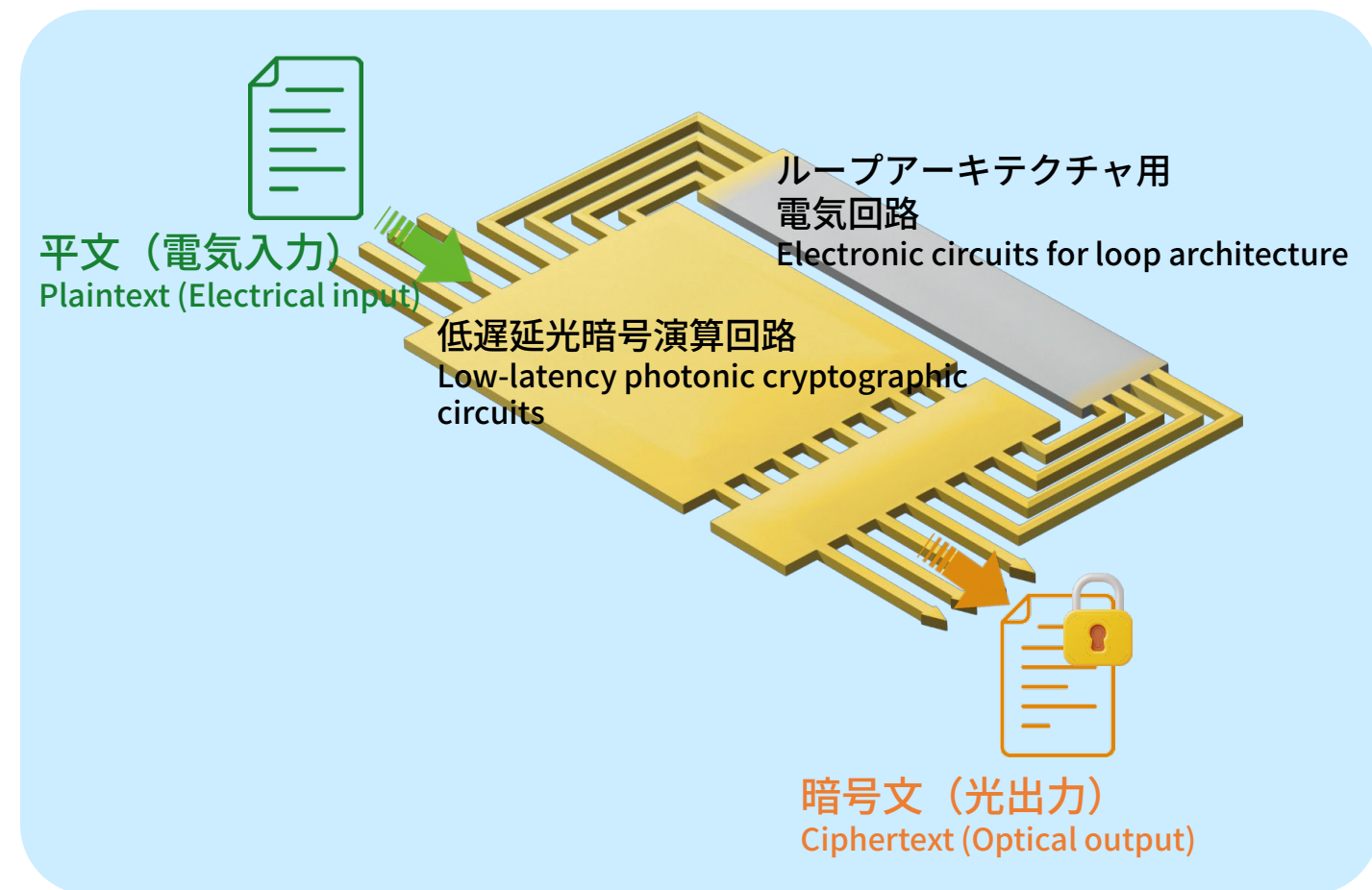


## Photonic cryptographic circuits for cryptographic computation

We realize next-generation optical communication  
and computing infrastructure with high security

#Customer Experience Value Creation #Green Transformation



### ///Technical Issue

Photonic cryptographic circuits are necessary to ensure security of optical communications/computing because electronic circuits increase delays etc.

#### ---Technology

- An algorithm using an encoding circuit that converts bit values into photonic addresses to realize low latency.
- Photonic cryptographic circuits using NTT's optical integration technology.

#### ---Applicable Business

In the field of information and communication, we will implement for the optical information processing infrastructure such as a photonic disaggregated computing (2030 or later).

### ///Research Goal

By implementing cryptography with photonic circuits, we ensure high security and improve convenience of next-generation optical communications/computing.

#### ---Novelty

We realize photonic circuits of a one-round calculation of symmetric key cryptography for the first time.