



# Luxchat

Secure  
Communication for  
the Public Sector



**One of the four strategic areas is to integrate new technologies.**

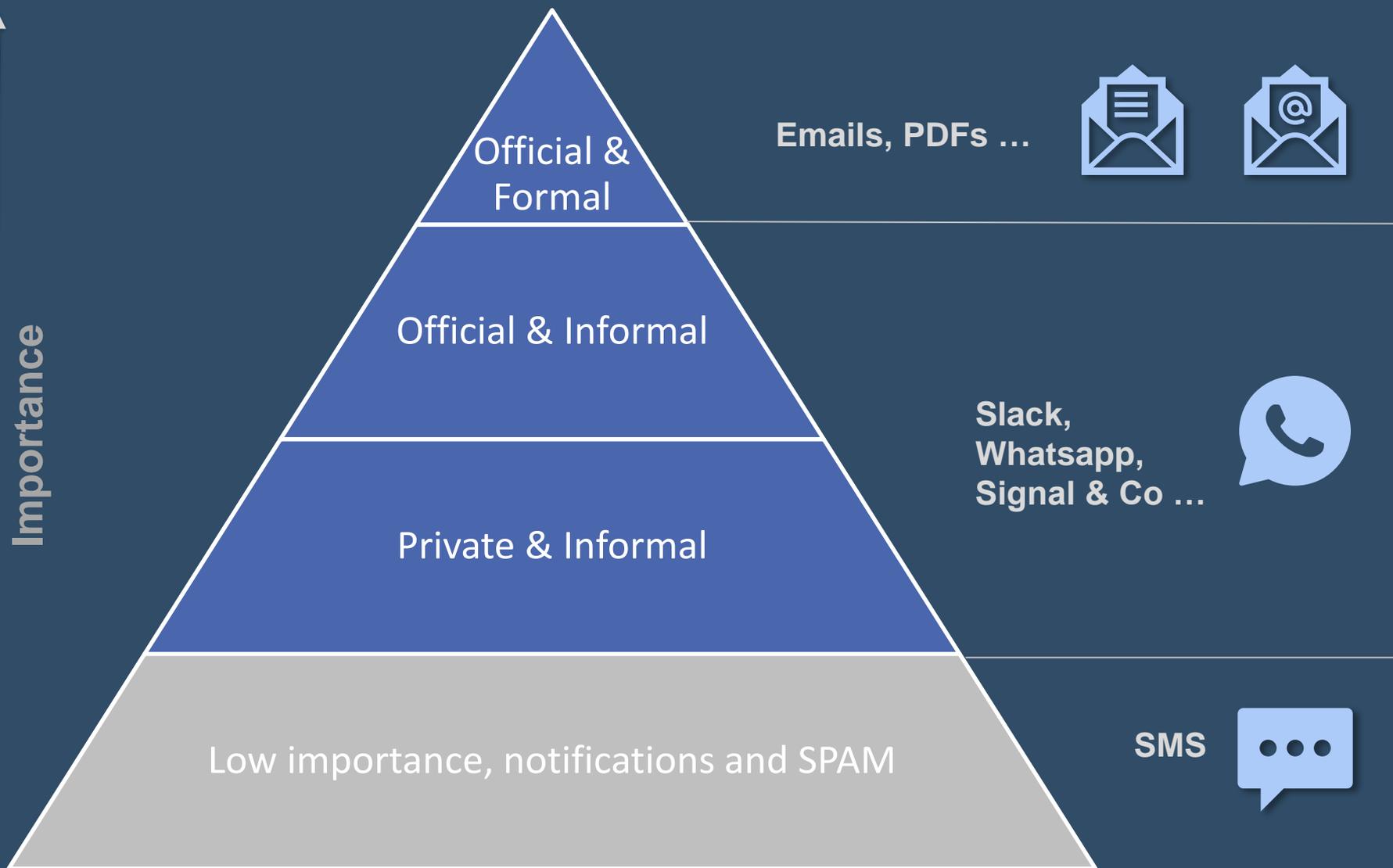
**The Ministry of Digitalisation aims to encourage digitalisation and innovation in the public sector by promoting technologies such as big data, blockchain, artificial intelligence, the Internet of Things, data anonymisation, and many others.**

**Examples:**

- **Data Governance**
- **Artificial Intelligence - AI4Gov**
- **Blockchain Projects at National and EU Level**
- **Decentralised communication solutions**

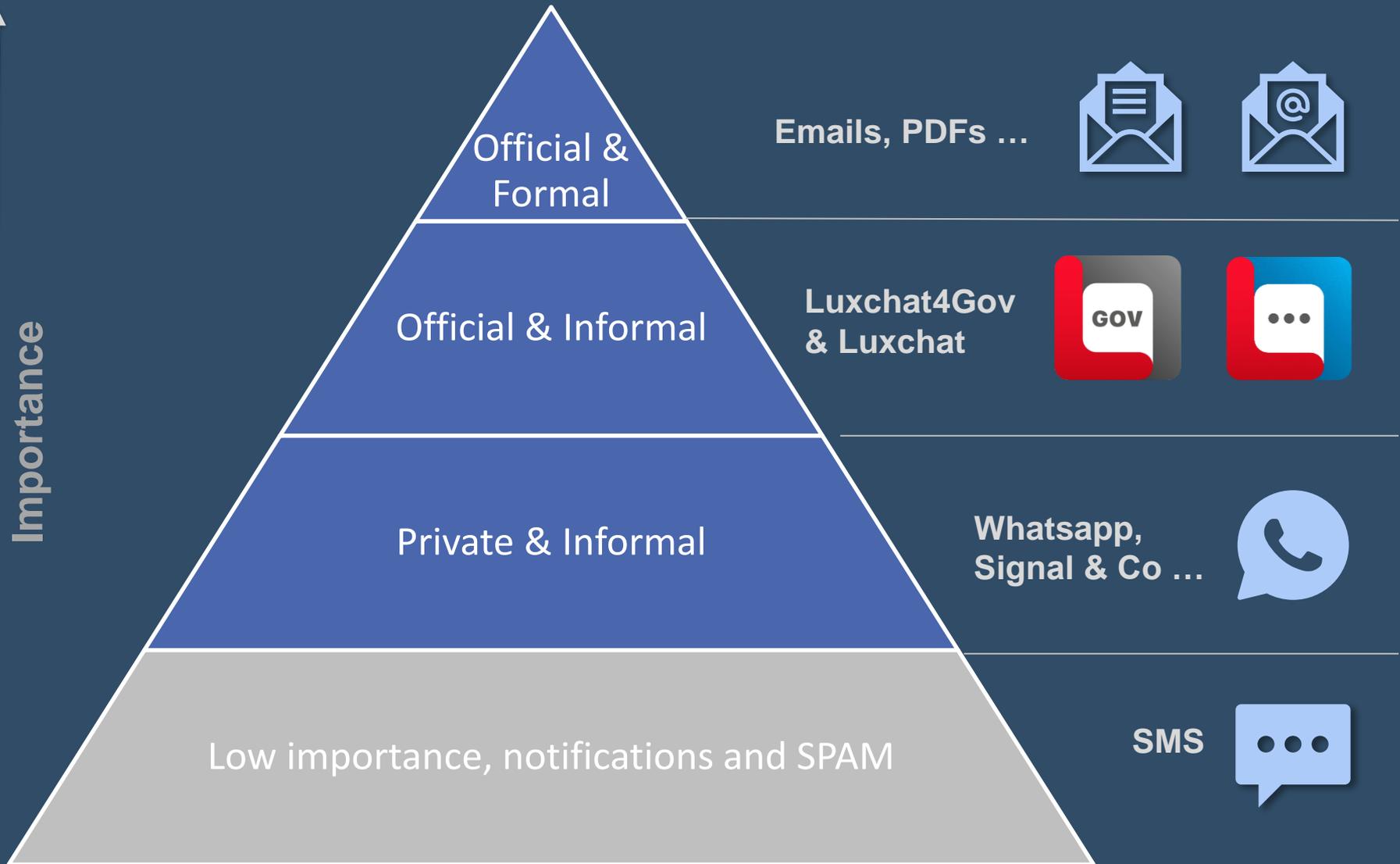


# Hierarchy of messaging





# Hierarchy of messaging





## • Secure Communication & Collaboration within the Public Sector

- Protects sensitive information, such as personal data and internal discussions.
- Facilitate real-time communication across different government departments.

## • Digital Sovereignty: A national, interoperable and secure solution

- Hosted entirely within Luxembourg to ensure complete national control over data.
- End-to-End Encryption
- Out-of-band Communication



- **EU Public Sector increasingly adopting Matrix Protocol for sovereign and secure communication projects.**
  - **Tchap – French Public Sector**
  - **Bundes(Wehr)-Messenger – German Public Sector & Army**
  - **Gematik Ti-Messenger Standard – German Health Sector**
  - **ePost – Swiss Post Communication**
  - **Many other pilot projects Sweden, Belgium, Nato ...**





# Pilot Project in 2020

- **Pilot Project Summary (2020):**
- **Working Group:** Identified needs of state entities.
- **Pilot Objective:** Test a chat solution based on Matrix protocol and Element client.
- **Approach:** Pragmatic, using "Fail Fast" to quickly identify blocking issues.
- **Focus:** Functional aspects of the solution to meet expressed needs.



## Instant Messaging Solution for the State. Officially launched in May 2023.

- **Based on the Matrix Protocol & Synapse Server and Element Client base.**
- **User Adoption: Over 11,000 users are currently using the Luxchat4Gov messaging platform for public sector communications.**
- **Secure & Feature-Rich: Supports video/audio calls, geolocation, multi-platform compatibility, and end-to-end encryption.**
- **Scalability: Handles 10,000 to 40,000+ users.**
- **Strong authentication using professional identity (SSO & IAM).**
- **Redundancy & Sovereignty: Deployed across two data centers connected to the national exchange node, ensuring secure communication sovereignty and reliability.**



- **Expansion to Education Sector:**
  - **Luxchat4Gov will soon be available for the national education sector. This will enhance communication within administrative and educational staff, and a second phase will enable communication between teachers and parents, fostering better transparency and interaction.**
- **Integration of Video Conferencing**
  - **Jitsi based Solution**
- **Towards a Luxchat Ecosystem**
  - **Federated operators and interoperable with Luxchat4GOV**
  - **User authentication through LuxID**
  - **Business to Customer (B2C) Use Cases**
  - **Government to Citizens (G2C) Use Cases (f.ex Education)**



## Features

Text and voice messages

Two-way audio and video calls

"Chat rooms" for two or more people

Sending photos, videos and other files

Location sharing (geoportail.lu)

Use of emojis

Editing a message already sent

Deleting a message



End-to-end encryption



No advertising



No monetization of user data



No tracking of your location



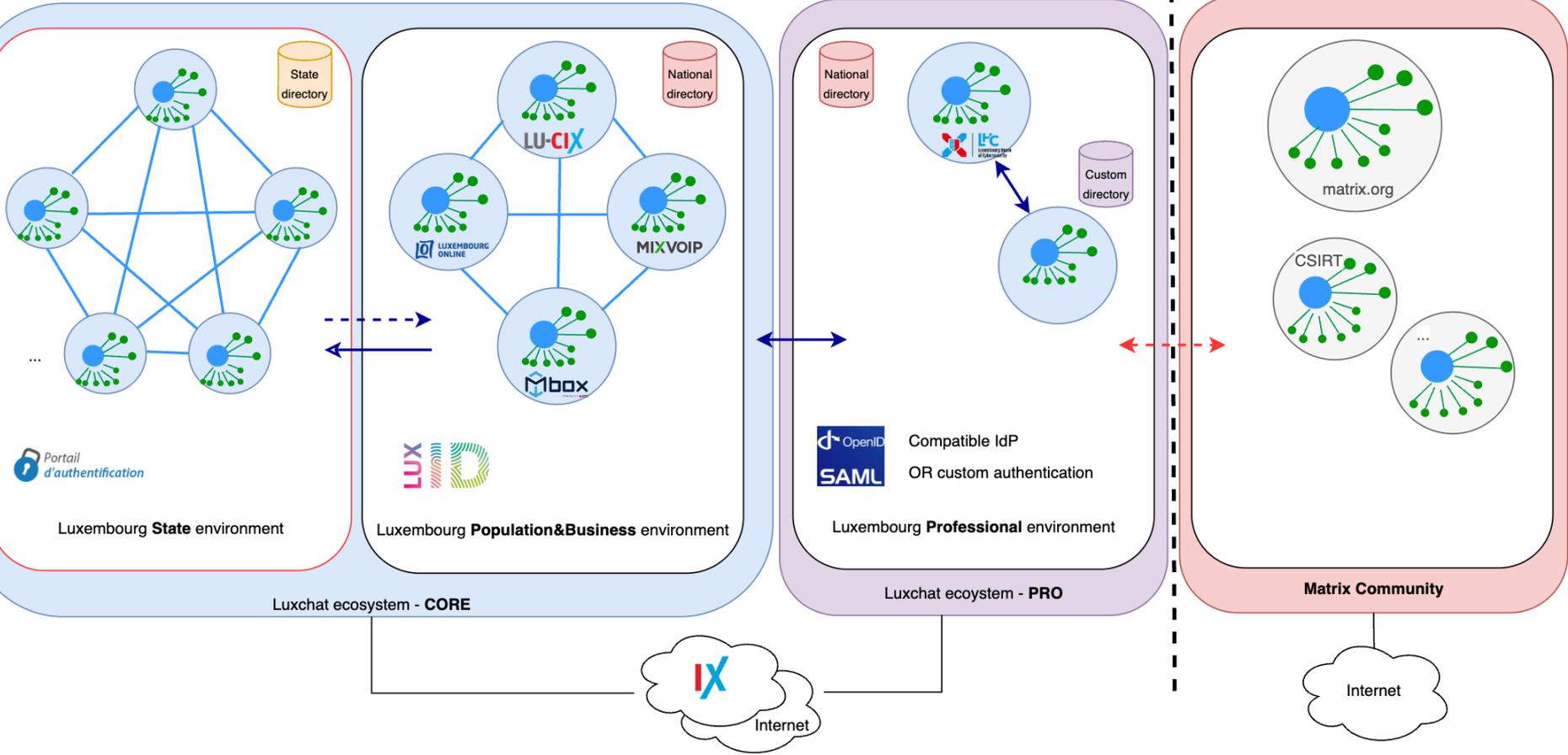
Hosted and operated in Luxembourg



In the future



...





# Supporting Open-Source Projects

**Public Sector can find it difficult to appropriately support open-source projects, procurement frameworks (purpose & legal) not adapted to:**

- Investing in a public good vs financing a project/service
- Funding features vs code maintenance
- Supporting a community?

## **Matrix Ecosystem**

- How to promote a healthy and diverse ecosystem of actors and business models vs. further entrenching dominant private entities!
- How to coordinate investment in improving code between independent actors.



# Supporting Federated Digital Commons

## Digital Commons EDIC:

1. Strengthen digital sovereignty via sustainable alternatives to dependency
2. Promote multi-stakeholder & inclusive governance of digital commons
3. Build a digital public space that is secure, interoperable, inclusive, and aligned with EU values
4. Position Europe as a leading digital actor through innovation, competitiveness, and fair models

➔ **Matrix Foundation !**

➔ Working group for Public Sector, driven by Countries



November 18 & 19, 2025



Chamber of Commerce of Luxembourg

# HACKATHON

**MATRIX** meets **Luxchat**

Join the greatest minds in tech for an epic 30-hour of Open-Source “MATRIX meets Luxchat” hackathon and try to win amazing prizes! 🏆

# Q&A



luxchat4gov@digital.etat.lu

LE GOUVERNEMENT DU GRAND-DUCHÉ DE LUXEMBOURG  
Ministère de la Digitalisation  
4, rue de la Congrégation  
L-1352 Luxembourg

[info@digital.etat.lu](mailto:info@digital.etat.lu)  
[www.digitalisation.lu](http://www.digitalisation.lu)