

Wireless Power Market Overview

- A brief update by Wired & Wireless Technologies (WAWT)

Webinar hosted by WCA (Wireless Communications Alliance)

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Source: WAWT's [Wireless Power Intelligence Service](#)

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Contents

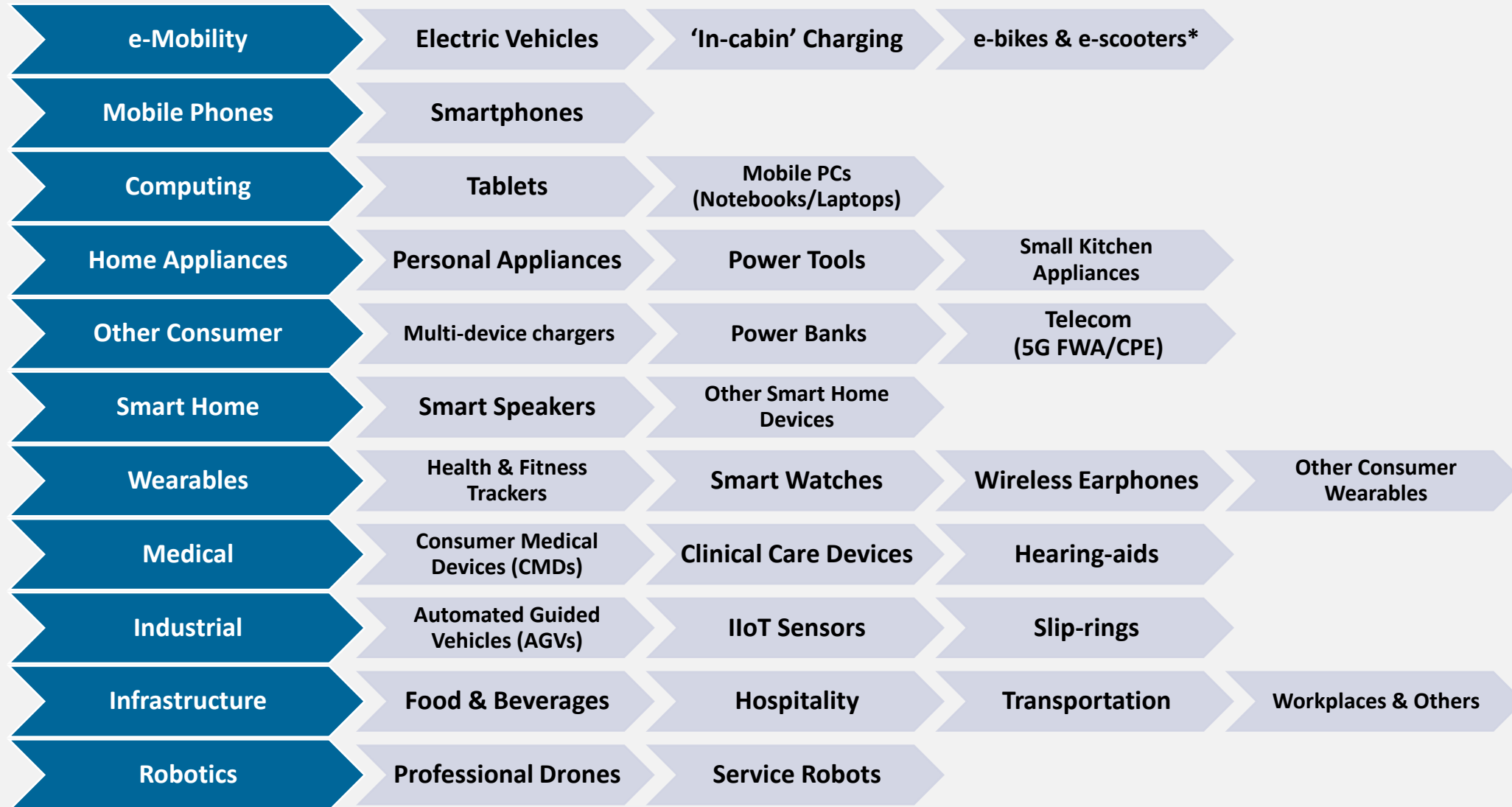
- About Wired & Wireless Technologies ([WAWT](#))
- Wireless Power Technology Landscape
- Wireless Power Technology – Application roll-out
- Wireless Power Market Opportunity



About WAWT


- **Wired & Wireless Technologies (WAWT)** is a strategic technology analyst and a consultancy firm.
 - We deliver **Research, Insights and Strategy**.
 - **WAWT** was founded and supported by **Our Believers** (our clients).
 - Backed by our **thorough research and analysis practises**.
 - Our **SME** operate as '**Trusted Advisors**' and act as '**Strategic Business Partners**' to our clients.
- Our current **Core Expertise** areas include **Wireless Power, Power Supplies, EV Charging Infrastructure** markets.
- Our SMEs (**Subject Matter Experts**) have extensive **knowledge and expertise** and are **well networked** in the industry.
- Our Vision: "To be the **Most Trustworthy and Sought-After Analyst Firm** in the areas we excel".
- Visit www.wawt.tech to know more about us and Follow ([WAWT](#)) on LinkedIn for latest news, insights and market trends.

Wireless Power Market: Our research coverage (30+ applications)



Wireless power technology landscape



Wireless power market continues to evolve with more technology solutions being available catering to the application-specific needs

Frequency class	Low frequency			High frequency	Uncoupled 'Distance' Charging
Power transfer type	Magnetic Induction				
Description	"Tightly coupled"				
Regulatory / Standard Body					
Standard name/type	Qi & Ki + Other Proprietary				
Key Applications	Smartphones, Smart watches, Wireless earphones, Power tools, Small cordless kitchen appliances, 5G, Automotive 'in-cabin', AGVs, Electric toothbrushes, e-bikes/e-scooters, Reverse charging				
Power Classes	(Low) 5W-15W	(Med) 30W-65W	(High) 200W-2200W		

Source: WAWT

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Wireless power market continues to evolve with more technology solutions being available catering to the application-specific needs

Frequency class	Low frequency			High frequency			Uncoupled 'Distance' Charging
Power transfer type	Magnetic Induction			Magnetic Resonance			
Description	"Tightly coupled"			'Loosely coupled'.			
Regulatory / Standard Body				 Society of Automotive Engineers (SAE)			
Standard name/type	Qi & Ki + Other Proprietary			SAE specification for EVs			
Key Applications	Smartphones, Smart watches, Wireless earphones, Power tools, Small cordless kitchen appliances, 5G, Automotive 'in-cabin', AGVs, Electric toothbrushes, e-bikes/e-scooters, Reverse charging			Electric Vehicles (EVs) And possibly other consumer applications			
Power Classes	(Low) 5W-15W	(Med) 30W-65W	(High) 200W-2200W	3 kW	6 kW	11 kW	

Source: WAWT

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Frequency class	Low frequency						High frequency			Uncoupled 'Distance' Charging
Power transfer type	Magnetic Induction			Magnetic Resonance			Magnetic Resonance			
Description	"Tightly coupled"			'Loosely coupled'.			"Loosely coupled"			
Regulatory / Standard Body				 Society of Automotive Engineers (SAE)						
Standard name/type	Qi & Ki + Other Proprietary			SAE specification for EVs			AirFuel Resonance (AFA) + Other Proprietary			
Key Applications	Smartphones, Smart watches, Wireless earphones, Power tools, Small cordless kitchen appliances, 5G, Automotive 'in-cabin', AGVs, Electric toothbrushes, e-bikes/e-scooters, Reverse charging			Electric Vehicles (EVs) And possibly other consumer applications			Public Places, Laptops, Wearables, Robots, Drones, AGVs, 5G, e-bikes/e-scooters			
Power Classes	(Low) 5W-15W	(Med) 30W-65W	(High) 200W-2200W	3 kW	6 kW	11 kW	0W-50W (AFA)	50W-100W (AFA)	100W-3000W (Proprietary)	

Source: WAWT

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Wireless power market continues to evolve with more technology solutions being available catering to the application-specific needs

Frequency class	Low frequency			High frequency			Uncoupled 'Distance' Charging					
Power transfer type	Magnetic Induction			Magnetic Resonance			Magnetic Resonance			NFC wireless charging		
Description	"Tightly coupled"			'Loosely coupled'.			"Loosely coupled"			"Loosely coupled"		
Regulatory / Standard Body				 Society of Automotive Engineers (SAE)								
Standard name/type	Qi & Ki + Other Proprietary			SAE specification for EVs			AirFuel Resonance (AFA) + Other Proprietary			NFC Charging		
Key Applications	Smartphones, Smart watches, Wireless earphones, Power tools, Small cordless kitchen appliances, 5G, Automotive 'in-cabin', AGVs, Electric toothbrushes, e-bikes/e-scooters, Reverse charging			Electric Vehicles (EVs) And possibly other consumer applications			Public Places, Laptops, Wearables, Robots, Drones, AGVs, 5G, e-bikes/e-scooters,			Small battery-powered consumer devices. Smart Glasses, Fitness Trackers, Hearing-aids, Wireless Earphones, Wearables, Digital Stylus Pen		
Power Classes	(Low) 5W-15W	(Med) 30W-65W	(High) 200W-2200W	3 kW	6 kW	11 kW	0W-50W (AFA)	50W-100W (AFA)	100W-3000W (Proprietary)	NFC <2W		

Source: WAWT

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Wireless power market continues to evolve with more technology solutions being available catering to the application-specific needs





Frequency class	Low frequency			High frequency			Uncoupled 'Distance' Charging						
Power transfer type	Magnetic Induction		Magnetic Resonance	Magnetic Resonance		NFC wireless charging	Various (RF, ultrasound, infrared etc.)						
Description	"Tightly coupled"		'Loosely coupled'.	"Loosely coupled"		"Loosely coupled"	No coupling needed						
Regulatory / Standard Body			 Society of Automotive Engineers (SAE)				AirFuel Alliance (For RF)						
Standard name/type	Qi & Ki + Other Proprietary		SAE specification for EVs	AirFuel Resonance (AFA) + Other Proprietary		NFC Charging	AirFuel RF + Other Proprietary						
Key Applications	Smartphones, Smart watches, Wireless earphones, Power tools, Small cordless kitchen appliances, 5G, Automotive 'in-cabin', AGVs, Electric toothbrushes, e-bikes/e-scooters, Reverse charging		Electric Vehicles (EVs) And possibly other consumer applications	Public Places, Laptops, Wearables, Robots, Drones, AGVs, 5G, e-bikes/e-scooters,		Small battery-powered consumer devices. Smart Glasses, Fitness Trackers, Hearing-aids, Wireless Earphones, Wearables, Digital Stylus Pen	Infrastructure (Public Places), IIoT Sensors, Wearables, Hearables, Smart Home and Gaming devices, Smart Clothing, Medical Devices, Other consumer and industrial devices, Multi-mode systems...						
Power Classes	(Low) 5W-15W	(Med) 30W-65W	(High) 200W-2200W	3 kW	6 kW	11 kW	0W-50W (AFA)	50W-100W (AFA)	100W-3000W (Proprietary)	NFC <2W	Near-Field	Medium-Field	Far-field

Source: WAWT

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The wireless power technology market continues to evolve

- Technology advancement, extending power classes, new standards, new wireless power technology, regular entry of new players

Frequency class	Low frequency			High frequency			Uncoupled 'Distance' Charging						
Power transfer type	Magnetic Induction		Magnetic Resonance	Magnetic Resonance		NFC wireless charging	Various (RF, ultrasound, infrared etc.)						
Description	"Tightly coupled"		'Loosely coupled'.	"Loosely coupled"		"Loosely coupled"	No coupling needed						
Regulatory / Standard Body			 Society of Automotive Engineers (SAE)				AirFuel Alliance (For RF)						
Standard name/type	Qi & Ki + Other Proprietary		SAE specification for EVs	AirFuel Resonance (AFA) + Other Proprietary		NFC Charging	AirFuel RF + Other Proprietary						
Key Emerging applications	Smartphones, Smart watches, Wireless earphones, Power tools, Small cordless kitchen appliances, 5G, Automotive 'in-cabin', AGVs, Electric toothbrushes, e-bikes/e-scooters, Reverse charging		Electric Vehicles (EVs) And possibly other consumer applications	Public Places, Laptops, Wearables, Robots, Drones, AGVs, 5G, e-bikes/e-scooters,		Small battery-powered consumer devices. Smart Glasses, Fitness Trackers, Hearing-aids, Wireless Earphones, Wearables, Digital Stylus Pen	Infrastructure (Public Places), IIoT Sensors, Wearables, Hearables, Smart Home and Gaming devices, Smart Clothing, Medical Devices, Other consumer and industrial devices, Multi-mode systems...						
Power Evolving power classes	(Low) 5W-15W	(Med) 30W-65W	(High) 200W-2200W	3 kW	6 kW	11 kW	0W-50W (AFA)	50W-100W (AFA)	100W-3000W (Proprietary)	NFC <2W	Near-Field	Medium-Field	Far-field

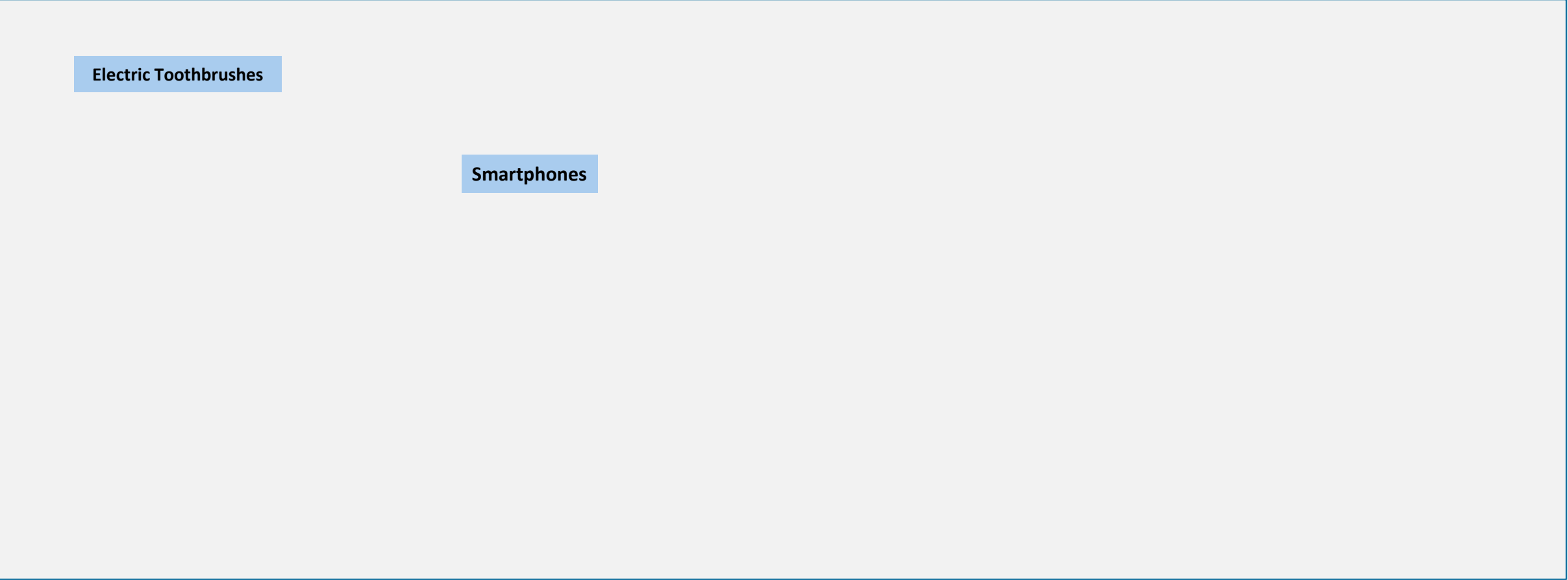
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Wireless power adoption expands beyond smartphones

Starting from Electric Toothbrushes and Smartphone applications

2016-2017 scenario

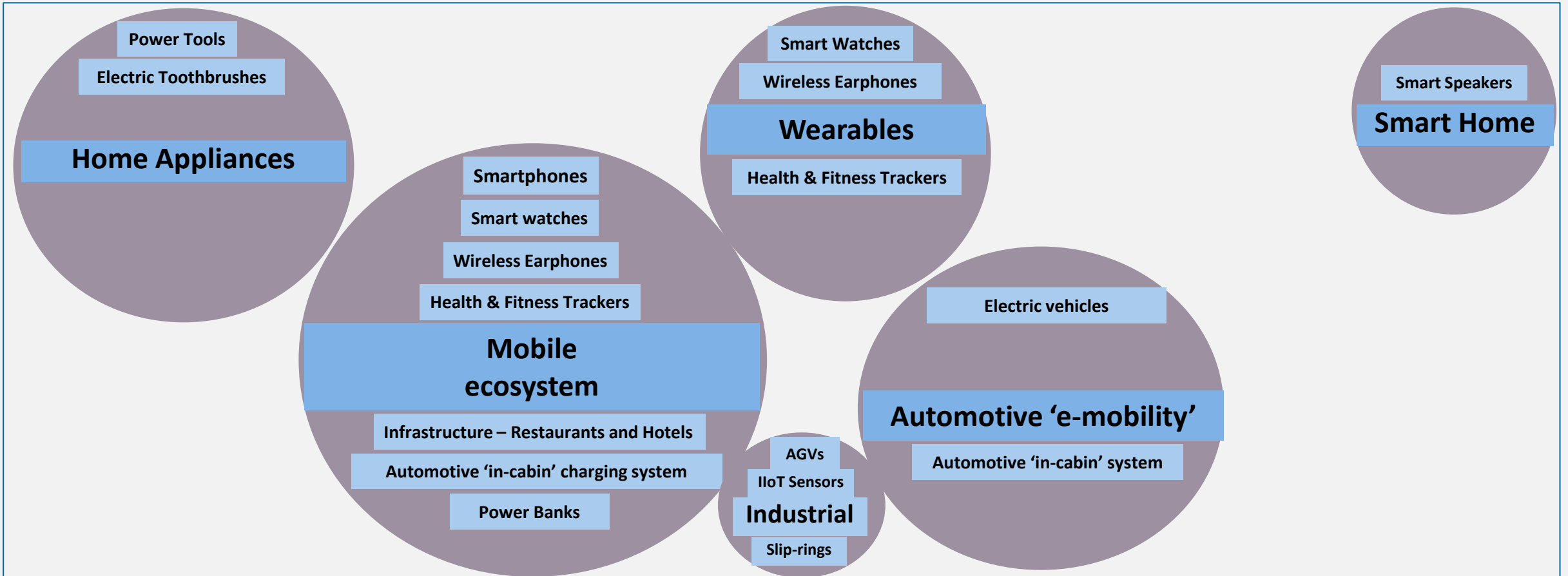


Electric Toothbrushes

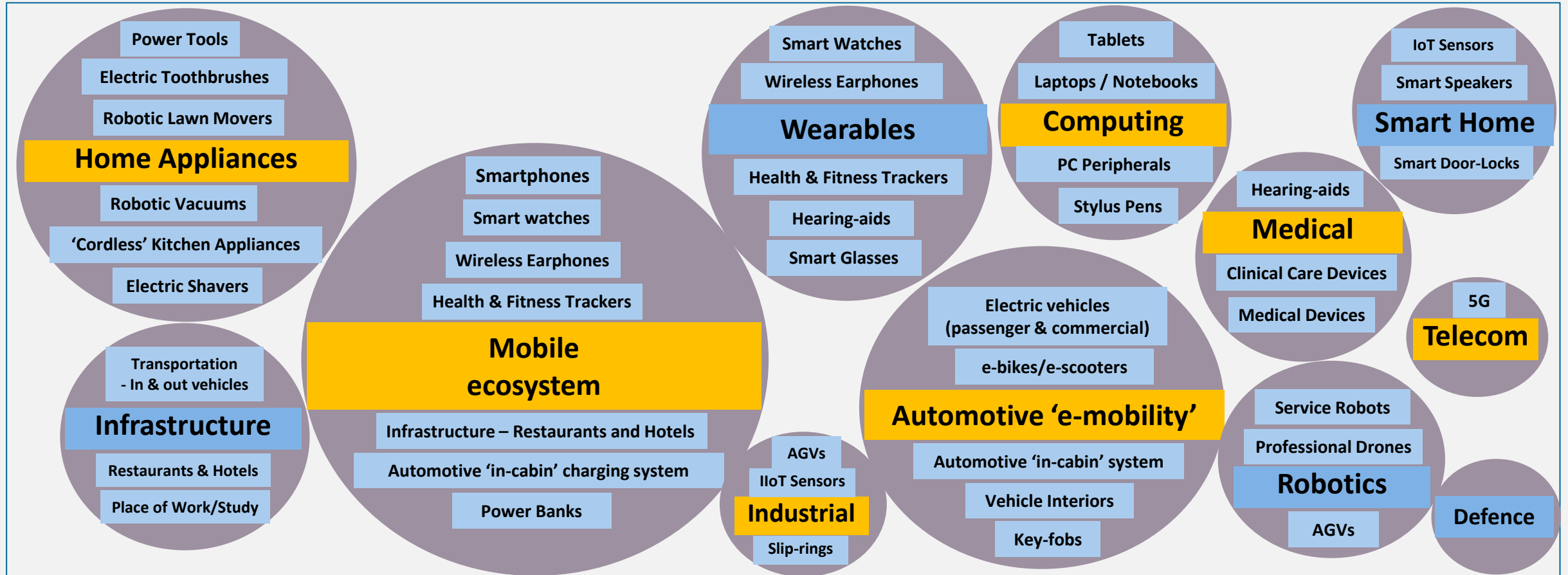
Smartphones

Smartphone drove adoption towards wider consumer applications and increased awareness and popularity of this technology

2019 scenario



Appliances, Computing, Automotive, Industrial and Medical sectors are expected to see more traction in coming two years



Wireless power market opportunity

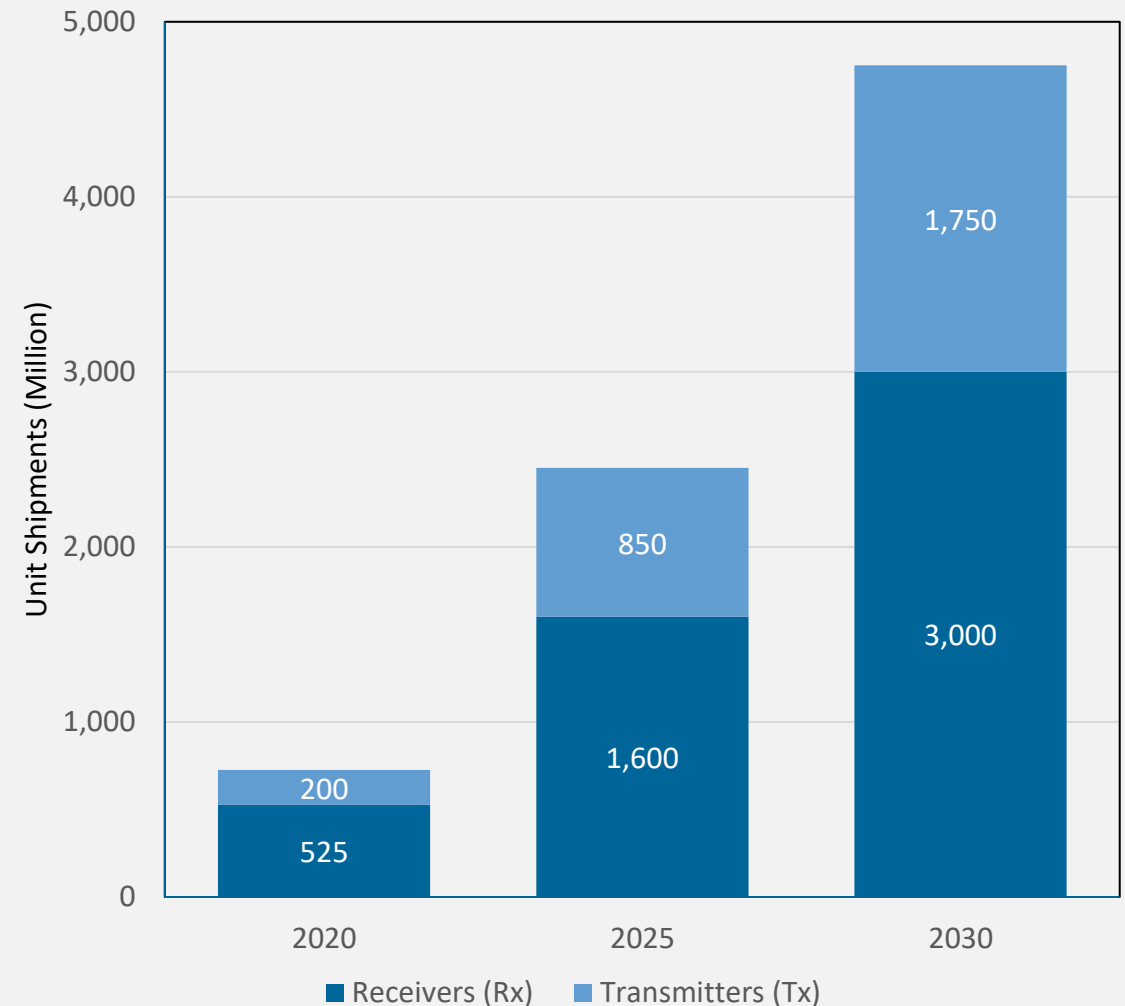
- Sizing the market

Total wireless power market

- Size of the opportunity

- The total wireless power receivers and transmitters (Rx+Tx) market is expected to grow from a projected **725 million units** in 2020 to **2.5 billion units** in 2025.
- **Smartphones, electric toothbrushes and smart watches** are currently the top three applications, in terms of unit shipments.
- In total, we expect around **7.75 billion units** of wireless power receivers (Rx) and transmitters (Tx) to be shipped in the next 5 years (2021 – 2025).
- The opportunity is **BIG!**

Global wireless power market (Rx & Tx)
– Unit shipments (Million)



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Thank you, stay safe and healthy



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