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DIRECTORATE GENERAL FOR LIBRARIES AND PUBLICATIONS

Building a National Public Library Infrastructure on Koha

Türkiye’s experience in scaling Koha from ILS to a national public service backbone.



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koha.tr/1300lib

Dictionary of the concepts

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01	**e-Government Gateway**	Türkiye’s official digital public-service gateway; citizens access many public services through one verified channel.
02	**MERNİS** (Central Population Administration System)	The central population system operated by the Ministry of Interior’s population administration. Used in Koha to verify identity and address data.
03	**TÜİK**	TÜİK is the Turkish Statistical Institute.
04	**the KAŞİF**	KAŞİF is the library automation system used by the National Library.

These are not Koha modules; they are national systems that explain why Koha operates as public-service infrastructure.

Why This Case Matters:
Four Dimensions of Scale

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Technical

infrastructure, indexing, processing, availability



Bibliographic

MARC/RDA, deduplication, standardised description



Institutional

thousands of staff, heterogeneous local workflows

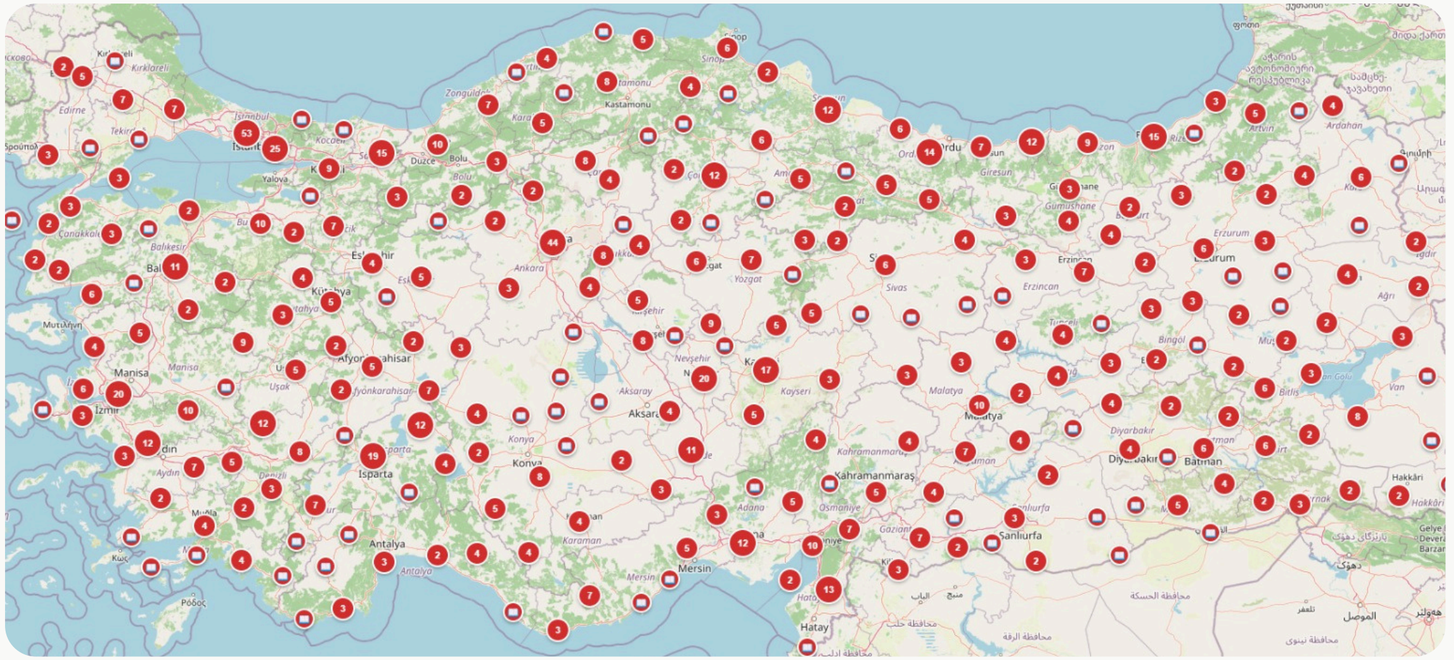


Governance

balancing central standards and local flexibility

*At this scale, Koha must be understood as both **a technical platform and a governance environment.***

Current National System Profile



1.300+
public libraries

7.43 m
registered members

31.55 m
recorded books

24.98 m
active item in service

9.000+
library staff

16.45 m
circulation in 2025

2025 circulation: 7,400,786 loans + 415,413 renewals + 8,634,645 returns = 16,450,844 transactions.

Operational Koha statistics and TÜİK reporting do not always rely on identical counting methods.

Türkiye’s Library Network

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1.228
Public Libraries

17
Shopping mall libraries (12), airport libraries (3), train station libraries (2)

11
Prison Libraries

National Library Ecosystem

26
Baby and Children Libraries

20
Special (music, literature museum, science, entrepreneur etc.) libraries

78
Mobile Libraries



Growth of the National Public Library System, 2021–2025

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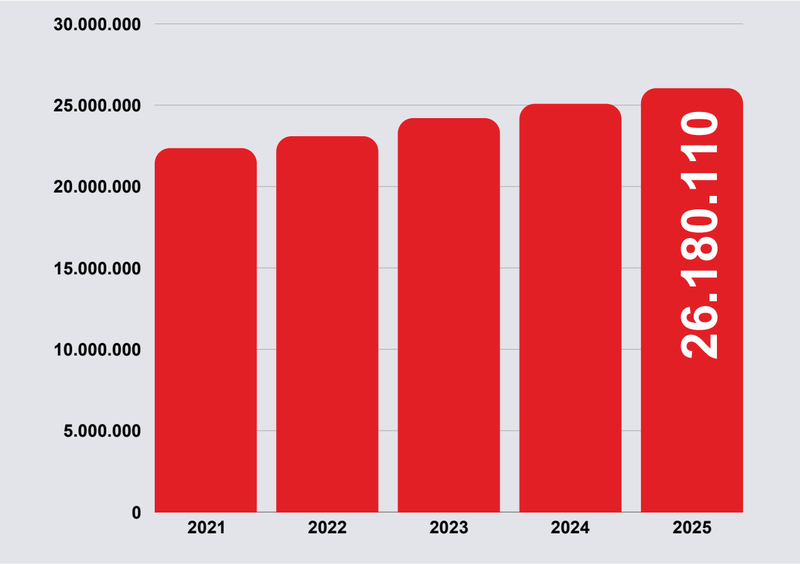
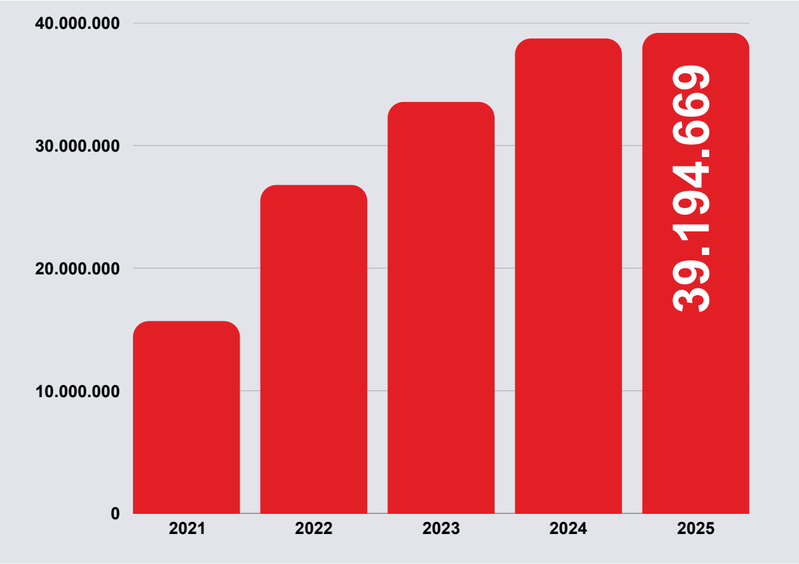
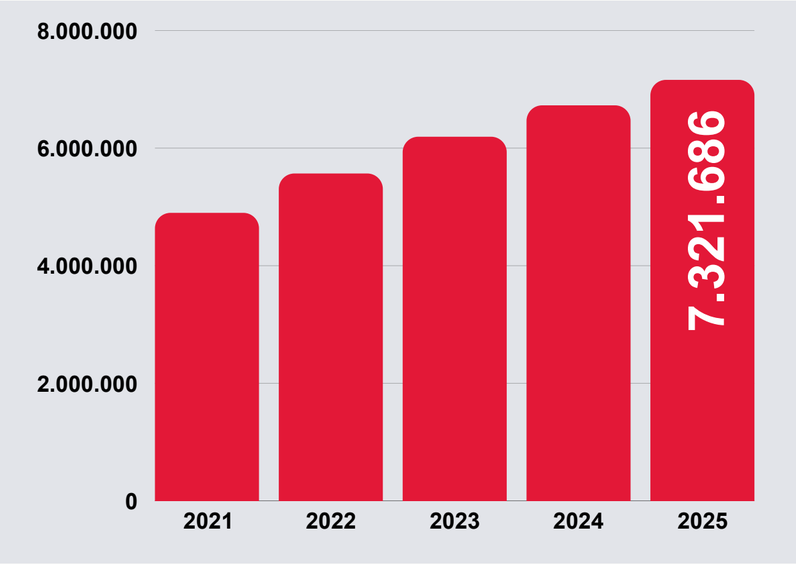
Collections



Community Engagement



Membership



All services are free of charge.

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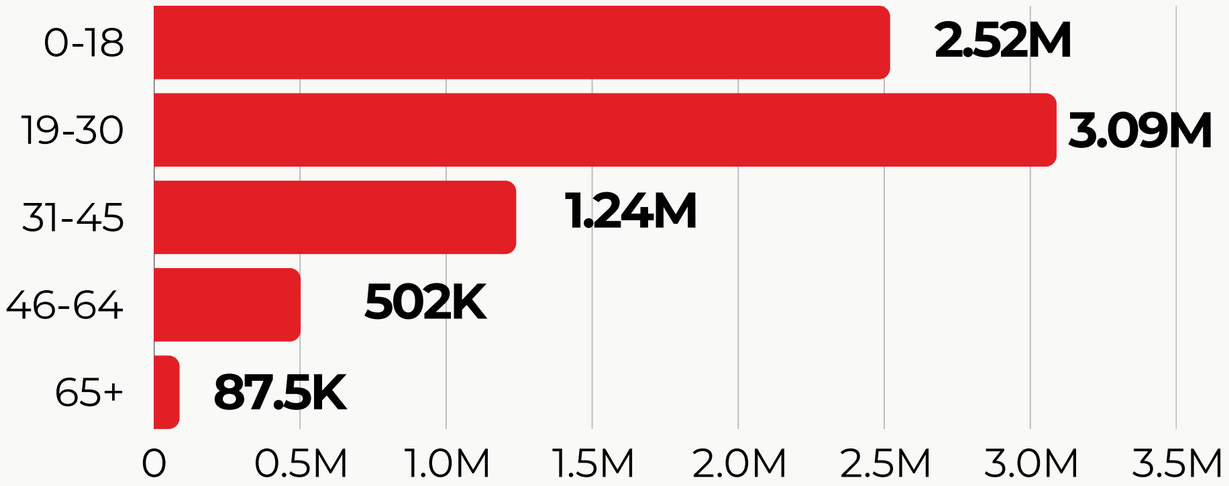
A Heterogeneous User Base Requires a Differentiated Service Model

Age distribution of library members



Total members **7.43M**

The largest user segment is 19-30; children and young people form the second major block.

- Service design must address educational use, family participation and lifelong learning
- Membership scale is also demographic diversity.

0–18: 33.8% · 19–30: 41.6% · 31–45: 16.6% · 46–64: 6.8% · 65+: 1.2%


Bay Benjamin'in
Gizemli Bavulu
AĞUSTOS
Kütüphanedeki Aslan

From an Integrated Library System
to a Public Service Infrastructure

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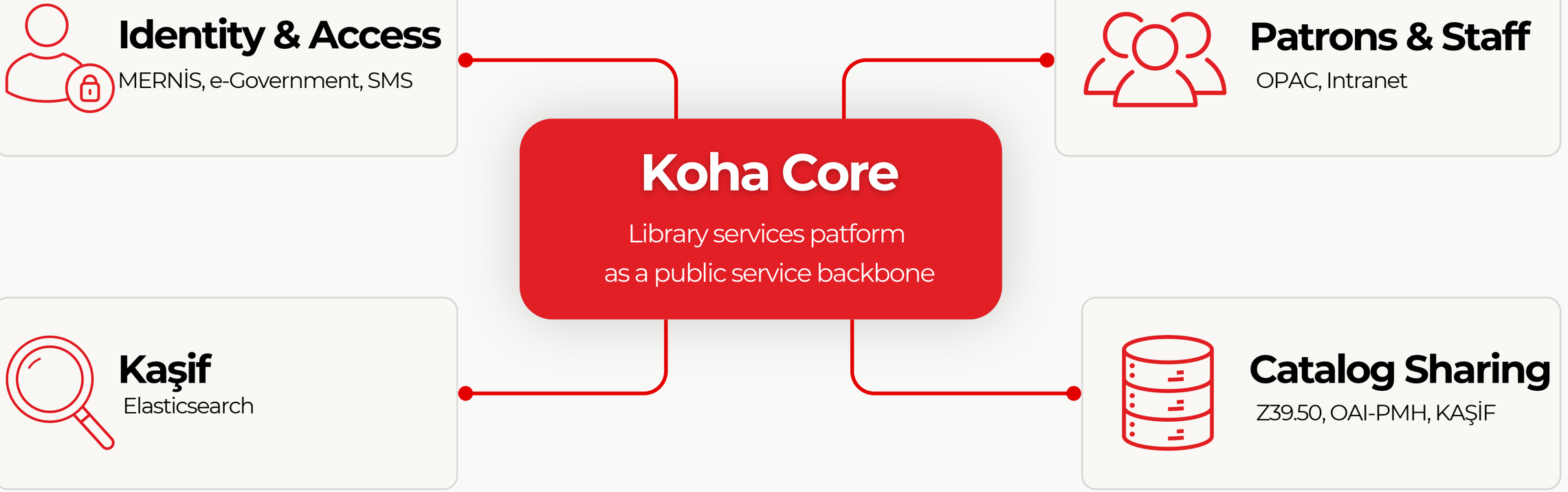


Organising the National Koha Operation

Institutional coordinatiin translates field needs into scalable service solutions.



Koha operations

User definitions, permissions, daily system coordination.

Data and Standards

Bibliographic guidance, MARC21 and RDA-based data quality.

Integration and rollout

Integrations, testing, training and staged deployment.

Software development is carried out within the Ministy, while the Department **translates field needs into implementable service solutions**

From Local Workarounds to National Workflows

Temporary local practices were transformed into traceable and standardised national workflows.

Earlier working practive	Current model
Manual member transfer	Member transfer with phone-based verification
Local solutions for prison library procedures	Controlled institutional workflows
Cataloguing differences across branhes	Central catalogue request tools
Different reporting practices	Shared national statistics tools

Local temporary solutions were converted into reusable national workflows.

The Platform Evolved Through Context-Specific Needs

Koha expanded through staged institutional responses to operational, digital and international requirements.

2014



Transition to Koha

National centralisation begins.

2018



Digital identity

e-government+Mernis public gateway and civil registry verification

2023+



International cooperation

Training, technical enhancement, and knowledge exchange with Azerbaijan and Moldova.

2025



Complementary applications

Supporting add-on applications entered operational use.

Technical Architecture and Service Redundancy

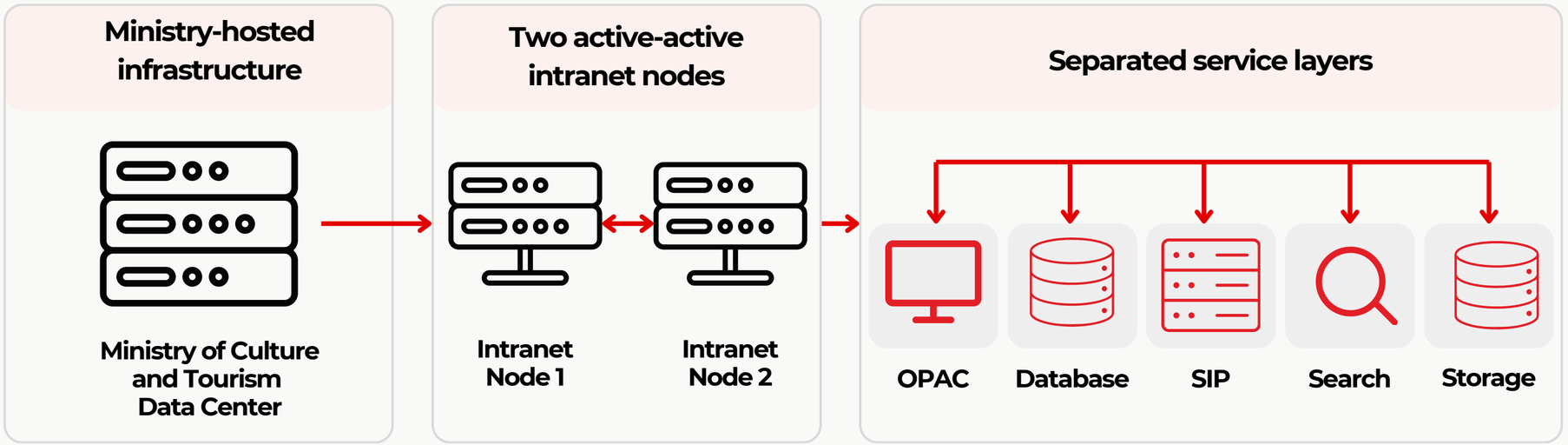
Service roles were separated early to support continuity, manageability and performance at national scale.

7 virtual servers

108 vCPU

452 GB RAM

4 TB storage



The staff intranet operates with active-active redundancy; other service layers are separated to enhance continuity and performance

Bibliographic Scale, Kaşif and Shared Cataloguing

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Kaşif and cataloguing operate on a reuse-first logic to support scale and consistency.

≈ 6 million

bibliographic records

31.55 million

recorded item/book records

- Search central Koha catalogue
- Reuse existing record
- If needed, import from KAŞİF Automation System
- If unavailable, request central cataloguing

Shared cataloguing follows a reuse-first logic, reducing duplication while strengthening **bibliographic quality.**
Central catalogue requests are reviewed through quality control by a volunteer cataloguing team of approximately 30 staff.

National Membership and Public Digital Service Integration

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A centrally verified membership model connects Koha with national digital public services.

Active e-Government Services

- contact information
- catalogue search
- circulation follow-up
- e-membership and record update
- library update

Central membership model

Single registration

Türkiye's e-Government portal

MERNİS-verified identity

Identity verification

Access across 1300+ public libraries

One membership, nationwide access

A single membership can function **across the national public library network.**

Privacy, Security and Controlled Access to Personal Data

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User Privacy

- Circulation data only as operational necessity
- Reading history access requires SMS verification
- Personal reading archive is user-controlled

Inter-library verification

- User verification required for record view or transfer
- Controlled access across libraries

Staff authentication

- e-Government authentication
- Two-factor authentication
- Centrally governed permissions

The General Directorate of Libraries and Publications centrally manages new library definitions, manager assignments, multi-library access and member deletion.

Interoperability and Catalog Reuse Across Institutions

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Interoperability is a practical necessity for consistency, efficiency and bibliographic quality.

1



Search by ISBN

Enter the ISBN to search shared catalogues.

2



Find Record

Locate the existing bibliographic record in Koha or Kaşif.

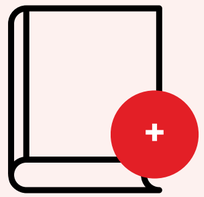
3



Import MARC

Import the MARC record into your Koha instance.

4

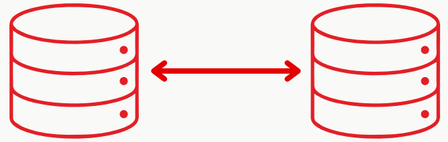


Add local item

Create a local item and add institution-specific details.

Koha + KAŞİF

Search the shared Koha catalogue first; then check the National Library environment



Z39.50 is an international library protocol for searching and importing catalogue records across systems.

Catalogue once, reuse whenever possible.

Field tools keep national service moving.

Purpose-built workflows bridge devices, connectivity gaps and reporting obligations.

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INVENTORY COUNTING

Camera, manual or external-reader input
Error checks
Export to Koha workflows

camera / external reader / manual barcode input → validation → Koha export



OFFLINE CIRCULATION

Loans, returns, new memberships
Browser / PWA and desktop models
Structured data export

web/PWA + desktop model · loans, returns and new memberships without connectivity



STATISTICS

Automated national statistical reporting

Support desk and request workflows · API users and REST integrations · operational data becomes decision support

Inventory is conducted with a modern application

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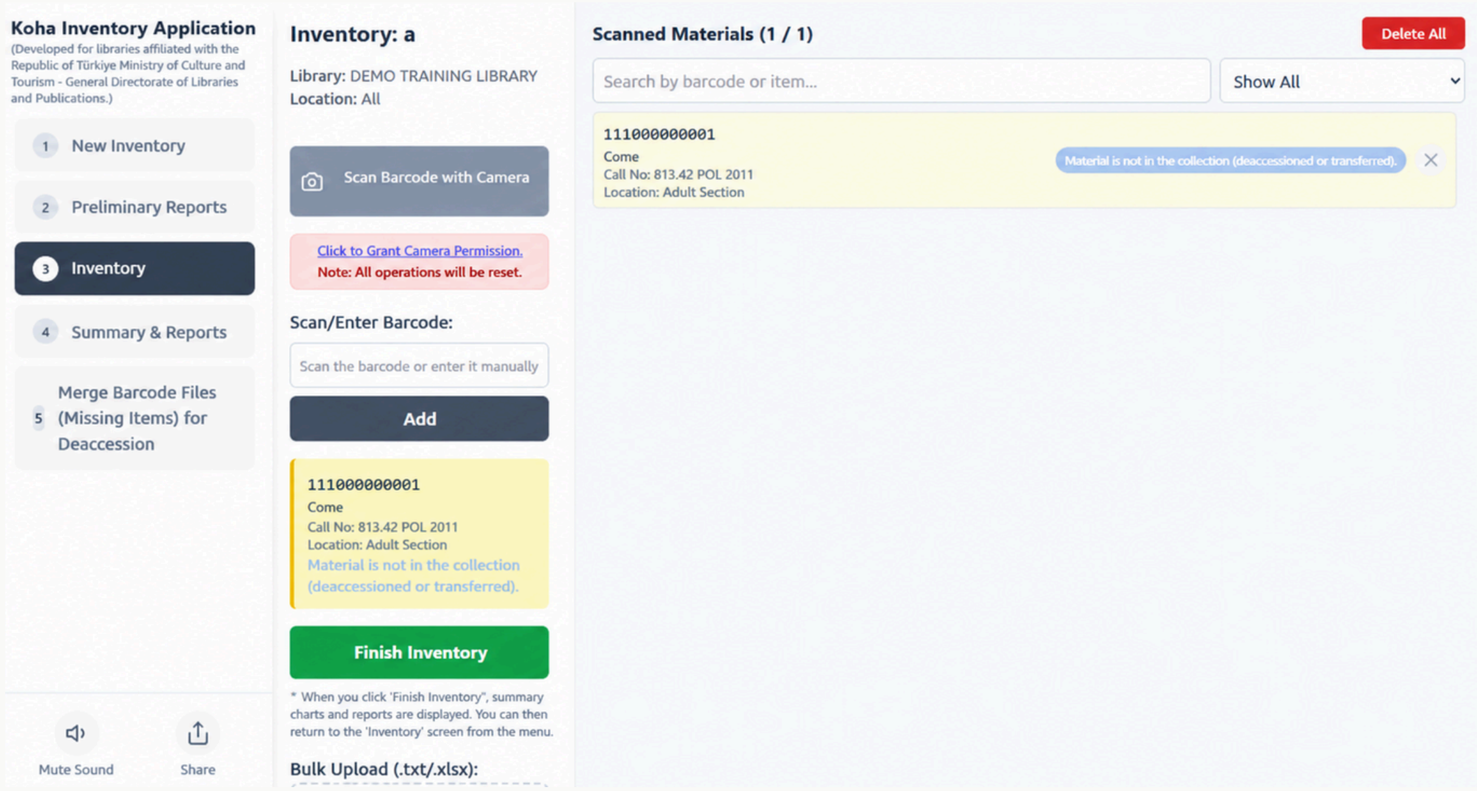
Collect
Camera, external reader or manual barcode entry.

Verify
Bulk .txt/.xlsx upload, verification against Koha exports and ISBN warnings.

Transfer to Koha
One-click transition to the Koha return transaction for items on loan.



The tool is designed to move annual inventory outside Koha and reduce server load during counting.

A purpose-built statistics module / provides national statistics data in real time

01 **Statistical data**

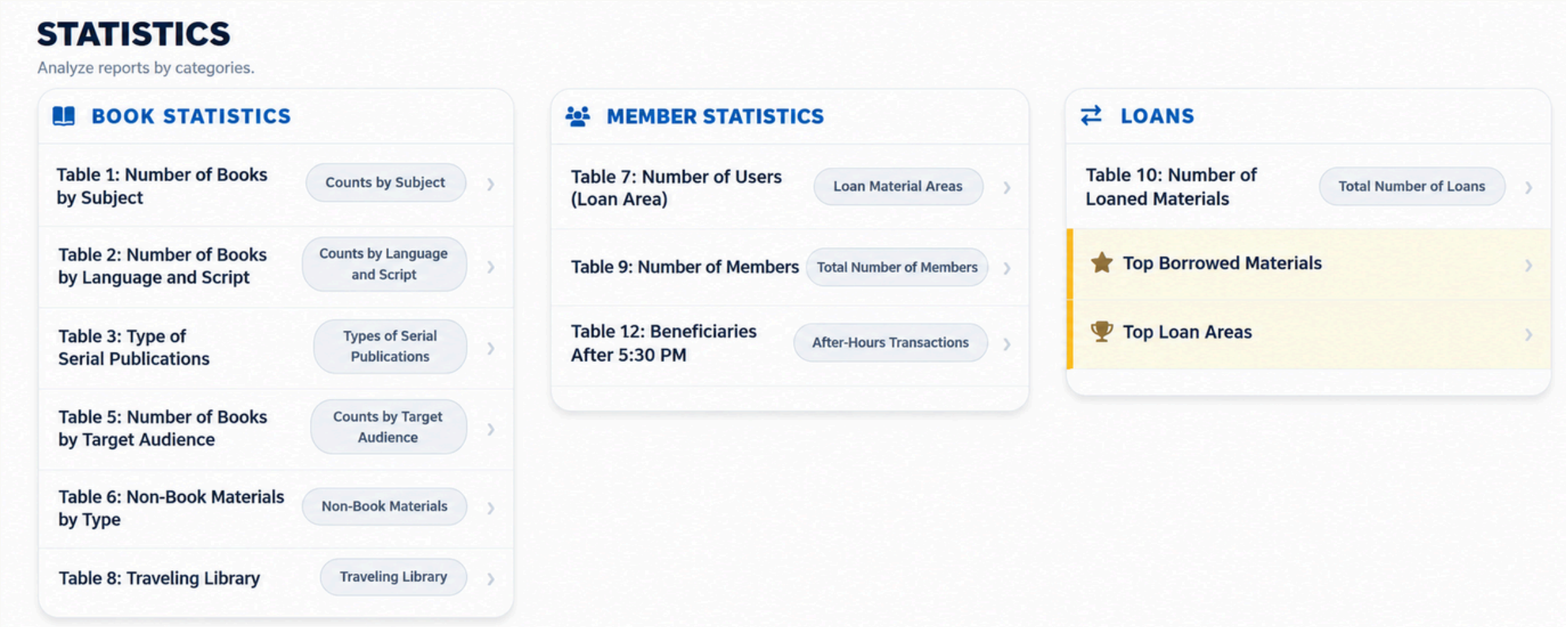
Libraries, members, collections / and usage.

02 **Reporting tools**

Automated statistical reporting

03 **National context**

For the Turkish Statistical Institute / annual library statistics.



We turned physical touchpoints / into a digital gateway

Membership cards

Membership-card templates are produced centrally and made available to library staff; they make the public-service experience visible.





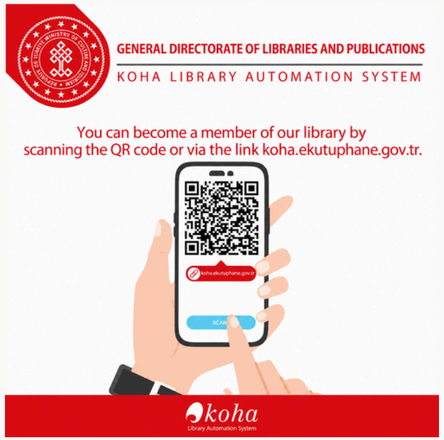


QR materials

QR-code posters and social-media referral materials are prepared centrally; staff use them to direct people to current digital information.







Offline circulation became a / multiplatform service

Membership cards

Because of browser-extension limitations, the solution was redesigned as a web/PWA and desktop .exe version.

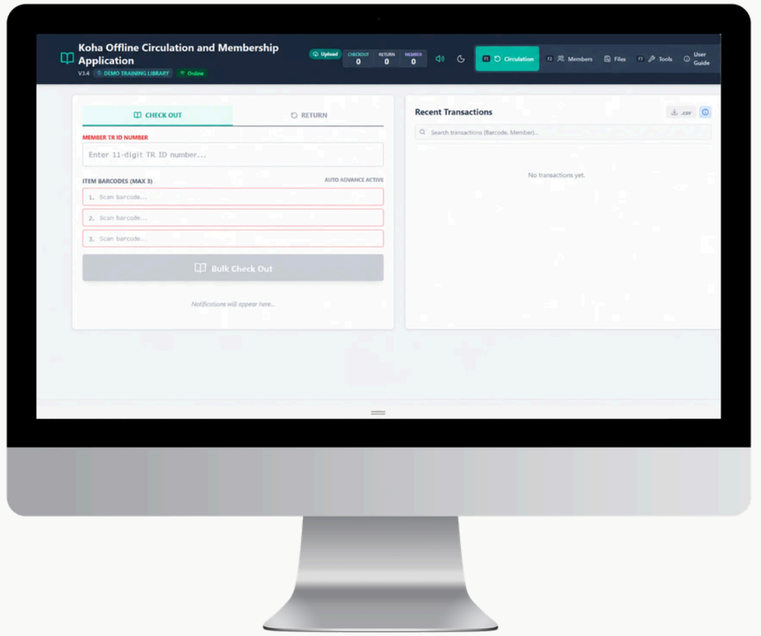
Offline operation

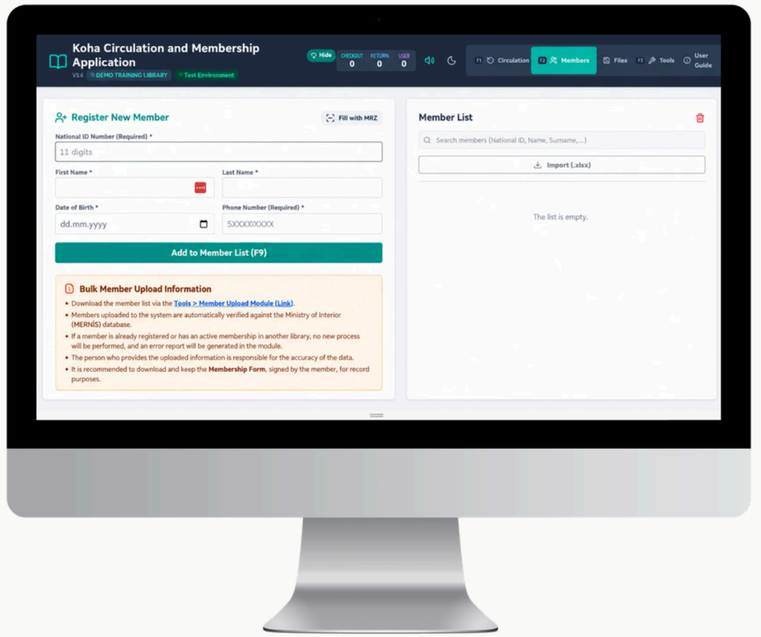
Loans, returns and new-member registration can run without internet using barcode, MRZ and guardian checks for under-18s.

Offline operation

Circulation is exported as .koc and membership as .xlsx; merging, deduplication, final processing and Excel-report tools are available.

This is not only circulation; it is an offline model covering membership, file management, reporting and multiple platforms together.





Shared identity lets new experiences grow around Koha.

No separate user database. The same rules travel into every touchpoint.

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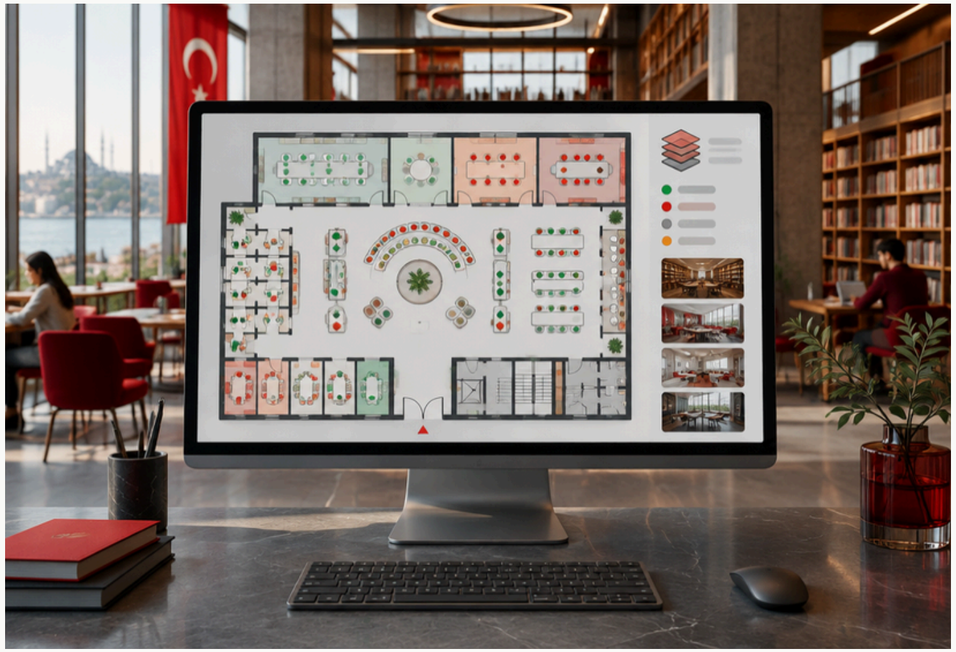
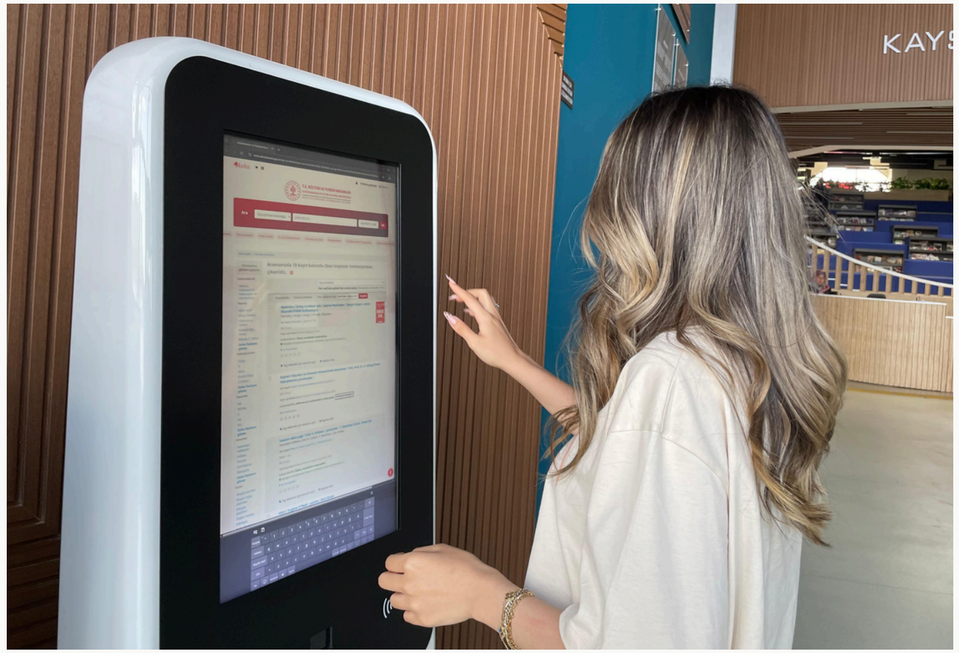


SEAT RESERVATION

Desks · rooms · events · interactive floor plan · real-time occupancy



SELF-SERVICE KIOSK

Catalogue search · account · seat selection · self-service circulation · Turkish / English interface

Seat Reservation as a Koha-Connected Service Layer

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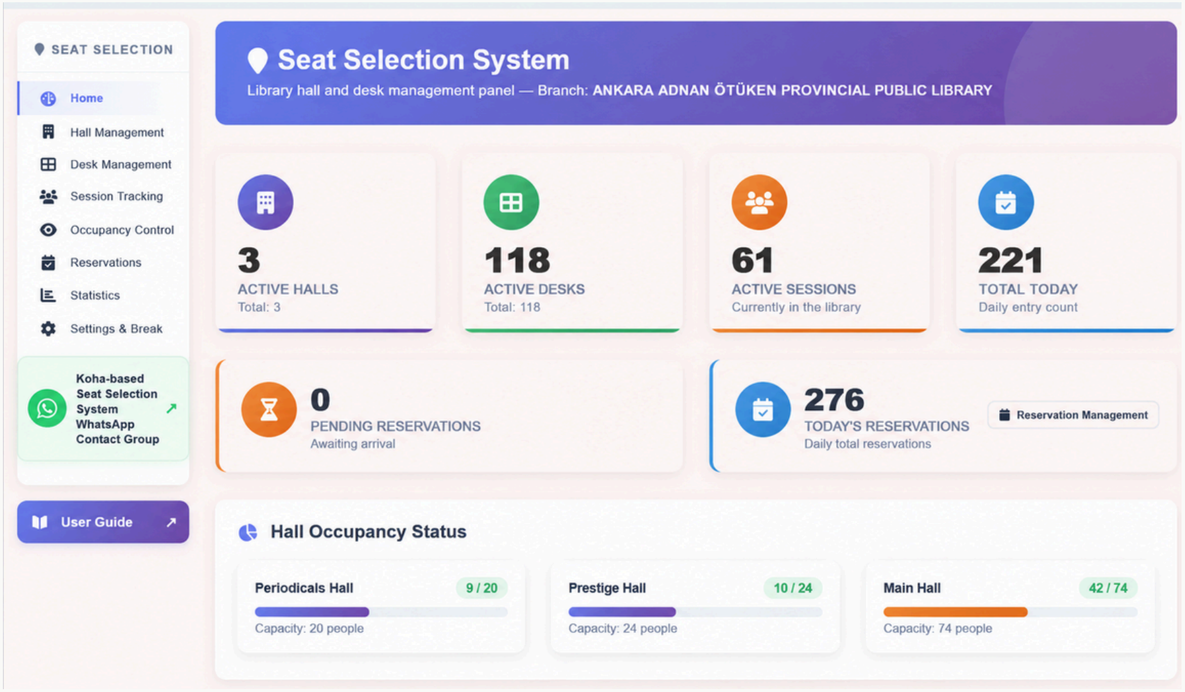
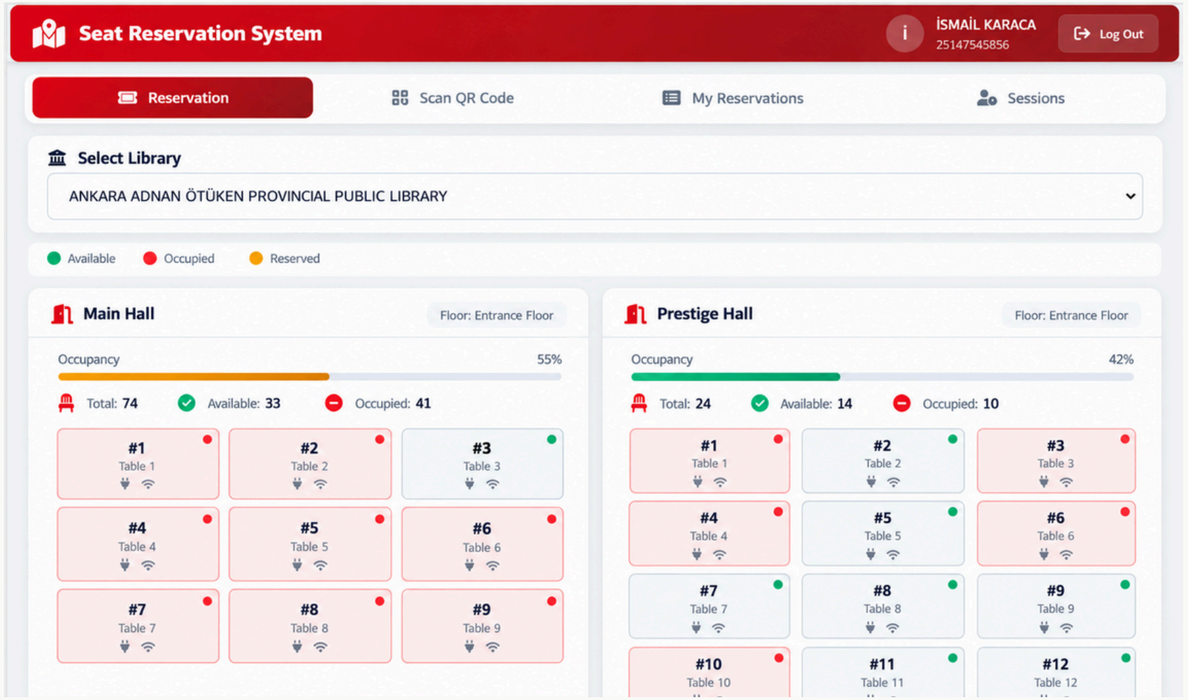




Scope

We moved desks, rooms and events from separate lists into a Koha-connected service layer.

User experience

Members select a seat from a mobile-friendly interactive room plan synchronized with Koha member data.

Operational control

Staff see live occupancy, usage statistics and reports; cancellations/restrictions can be applied for lateness or no-shows.

Kiosk, Koha for shared service

One device, many transactions

Catalogue search, seat selection, My Account and self-service loans/returns run through one kiosk layer.

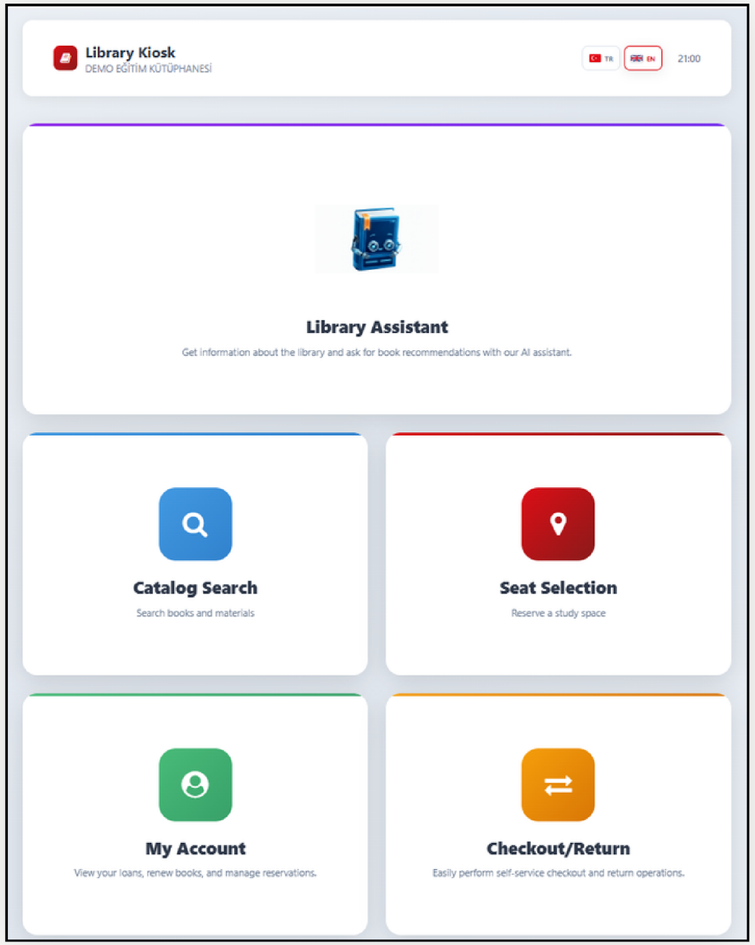
No separate data

Koha identity and rules are used instead of separate licenses and user databases.

Citizen experience

Turkish/English interface, on-screen keyboard and announcements support public use; the virtual-assistant component is a demo.





We turned requests into a visible Trello pipeline

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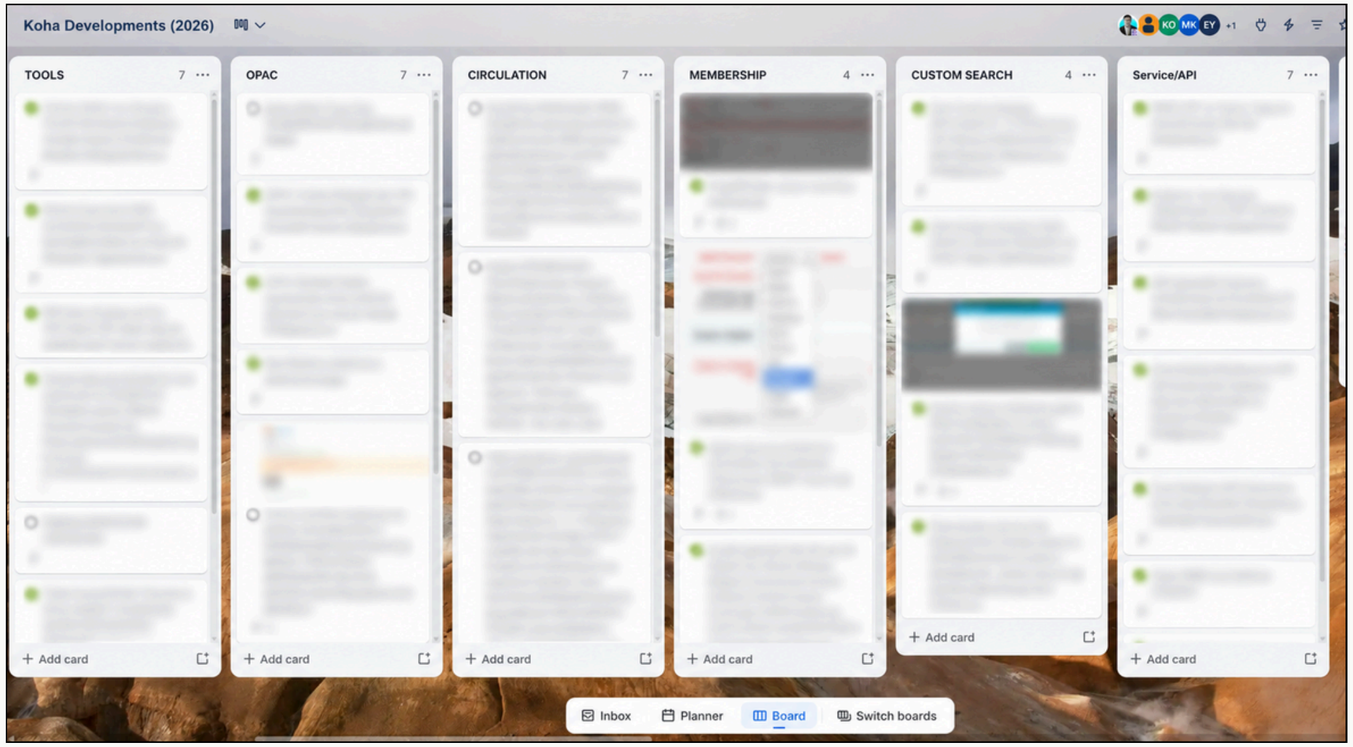


Request volume

Requests are moved from email, phone and verbal / channels into Trello as development proposals /.

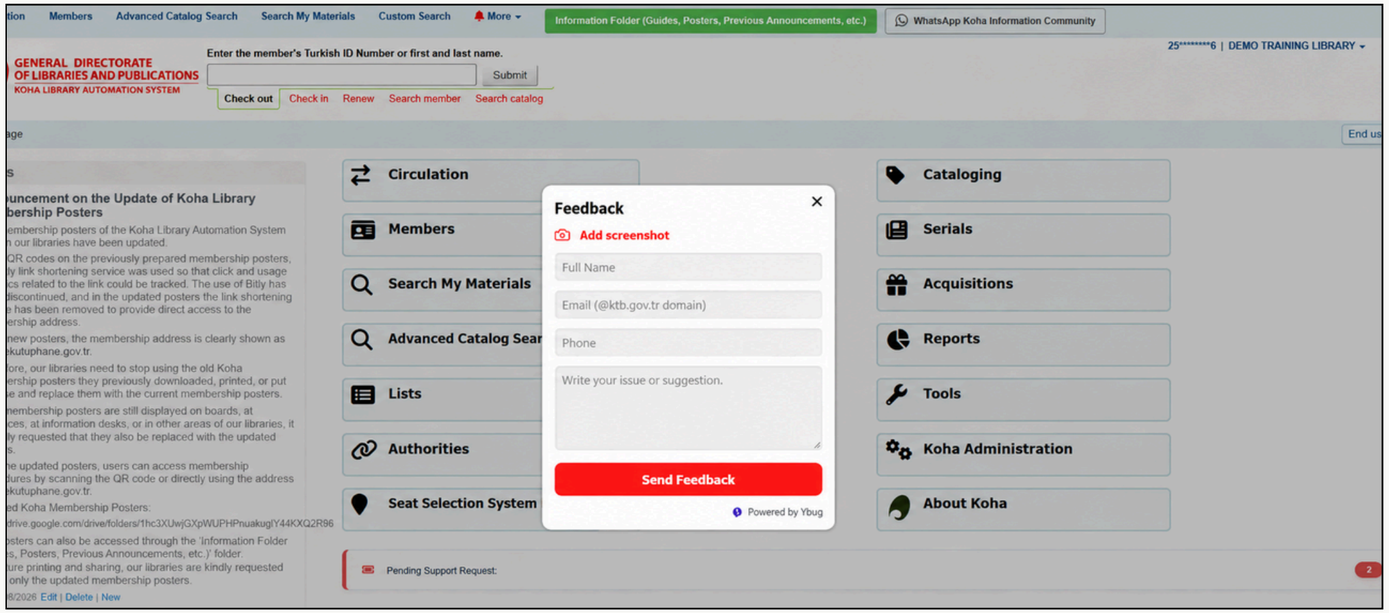
Stage tracking

Every request can be tracked through stages such as pending, in development, in testing and completed.

Fast feedback / with Ybug.io

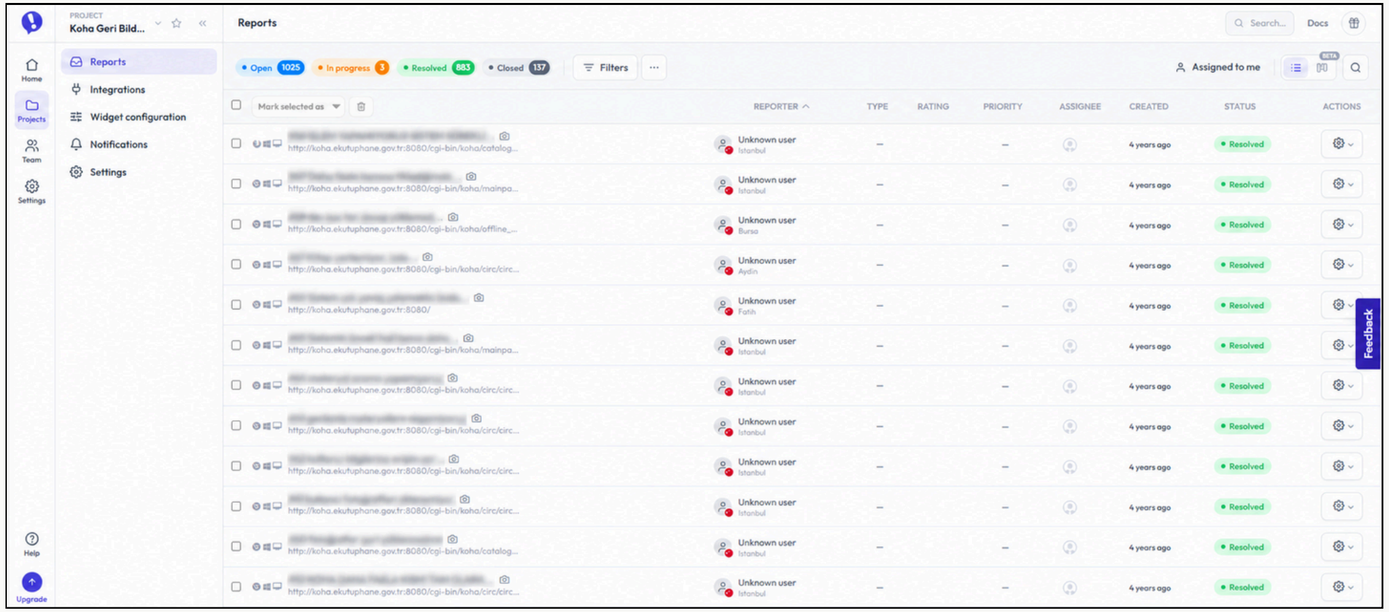
Evidence in one click

Staff send a screenshot of the screen where the error occurred.



Automatic routing

Feedback becomes centralised and traceable.



The application speeds up resolution time.

Requests became a managed release workflow

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01	**Trello by module**	Requests, bugs and developments are grouped by the changing module, not by the person who reported them.
02	**GitLab issue**	Actions remain traceable through comments, resolutions and closure notes.
03	**Management visibility**	This workflow makes the chain of request, analysis, development, testing, rollout and reporting visible.

We turned WhatsApp into a fast national operations channel

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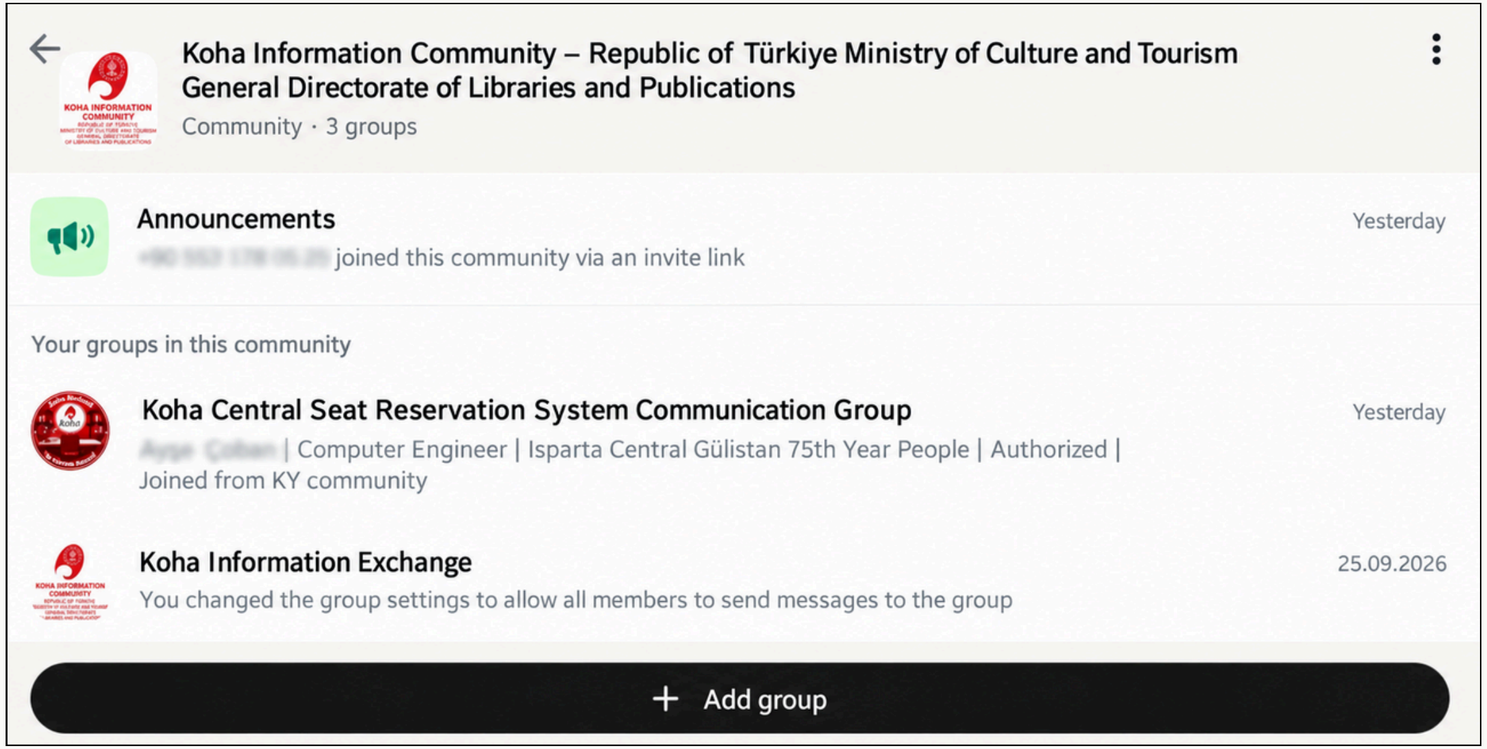
2000+ staff

More than 2,000 staff are reached.

Fast communication

Announcements, urgent information, technical support messages and current developments are delivered directly to the field.



The next layer: from automation to a smart library ecosystem

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01	**Super App**	Bringing distributed user interactions together in a more consistent mobile service environment.
02	**AI-assisted cataloguing**	Using AI as an assistant, under librarian supervision, for repetitive or inferential metadata work; not replacing professional judgment.
03	**Smart discovery and assistant**	Expanding discovery and management through a conversational Library Assistant, ethical recommendation mechanisms and richer decision-support dashboards.

Conclusion: Koha as a Centrally Governed Locally Responsive Public Service Infrastructure

Türkiye’s experience shows that Koha can function not only as an integrated library system, but also as a sustainable national public library infrastructure.



Governance
Central standards and local responsiveness.

Scalability
Support for 1.300+ public libraries.

Interoperability
Discovery, integration and catalog reuse.

Service Continuity
Field tools, redundacy, and resilient operations.

Privacy and Trust
Controlled access authentication and user protection.

Conclusion

Türkiye’s experience shows that Koha can function not only as an integrated library system, but also as a sustainable national public library infrastructure.

Key Takeaways:

- Scale requires **governance**, not only hardware.
- **Shared standards** strengthen bibliographic quality and operational consistency.
- **Local tools** can extend Koha sustainability without fragmanting the core platform.
- **Interoperability, privacy, and continuity** are instutional design questions.
- Open-source infrastructure can be sucessfully adapted to **complex national realities.**



From Karlsruhe to İstanbul.

KohaCon27 - Rami Library - İstanbul/Türkiye

kohacon27.ktb.gov.tr

*Rami Library is the 2026 IFLA Green Library Award winner.