



Business Models for IoT  
Mar 2, 2017 at India Electronics Week

# About IoTBLR

- Community for IoT professionals
- 11,000 members on Meetup, 20,000 members on FB, TW, LI
- Largest IoT Meetup group globally
- 50+ meetups, events and projects
- Key focus areas:
  - Entrepreneurship support
  - Consulting services
  - Ecosystem growth
- [www.iotblr.org](http://www.iotblr.org),  
[www.meetup.com/iotblr](http://www.meetup.com/iotblr)

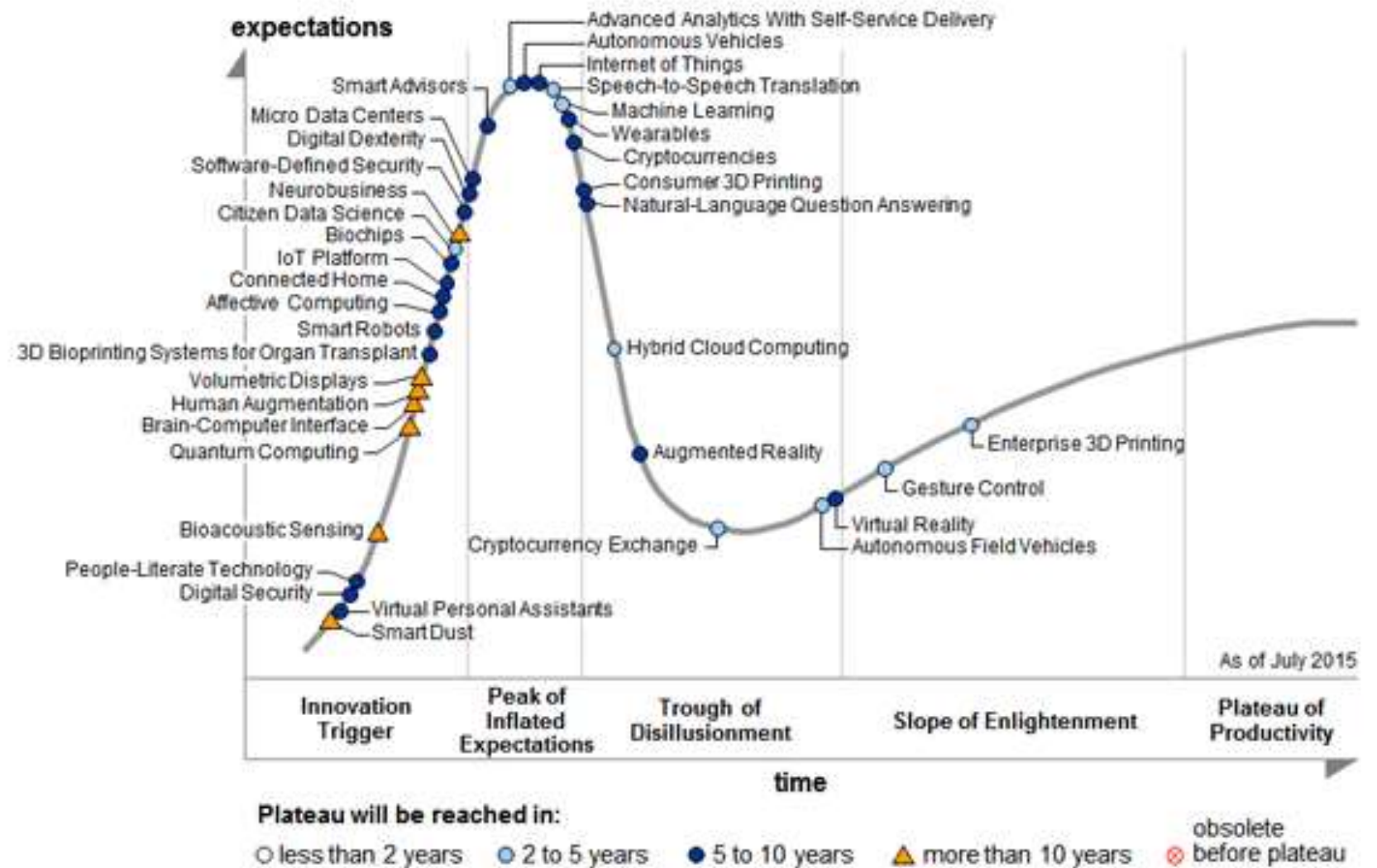
## Internet of Things Meetups



Source: meetup.com



# Business Models for IoT



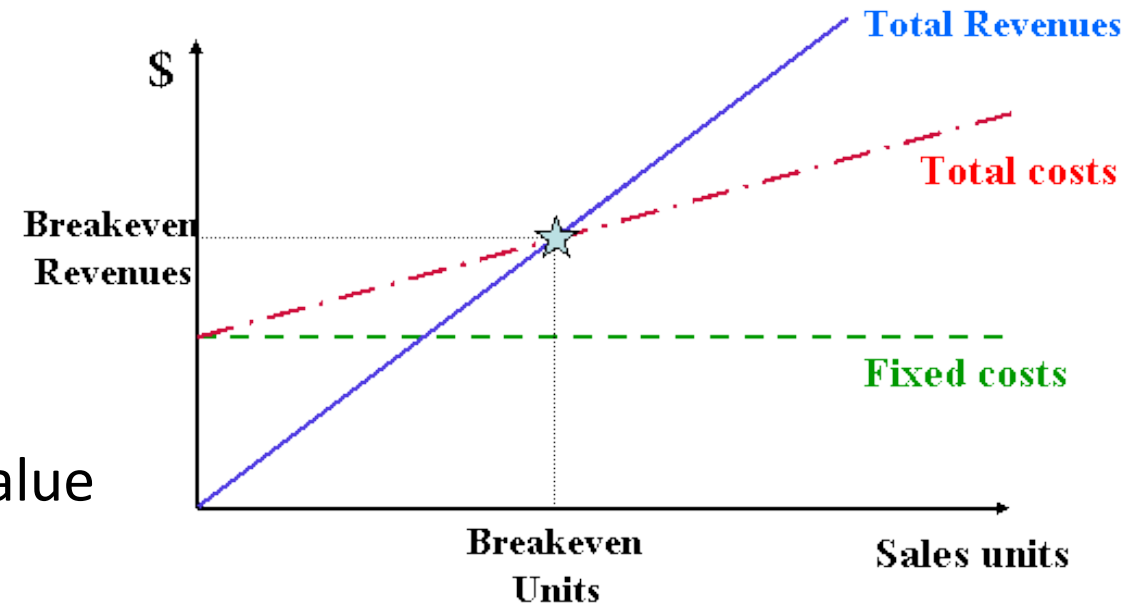
# Unclear Vision for IoT Adoption

- Why
  - RoI – Financial/non-financial impact
  - Time – Financial/non-financial impact
- What
  - Solution and Path to impact
- How
  - Funds – Size of investment, source
  - Convincing stakeholders – Management, board, business lines, employees, vendors, customers
  - Execution – People, goals, metrics, timelines, geography, process/tech/business model



# Why Do You Even Require IoT?

- Can adding sensing and connectivity improve your offering?
  - Non-financial impact – Functionality, quality, simplicity, intelligence, safety, customer insights, brand loyalty
  - Better top line – New products, higher-value services, new business models, greater production capacity, higher sales
  - Better bottom line – Efficient manufacturing, reduced wastage in storage, lesser audit costs, lesser insurance costs
  - Outcomes – Higher market share, greater brand desirability, improved valuation, clearer compliance, etc
- Solutions must make a difference



# Revenue Models

- Sale
- Rental
- Usage-based
- Freemium
- Ad supported
- Value added services
- Razor and blade model
- Information
- Results-based (% of revenues)



# Revenue Models

- Sale
- Rental
- Usage-based
- Freemium
- Ad supported
- Value added services
- Razor and blade model
- Information
- Results-based (no of healthy days)



# Lean Business Model Canvas

Model Name:



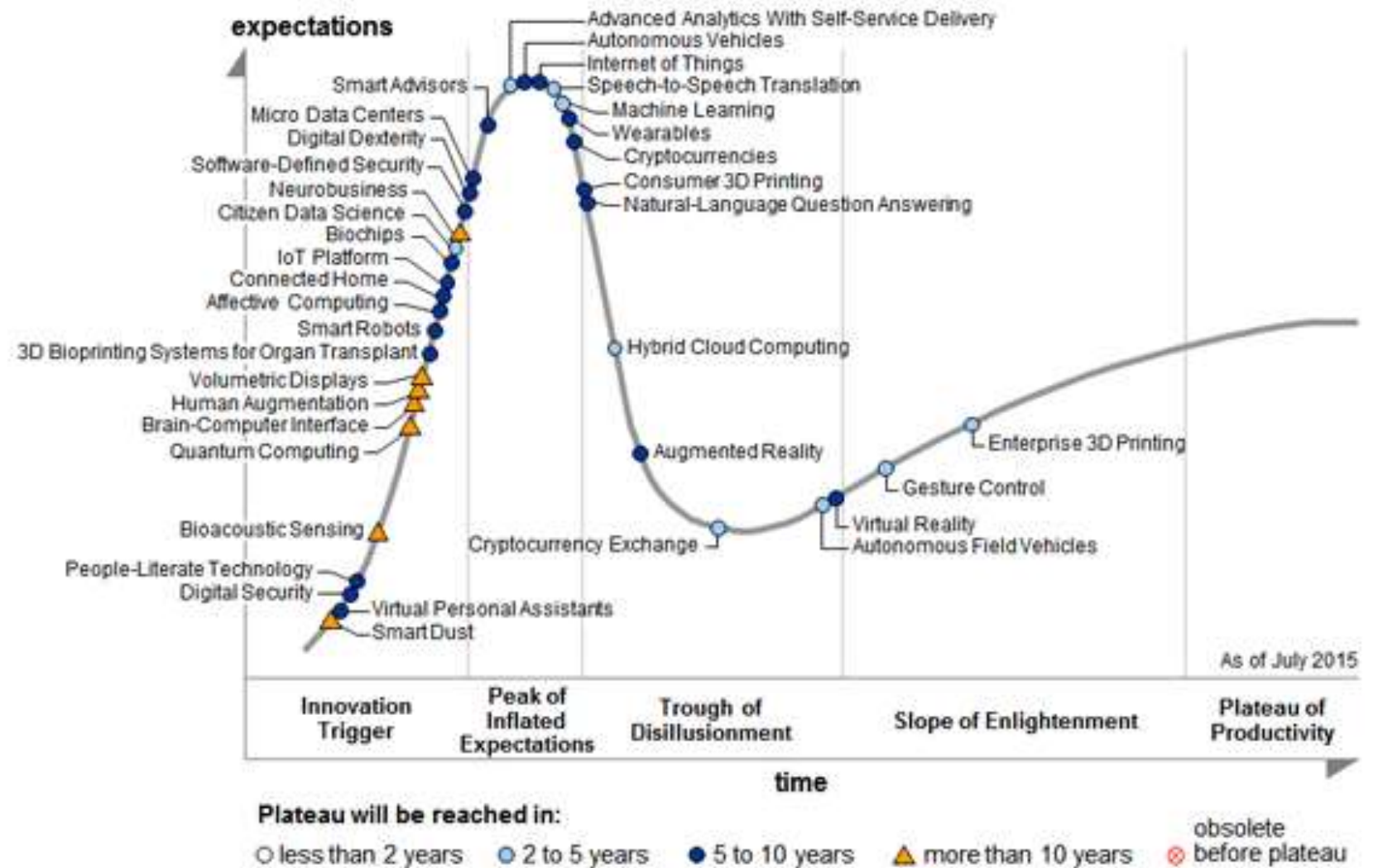
<b>Problem</b> Top 3 problems	<b>Solution</b> Top 3 features	<b>Unique Value Proposition</b> Single, clear, compelling message that states why are you are different and worth buying	<b>Unfair Advantage</b> Can't be easily copied or bought	<b>Customer Segments</b> Target customers
	<b>Key Metrics</b> Key activities you measure		<b>Channels</b> Paths to customers	
<b>Cost Structure</b> Customer acquisition costs Distribution costs Hosting People, etc			<b>Revenue Streams</b> Revenue model Lifetime value Revenue Gross margin	



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[www.meetup.com/iotblr](http://www.meetup.com/iotblr)

# Workshop



# Workshop Logistics

- 8 groups of 5 people each
- Each group gets a usecase scenario
- 45 minutes to develop the business model around your usecase
- 4-minute presentation and 2 audience questions per team
- Wrap up

# Cases

- Given
  - Who you are, the problem, the solution
- Define
  - Customer/consumer segments
- Explore
  - Revenue models (innovations and hybrids welcome)
  - Cost optimizations
  - Go-to-market channels/implementation
- Present
  - Chosen model and reasoning (try results-based model)
- Objective
  - Optimize profitability for long term sustainability

# Case 1 - Improved Bedside Care in Hospitals

- You are a hospital that is exploring the use of IoT to improve care giving as well as financials in non-ICU in-patient services. To start, the smart systems are deployed in a single high-tech ward.
- Problem – Bed side assistance is a challenge as there are only a few nurses and doctors on call at any given time and they need to manage several patients.
- Solution – Smart hospital infrastructure utilizes low-cost sensors and IoT solutions such as beds with pressure sensors, smart gowns with movement trackers, IV fluid monitors, medication trackers, sound sensors, etc.

## Case 2 - Wearable Tech T-shirts

- You are a casual wear clothing company that is creating edgy IoT-enabled T-shirts.
- Problem – A T-shirt is a very expressive medium that reflects the wearer's personality. However, barring changes in content and design, T-shirts have largely been the same since they were first created and are ripe for disruption.
- Solution – Adding electronics, sensors and connectivity to T-shirts allows for radically new designs and personalization, new ways of interacting with the shirt, enhanced functionality, generating new information, and more.

## Case 3 - Exoskeleton for Use in Warehouse

- You are a robotics company that has brought out a new exoskeleton for use in inventory management in warehouses.
- Problem – Large warehouses stock millions of SKUs and employ several workers, indoor vehicles, and robots to manage the inventory, including physically stocking and retrieving items. The process is inefficient and expensive, leading to high costs. Worker safety is also a serious issue.
- Solution – Exoskeletons add speed, strength and safety through robotics while utilizing human intelligence for decision making, making them a good hybrid between man and machine.

## Case 4 - Smart Kitchen

- You are a kitchen appliances company with a vision to revolutionize the food industry, from redefining dishes to how food is prepared and even how it is experienced.
- Problem – Food is a daily requirement, yet it is hard to regularly get tasty, healthy, and affordable food easily. Variations and choice are also important to keep food boredom away.
- Solution – You have brought out a range of smart machines such as food processor, cooking range, microwave oven, roti maker, etc that can automate cooking of certain types of dishes.



## Case 5 - Precision Farming

- You are a large farm that is exploring high-tech farming to increase the yield, quality and reliability of your crops.
- Problem – Traditional farming methods are full of problems: yield is limited to the quantity of time and space available, is dependent on external factors like soil and weather, suffers from indiscriminate use of chemicals and genetically modified seeds, is susceptible to crop failure, etc.
- Solution – You have invested in a smart agricultural system: a closed roof warehouse with vertical farms, hydroponics, temperature and light control, automated tilling, seeding, monitoring and harvesting systems, etc.

## Case 6 - Shopper Engagement in a Mall

- You are a tech company helping large retailers like malls, supermarkets, etc understand their shoppers better.
- Problem – There is a lot of data available about buyer behaviour, abandoned items, response to advertising, sales funnel tracking, etc for online shopping but most of this granular data is lacking in brick-&-mortar shopping establishments.
- Solution – Your system consisting of a network of cameras, smart shelves, beacons, etc and algorithms that identify and analyse buyer behaviour can help retailers identify patterns and engage with their customers more meaningfully.

# Case 7 - Smart Fleet in a Logistics Company

- You are a logistics company with a fleet of trucks looking to improve efficiency of operations.
- Problem – Running a logistics business is all about operational efficiency. There are significant challenges that adversely impact bottom line: inefficient routes, truck downtime for repairs, fuel pilferage, damage to goods being transported, etc.
- Solution – A fleet management system that utilizes data generated by the OBD II device, GPS tracker and other sensors to monitor payload health, combined with algorithms for route optimization, predictive maintenance, etc can significantly improve operational efficiency.

## Case 8 - Drones to Assist Traffic Police

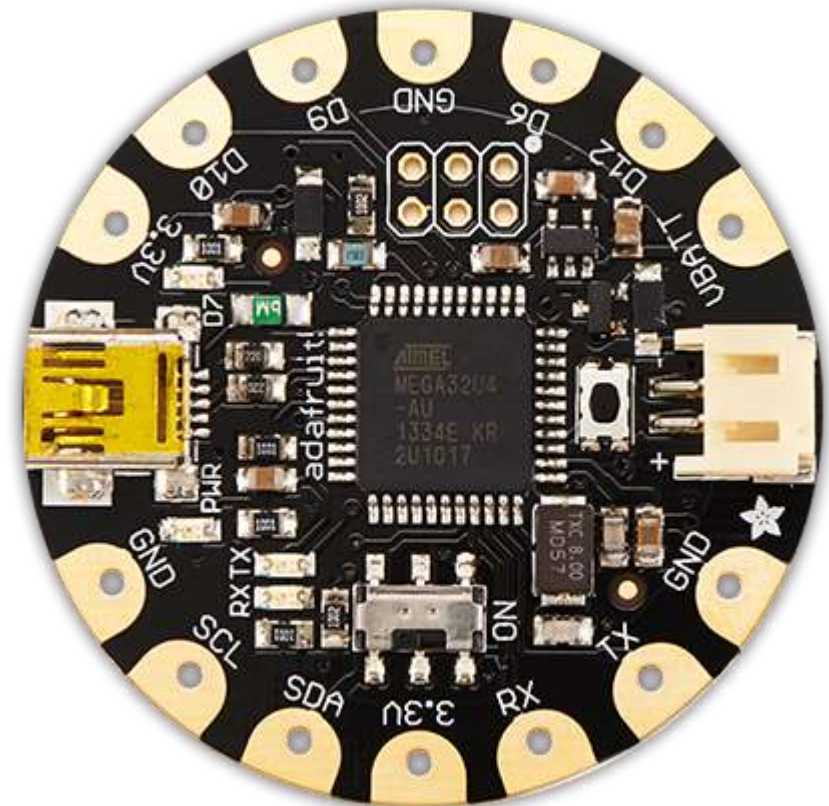
- You are a drone company building solutions to help the city's police force with traffic management.
- Problem – City police are severely understaffed and the traffic situation in cities is getting worse with the number of vehicles on the road increasing on a daily basis. Rash driving which adds to the chaos and exacerbates bad traffic conditions is rampant.
- Solution – Your intelligent drone fleet provides an eye in the sky. It can track traffic violators and capture videos and images of their license plates, to be used to book the drivers for said violations or used as evidence in more serious crimes like hit and run cases. Drones are also equipped with GPS and connectivity too.

# Case 9 - Connected Sports Stadium

- You run a cricket stadium and are exploring the use of technology to improve fan engagement during matches.
- Problem – Watching match on TV is a good experience, bolstered with a clear view of the game, different angles, action replays, engaging commentary, interesting statistics, etc. How can the stadium be radically improved to make the in-stadium experience significantly better than the TV experience, excite fans and generate greater revenues?
- Solution – You have fitted out your audience stands with various electronics such as motion sensors, sound sensors, input device at each seat, displays, etc, and you also have an in-stadium smart phone app. You use these to collect data in real time and engage audience in games such as which section cheers the loudest, quiz contests in which prizes (like team merchandise) are brought to the winner's seat, stats like which cricketer's name was chanted the most, request historical stats and replays on the displays and/or phone, etc.

# Next Steps for You

- Explore more business challenges
  - Problems that IoT solves
  - Solution features
  - Marketing models
  - Profitability
- Drive IoT adoption in your organisation!
- Volunteer at IoTBLR
- Follow IoTBLR
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  - [www.meetup.com/IoTBLR](http://www.meetup.com/IoTBLR)
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