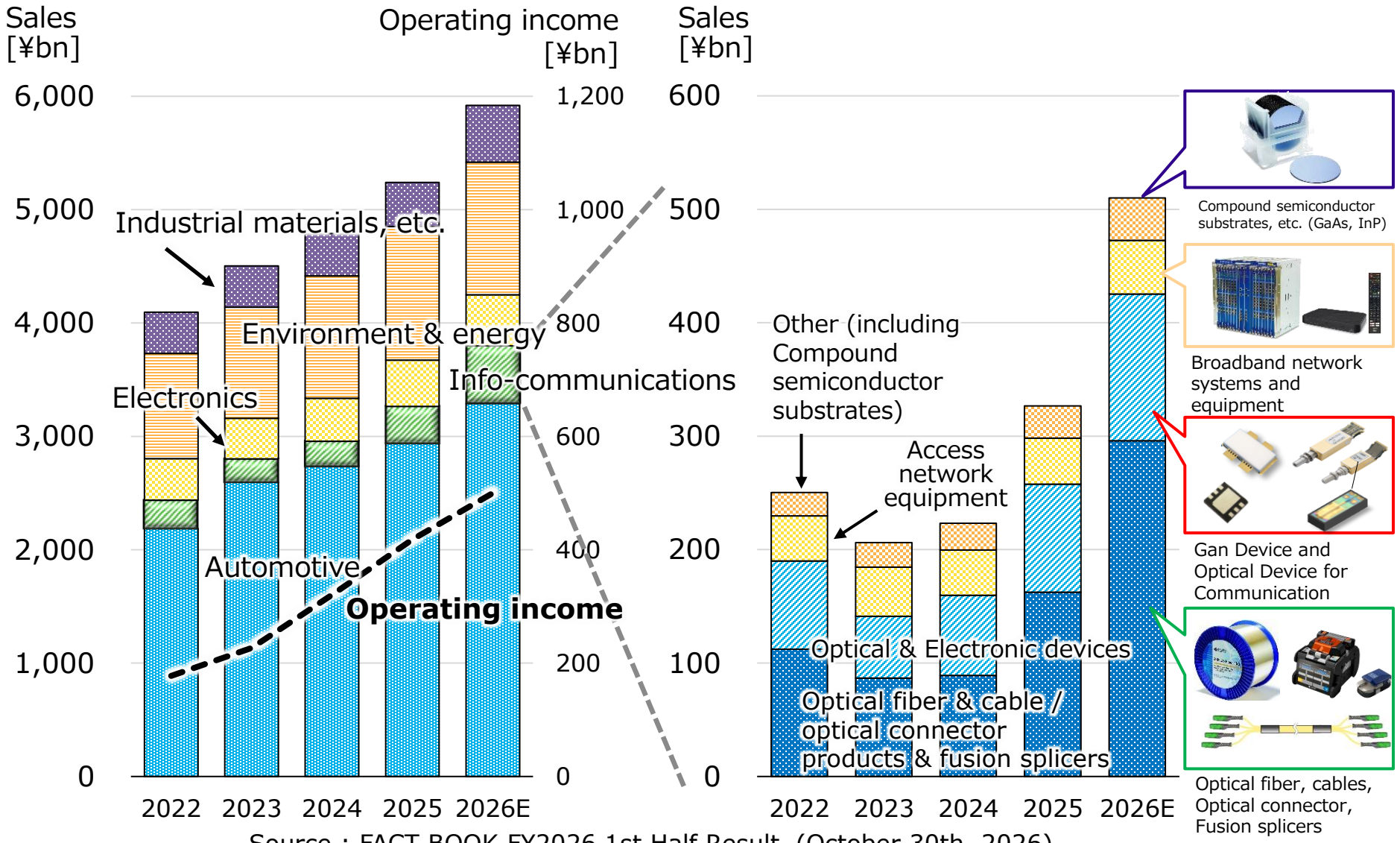
SUMITOMO ELECTRIC
Connect with Innovation

[Info-communications]
Growth strategy of data center-related business

Sumitomo Electric Industries, Ltd.
November 12, 2026

SUMITOMO ELECTRIC GROUP

Sales by Business Segment



Source : FACT BOOK FY2026 1st Half Result (October 30th, 2026)
https://sumitomoelectric.com/ir/library

Sumitomo Electric Products in the Data Center (DC) Market

Optical device-related products

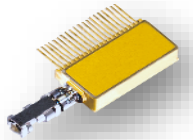
Optical fiber-related products

Submarine cable network (DC intercontinental connection)
Thousands of kilometers

Trunk network / Metro network
80-1,200km

Optical fiber for submarine cables/amplifier

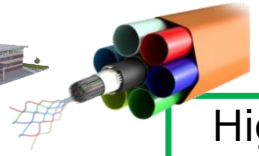
Tunable LD





Coherent transceiver

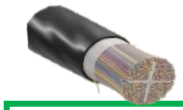
DC interconnect
<120km



High fiber density optical cables for air blown installation (DC interconnect)



DC inter building
<10km



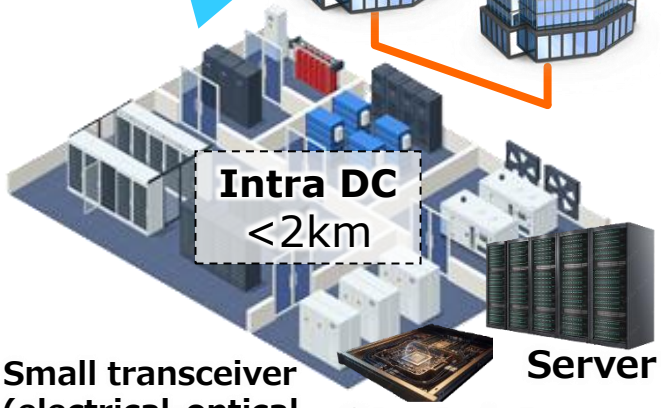
Ultra-high fiber-count optical cable



Fusion splicer

InP, GaAs substrate

CW LD
(light source for Si-Photonics)



Intra DC
<2km

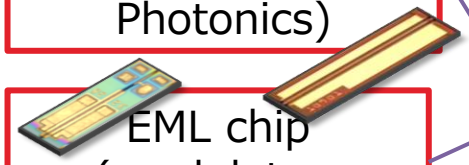
Server

Server tray





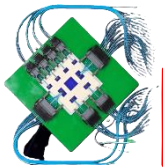




EML chip
(modulator-integrated laser)

Small transceiver (electrical-optical conversion)





CPO/NPO-related components

Photoelectric Conversion

High-density optical connector products (intra-DC)

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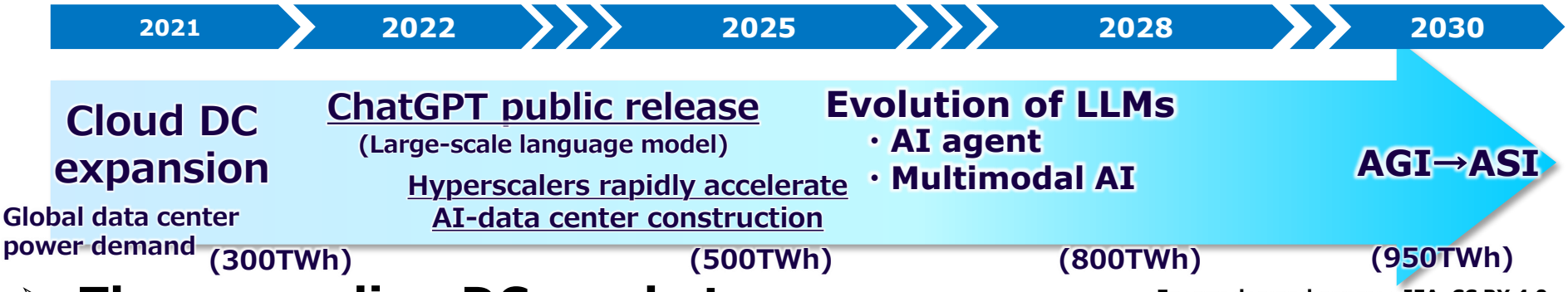
Changes in DC Market Growth Outlook Toward 2030

➢ **Dynamic changes in DC market driven by generative AI continue**

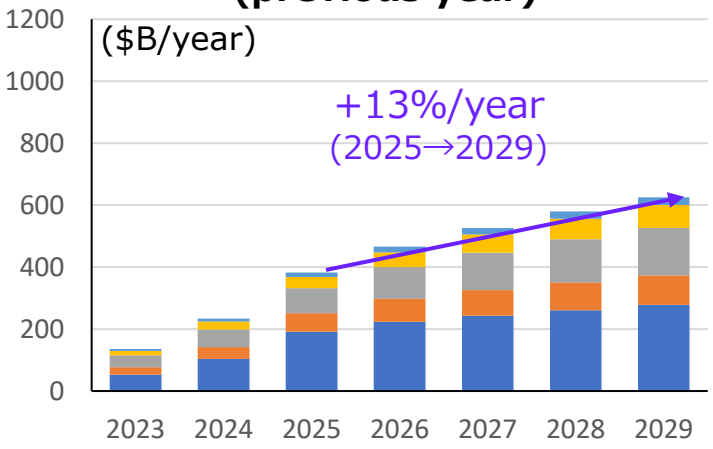


Energy demand source : IEA. CC BY 4.0

➢ **The expanding DC market**

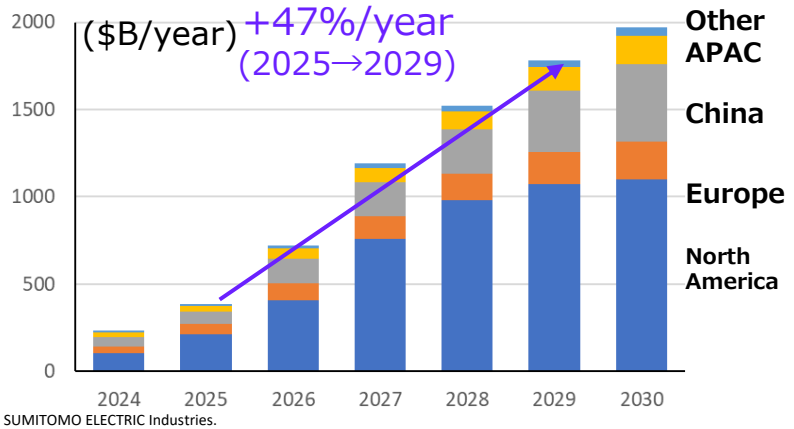
Generative AI-driven DC construction has accelerated further compared to last year, demand for related products increases significantly.

Server purchase amount forecast for 2025 (previous year)



Growth rate since 2025
+13% → +47%

Server purchase amount forecast for 2026



The graph was created by SUMITOMO ELECTRIC Industries based on Gartner research. The figures shown here were calculated by SUMITOMO ELECTRIC Industries.
Source : (Graph on the left : 2025) Gartner®, Forecast: Servers, Worldwide, 2023-2029, 3Q25 Update, Adrian O' Connell et al., 26 September 2025, End-User Spending basis (This research provides a historical snapshot in time.)
(Graph on the right : 2026) Gartner®, Forecast: Servers, Worldwide, 2024-2030, 3Q26, Adrian O' Connell et al., 17 September 2026 End-User Spending basis
APAC : Japan + Mature & Emerging Asia/Pacific, Other : Latin America + Middle East and North Africa + Sub Saharan Africa

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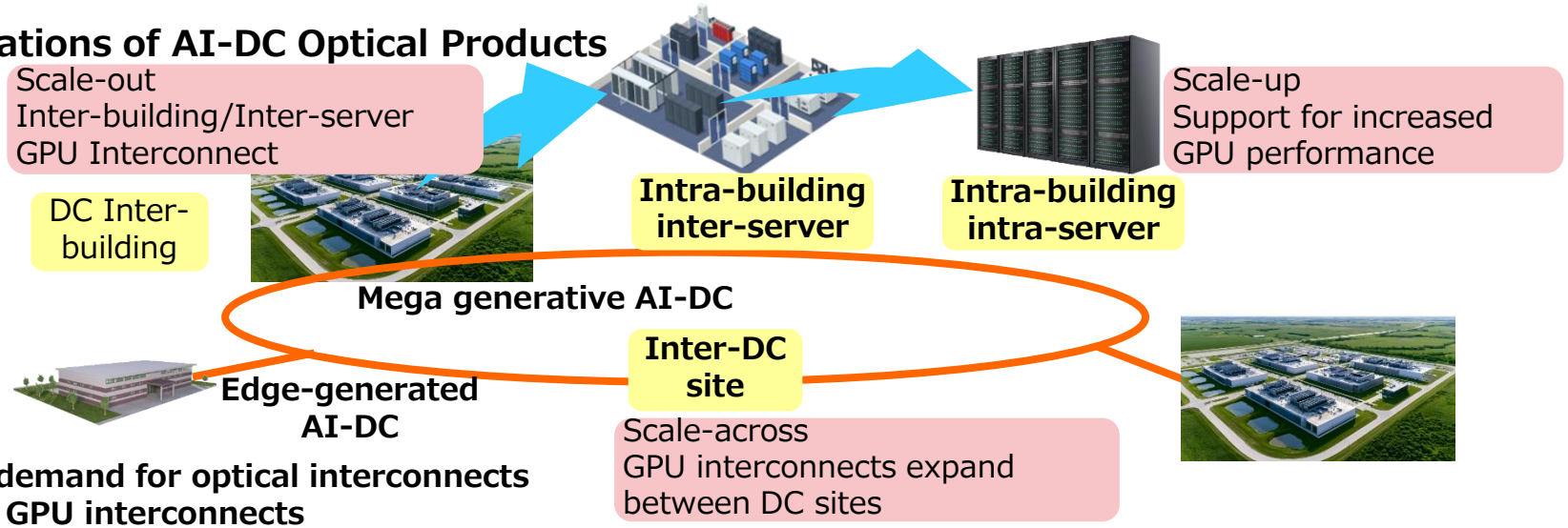
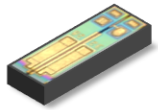
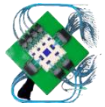
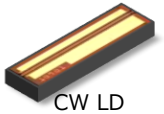
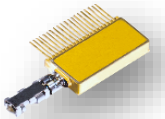
Trends in Optical-related Products for DCs

■ Applications of AI-DC Optical Products



■ Rising demand for optical interconnects driven by GPU interconnects

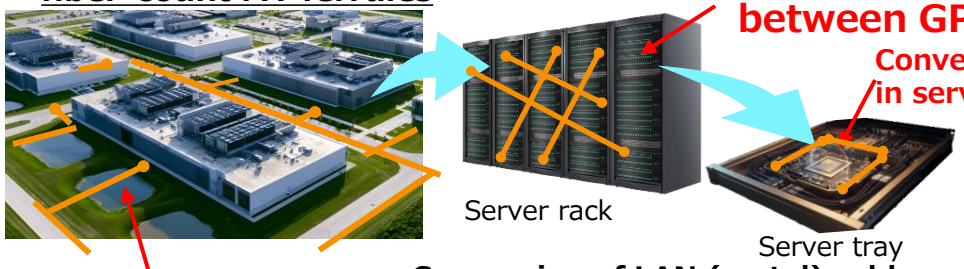
Form	Our Products	Situations
Scale-up **・Intra-building inter-server**	 EML chip (modulator-integrated laser)  Optical cable with connector  Parts for Photoelectric Conversion (CPO/NPO*)	Expectations for accelerated practical application of CPO+NPO (adoption phase in 2027)
Scale-out **・Inter-building/ Intra-building**	 CW LD (light source for Si-Photonics)  Optical panel  Ultra-high fiber-count optical cable	Strong demand and continued growth
Scale-across **・Inter-DC site**	 Tunable LD  High fiber density optical cables for air blown installation	Increasing demand for ultra-high fiber-count optical cables and long-distance optical devices

＊CPO: Co-packaged Optics
NPO: Near Packaged Optics

Optical Connector Products Used for Intra-DC

With advancements in generative AI-DC, the range of applications for small MT ferrules continues to expand

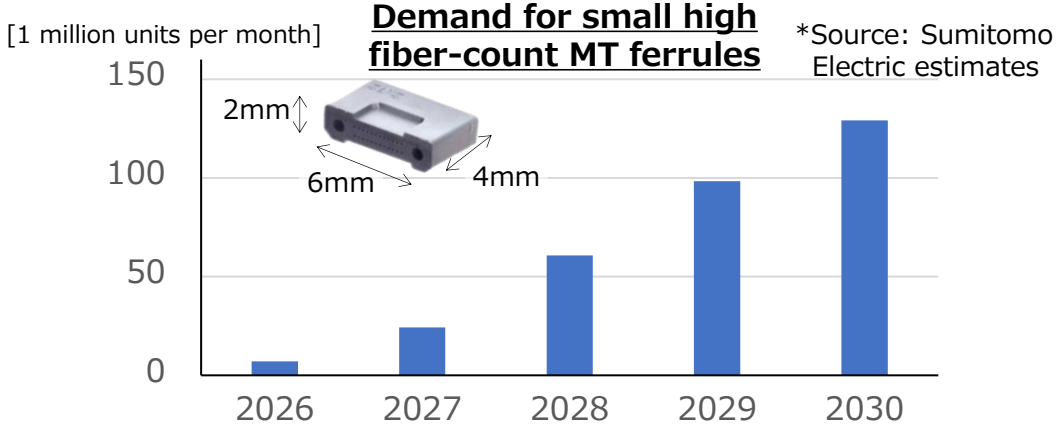
Applications for small high fiber-count MT ferrules



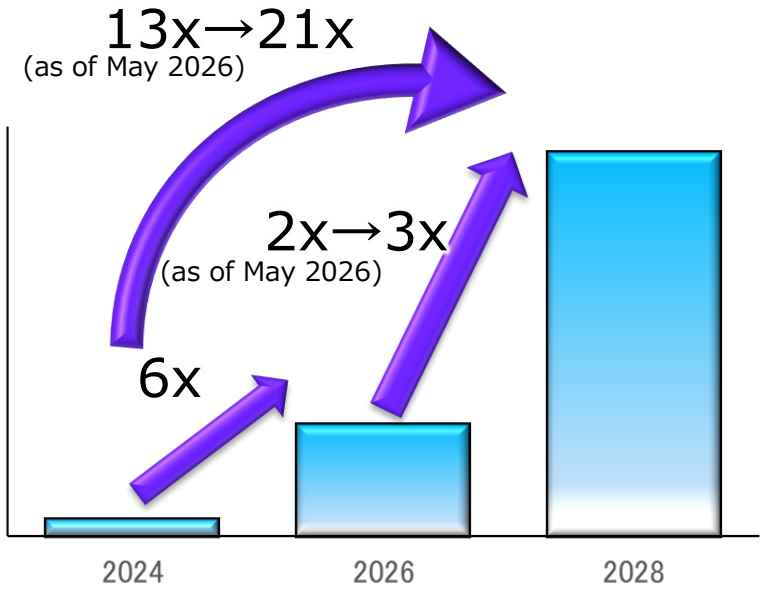
Ultra-high fiber-count terminated cable

Conversion of LAN (metal) cables to fiber optics

Demand for small high fiber-count MT ferrules



■ **Optical connector products production capacity**

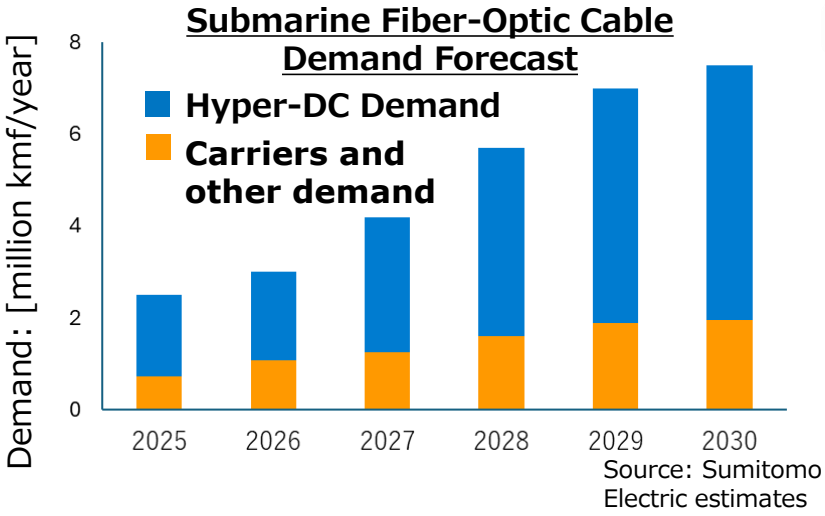


[Sumitomo Electric Features]
Ultra-low loss achieved through high-precision molding and high-precision optical fibers

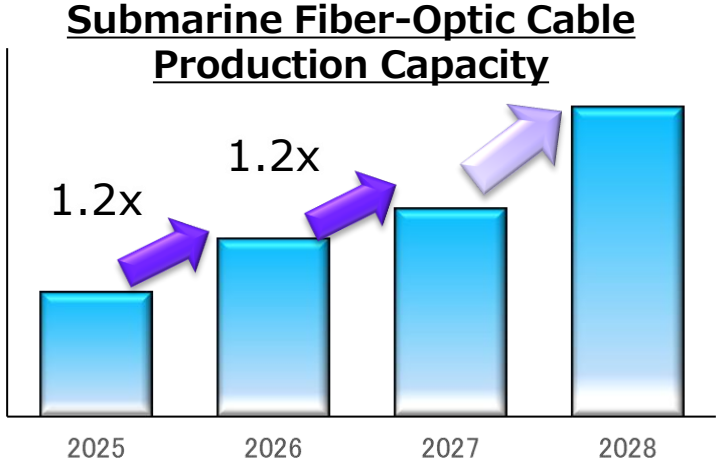
- **Accelerating production expansion (1.5 times the previous plan)**
- **Sales of individual connectors are also strong**

Submarine Fiber Optic Cables Used for Intercontinental DC Connections

Demand for intercontinental AI-DC connections is driving the submarine cable and fiber market
→ Demand for high-capacity connections in the Petabit-Class



Source: Sumitomo Electric estimates



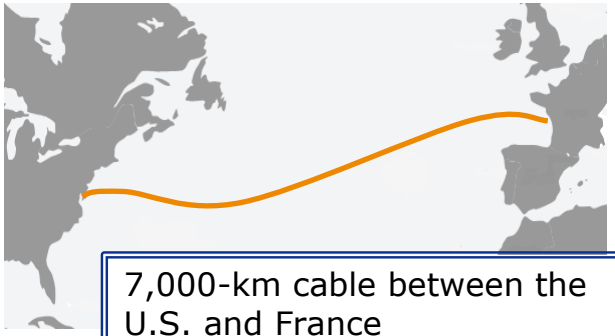
[Sumitomo Electric Features]

- **World-leading transmission loss (Sumitomo originated Pure Silica Core fiber)**
- **40 years of proven track record (reliability)**

+

- **Mass production of ultra-low-loss multicore fiber**

Received order for the world's first multi-core fiber-optic cable project for Pb transmission



7,000-km cable between the U.S. and France
Fiber-optic length: 340,000km



2-core fiber

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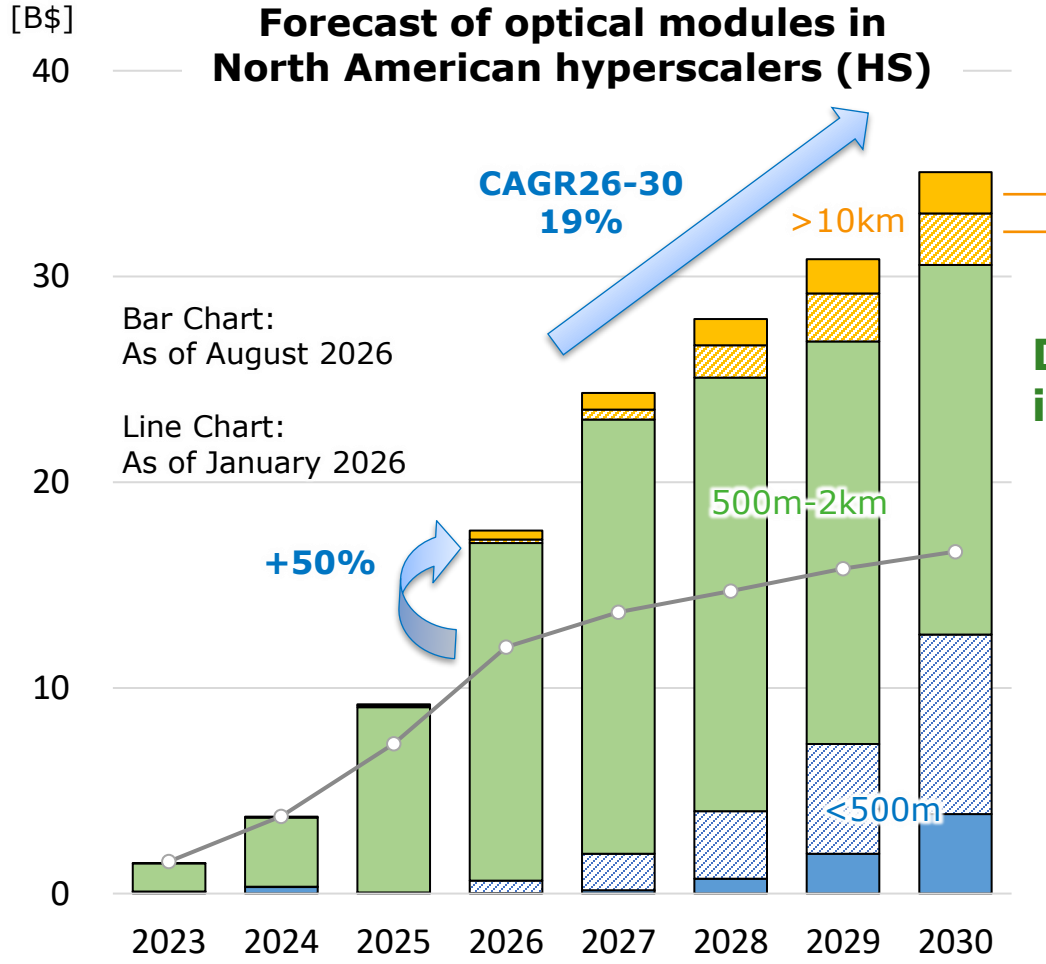
Changes in Demand for Optical Devices Used for DC

Data Rate increases for Intra AI-DCs (400G→800G→1.6T→3.2T)
Copper to Optical fiber (Scale-up)



DC interconnect (Scale-across)
WDM
Single wavelength

DC intra-building/ inter-building (Scale-out)



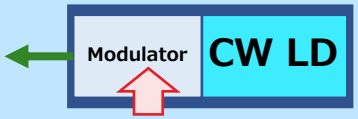
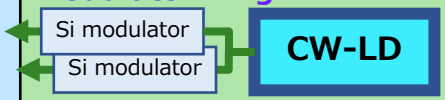
DC intra-building/ inter-building (Scale-out) CPO/NPO

Intra-server (Scale-up) CPO/NPO

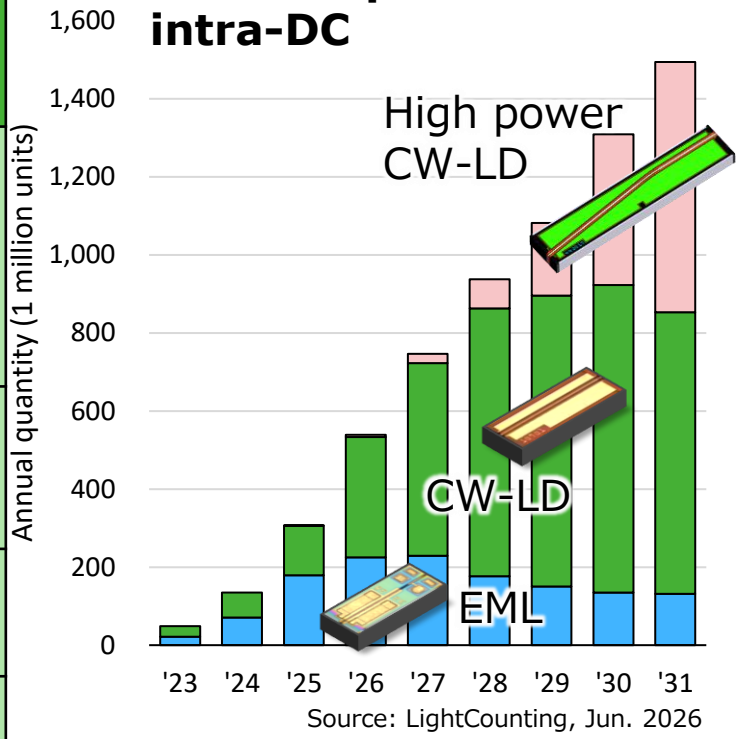
Source: Light-Counting Jul. 2026 (Based on market forecasts and Sumitomo Electric estimates)

Optical Devices Used for Scale-out/Scale-up

We develop and mass-produce optical devices for optical wiring in DCs.
Ex. high-speed 200G/wavelength device and high-power CW-LD for Scale-up.

	EML 	CW-LD 
Composition	Modulator integrated  Electrical signal	External modulator / High output light source  Electrical signal
	Single chip	Light source and Si modulator
Trends	Higher data rate Ex. 200G/wavelength	Mainstream in CPO/NPO
Features	• **Compact, high-speed design** • **Stable mass production**	• **High power output** • **Stable mass production**

Laser chip market for intra-DC



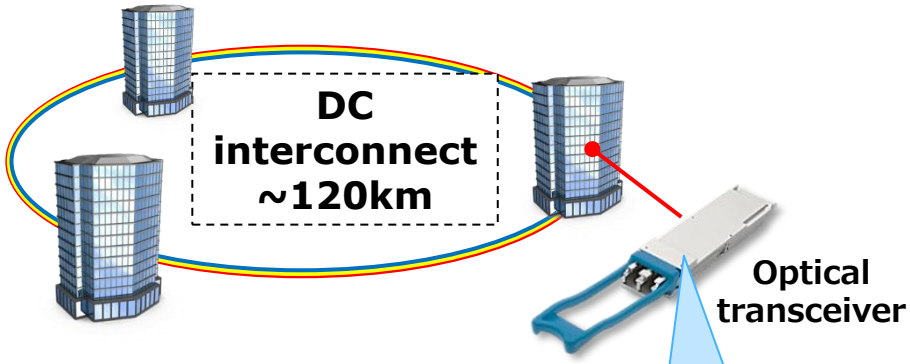
Source: LightCounting, Jun. 2026

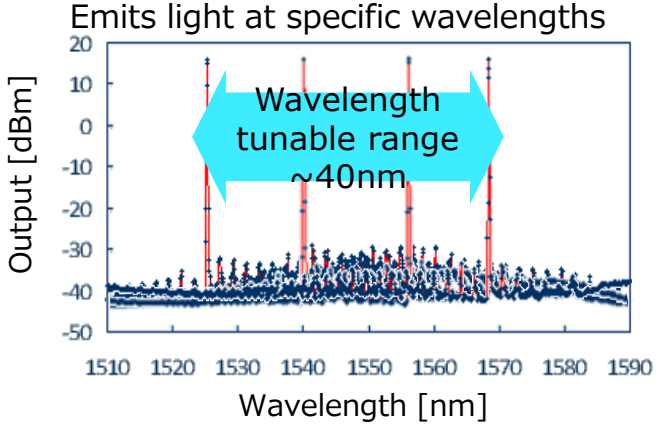
Demand ratio for chip quantity (estimates)

Chip	2024	2026	2028
EML	53%	42%	19%
CW-LD	47%	57%	73%
High power CW	-	-	8%

Optical devices used for Scale-across

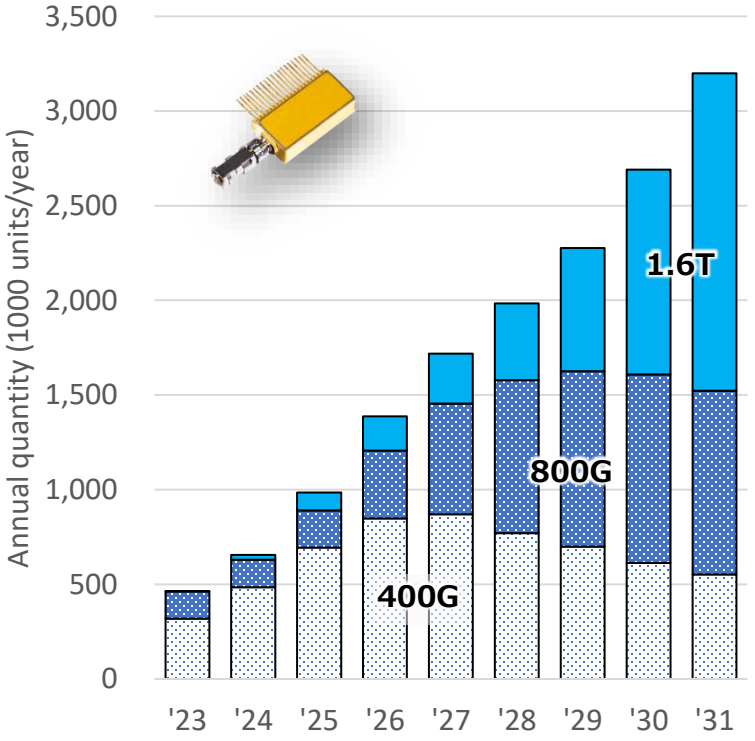
From the points of power procurement and land acquisition, DCs are being distributed. Next-generation 1.6T is beginning to be used.







Optical Transceiver demand for DC interconnect



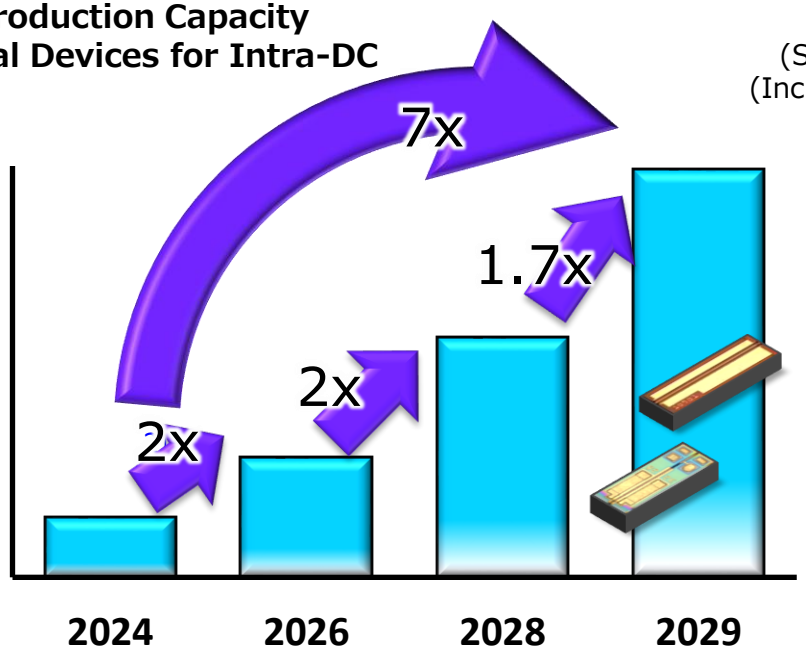
Source: LightCounting, Jun. 2026

Features of our product:
High output, low power consumption
Our device supports the 19.5dBm (90mW) required for 800G, highest output in DC market

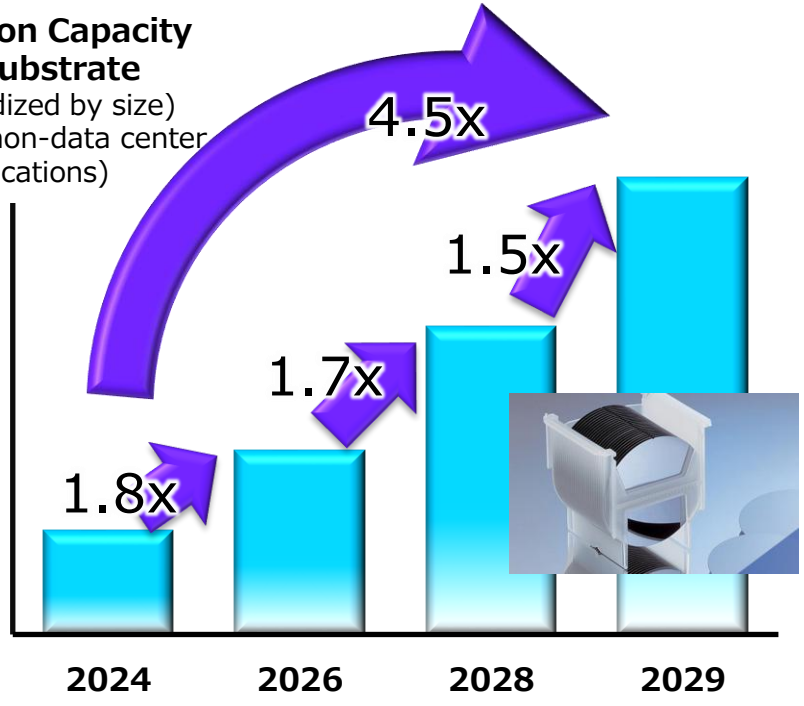
Production Capacity for Optical Devices and InP Substrates

Accelerating the expansion of our production capacity
Optical Devices for Intra-DC & InP substrates

Production Capacity
Optical Devices for Intra-DC



Production Capacity
InP Substrate
(Standardized by size)
(Including non-data center applications)

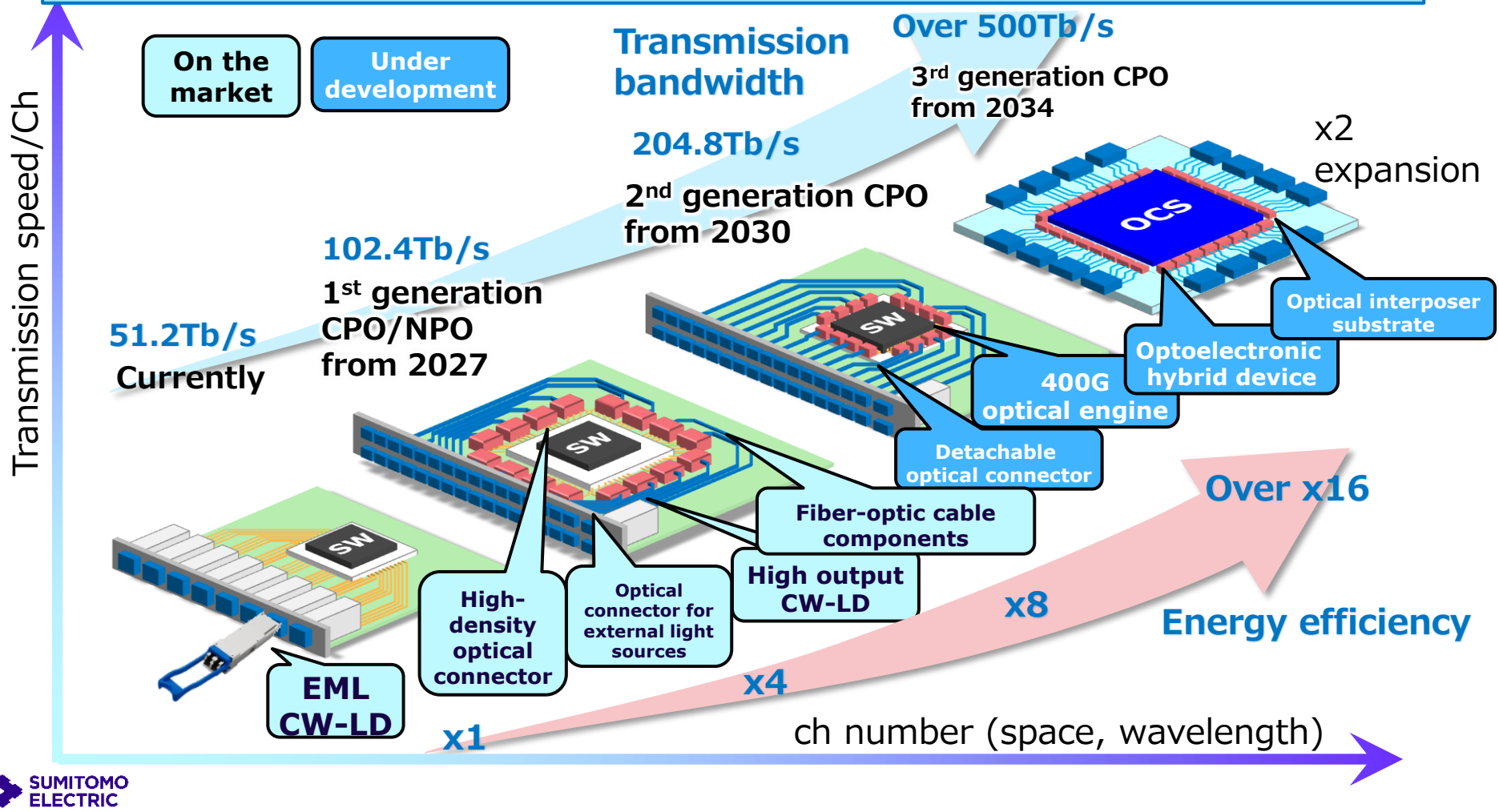


Next-generation technologies :
- ✓ 200G/wavelength EML
- ✓ Higher-power CW-LD (350mW class)

Features :
- ✓ Large-diameter (4-6 inches)
- ✓ High quality

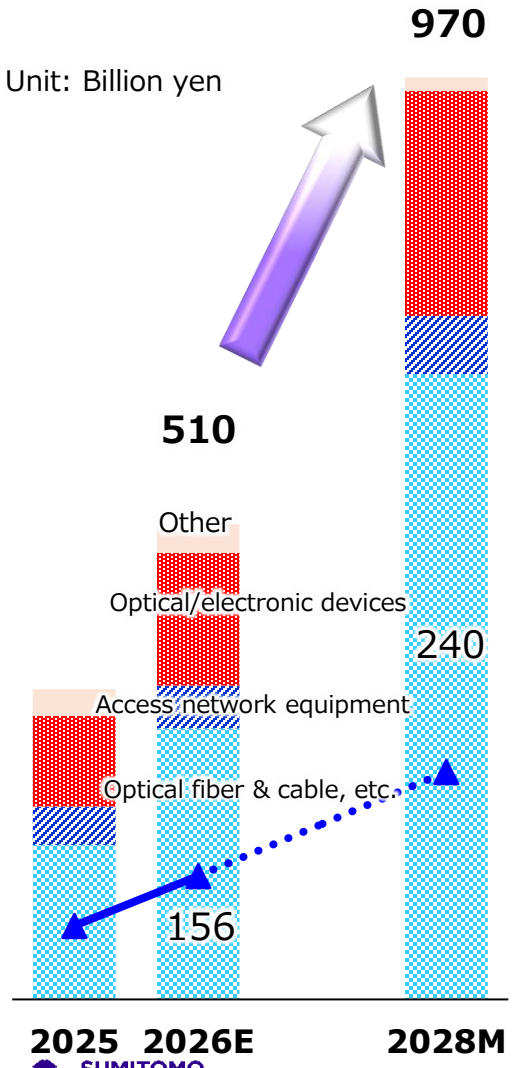
Technology Trend in Optical interconnects in servers

Demand for higher transmission bandwidth and lower energy consumption drives optical fiber wiring in servers.
Wide range of products are under development integrating in-house passive & active component technology.

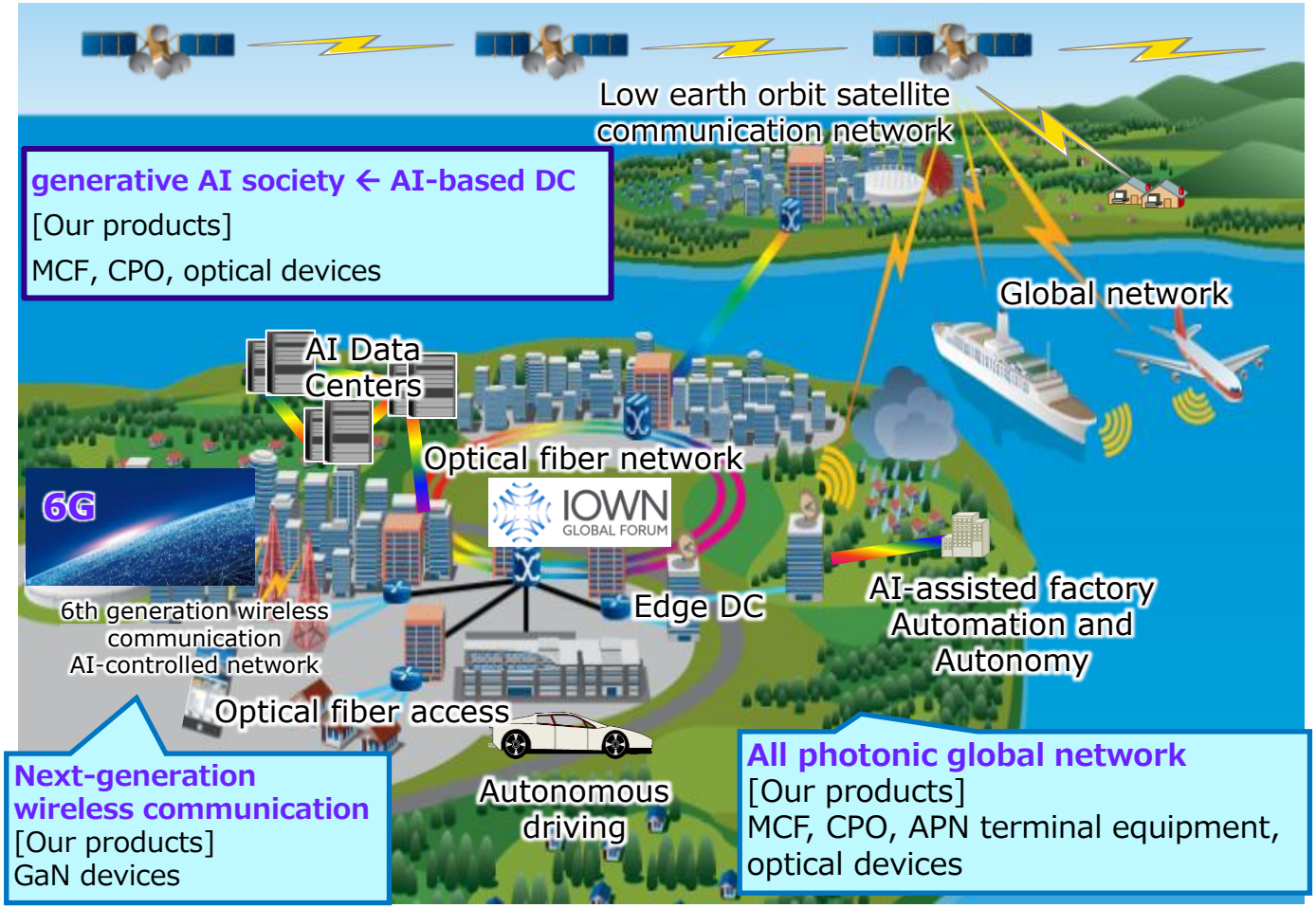


The Evolving Information Society and Our Approach

Info-Communication segment 2028M target (Sales & OP)



We aim to grow by combining our comprehensive strengths with high-level technology and solutions.



IOWN: Innovative Optical and Wireless Network (ALL Photonic NW concept)

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https://sumitomoelectric.com/

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