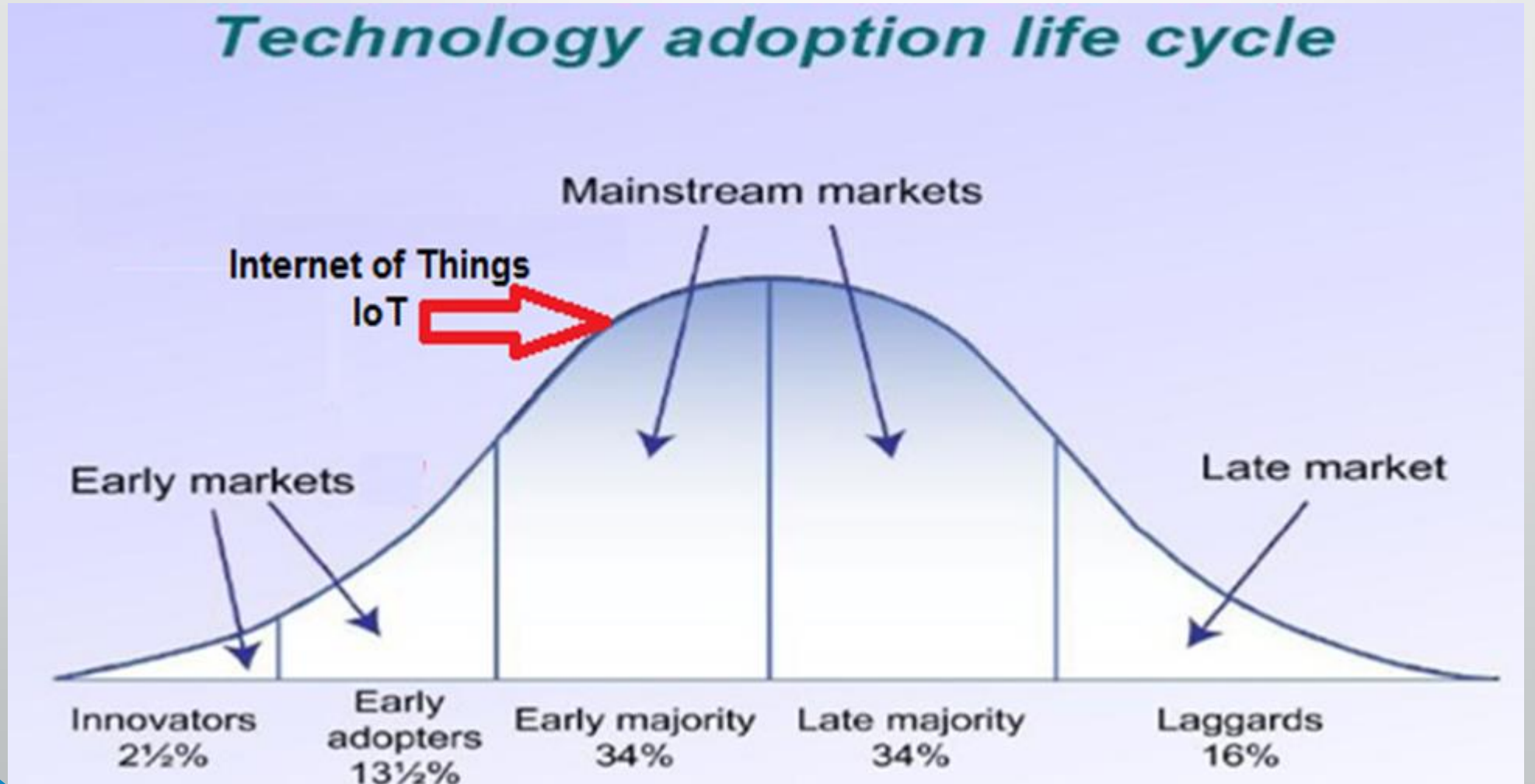
Golf Courses

Selective irrigation in dry zones to reduce the water resources required in the green.

Water Quality

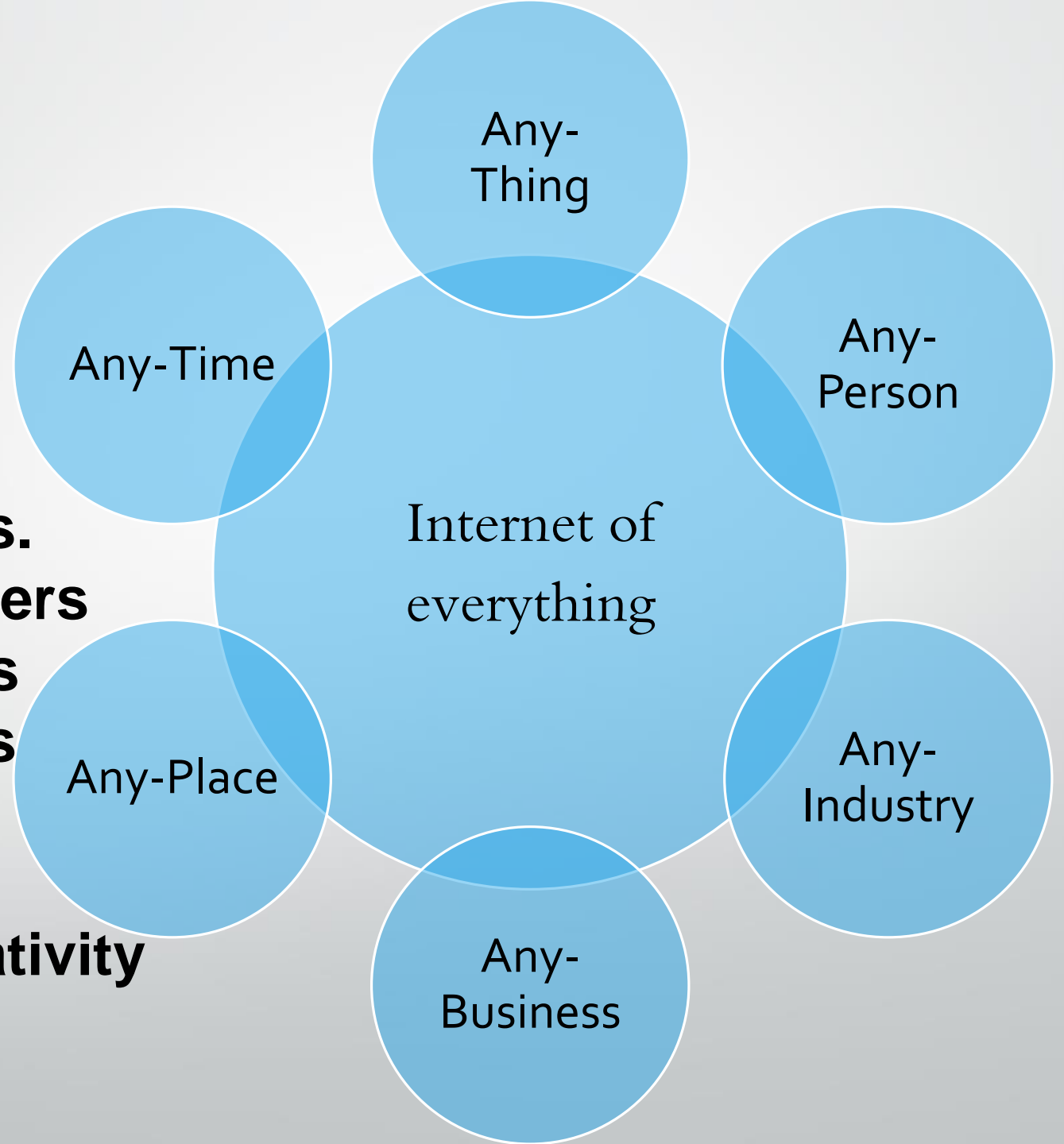
Study of water suitability in rivers and the sea for fauna and eligibility for drinkable use.

The Future of IoT



Key Players

1. **Networking Providers.**
2. **Operating sys Providers**
3. **Information Providers**
4. **Processors Providers**
5. **Power Providers**
6. **Sensors Providers**
7. **Entrepreneurs & creativity**



IoT Users



Year 2020

- 35 Billion things are connected.
- 600 USD Billion Internet of things market.
- 40 trillion Giga byte (big data).
- 10 times more investment in IoT start-ups.
- 250 USD billion investment.
- 40% will use IoT and 60% will follow in five years.
- 40% of transportation systems will be connected to IoT.
- 30-50% power saving using IoT.

