



Driving Big Data Platform Capabilities

*- collaboration between
standards and industry*

Liang Guang

Senior Standards Manager, Huawei Technologies

Industrial AI Task Group, IIC





Outline

- Needs of big data in vertical industries
- Big data activities in IIC
- Big data standardization
- Collaboration between standards and industry
- Conclusion and take-aways



Needs of big data in vertical industries

Transportation



Manufacturing



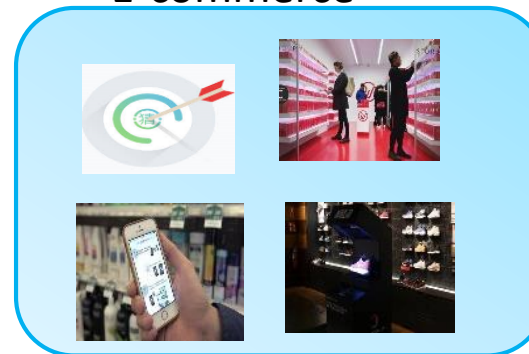
Finance



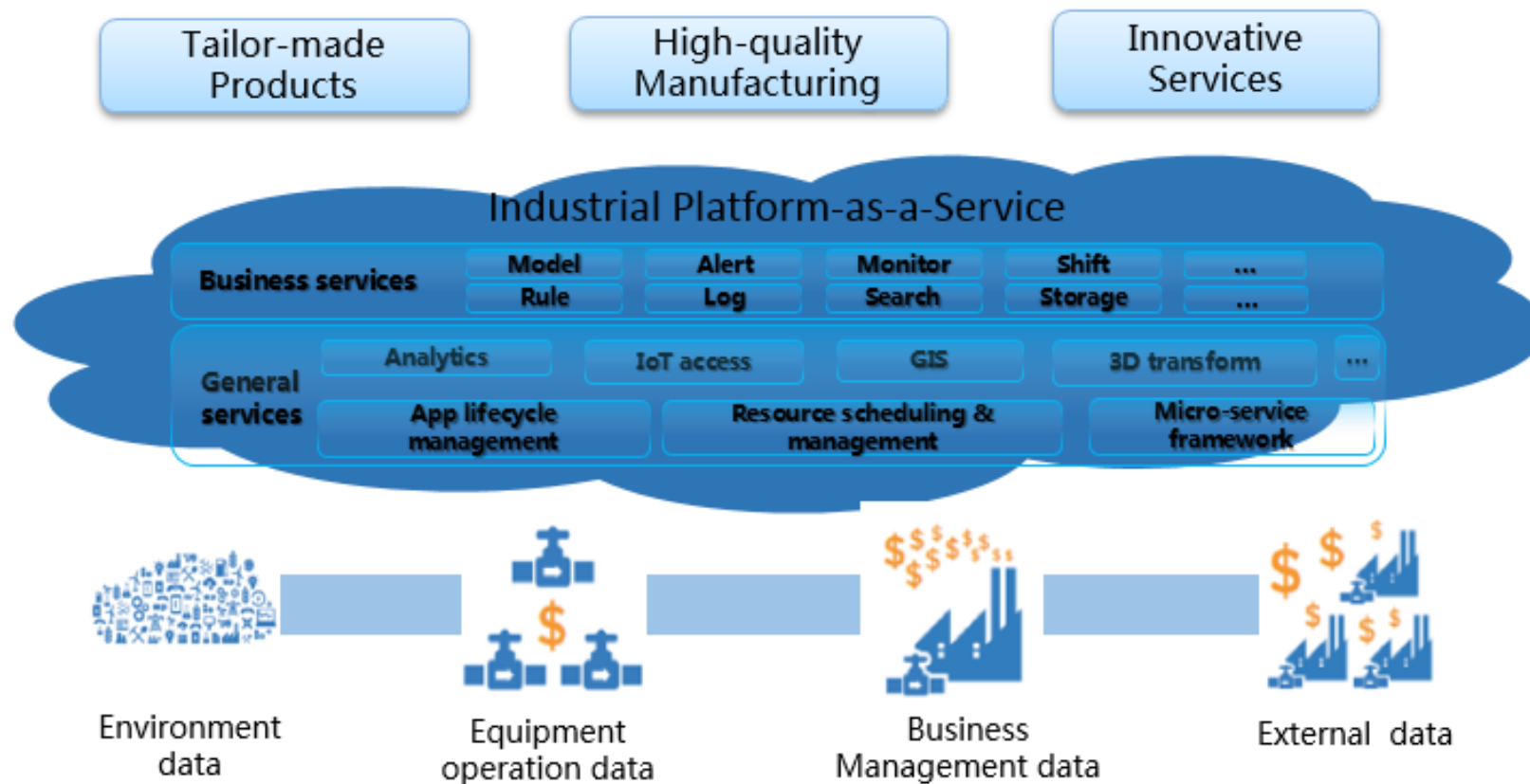
Healthcare



E-commerce



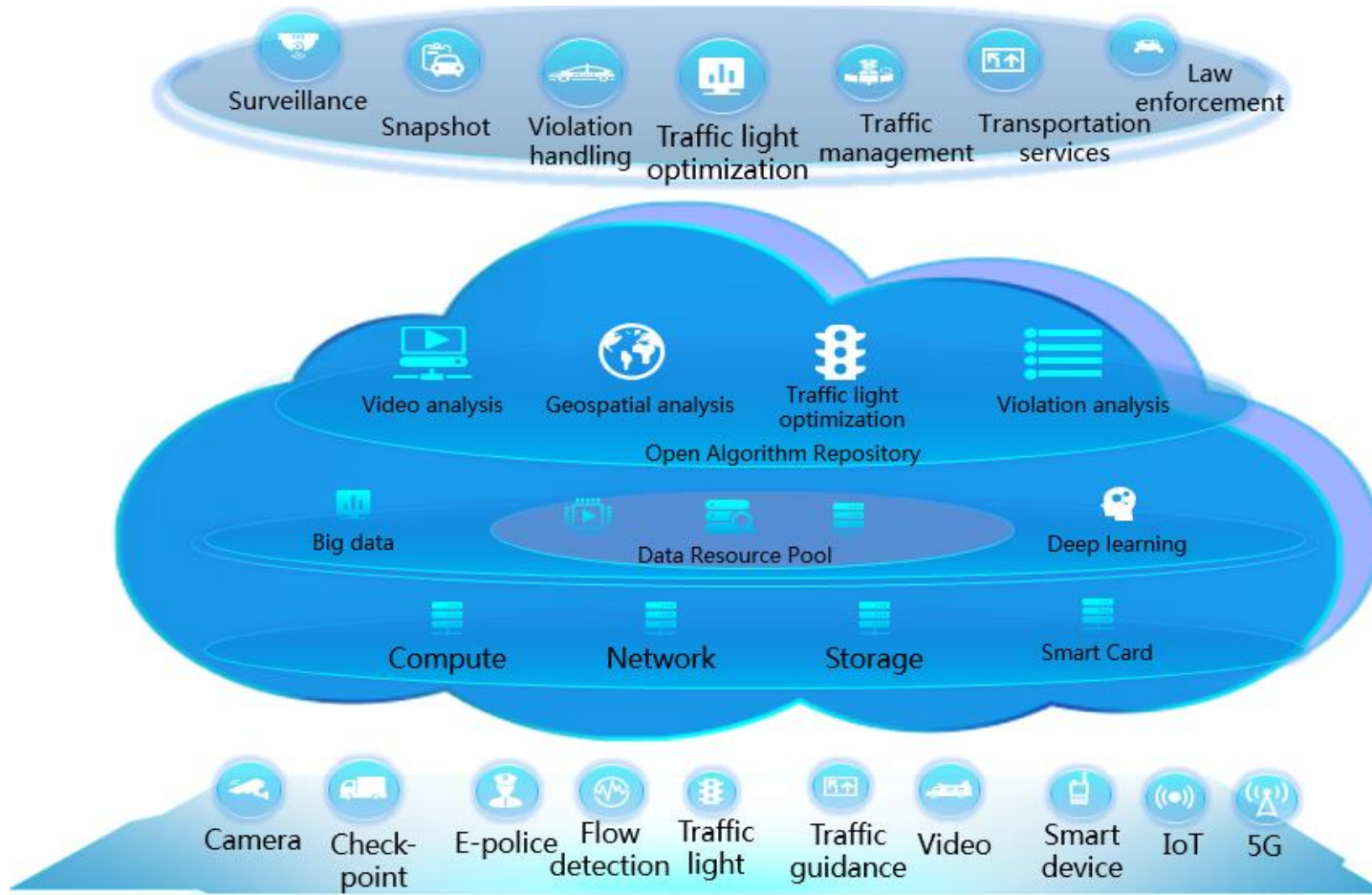
Manufacturing



- Data variety (sensor, factory machine, business process and external data)
- Diverse analyses: descriptive/predictive/prescriptive, real-time/batch, etc.
- Rapid service development and deployment



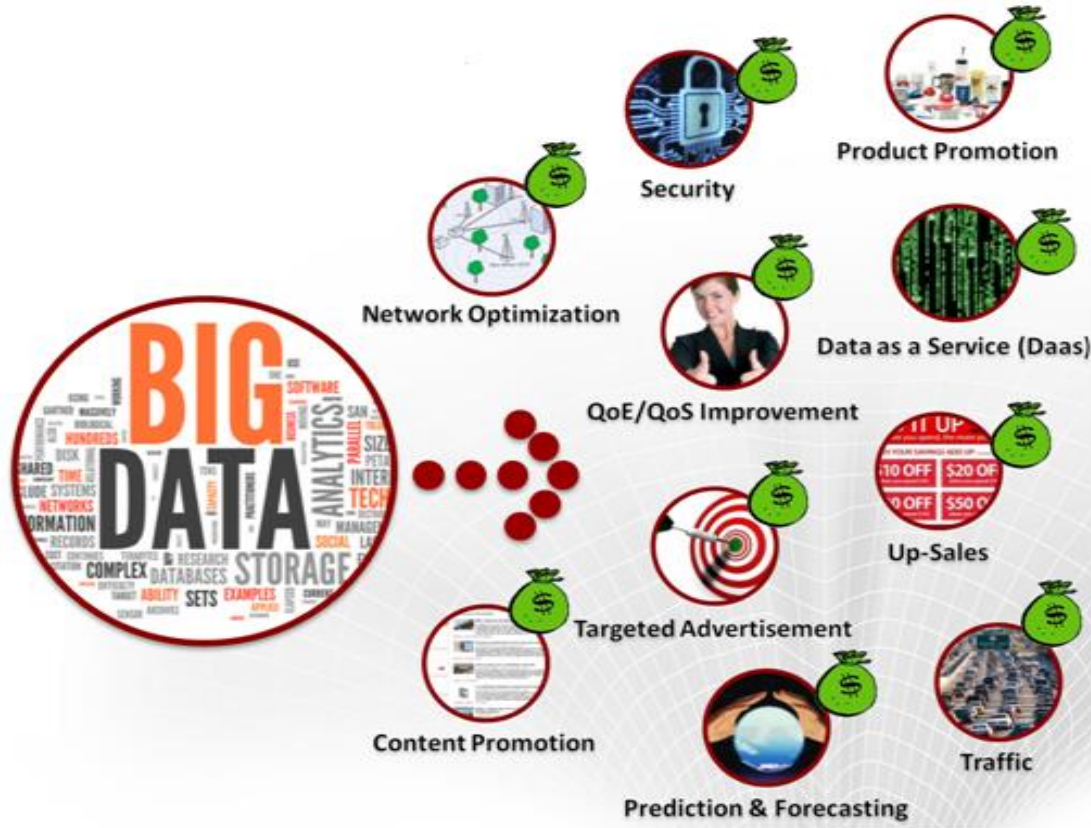
Transportation



- From “isolated islands” to converged infrastructure
- Data sharing and centralized management
- Service platform to host various applications



Finance



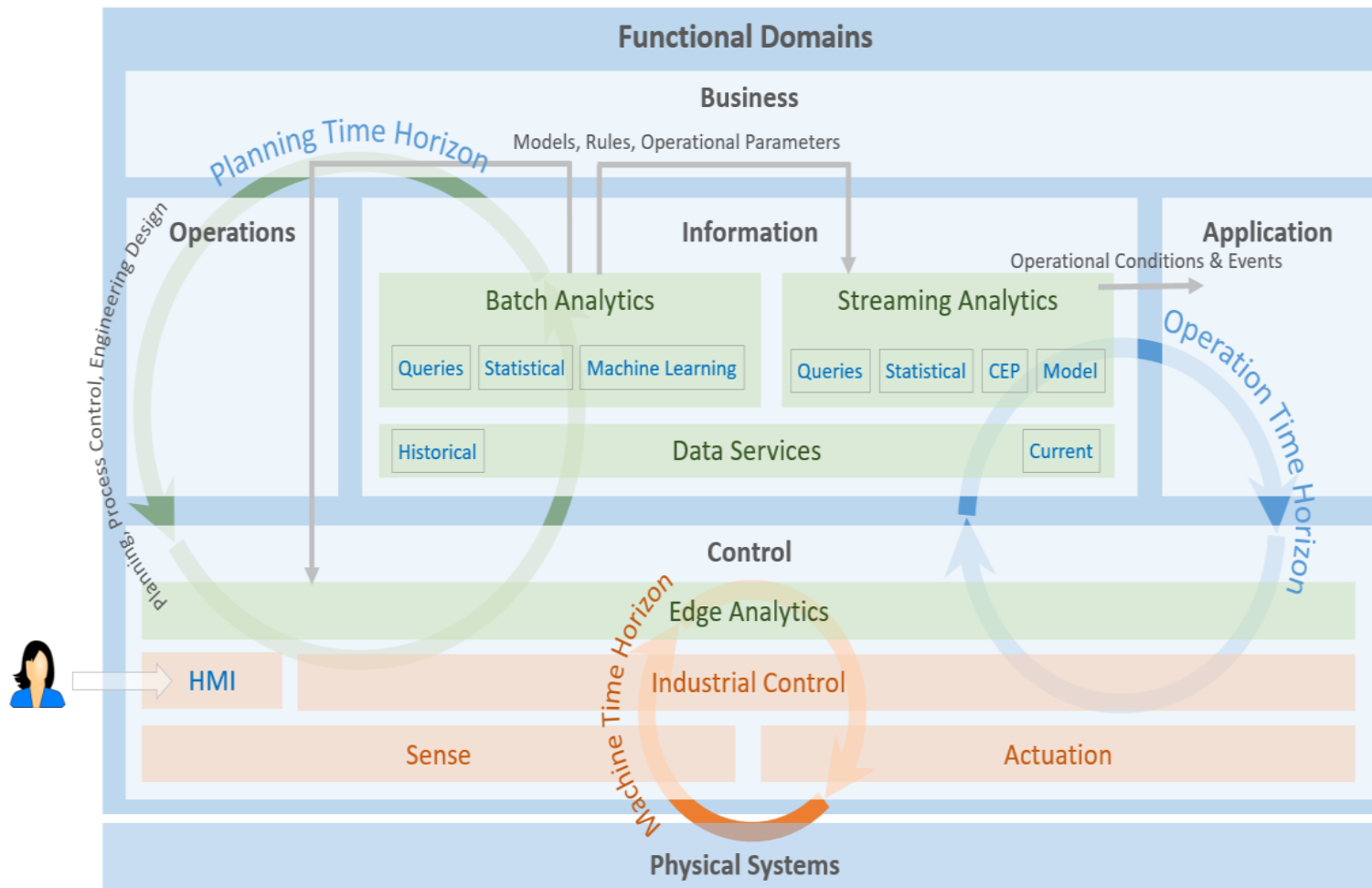
- Performance bottleneck of scale-up architecture
- Larger proportion of unstructured data
- Real-time/stream processing (risk management, anti-fraud etc.)



Big data activities in IIC

Industrial AI Task Group

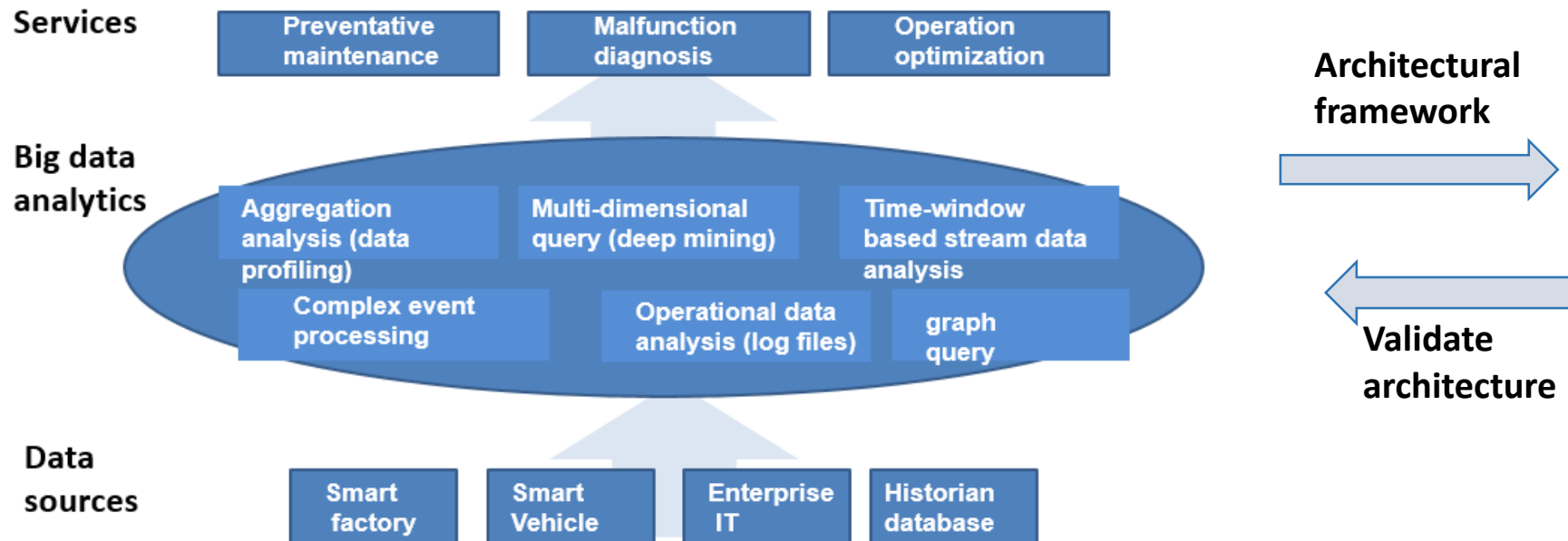
- Industrial Analytics Whitepaper
- Industrial Internet of Things Analytics Framework
- Industrial AI whitepaper (in drafting)





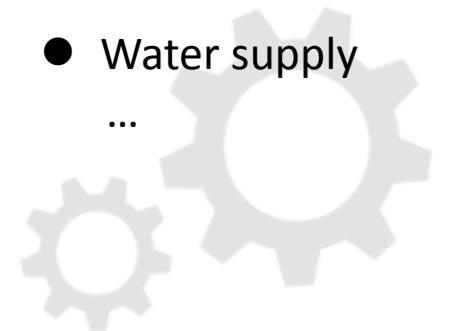
Big data activities in IIC

Industrial Internet of Things Analytics Framework (IIAF)



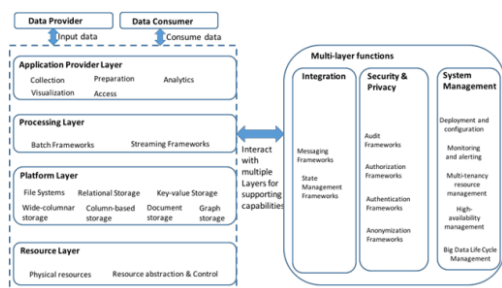
Testbeds

- Manufacturing quality management
- Energy & microgrid
- Crop management
- Water supply
- ...

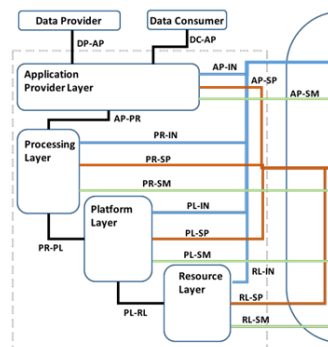


Big data standardization

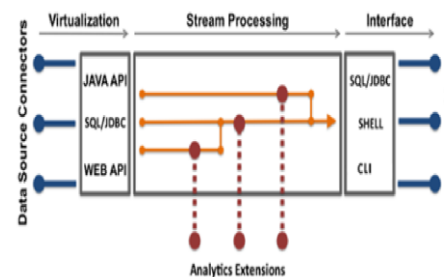
Reference architecture



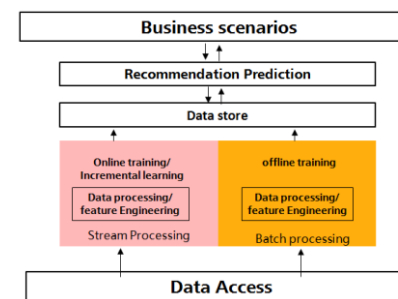
Connectivity



Query language



Use case

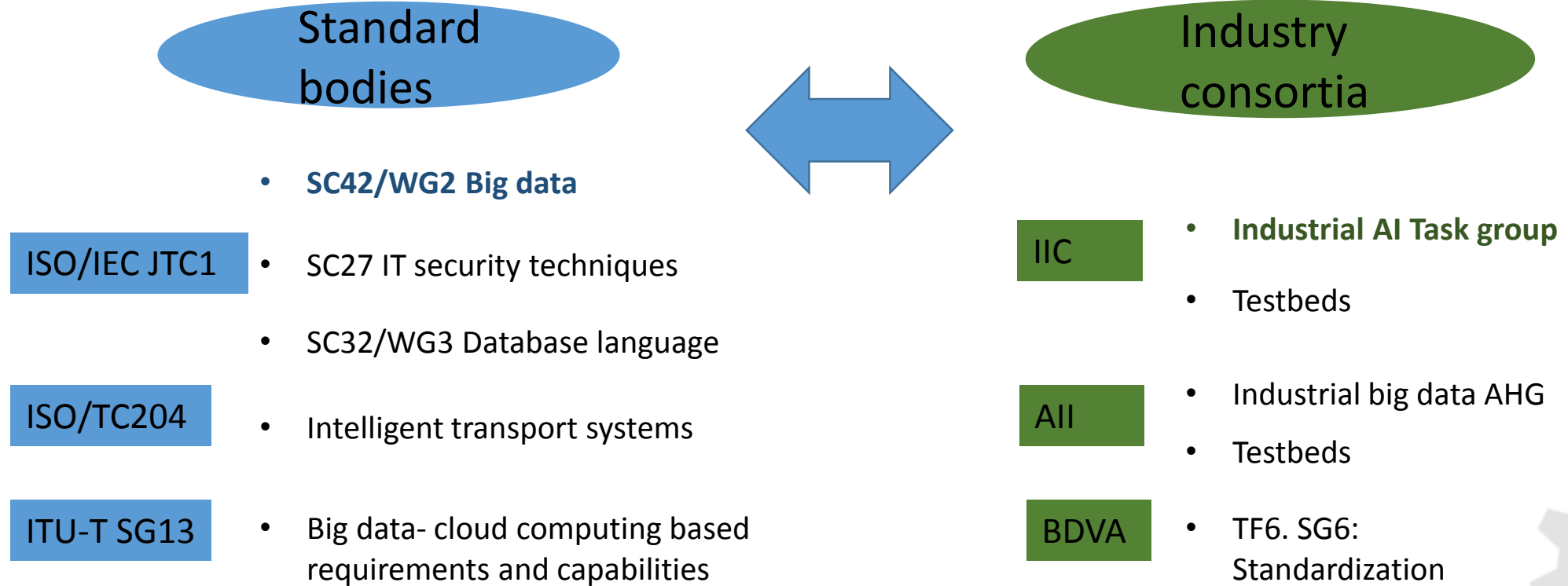


Standards roadmap

Standard Name / Number	Description	ISO	IEC	ITU	ISO/IEC JTC1	ISO/IEC JTC2	ISO/IEC JTC3	ISO/IEC JTC4	ISO/IEC JTC5	ISO/IEC JTC6	ISO/IEC JTC7	ISO/IEC JTC8	ISO/IEC JTC9	ISO/IEC JTC10	ISO/IEC JTC11	ISO/IEC JTC12	ISO/IEC JTC13	ISO/IEC JTC14	ISO/IEC JTC15	ISO/IEC JTC16	ISO/IEC JTC17	ISO/IEC JTC18	ISO/IEC JTC19	ISO/IEC JTC20	ISO/IEC JTC21	ISO/IEC JTC22	ISO/IEC JTC23	ISO/IEC JTC24	ISO/IEC JTC25	ISO/IEC JTC26	ISO/IEC JTC27	ISO/IEC JTC28	ISO/IEC JTC29	ISO/IEC JTC30	ISO/IEC JTC31	ISO/IEC JTC32	ISO/IEC JTC33	ISO/IEC JTC34	ISO/IEC JTC35	ISO/IEC JTC36	ISO/IEC JTC37	ISO/IEC JTC38	ISO/IEC JTC39	ISO/IEC JTC40	ISO/IEC JTC41	ISO/IEC JTC42	ISO/IEC JTC43	ISO/IEC JTC44	ISO/IEC JTC45	ISO/IEC JTC46	ISO/IEC JTC47	ISO/IEC JTC48	ISO/IEC JTC49	ISO/IEC JTC50	ISO/IEC JTC51	ISO/IEC JTC52	ISO/IEC JTC53	ISO/IEC JTC54	ISO/IEC JTC55	ISO/IEC JTC56	ISO/IEC JTC57	ISO/IEC JTC58	ISO/IEC JTC59	ISO/IEC JTC60	ISO/IEC JTC61	ISO/IEC JTC62	ISO/IEC JTC63	ISO/IEC JTC64	ISO/IEC JTC65	ISO/IEC JTC66	ISO/IEC JTC67	ISO/IEC JTC68	ISO/IEC 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JTC797	ISO/IEC JTC798	ISO/IEC JTC799	ISO/IEC JTC800	ISO/IEC JTC801	ISO/IEC JTC802	ISO/IEC JTC803	ISO/IEC JTC804	ISO/IEC JTC805	ISO/IEC JTC806	ISO/IEC JTC807	ISO/IEC JTC808	ISO/IEC JTC809	ISO/IEC JTC810	ISO/IEC JTC811	ISO/IEC JTC812	ISO/IEC JTC813	ISO/IEC JTC814	ISO/IEC JTC815	ISO/IEC JTC816	ISO/IEC JTC817	ISO/IEC JTC818	ISO/IEC JTC819	ISO/IEC JTC820	ISO/IEC JTC821	ISO/IEC JTC822	ISO/IEC JTC823	ISO/IEC JTC824	ISO/IEC JTC825	ISO/IEC JTC826	ISO/IEC JTC827	ISO/IEC JTC828	ISO/IEC JTC829	ISO/IEC JTC830	ISO/IEC JTC831	ISO/IEC JTC832	ISO/IEC JTC833	ISO/IEC JTC834	ISO/IEC JTC835	ISO/IEC JTC836	ISO/IEC JTC837	ISO/IEC JTC838	ISO/IEC JTC839	ISO/IEC JTC840	ISO/IEC JTC841	ISO/IEC JTC842	ISO/IEC JTC843	ISO/IEC JTC844	ISO/IEC JTC845	ISO/IEC JTC846	ISO/IEC JTC847	ISO/IEC JTC848	ISO/IEC JTC849	ISO/IEC JTC850	ISO/IEC JTC851	ISO/IEC JTC852	ISO/IEC JTC853	ISO/IEC JTC854	ISO/IEC JTC855	ISO/IEC JTC856	ISO/IEC JTC857	ISO/IEC JTC858	ISO/IEC JTC859	ISO/IEC JTC860	ISO/IEC JTC861	ISO/IEC JTC862	ISO/IEC JTC863	ISO/IEC JTC864	ISO/IEC JTC865	ISO/IEC JTC866	ISO/IEC JTC867	ISO/IEC JTC868	ISO/IEC JTC869	ISO/IEC JTC870	ISO/IEC JTC871	ISO/IEC JTC872	ISO/IEC JTC873	ISO/IEC JTC874	ISO/IEC JTC875	ISO/IEC JTC876	ISO/IEC JTC877	ISO/IEC JTC878	ISO/IEC JTC879	ISO/IEC JTC880	ISO/IEC JTC881	ISO/IEC JTC882	ISO/IEC JTC883	ISO/IEC JTC884	ISO/IEC JTC885	ISO/IEC JTC886	ISO/IEC JTC887	ISO/IEC JTC888	ISO/IEC JTC889	ISO/IEC JTC8
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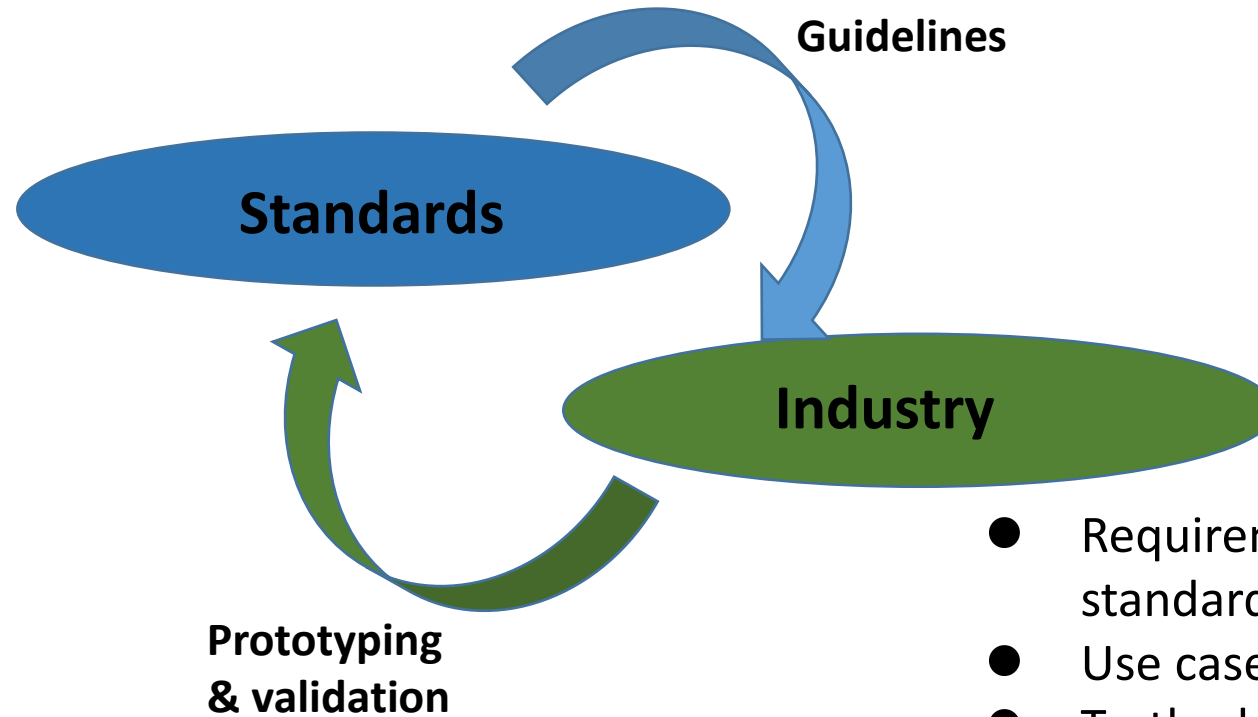
Collaboration between standards and industry





Collaboration between standards and industry

- Reference architecture
- Baseline capabilities
- Best practices



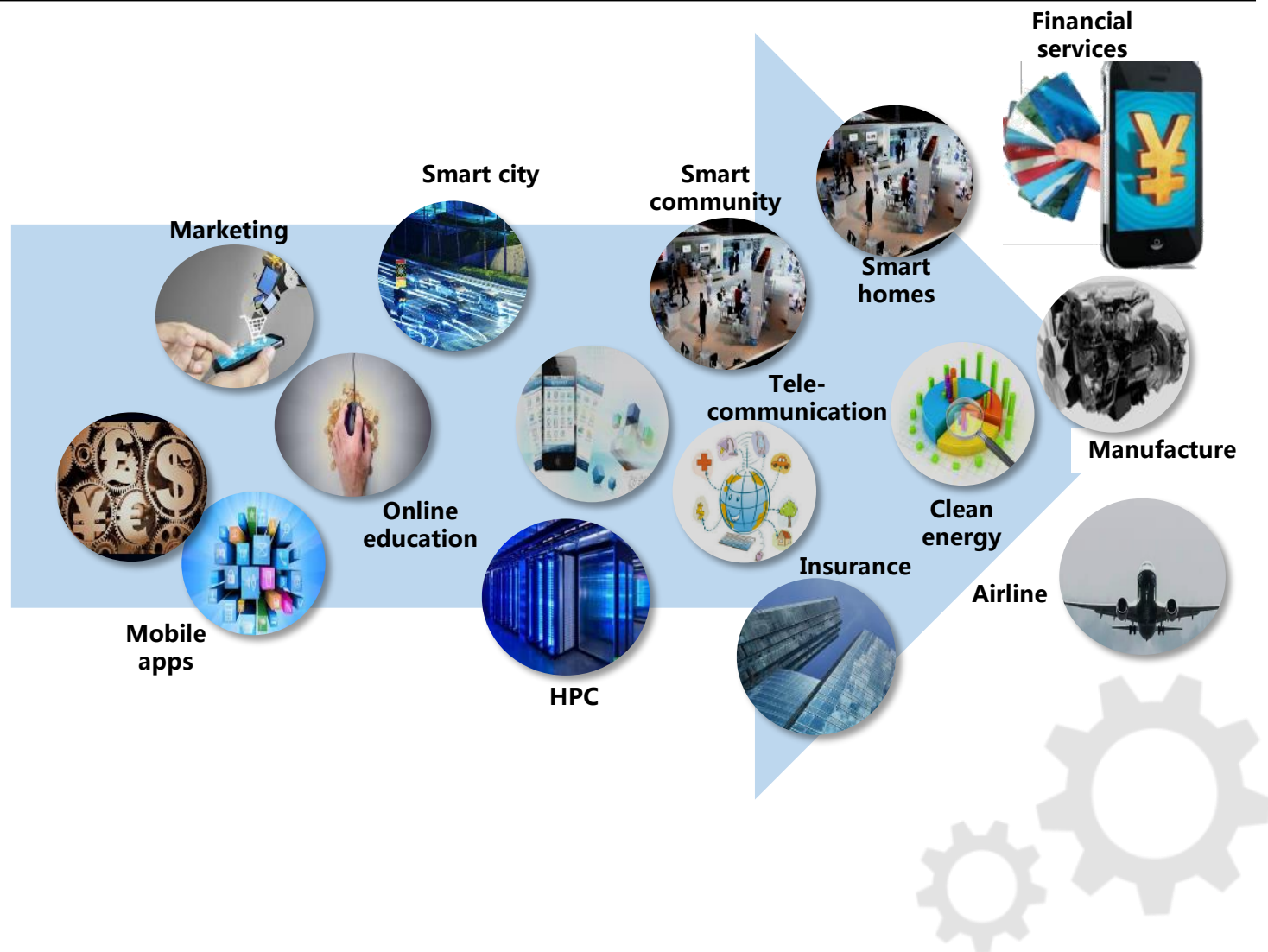
- Requirements and standard needs
- Use cases
- Testbeds



Conclusion and Take-Aways

Standards and industrial efforts need to work together on driving big data platform

- ➡ Broad spectrum of analytics
- ➡ Converged and elastic infrastructure
- ➡ Rapid service deployment





Thank You!

