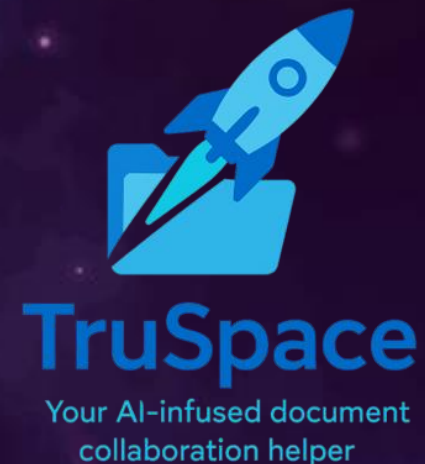


# TruSpace

Digitale Souveränität &  
Resilienz für die  
Zusammenarbeit zwischen  
Organisationen

Dr. Jure Zakotnik, KfW  
Frankfurt, Juli 2026



# 01

Das Problem:

Datenaustausch zwischen Organisationen



**YOU GET AN EMAIL**

**AND YOU GET  
AN EMAIL**

**AND YOU GET  
AN EMAIL**

**EVERYBODY GETS AN EMAIL**

# Aber es gibt doch.....



Slack

Teams

NextCloud

Sharepoint

Google Docs

Paperless NGX

OpenText

# Zentralisierte Systeme = Abhängigkeit



**Integrität** – Malawi #cashgate



**Verfügbarkeit** – nach Tagesform ...



**Besitz** – Daten sind das neue Öl

# 02

Unsere Lösung: **TruSpace**

Dezentrale Daten, quelloffene lokale KI

# TruSpace in action...



**KFW**



**FUNDO  
AMAZONIA**

# Upload und locale KI Analyse



KFW



upload



Umweltstudie  
Amazonas-Schutzgebiet

Signatur: QmZ4...XkjGx



FUNDO  
AMAZONIA



# Automatische Synchronisierung (IPFS)



KFW



Signatur: QmZ4...XkjGx



Signatur: QmZ4...XkjGx



FUNDO  
AMAZONIA



update



Signatur: QmZ4...XkjGx

# Fälschungssichere Updates



KFW



Signatur: QmZ4...XkjGx



Signatur: QmZ4...XkjGx



FUNDO  
AMAZONIA



Signatur: QmZ4...XkjGx



# Resilienz gegen Autokratie



KFW



Signatur: QmZ4...XkjGx



FUNDO  
AMAZONIA



Signatur: QmZ4...XkjGx

# Resilienz gegen Autokratie 2



KFW



Signatur: QmZ4...XkjGx



FUNDO  
AMAZONIA



Signatur: QmZ4...XkjGx



# Wo stehen wir?



TruSpace ist als  
quelloffenes Digital Public  
Good verfügbar

Erste Piloten in der  
Entwicklungs-  
zusammenarbeit starten

# Entdecke TruSpace!

## Ausprobieren

<https://truspace.dev>

## Webseite

<https://web.truspace.dev>

## OpenCode repository

<https://github.com/openkfw/TruSpace> <https://opencode.de/de/software/tru-space-6819>

## E-Mail

[info@truspace.dev](mailto:info@truspace.dev)

KfW

Dr. Jure Zakotnik

Juli 2026





# Screenshots



# TruSpace

Your AI-infused document  
collaboration helper

## Login

DE

Gib unten deine Daten ein, um dich anzumelden

E-Mail

Passwort

[Passwort vergessen?](#)

Einloggen

Du hast noch kein Konto? [Registrieren](#)

- Arnes Workspace
- Biodiv Daten
- Call Students
- Call Workspace
- Contracts TFFF
- Corinnas Place
- Demo Workspace
- Jures Space
- Tropical Forest

# App-Status

Aktualisieren

## System-Gesundheitsübersicht

Gesamtsystemstatus: **Gesund**

Backend <span>Online</span>	Database <span>Online</span>	IPFS Cluster <span>Online</span>
IPFS Pinning Service <span>Online</span>	IPFS Gateway <span>Online</span>	Open WebUI <span>Online</span>
Ollama <span>Online</span>		

## Knoten-Informationen

### Identität

IPFS-Knoten-ID: `12D3KooWCmYBHrtxUtrCJ6Z4c4RUpmsMSHzUe8L9A9Dk1... be77`

Cluster-ID: `12D3KooWNEABPmoSCyKVhFKUT1yzvZbnjaNedCLWbfZR65rPmtT7`

### Netzwerk

IPFS-Adresse: `/ip4/217.154.117.105/tcp/4001/p2p/12D3KooWCmYBHrtxUtrCJ6Z... be77`

Cluster-Adresse: `/ip4/217.154.117.105/tcp/9096/p2p/12D3KooWNEABPmoSCyK... mtT7`

## Statistiken



Gesamtdokumente

^ 7%

88

Dokumente



Mitwirkende

^ NaN%

-

Benutzer



Peer-Server

4

# 2026\_Nr.1\_Nature-based-Solutions-across-sectors\_EN.pdf

Details | Vorschau | Versionen

## Metadaten

Dokumentenname:	2026_Nr.1_Nature-based-Solutions-across-sectors_EN.pdf
Dokumentengröße:	0.27 MB
Dokumentensprachen:	DE Deutsch
Dokumentenlink:	<a href="#">Link kopieren</a> <a href="#">Link teilen</a>
Mitwirkende:	<a href="#">Jure Zakotnik</a>
Dokumentensicherheit:	<a href="#">Verschlüsselt</a> <a href="#">Nicht gescannt</a>
AutorIn:	Jure Zakotnik
Erstellt am:	08/05/2026 at 11:29:54

## Tags

[Sustainable Agriculture](#) [Urban Planning](#) [CallPaper](#)  
[Nature-based Solutions](#) +

## Perspektiven

Perspektivenaktionen [Executive Summary](#)

Here are 5 key bullet points summarizing the document, focusing on clarity, relevance, and brevity:

- NbS represent cross-sectoral opportunities:** Nature-based solutions can address societal challenges across multiple sectors.
- NbS enhance resilience:** Leveraging ecosystem services strengthens communities and enterprises.
- NbS promote sustainable growth:** Investing in NbS contributes to long-term economic prosperity.

# 2026\_Nr.1\_Nature-based-Solutions-across-sectors\_EN.pdf

Details

Vorschau

Versionen

&lt; Seite 1 von 5 &gt;

KfW Development Bank

## Materials on Development Finance

Issue 04/2026, 2 April 2026 // Authors: Christiane Ehringhaus, Eike Peetz, Christiane Berghaus, Katharina Martens

### Nature-based Solutions – what cross-sectoral opportunities for development finance?

**Introduction**  
Nature-based Solutions (NbS) represent a bundle of approaches to address societal challenges through the sustainable management and use of natural resources. NbS can effectively tackle issues such as climate change, water insecurity, soil degradation, pollution and biodiversity loss. These solutions leverage ecosystem services to provide benefits for both people and the environment. For development banks integrating NbS into investment strategies not only enhances the resilience of society, communities, and enterprises, but also promotes sustainable economic growth and contributes to global objectives including, for example, the Sustainable Development Goals (SDGs) while simultaneously providing human well-being, ecosystem services, resilience and biodiversity benefits (UNEA Resolution 2/2 2022 UNEA Resolution 2/2 2022, based on IUCN 2018). NbS are therefore vital for local livelihoods as well as the resilience of communities across the globe. NbS encompass a variety of practices, including but not limited to reforestation, wetland restoration, and the creation of green urban spaces, as further detailed in this publication.

- Carbon Capture and Storage:** Engineered solutions aimed at mechanically or chemically capturing CO<sub>2</sub> from emission sources like power and industrial plants and storing it underground in geological formation or utilising it in various products.
- Hard "gray" infrastructure:** Dams, levees, and concrete flood barriers, i.a. that do not incorporate natural elements or processes.
- Monoculture Plantations:** Large-scale agricultural or silvicultural plantations that prioritise a single crop or tree species without regard for biodiversity or ecosystem health.



Backup

# Interplanetary File System

Daten synchronisiert über alle Beteiligten (.. auch KI Analysen!)

Änderungen für alle sichtbar

Ähnlich Blockchain, aber löschar



If a file changes, the address changes!

Option to save meta-data independent of the content identifier



# The Demo



## TruSpace

Your AI-infused document  
collaboration helper

### Login

EN

Enter your information below to log in

Email



Password

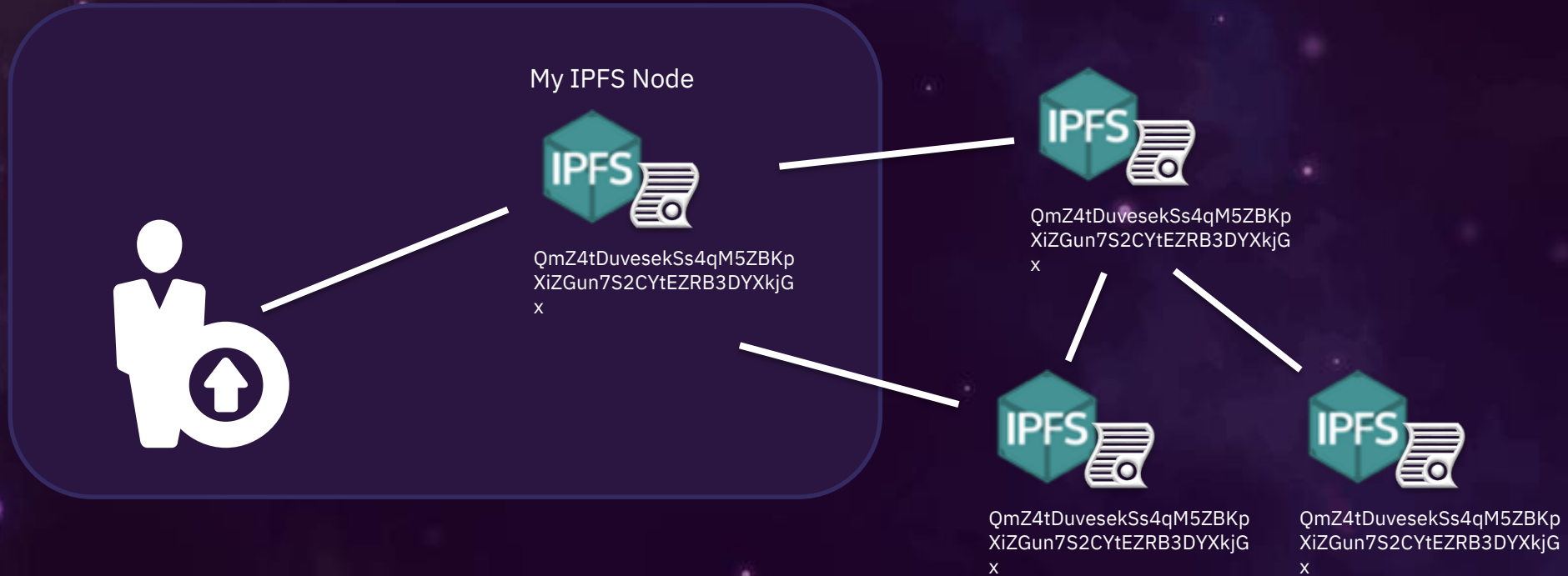


[Forgot your password?](#)

Log In

Don't have an account? [Sign up](#)

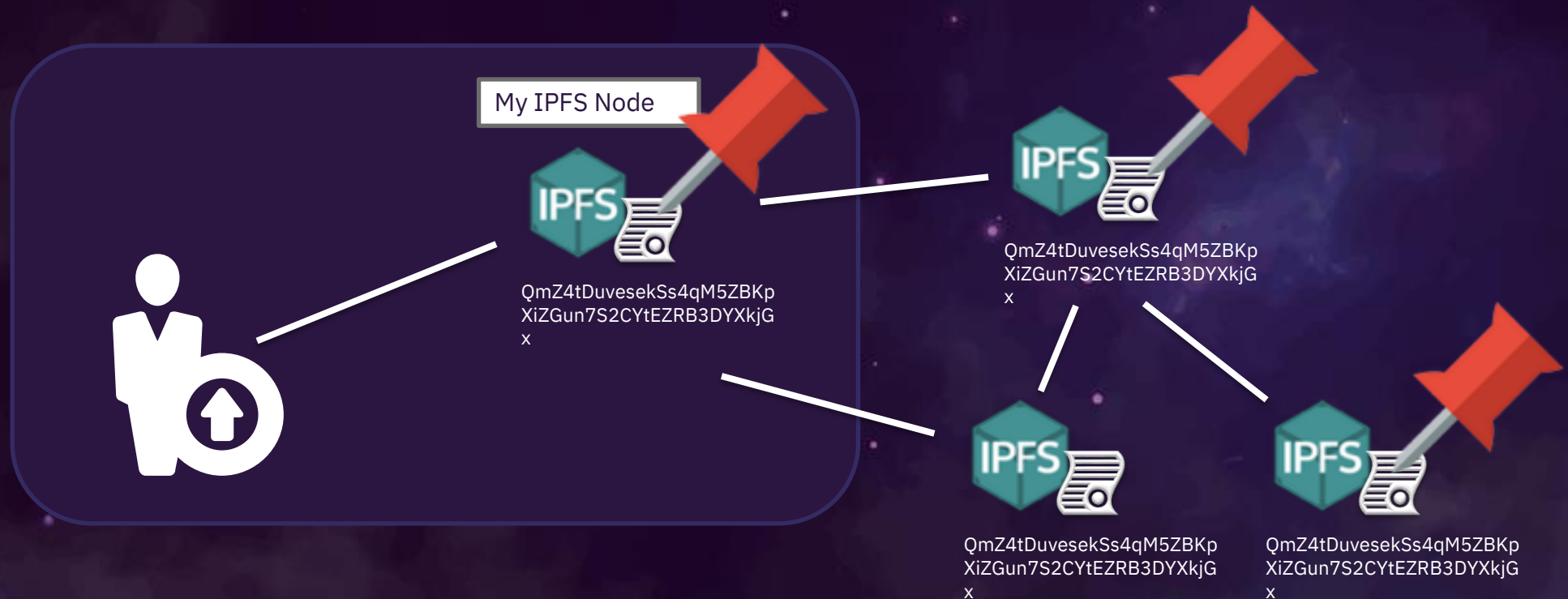
# Content based routing (DHT)



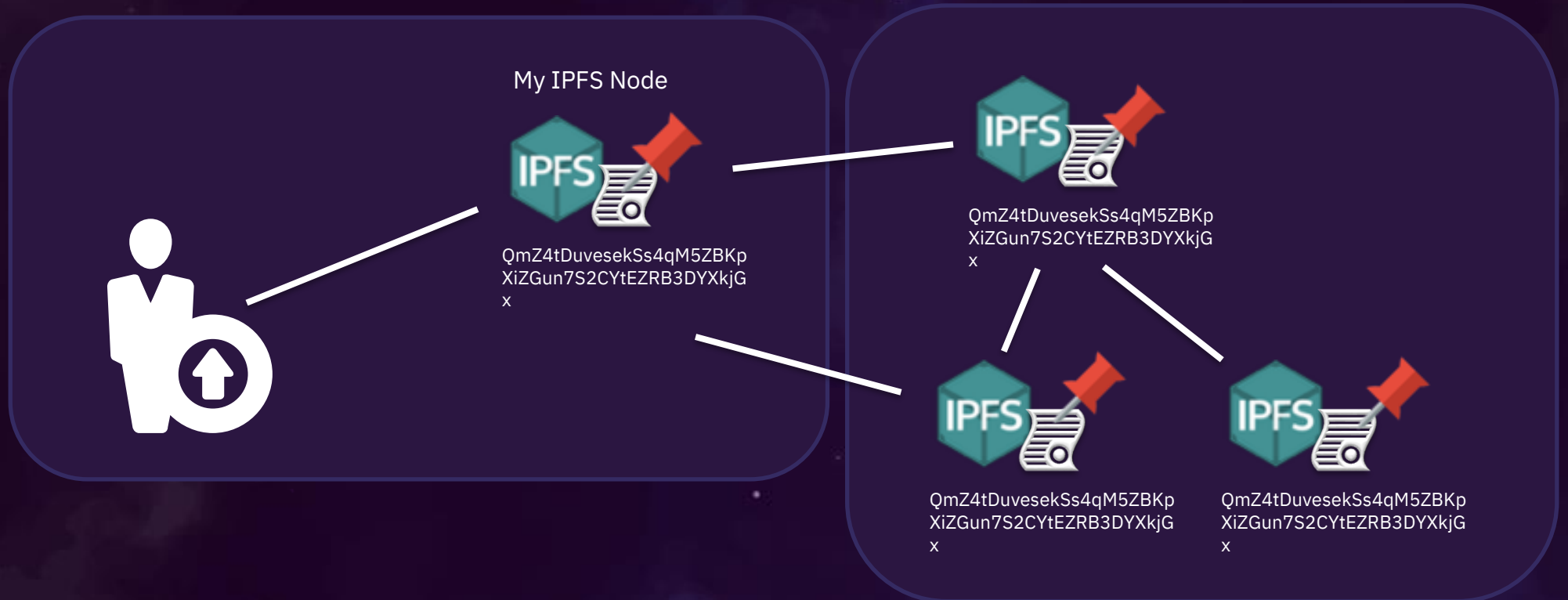
It does not matter, on which server the data is..

# Who decides which files remain?

The IPFS node keeps only the files it marked as pinned



# Pinning Services use own node pools



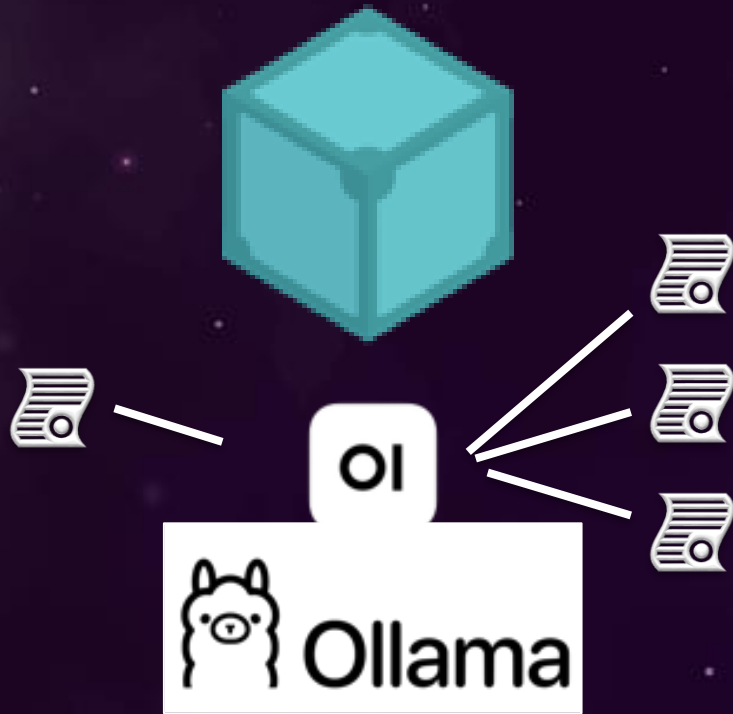
# Decentralized pinning orchestration





I am missing sovereign AI!

# AI-document processing



Local AI processing of documents with agreed prompts

Distribution of AI results in the IPFS network

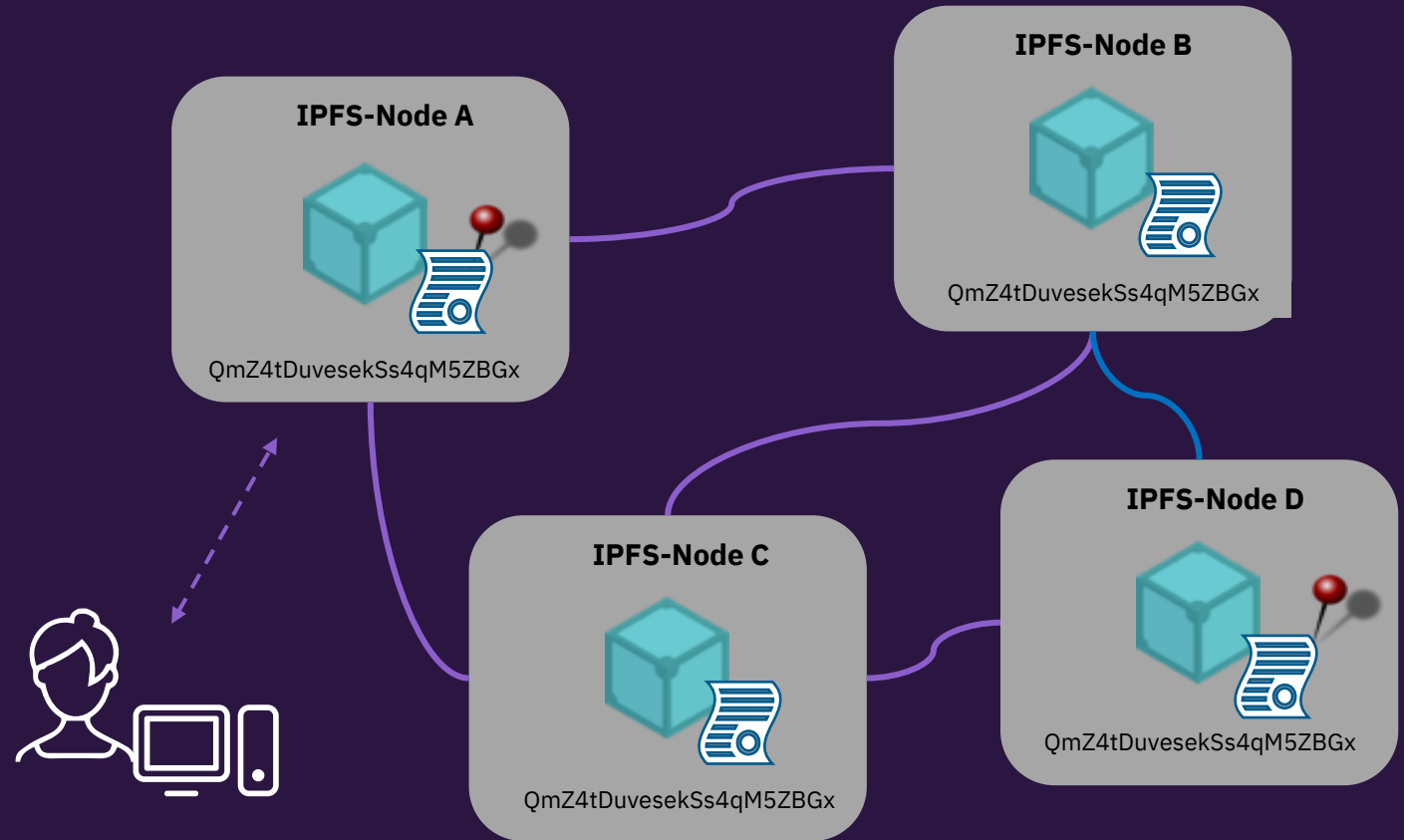
Using Ollama DB of 100+ open source LLMs

# In an IPFS network, all nodes can access the distributed files

Documents and all changes are assigned unique **hashes**, making manipulations very transparent

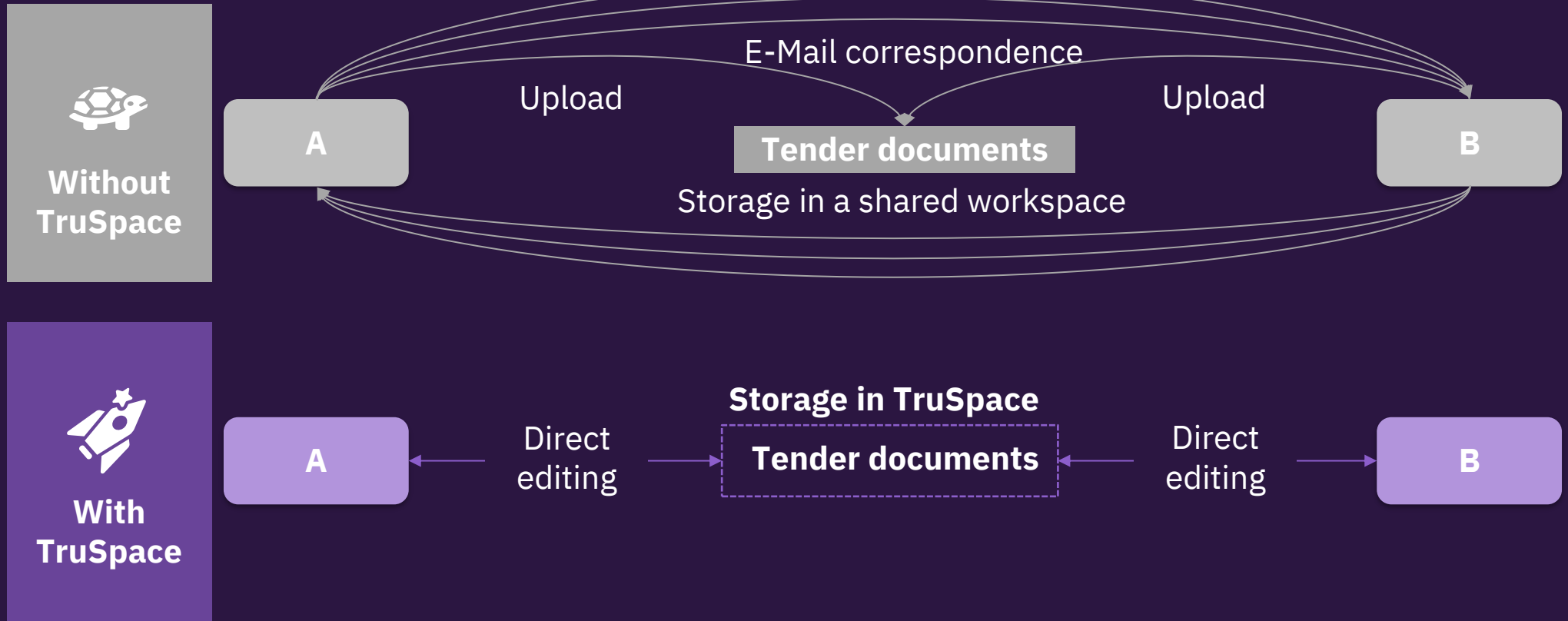
**Pinning** ensures the storage of documents on the actual node. Orchestrations like **IPFS Cluster** ensure a balanced pinning

IPFS networks can be secured through **private swarm and cluster keys**



# TruSpace can improve collaborative working

## Example: Excerpt from a tender procedure



# In which scenarios should I use TruSpace?



**Cross-institutional**  
collaboration



**Trust** to store documents centrally  
elsewhere **not established** (yet)



Need for **quick access** to documents  
without (slow) assignment of rights



**Cost-efficient** application with **simple**  
**setup** and maintenance



**TruSpace**  
Your AI-infused document  
collaboration helper

# How can I install TruSpace?



## Installation

One-time installation of TruSpace on device/server



## Details

Requirements: IT expertise, GitHub access  
Time: 5 – 20 minutes

## Actions:

- Download TruSpace source code from GitHub
- Set up your own TruSpace node using the installation guide
- Integrate keys to connect to the private IPFS network
- Test the application