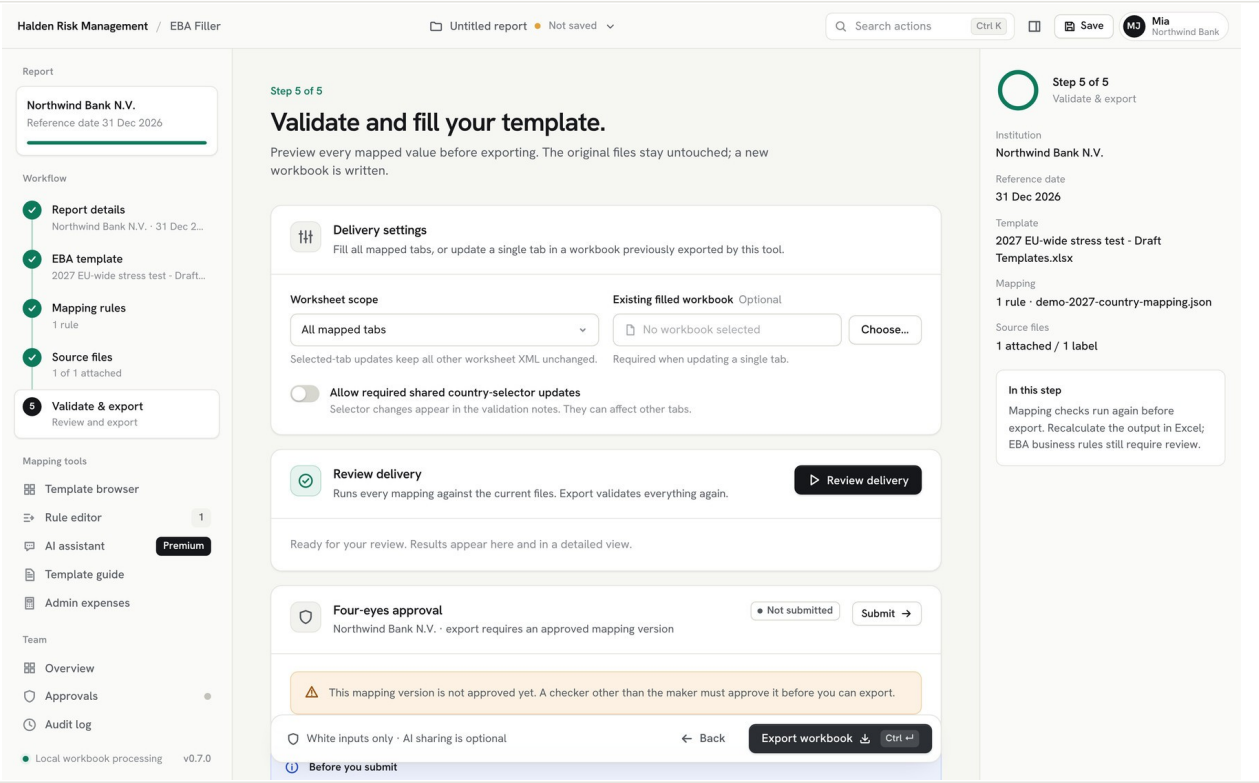


EBA Filler

User Guide

From sign-in to an approved, fully traced export: every step of a stress test delivery, with screenshots.



VERSION	DATE	APPLIES TO	AUDIENCE
0.9.0	October 2026	EBA 2027 EU-wide stress test (draft templates)	Makers, checkers, team leads

Independent software; not an official EBA product. Screenshots show fictitious example data.

Contents

Introduction.....	3
What it does.....	3
Who it is for.....	3
How a delivery works.....	3
Five-minute version.....	3
Companion documents.....	4
1 Install and start the app.....	5
2 Sign in.....	6
Single sign-on.....	6
E-mail and password.....	8
Later.....	8
3 Step 1: Report details and projects.....	9
4 Step 2: The EBA template.....	10
The template guide.....	10
5 Step 3: Mapping rules.....	13
Source labels.....	13
Create a rule by hand.....	14
Link cells by pointing and clicking.....	17
Loading a saved mapping.....	19
6 Optional: the AI mapping assistant.....	20
7 Step 4: Source files.....	23
8 Step 5: Validate and review.....	26
9 Four-eyes approval, export and lineage.....	29
Link a team project.....	29
Submit (maker).....	30
Approve (checker).....	31
Export.....	33
Lineage.....	33
10 Team overview, audit log and users.....	35
Organisation settings (administrators).....	37
11 Shortcuts, files and troubleshooting.....	41

Introduction

Halden EBA Filler fills the EBA 2027 EU-wide stress test template from a bank's own Excel and CSV files, checks every value against the template's own rules, and records who approved what. This guide covers version 0.8.0 of the desktop app.

What it does

A bank keeps its data where it is. The app reads the original EBA template and the bank's source files locally, applies reusable mapping rules, and writes a new filled workbook. The template and the sources are never modified. Team features (sign-in, four-eyes approval, audit log) run through a small premium server that the bank or Halden hosts.

The app works without any server in **local mode**. The server adds accounts, approvals, the shared audit log and the optional AI mapping assistant.

Who it is for

Reader	What they do with it	Start here
Stress test team (makers)	Map source files to the template, validate, export	User guide
Reviewers (checkers)	Approve mapping versions, trace values	User guide, sections 8 and 9
Risk, audit and validation	Understand what the tool checks, and what it does not	Methodology
IT and administrators	Host the server, set up SSO, roll out the app	Server guide (SERVER.md)

How a delivery works

A complete delivery takes five steps in the app: report details, template, mapping rules, source files, then validate and export. Team accounts add one step before export: a second person approves the mapping version. The screenshots below follow one example from start to finish, Northwind Bank N.V. with reference date 31 December 2026.

The left sidebar always shows the five steps and their status, plus the mapping tools and team features. You can move back to any finished step at any time.

Five-minute version

1. **Sign in** with your work e-mail (SSO or password), or choose *Continue in local mode*.
2. **Report details:** institution and reference date. Create a project so autosave keeps your work.
3. **EBA template:** select the original 2027 template workbook. It is recognised and never modified.
4. **Mapping rules:** load last cycle's mapping, or create rules by hand, by point and click, or with the optional AI assistant.
5. **Source files:** attach the file for each source label.

6. **Validate & export:** review every value and finding. With a team account, a checker approves the mapping version first; then export a new filled workbook and save the audit log.

Companion documents

Two videos accompany this guide: a five-minute tutorial of the whole workflow, and *Making rules*, five minutes on mapping rules alone (point and click, the rule editor, the Countries operation and checking the result). Both are on the Halden website under Resources.

The **Methodology** document explains how the template is read, what each mapping operation does exactly, which checks run, and what the tool does not check. The **server guide** (`docs/SERVER.md` in the project) covers installing and running the premium server, single sign-on, users, rollout and backups.

1 Install and start the app

Platform	Installer	Notes
Windows 10/11	Halden EBA Filler Setup.exe	Per-user install; you can choose the folder.
macOS 12+	Halden EBA Filler.dmg	Drag the app to Applications.
Linux	Halden EBA Filler.AppImage	Make it executable, then run it.

The installers bundle the reporting engine, so no Python is needed. Your IT department may also install the app for you, together with a configuration file that points it at your organisation's Halden server.

On first start a short splash screen appears while the engine loads the 2027 template catalogue, then the sign-in screen opens.

Everything the app reads (template, mappings, source files) stays on your computer. Only team features and the optional AI assistant talk to the server.

2 Sign in

Type your work e-mail and choose **Continue**. The app asks your organisation's Halden server which sign-in method your e-mail domain uses, and takes you down one of three routes.

Figure 1 Sign-in screen: one e-mail field, Continue, and Continue in local mode

Route	When	What happens
Single sign-on	Your organisation has set up SSO (Microsoft Entra ID, Okta, Google Workspace and others)	Your default browser opens your organisation's sign-in page. Sign in there; the app continues by itself.
E-mail and password	No SSO for your domain, or you choose <i>Use your password instead</i>	A password field appears under your e-mail.
Local mode	You work alone, or without a server	Choose <i>Continue in local mode</i> . Nothing leaves your computer; team features are switched off.

Single sign-on

While you sign in, the app shows **Continue in your browser**. If the browser tab got lost, choose *Open browser again*; *Cancel* stops the attempt. The sign-in page belongs to your organisation, so your password never passes through the app.

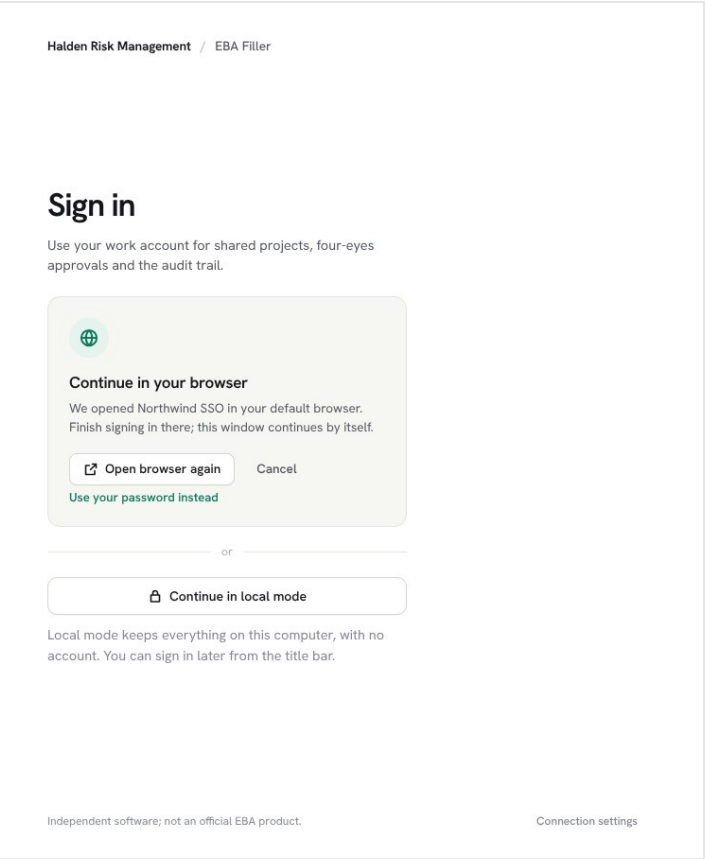


Figure 2 The app waits while you sign in through the browser

When the browser shows **You are signed in**, close the tab and return to the app. Your session lasts 12 hours and is stored in the operating system's credential vault.

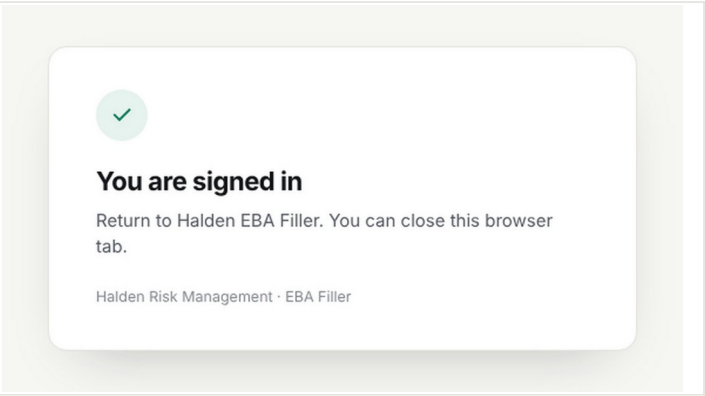
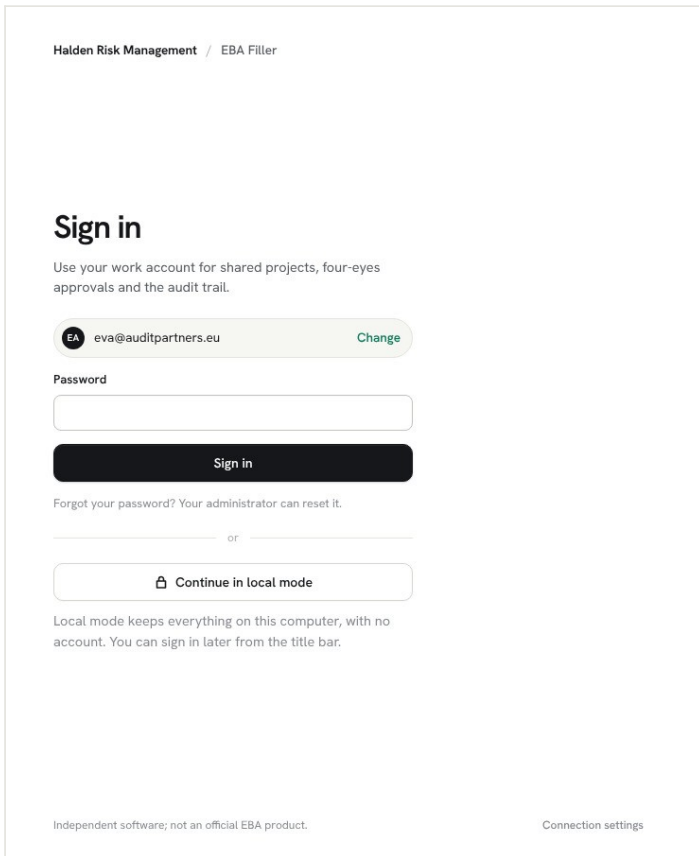


Figure 3 The browser confirms the sign-in

E-mail and password



The screenshot shows the 'Sign in' interface of the Halden Risk Management EBA Filler. At the top, it says 'Halden Risk Management / EBA Filler'. Below this is the 'Sign in' heading and a subtext: 'Use your work account for shared projects, four-eyes approvals and the audit trail.' The email input field contains 'eva@auditpartners.eu' with a 'Change' link to its right. Below the email field is a 'Password' label and an empty password input field. A 'Sign in' button is positioned below the password field. Underneath the button, it says 'Forgot your password? Your administrator can reset it.' Below this is a horizontal line with 'or' in the center. Under the line is a button labeled 'Continue in local mode' with a lock icon. Below this button, it says 'Local mode keeps everything on this computer, with no account. You can sign in later from the title bar.' At the bottom left, it says 'Independent software; not an official EBA product.' and at the bottom right, it says 'Connection settings'.

Figure 4 Password route: your e-mail as a chip, with Change to go back

A new account starts with a temporary password; the app asks you to choose your own at first sign-in (at least 12 characters, upper- and lower-case letters and a digit). After 5 wrong attempts the account is locked for 15 minutes. Forgot your password? Your administrator can reset it.

Later

- You can sign in later from **Sign in** in the title bar, and sign out from your initials there.
- **Connection settings** (bottom of the sign-in screen, or Ctrl K) shows which server the app uses. Change it only when your administrator asks; if IT manages it, the link is hidden.

3 Step 1: Report details and projects

Enter the legal name of the reporting entity and the reference date of the report (not the submission date). These identify your workspace; they are not written into the workbook automatically.

The screenshot shows the 'Halden Risk Management / EBA Filler' application. The main area is titled 'Step 1 of 5: Set up your report.' and contains instructions: 'Start with the reporting entity and reference date. Save it as a project now and add the remaining data whenever it becomes available.' There are two buttons: 'Create project' (Save now, add the remaining data later. Autosave keeps it current.) and 'Open project' (Continue a saved .rifproject exactly where you left off.). Below these is a 'Report details' section with two input fields: 'Institution name' (Northwind Bank N.V.) and 'Reporting reference date' (12/31/2026). A note states: 'Use the legal name of the reporting entity. The report date, not the submission date.' At the bottom, there is a 'Next: choose your EBA workbook' button and a 'Continue' button. The right sidebar shows a summary of the current state: Institution (Northwind Bank N.V.), Reference date (31 Dec 2026), Template (Not entered), Mapping (Not entered), and Source files (Not entered). The bottom status bar indicates 'Signed in as Mia Jansen · session kept for this app session only' and 'Local workbook processing v0.7.0'.

Figure 5 Step 1: institution name, reference date, and Create project / Open project

- **Create project** saves the workspace as a `.rifproject` file. From then on autosave keeps it current every two seconds, and the previous version is kept as `.rifproject.bak`.
- **Open project** continues a saved project exactly where you left off. Missing files are reported; your rules and labels stay.
- A project stores the report details, the complete mapping, the locations of the template and source files, and your last step. It does not copy the Excel files: keep the project folder and the source files together.

The right panel summarises the workspace at every step: institution, reference date, template, mapping and source files.

4 Step 2: The EBA template

Select the original *2027 EU-wide stress test – Draft Templates.xlsx*, or drop it onto the window. The file is read locally and never modified.

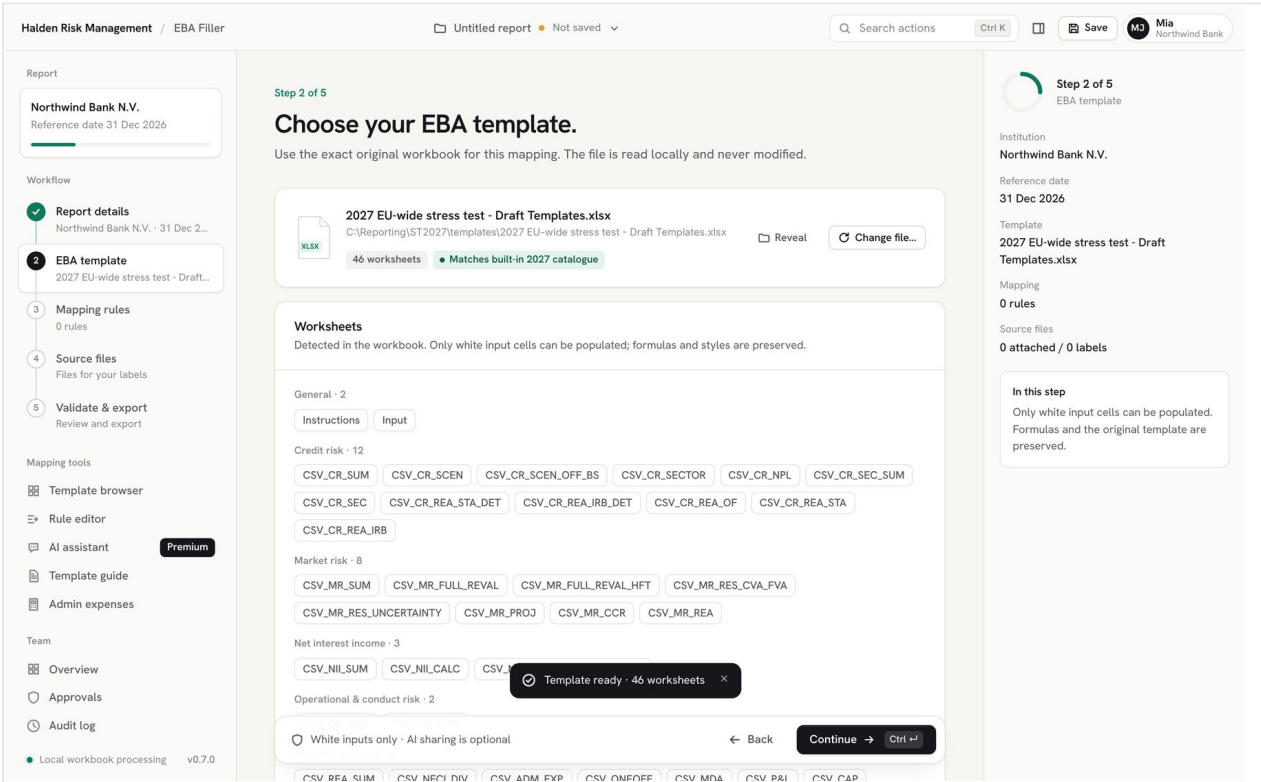


Figure 6 Step 2: the template is recognised and its 46 worksheets are listed by risk area

- **Matches built-in 2027 catalogue** means the file is byte-identical to the template the app knows. All tab-specific checks are then available.
- The worksheets are grouped by risk area. Only white input cells inside the EBA reporting grid can be filled; formulas and styles are preserved.
- The bundled draft template is available via Ctrl K → *Open bundled 2027 draft template folder*.

The template guide

Open **Template guide** in the sidebar to see what each tab expects, in plain language, with the methodology paragraphs that apply.

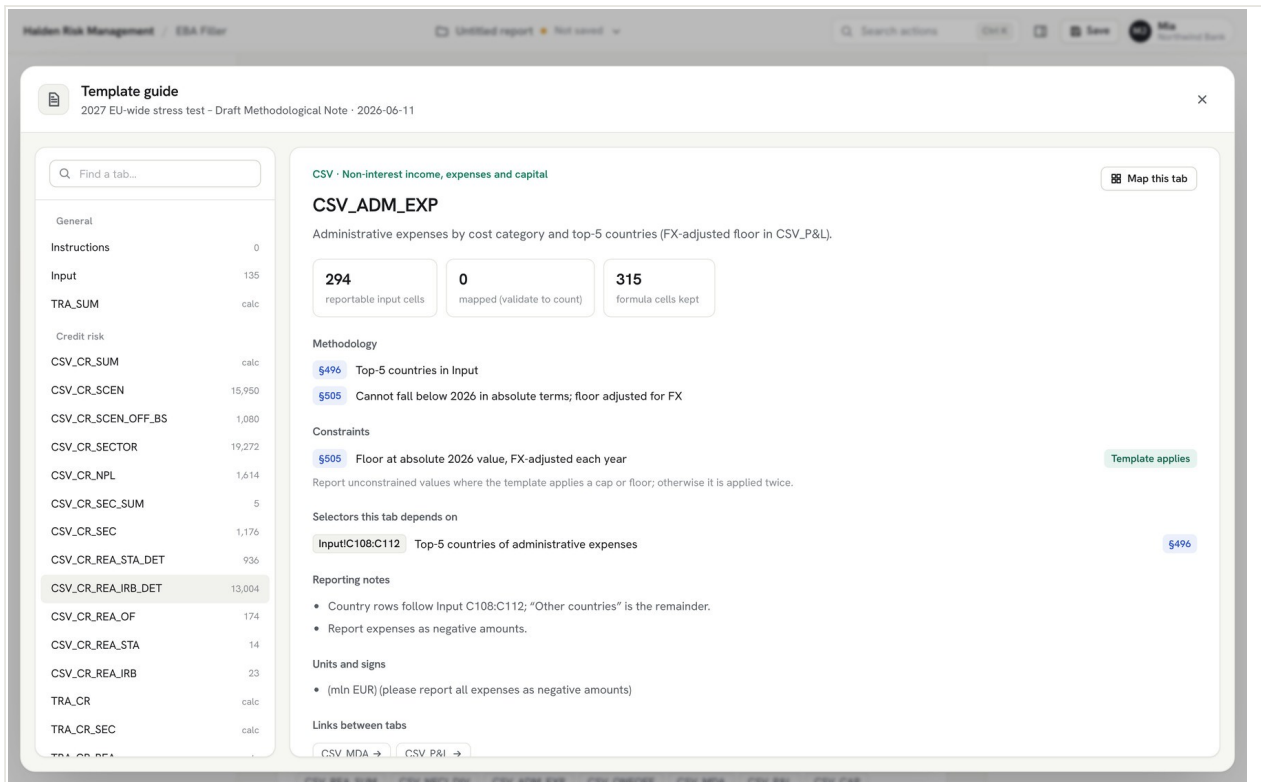


Figure 7 Template guide for CSV_ADM_EXP: reportable cells, methodology, constraints and selectors

For every tab the guide shows:

- the number of reportable input cells, cells already mapped, and formula cells the template keeps;
- the methodology paragraphs (for example \$496 and \$505 for administrative expenses);
- the constraints the template already applies, marked *Template applies*, so you report unconstrained values and never apply a cap or floor twice;
- the Input selectors the tab depends on, sign conventions and units, and links to related tabs.

Some tabs have rules that are easy to miss. On CSV_NFCL_DIV, a blank cell selects a different methodology than a zero, and the guide says so in a warning box.

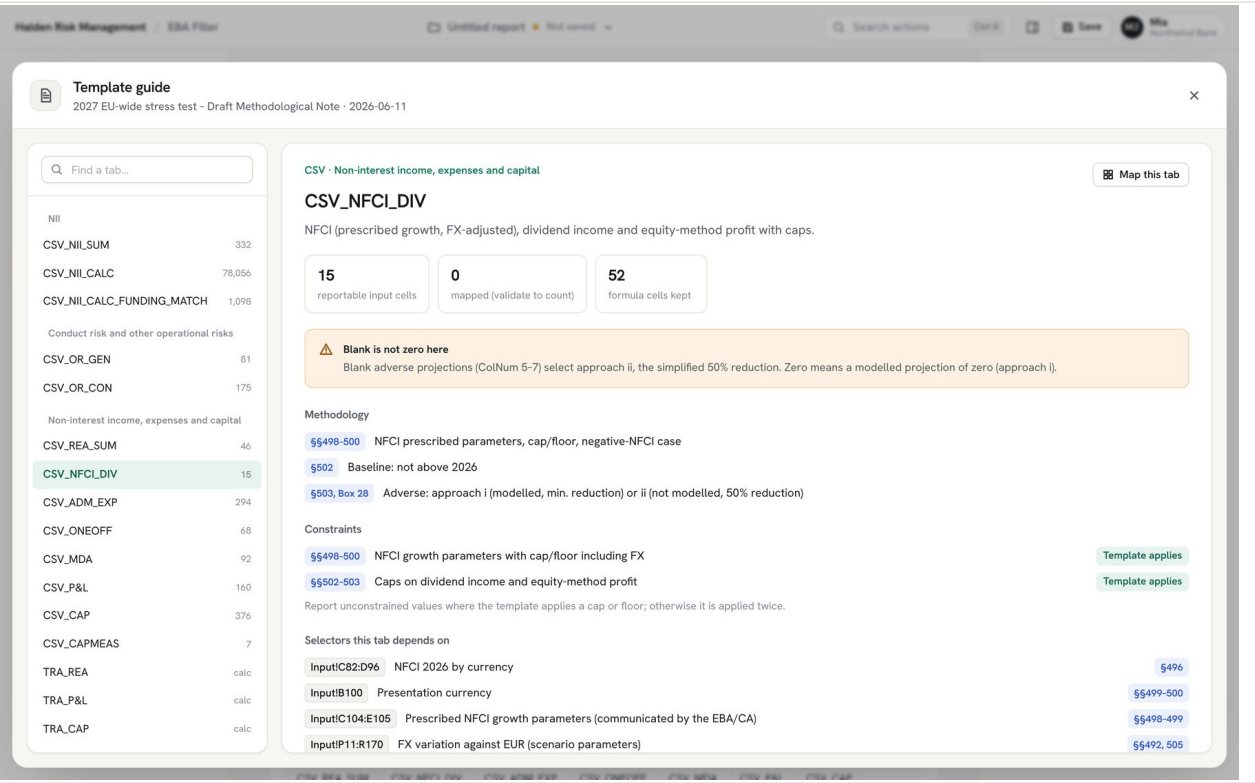


Figure 8 CSV_NFCI_DIV: blank is not zero

Tabs that the template calculates itself (the TRA transparency tabs, CSV_CR_SUM and CSV_CL_SUM) are marked *Calculated*. Map the tabs they read from instead; values written to calculated tabs are rejected.

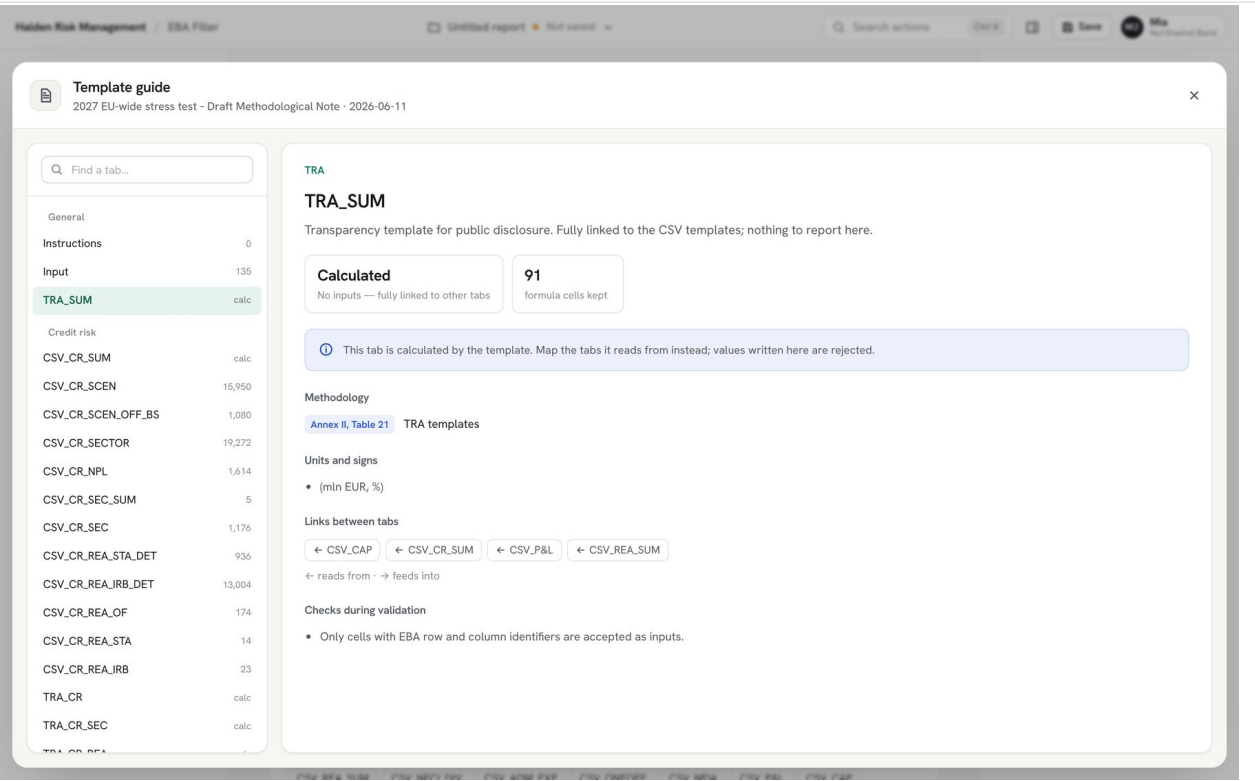


Figure 9 A calculated tab: nothing to report here

5 Step 3: Mapping rules

A mapping is a reusable set of rules. Each rule says where values come from (a source label, sheet and range) and where they go in the template. Mappings are saved separately from projects, so last cycle's rules can be loaded and reused.

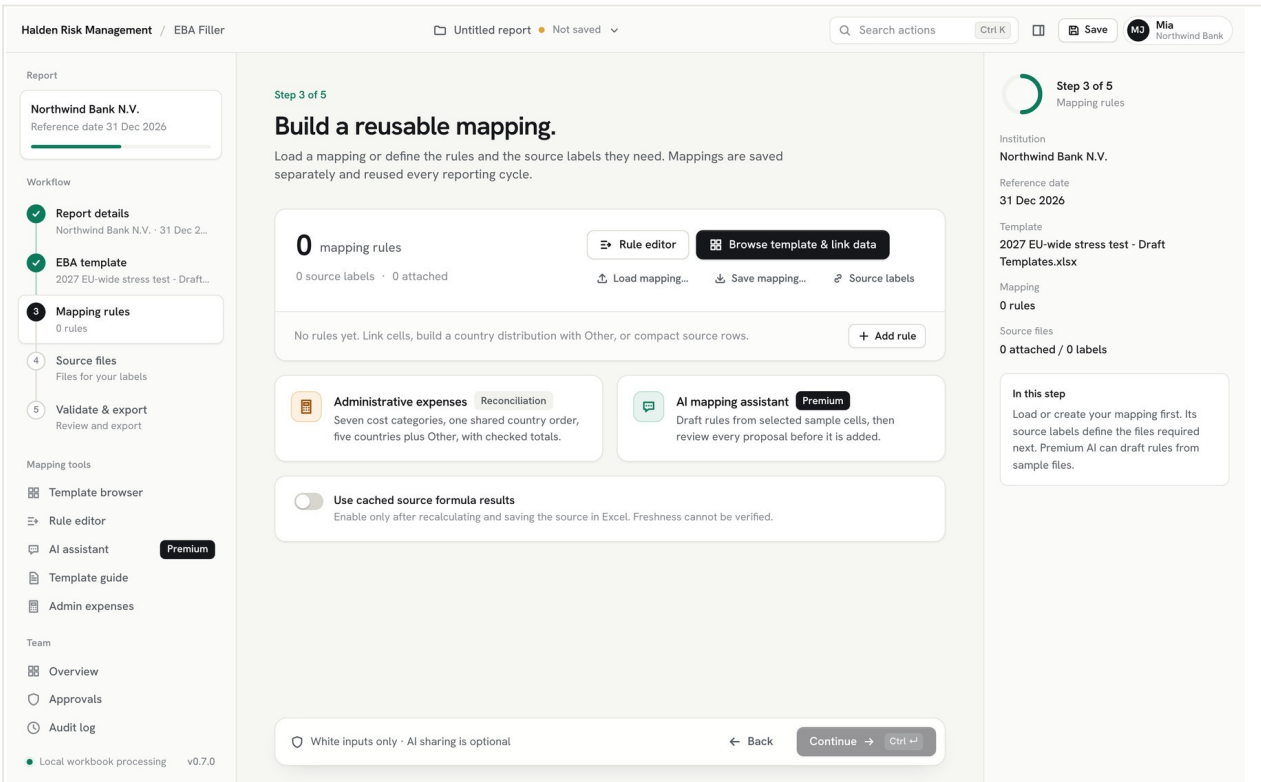


Figure 10 Step 3: rule editor, template browser, load and save, and the helpers

From this step you can:

- open the **Rule editor** to add or edit rules by hand;
- choose **Browse template & link data** to link cells by pointing and clicking;
- **Load mapping...** or **Save mapping...** as a JSON file;
- use the **Administrative expenses** helper (reconciled ADM by country and category) or the optional **AI mapping assistant**.

Source labels

Rules never point at file names. Each source gets a stable label, such as *Fixed remuneration*. Next year you attach a new file to the same label and every rule keeps working.

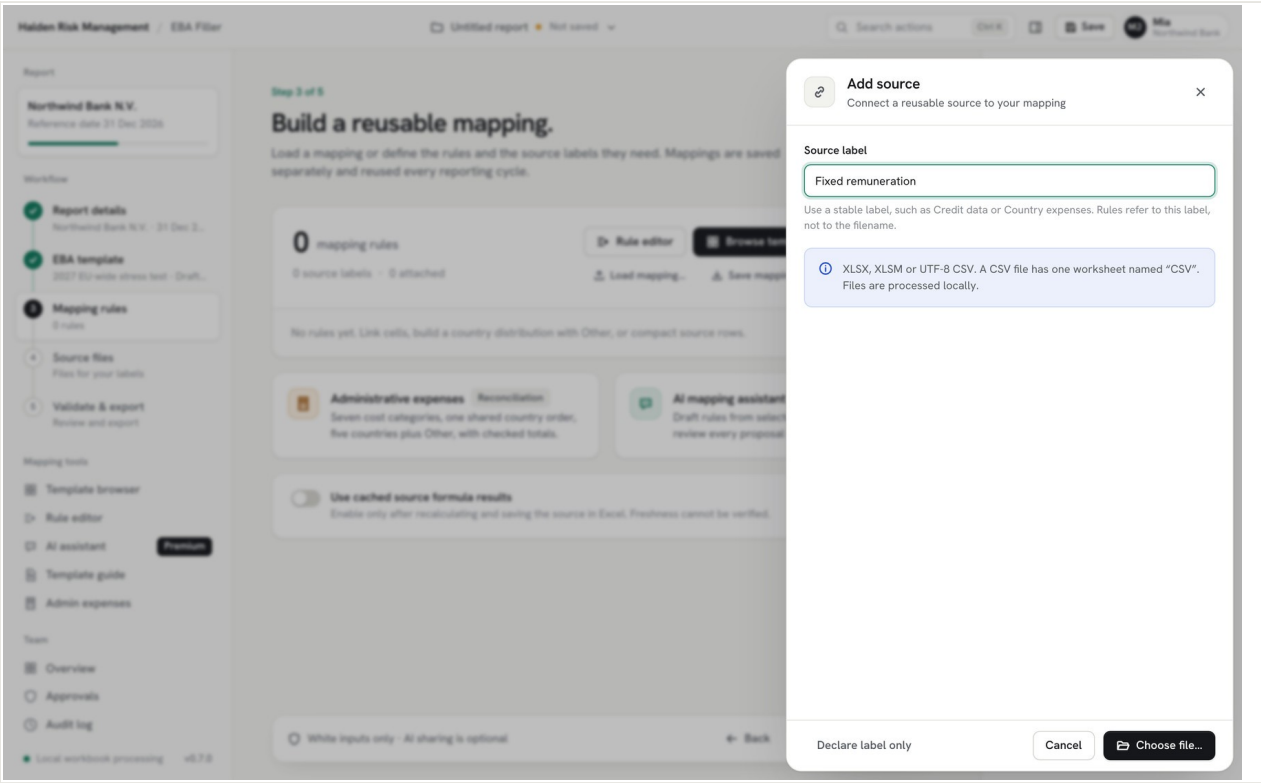


Figure 11 Add source: a stable label, then choose the file

You can declare a label without a file (*Declare label only*) when the data is not available yet.

Create a rule by hand

In the Rule editor choose **Add rule**, give the rule a clear name, then pick an operation.

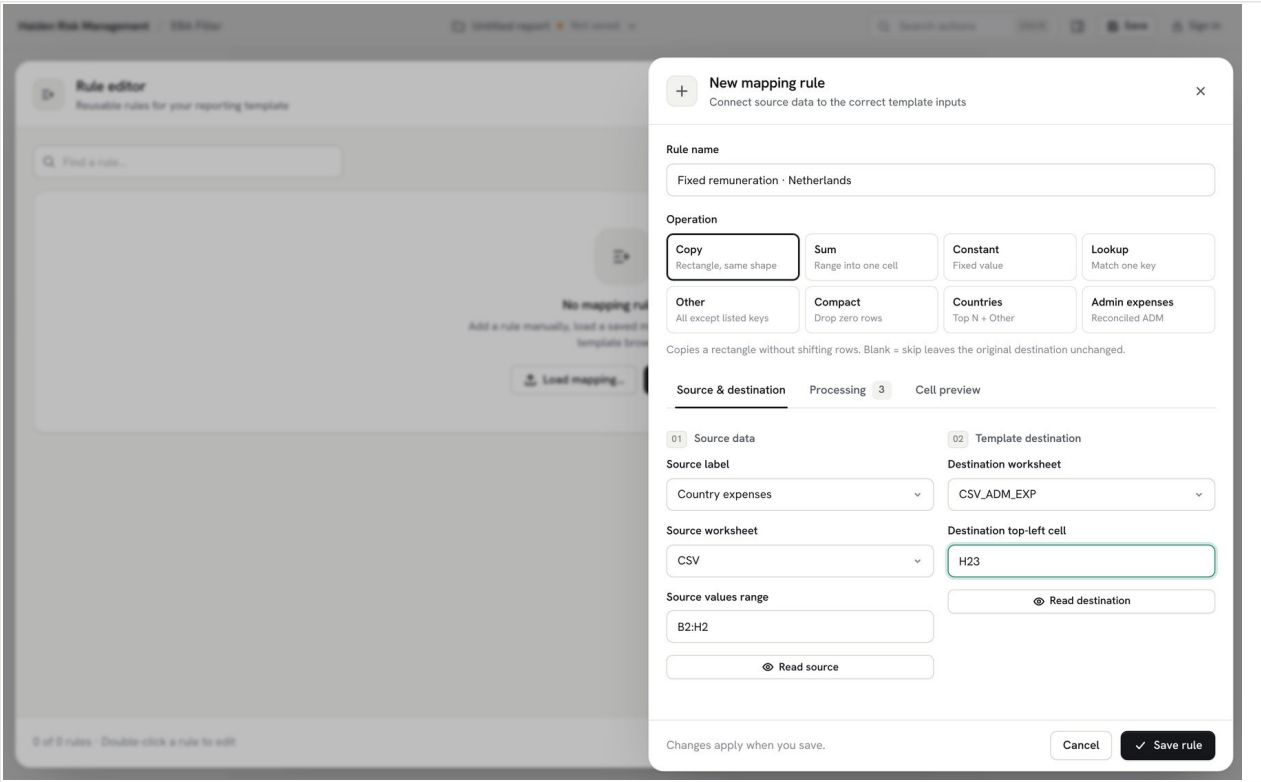


Figure 12 New mapping rule: name, operation, source and destination

Operation	Use it for
Copy	A block of cells, same shape
Sum	A range added into one cell
Constant	One fixed number or text
Lookup	The rows for one key, such as a country
Other	All keys except a listed set
Compact	Rows without the all-zero ones, in reserved rows
Countries	Top N countries plus Other, including the country selectors
Admin expenses	The reconciled administrative expenses dataset

Then choose the source label, worksheet and range, and the destination worksheet and top-left cell. *Read source* and *Read destination* show what is there before you save. The Methodology document explains each operation exactly.

Only the top-left cell. A Copy rule fills to the right and down in the shape of the source range: seven source cells in a row fill seven template cells in a row, starting at the destination cell.

A rule that cannot work is not saved. When you choose *Save rule*, the app checks the destination against the template straight away: every cell the rule would write must be a white input cell, and no other rule may write to it already. If not, *Rule not saved* explains which cell is the problem and what to do.

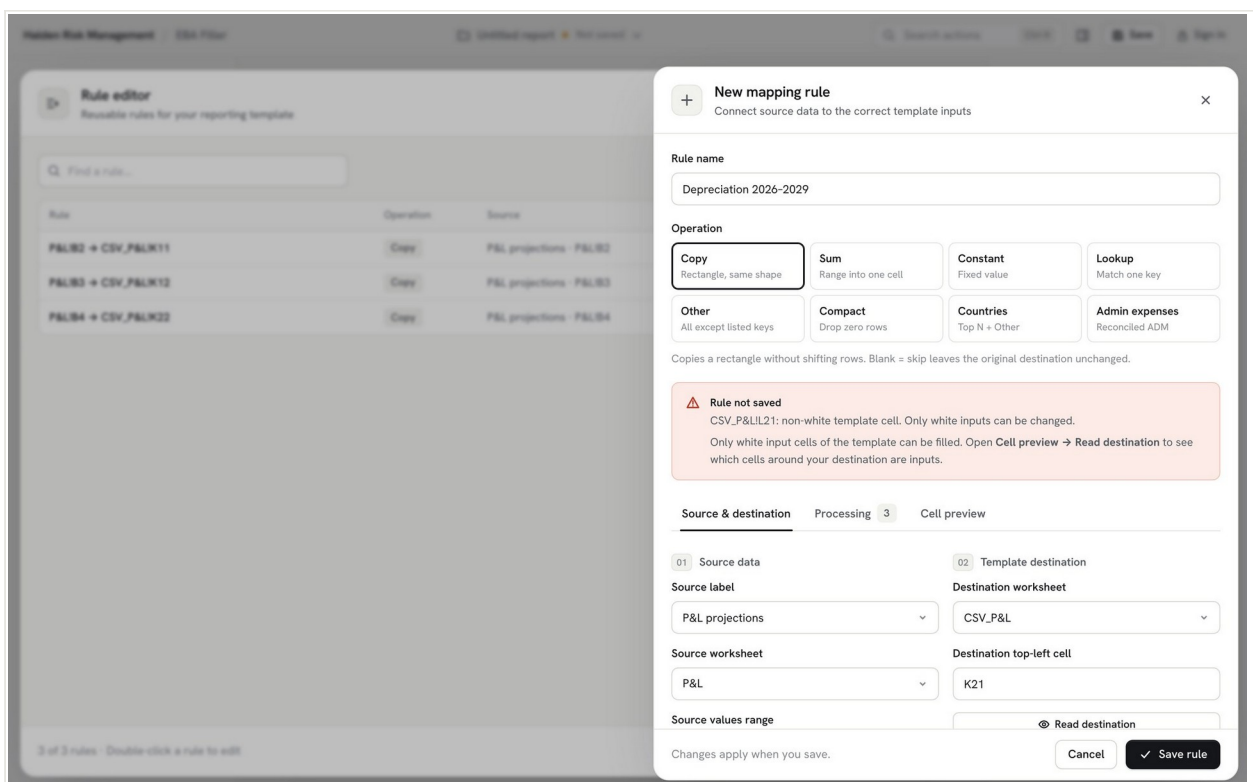


Figure 13 Rule not saved: the destination would run into grey cells

Open **Cell preview** → **Read destination** to see the cells around your destination. White input cells are marked in green; grey and formula cells can never be filled. In the example, row 38 (depreciation) is white from K to Q, so K38 is the right top-left cell.

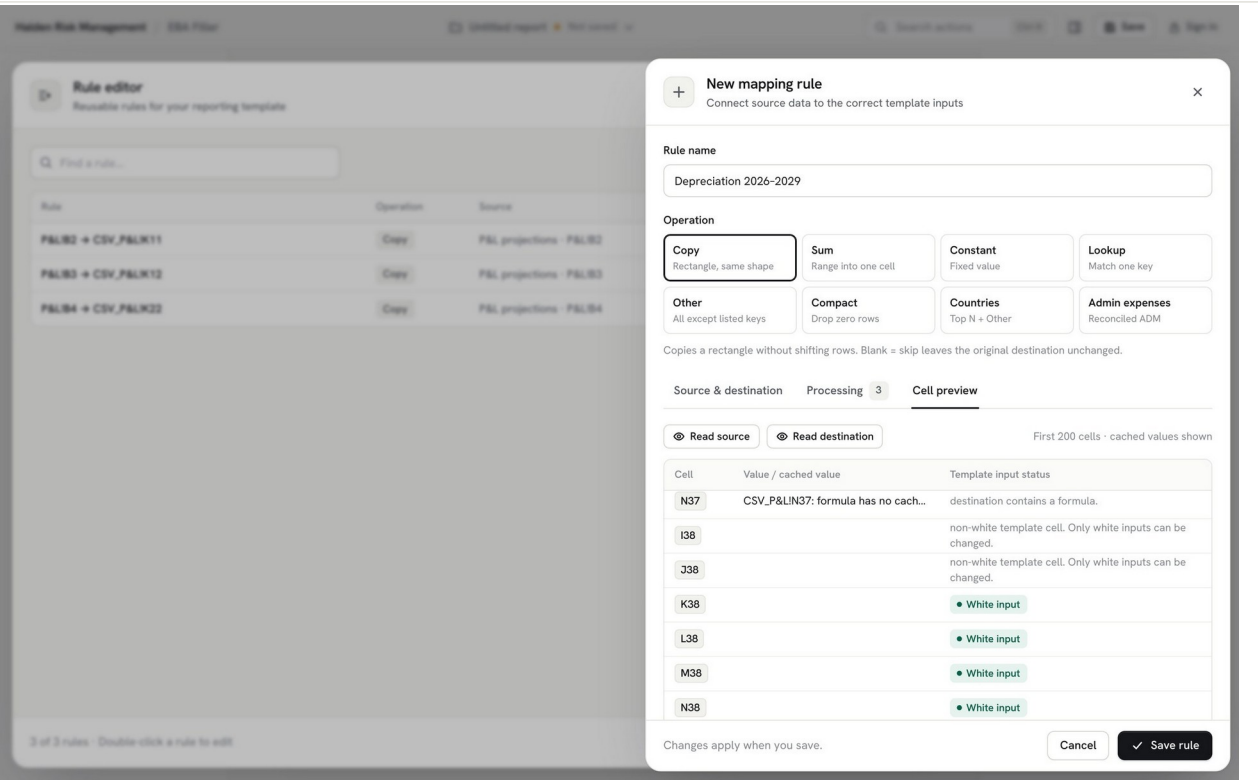


Figure 14 Cell preview: white input cells around the destination

Under **Processing** set the output type, a factor (0.000001 converts units to millions) and what a blank source cell means.

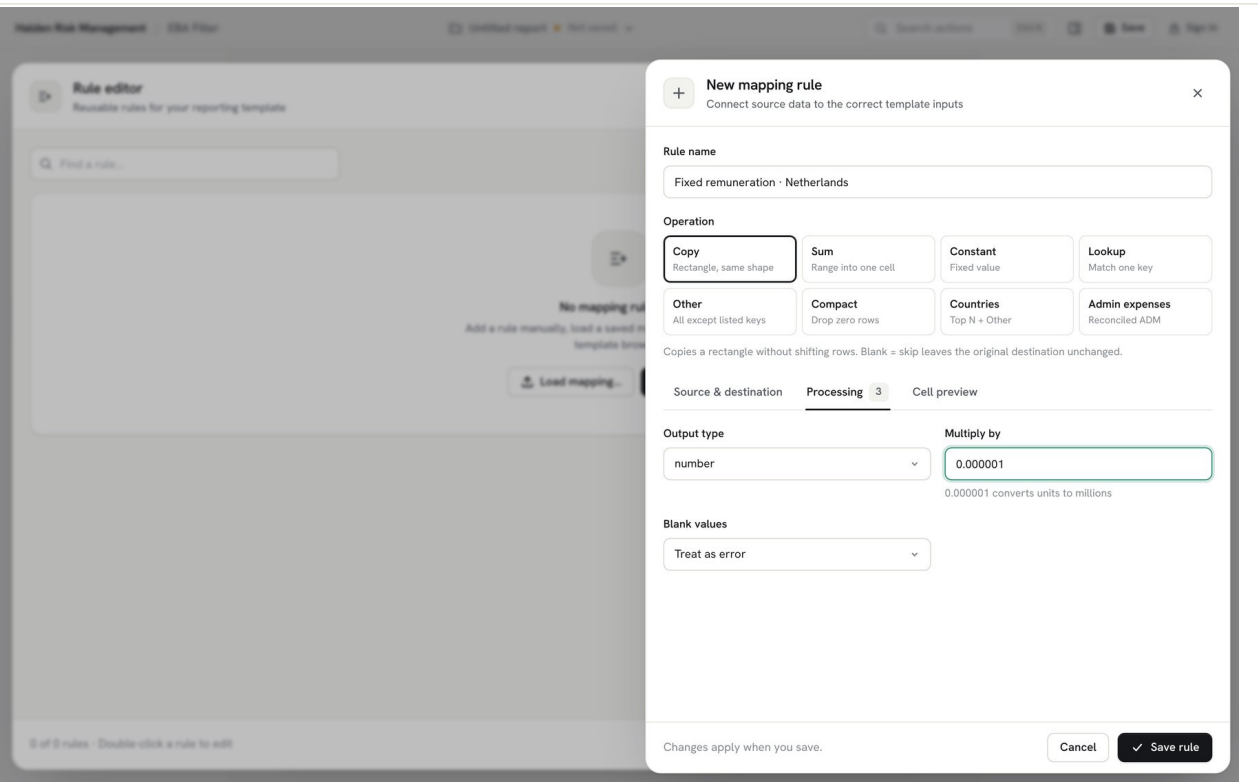


Figure 15 Processing: output type, multiply by, blank values

Choose **Save rule**. The rule list shows each rule's operation, source, destination, type and, with a team account, its approval status.

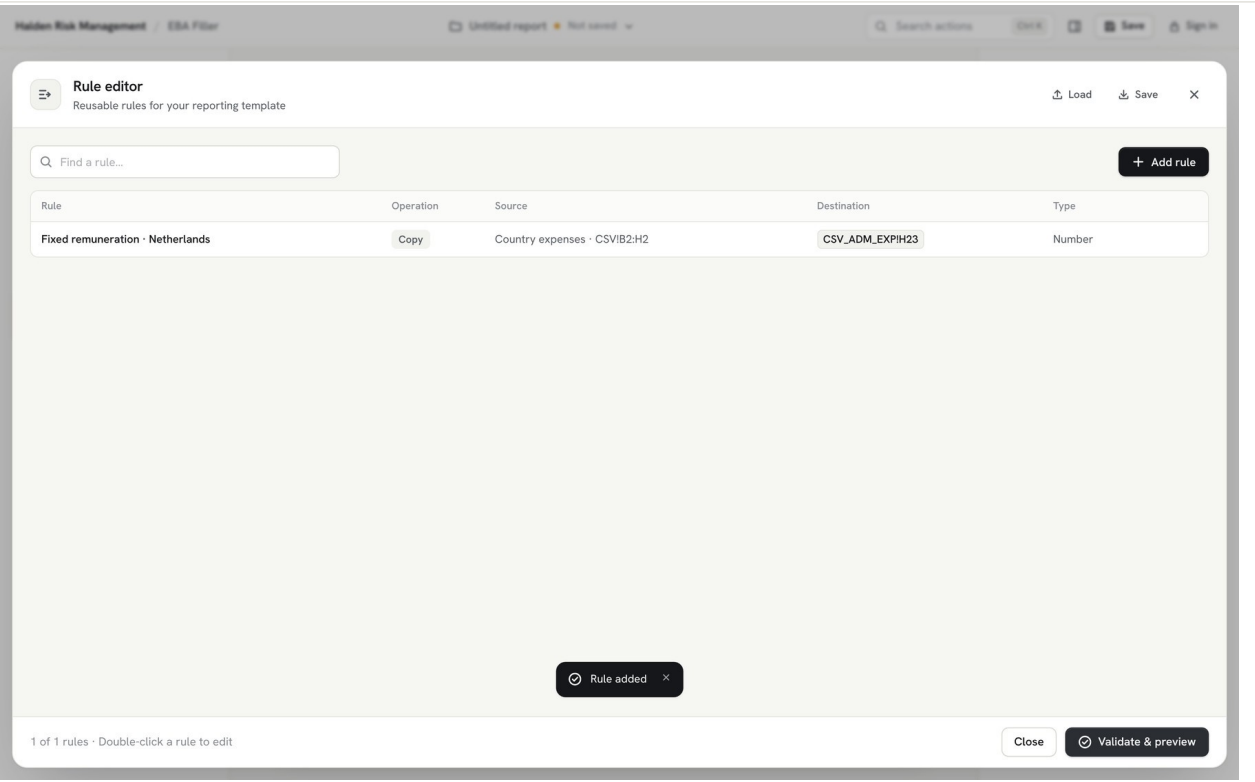


Figure 16 The saved rule in the rule list

Link cells by pointing and clicking

In **Browse template & link data**, select destination cells on the left and the matching source cells on the right, then choose **Link selected cells**. The app creates the rules for you.

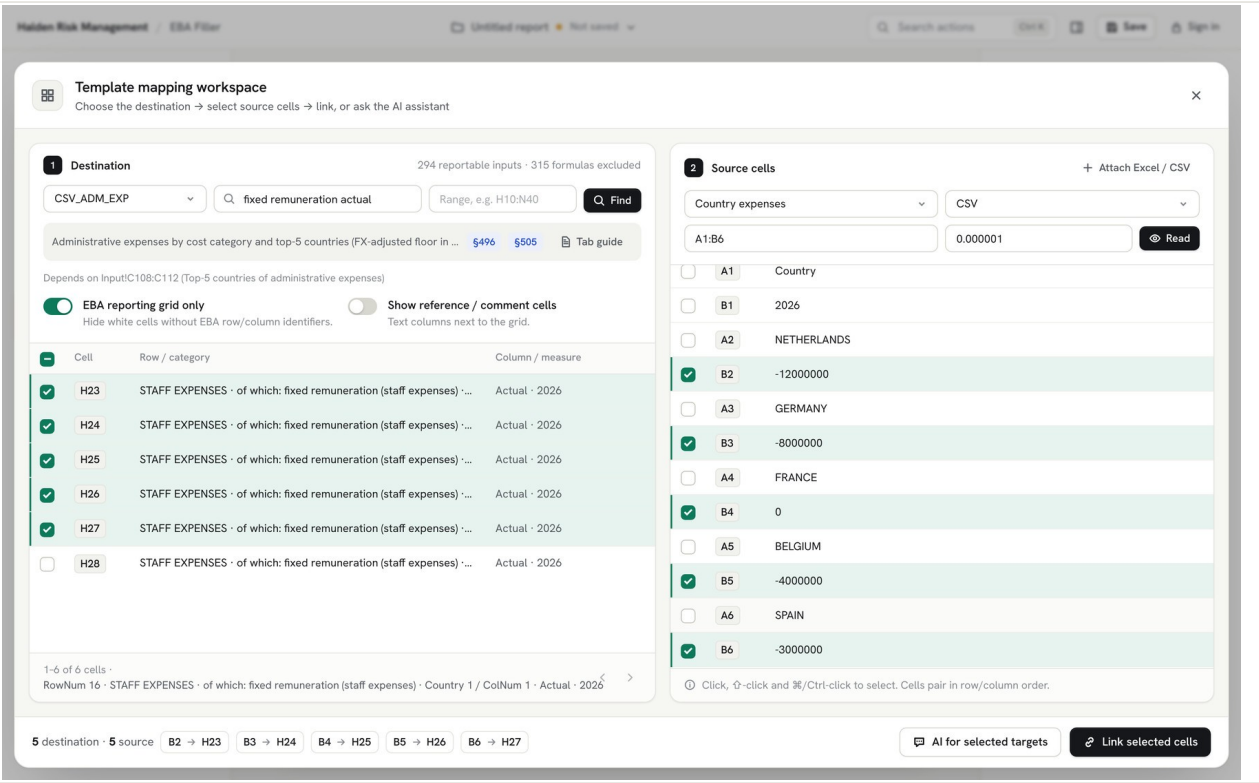


Figure 17 Template mapping workspace: destination on the left, source cells on the right

The destination side shows only real EBA reporting cells by default, with row and column labels in business language (for example *STAFF EXPENSES · of which: fixed remuneration · Actual · 2026*).

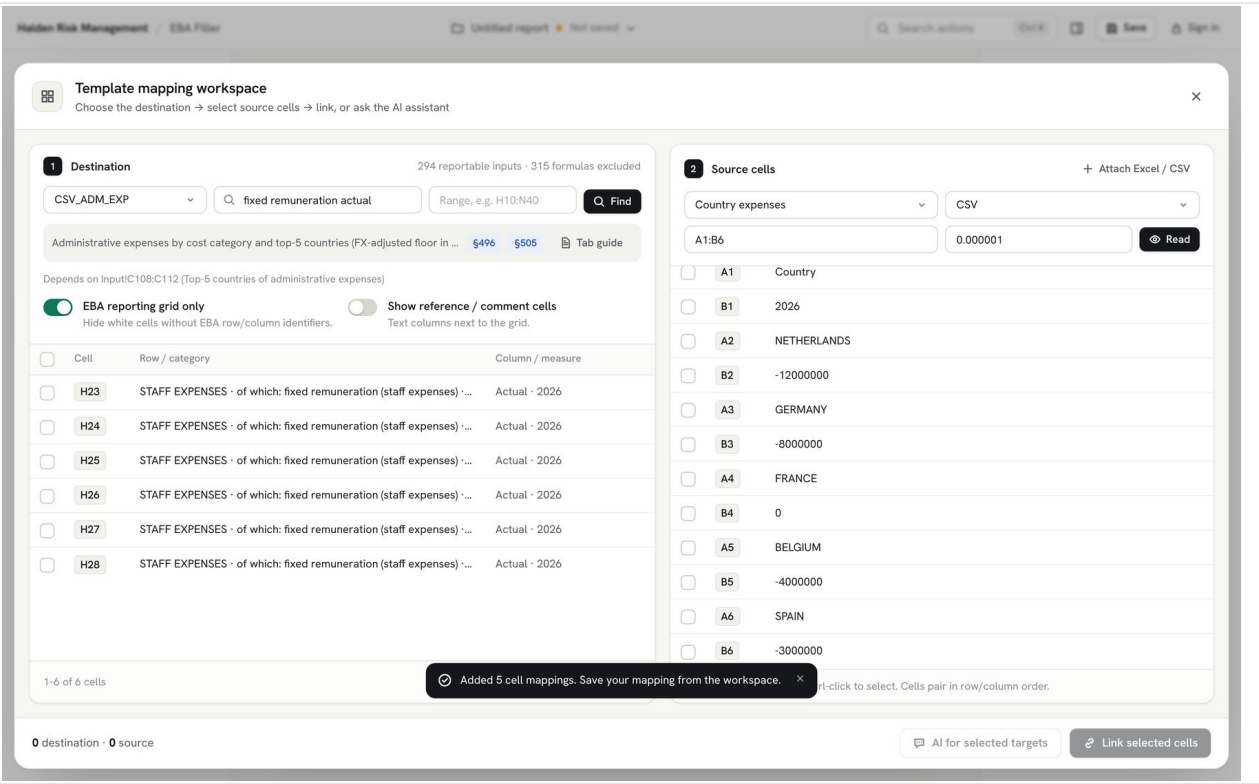


Figure 18 Links added

Loading a saved mapping

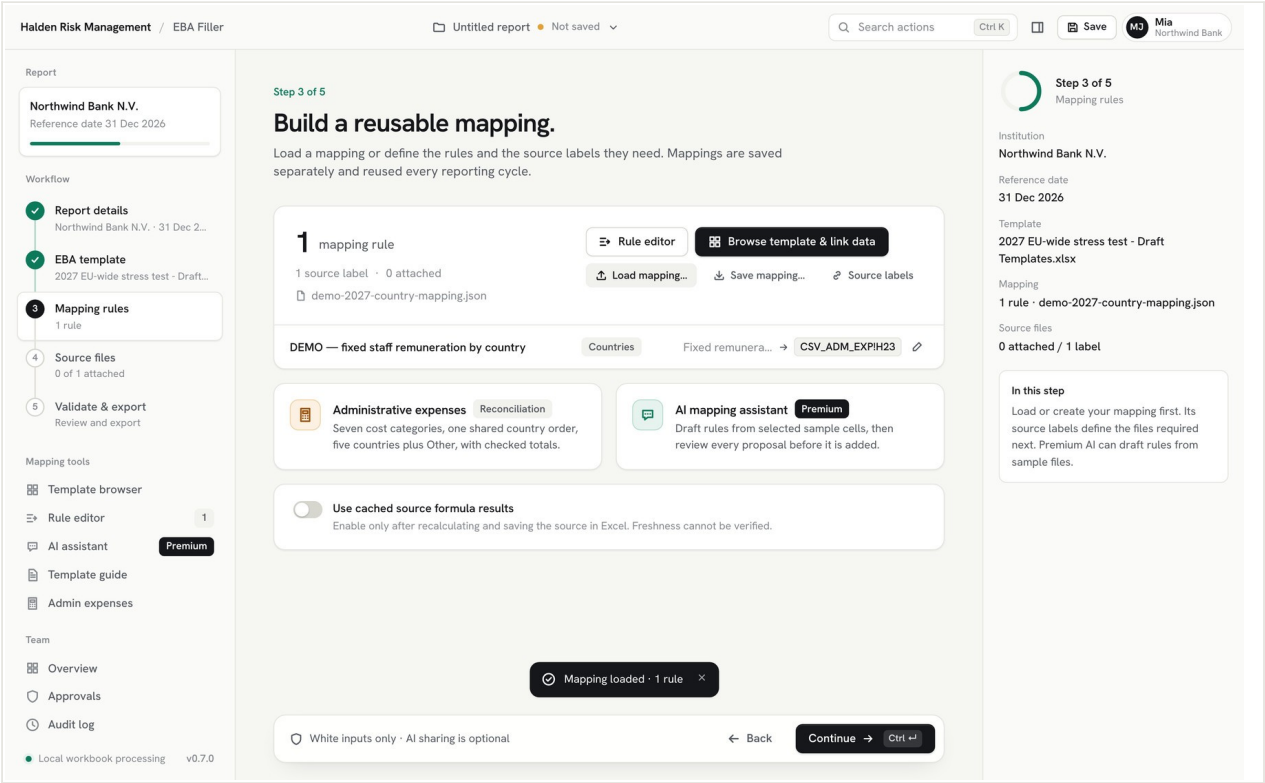


Figure 19 A loaded mapping with one country rule

The step shows the number of rules, source labels and attached files, and the mapping file in use. Rules that do not fit the template (a calculated tab, a cell outside the grid, a coloured cell) are reported straight away.

6 Optional: the AI mapping assistant

The AI assistant drafts rules from a sample of your source file. It is optional, needs a premium license, and never changes the template or your mapping by itself.

1. **Premium access.** Signed in, choose *Continue with my account*; your organisation's license is used. In local mode you enter a license key instead.

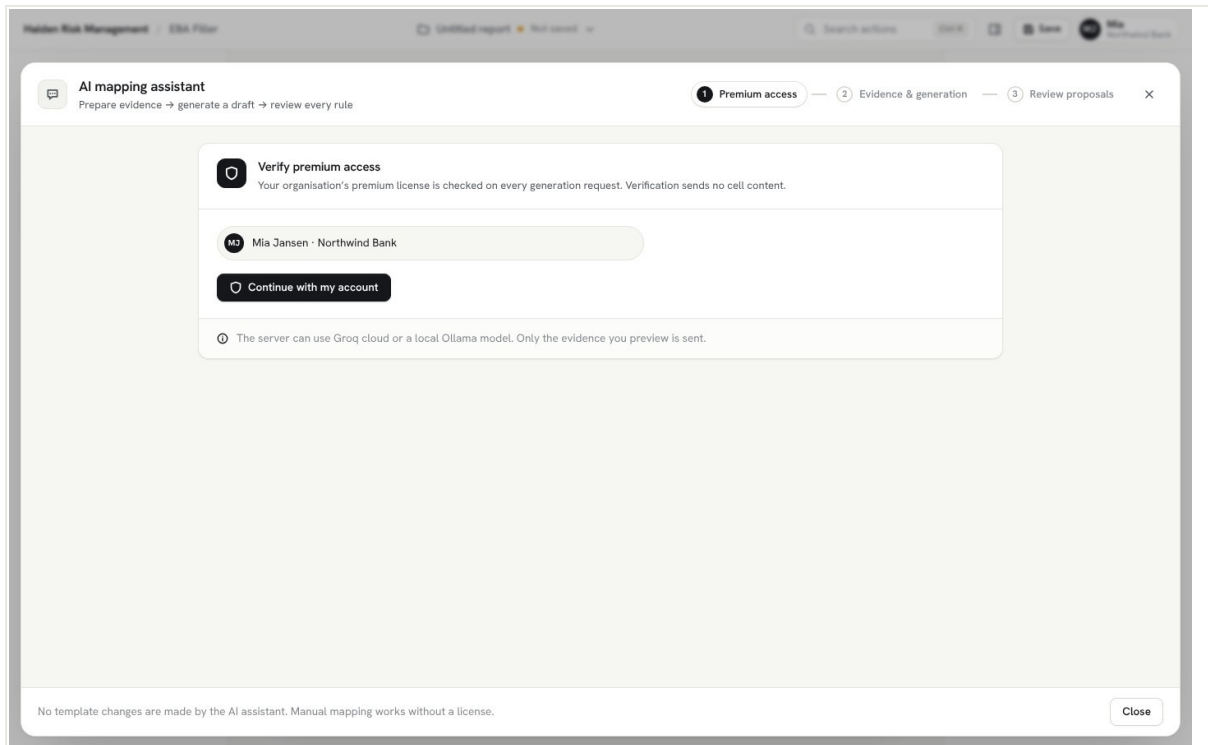


Figure 20 Premium access through your account

2. **Evidence.** Choose the source label, sheet and range (at most 200 cells, 20 columns) and the template area, then describe the mapping in plain language, with units and the number of countries.

1

Source evidence

One attached source per draft. Repeat for additional files.

Source label

Country expenses

Source worksheet

CSV

Source evidence range

A1:H20

Include headings. Max. 200 cells / 20 columns.

2

Template evidence

Include nearby labels and the white cells to populate.

Destination worksheet

CSV_ADM_EXP

Template evidence range

G22:N28

Extra worksheet

Optional

Input

Extra range

Optional

B108:C112

Describe the intended mapping

Map fixed remuneration per country to CSV_ADM_EXP in EUR millions; top five countries by 2026 amount, rest to Other.

Units, number of countries and selection order help the draft. Cell text is limited to 500 characters; cached formula values may be stale.

Preview data to send

No template changes are made by the AI assistant. Manual mapping works without a license.

Close

Figure 21 Describe the intended mapping

3. **Preview and consent.** *Preview data to send* shows the exact JSON that will be shared. Nothing is sent until you tick the consent box and choose *Generate draft*.

2

Evidence & generation

3

Review proposals

Describe the intended mapping

Map fixed remuneration per country to CSV_ADM_EXP in EUR millions; top five countries by 2026 amount, rest to Other.

Units, number of countries and selection order help the draft. Cell text is limited to 500 characters; cached formula values may be stale.

Preview data to send160 source cells · 66 template cells

"template_sha256": "89684ec7e5ac960fa8abc9afe28d8b5a783f29b2ab91b3cf935f4b79f61a6fac",

"source": {

"alias": "Country expenses",

"sheet": "CSV",

"range": "A1:H20",

"cells": [

"cell": "A1",

"value": "Country",

"status": "source"

,

"cell": "B1",

"value": "2026",

"status": "template"

Send this displayed evidence to the selected premium server and its AI backend.

Generate draft

No template changes are made by the AI assistant. Manual mapping works without a license.

Close

Figure 22 The exact evidence, and the consent box

4. **Review proposals.** Proposals come back as ordinary draft rules with their reasoning. Each one has already passed the same technical checks as a manual rule. Tick the ones you agree with and choose *Add selected rules*.

Halden Risk Management

21 / 42

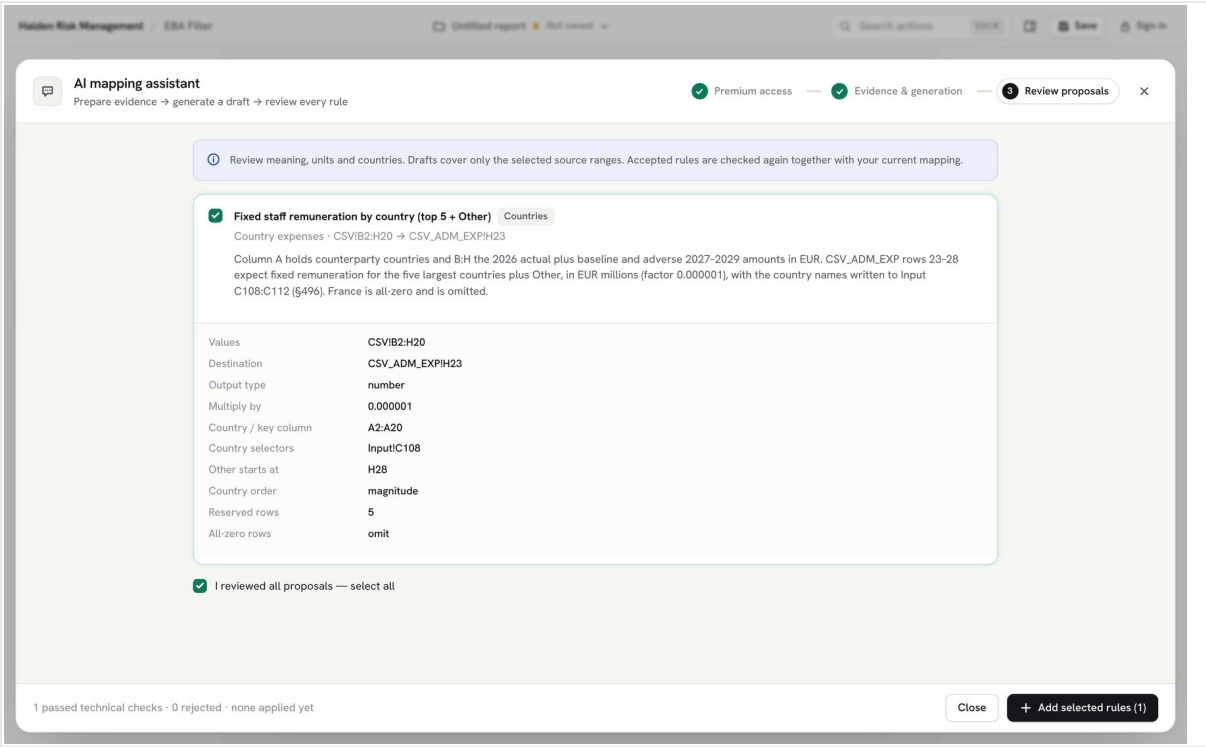


Figure 23 A proposal with its reasoning and every setting

Accepted proposals become normal rules: they are checked again together with your current mapping, and with a team account they still need four-eyes approval before export.

7 Step 4: Source files

Attach the actual file for each source label: **Attach file**, or drop an Excel or CSV file onto the card. XLSX, XLSM and UTF-8 CSV are supported; a CSV file has one worksheet called CSV.

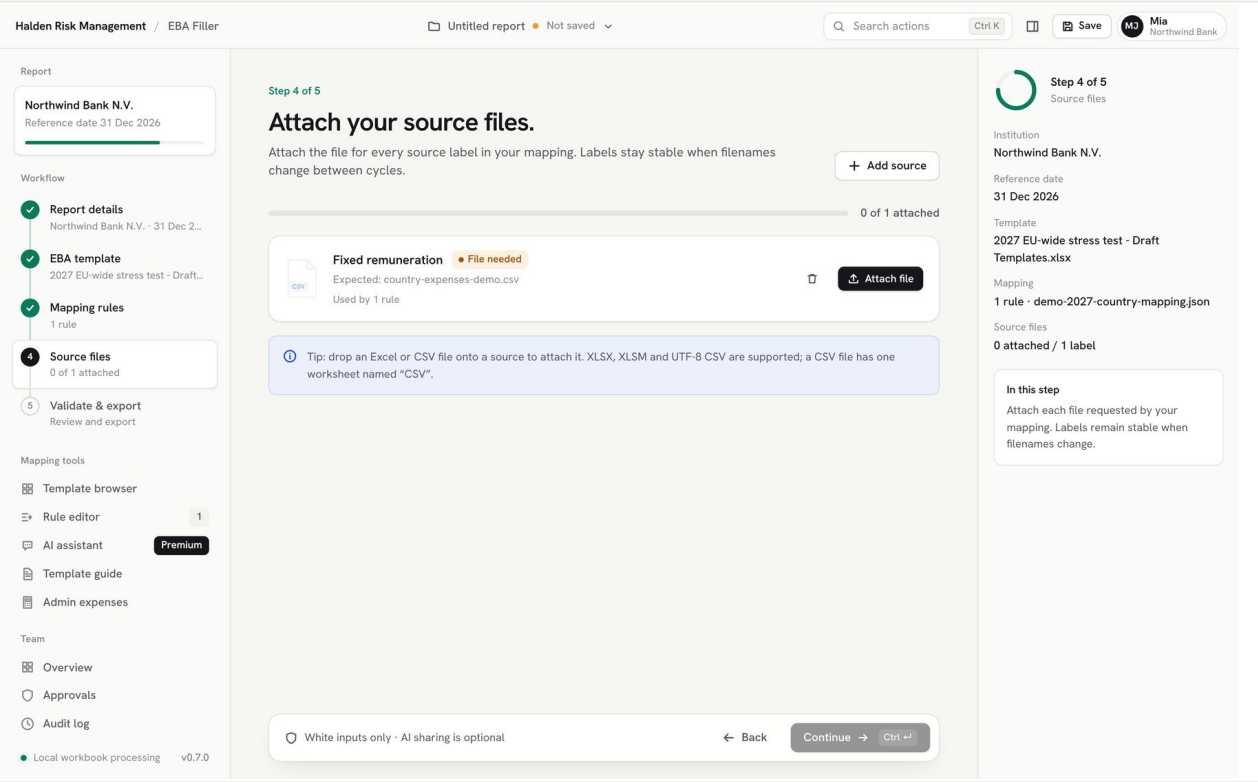


Figure 24 Step 4: one label, file needed

The progress bar shows how many labels have a file. Files are only read, never changed. The label stays the same when the file name changes between cycles.

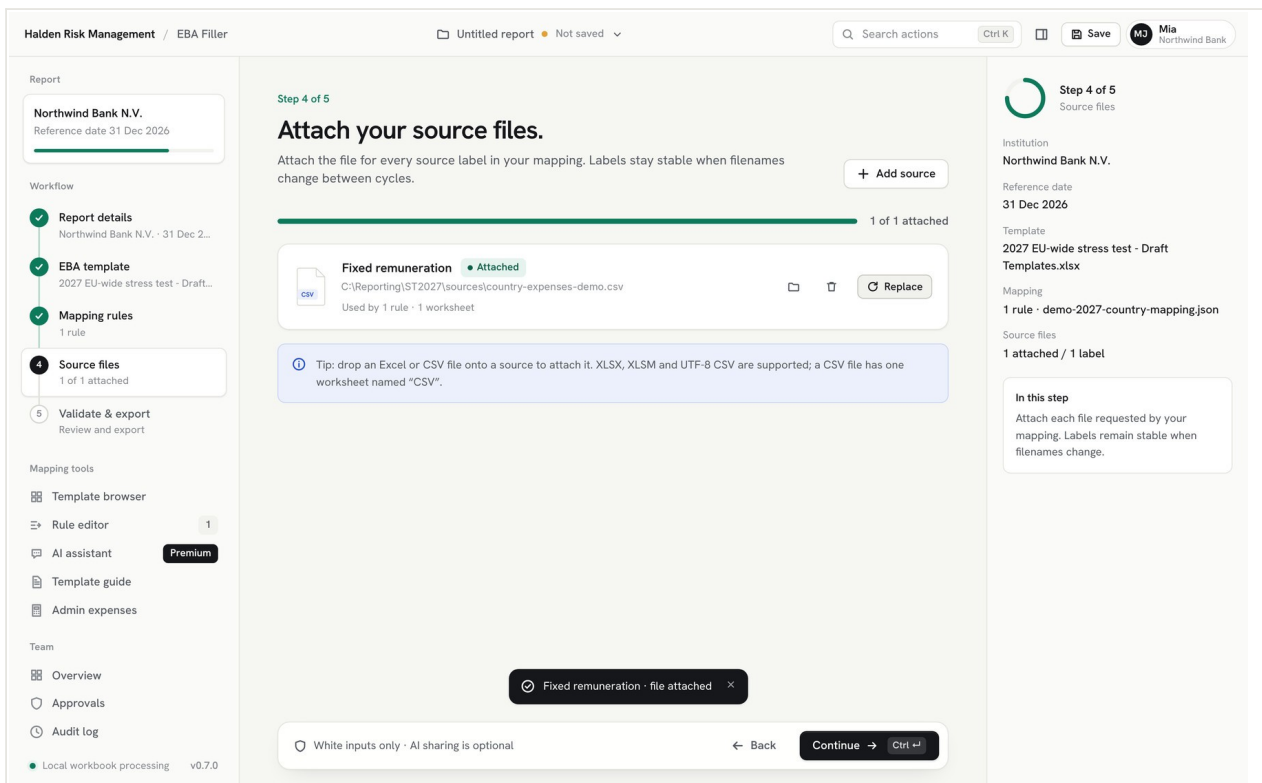


Figure 25 The file is attached

- **Replace** swaps the file behind a label; the folder icon shows it on disk.
- A changed source file is read again; validate again before you export.
- Source formulas: cached values are blocked by default, because the app cannot tell whether they are up to date. Allow them (step 3, *Use cached source formula results*) only after recalculating and saving the source in Excel.

Tip: press **Ctrl K** (⌘K on a Mac) at any time to search every action, from workflow steps to tools.

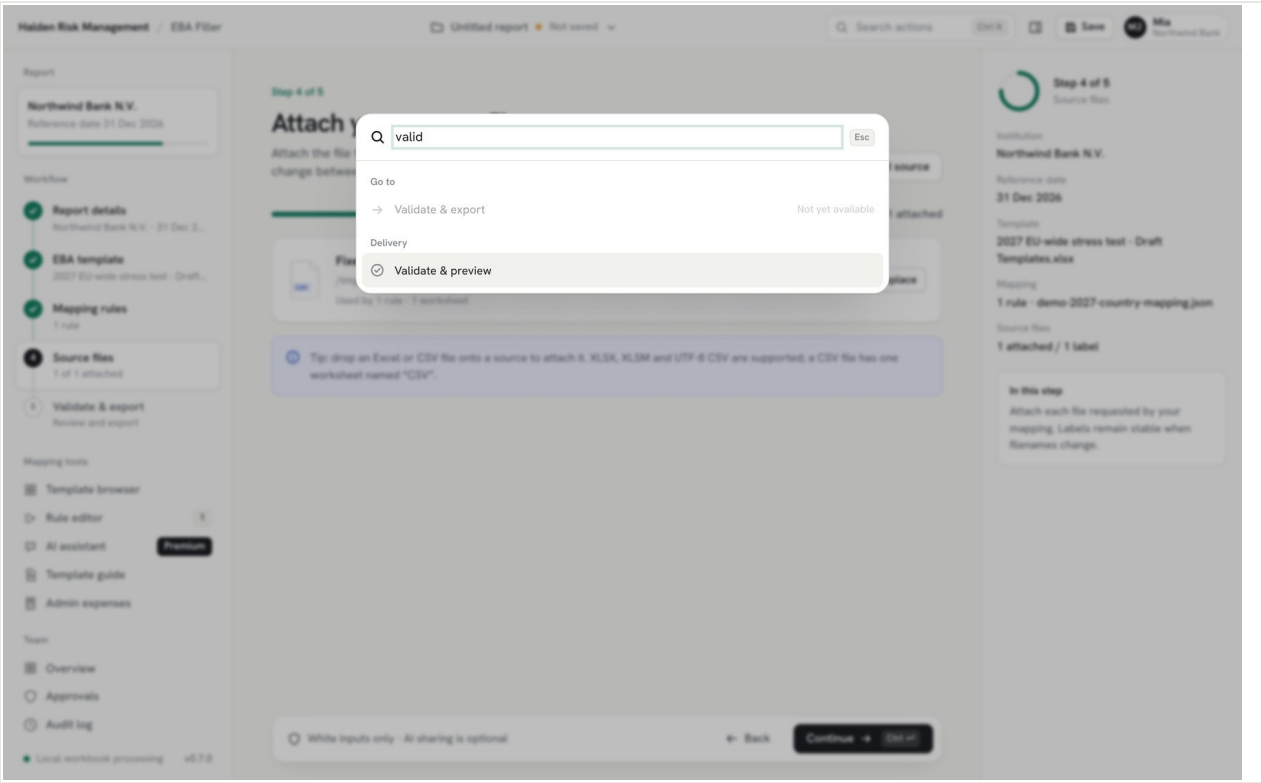


Figure 26 The command palette

8 Step 5: Validate and review

Choose which worksheets to fill (all mapped tabs, or one tab in a workbook you exported earlier), then **Review delivery**. Every rule runs against the current files; nothing is written yet.

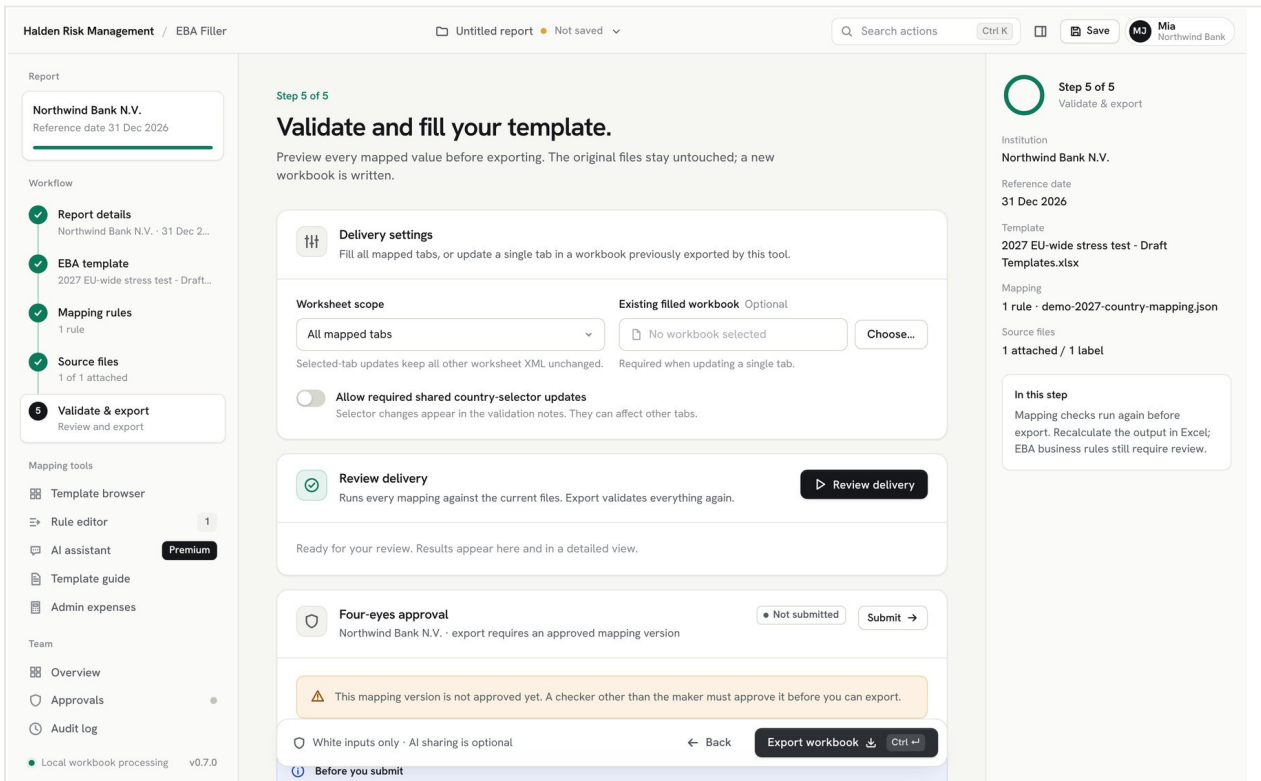


Figure 27 Step 5: delivery settings, review, four-eyes approval

The review opens with four counters (values to write, skipped, mapping errors, review notes) and three tabs.

Mapped values lists every value with its rule, destination cell, previous value and new value. Each row has a *Lineage* link.

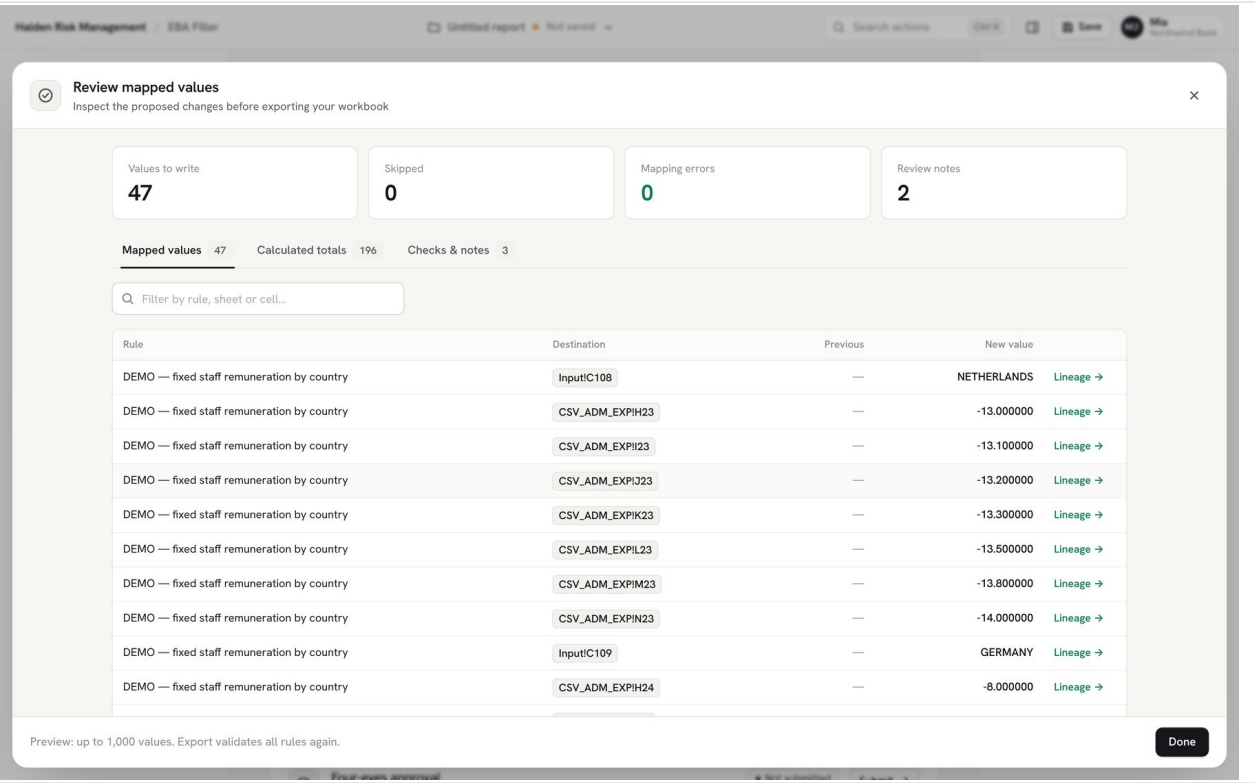


Figure 28 Mapped values

Calculated totals recomputes the template's additive totals from what you map. *Incomplete* means a component is still missing; missing parts are flagged, never assumed to be zero.

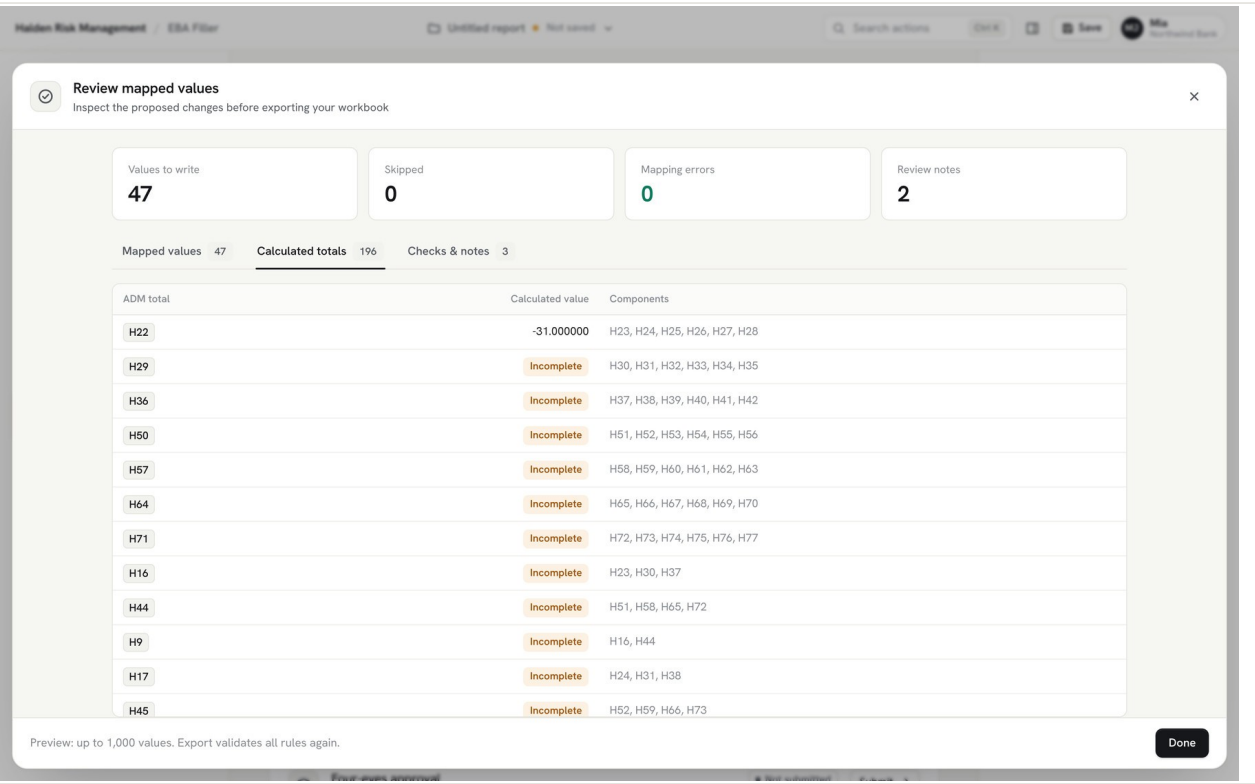


Figure 29 Calculated totals with incomplete components

Checks & notes groups findings per tab, from the template's own rules:

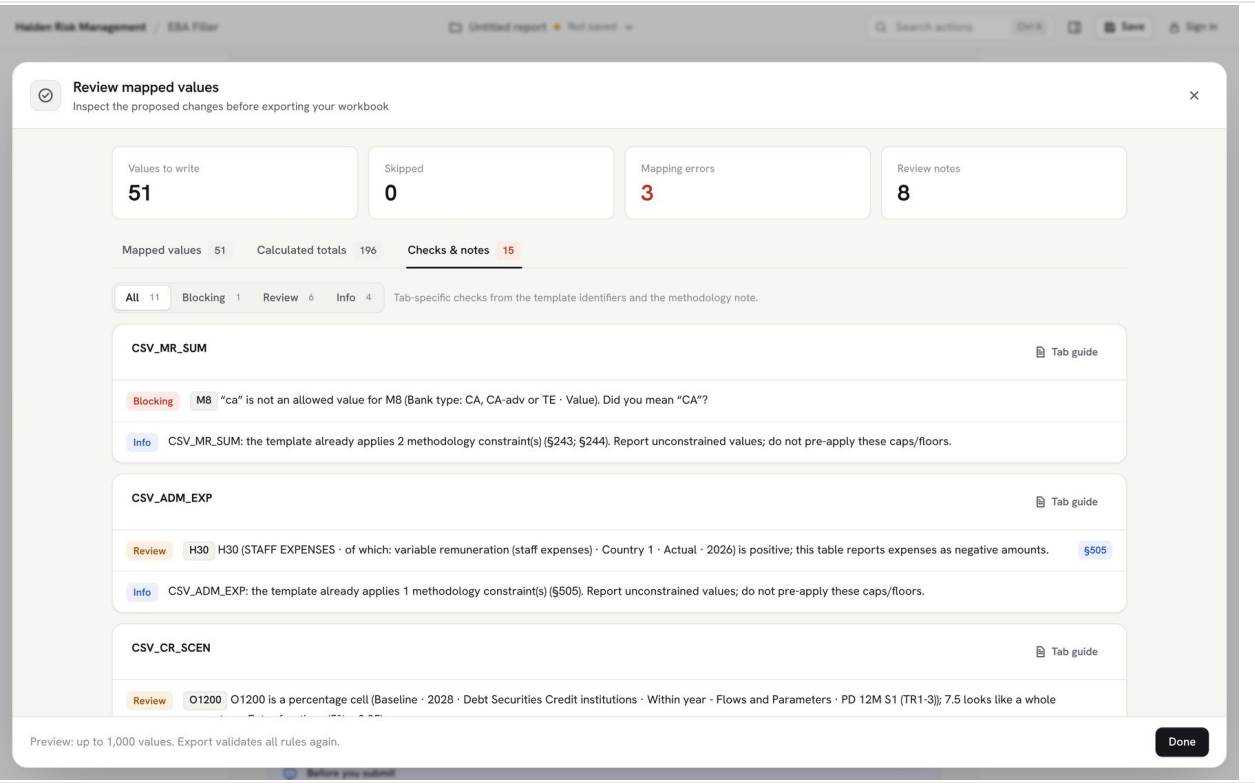


Figure 30 Checks & notes: blocking issues, review notes and info

Level	Meaning	Export
Blocking	The value cannot be right for the template, for example a value outside a dropdown list or a write to a calculated tab	Blocked until fixed
Review	Worth a second look, for example a positive expense where the tab reports expenses as negative, or 7.5 in a percentage cell	Allowed; read before submitting
Info	Context, for example constraints the template already applies	Allowed

Tab guide on each group opens the template guide for that tab. Export validates everything again, so a file changed after the review is caught.

9 Four-eyes approval, export and lineage

With a team account, the export needs a mapping version that someone other than its maker has approved. Local mode skips this section, except export and lineage.

Link a team project

Open your account from the initials in the title bar and choose **Create team project from this workspace** (or pick an existing project). The link is saved in the project file. From then on every validation, submission and export is recorded for the team.

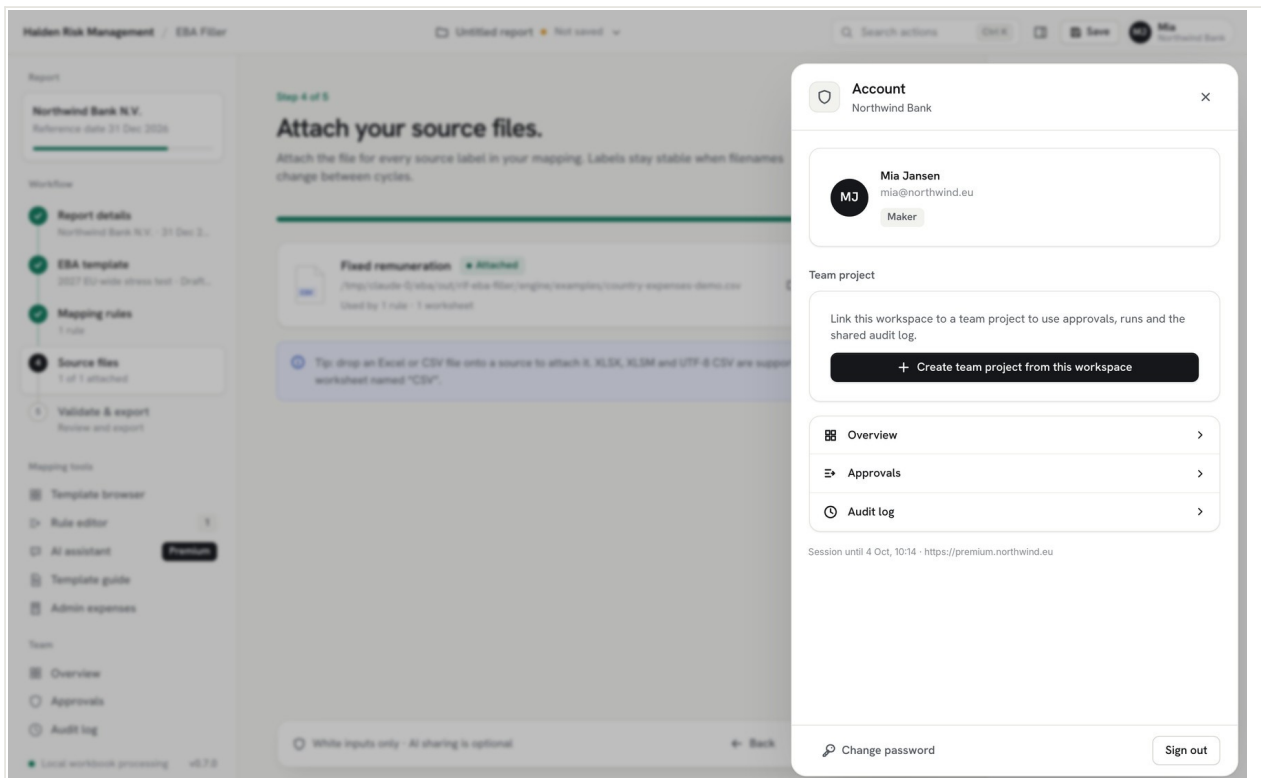


Figure 31 Account: link the workspace to a team project

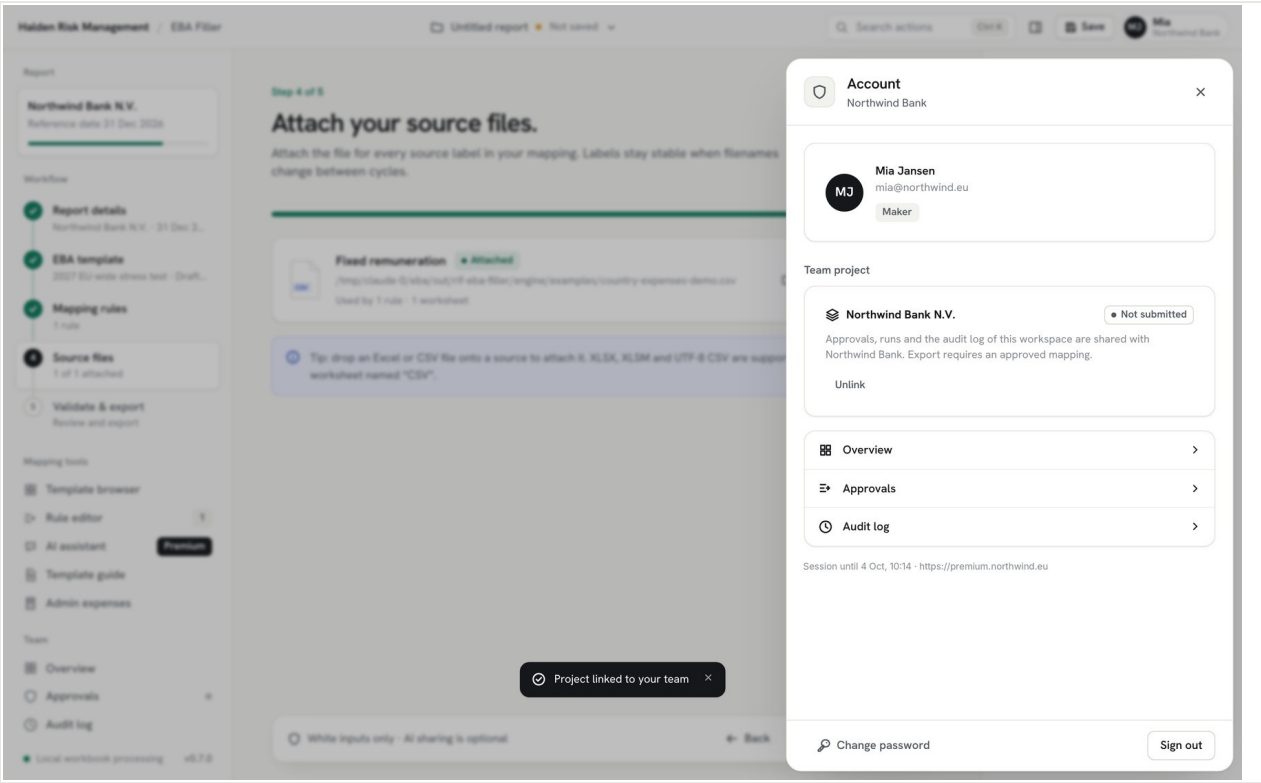


Figure 32 Linked: approvals, runs and the audit log are shared

Submit (maker)

Until a checker approves, step 5 shows that this mapping version is not approved, and export is blocked.

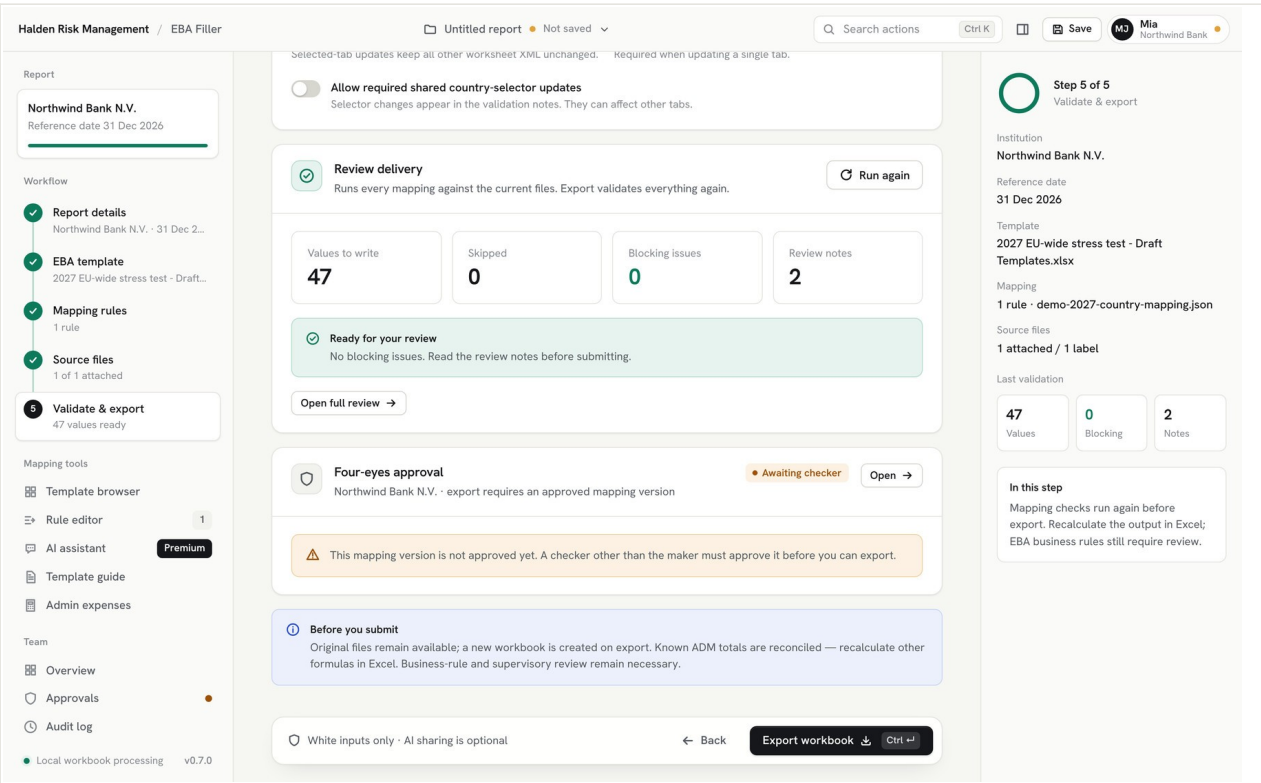


Figure 33 Export blocked until a checker approves

Open **Approvals**, add a short note and choose **Submit for approval**. The panel shows what changed since the last approved version: rules added or changed, removed, and unchanged.

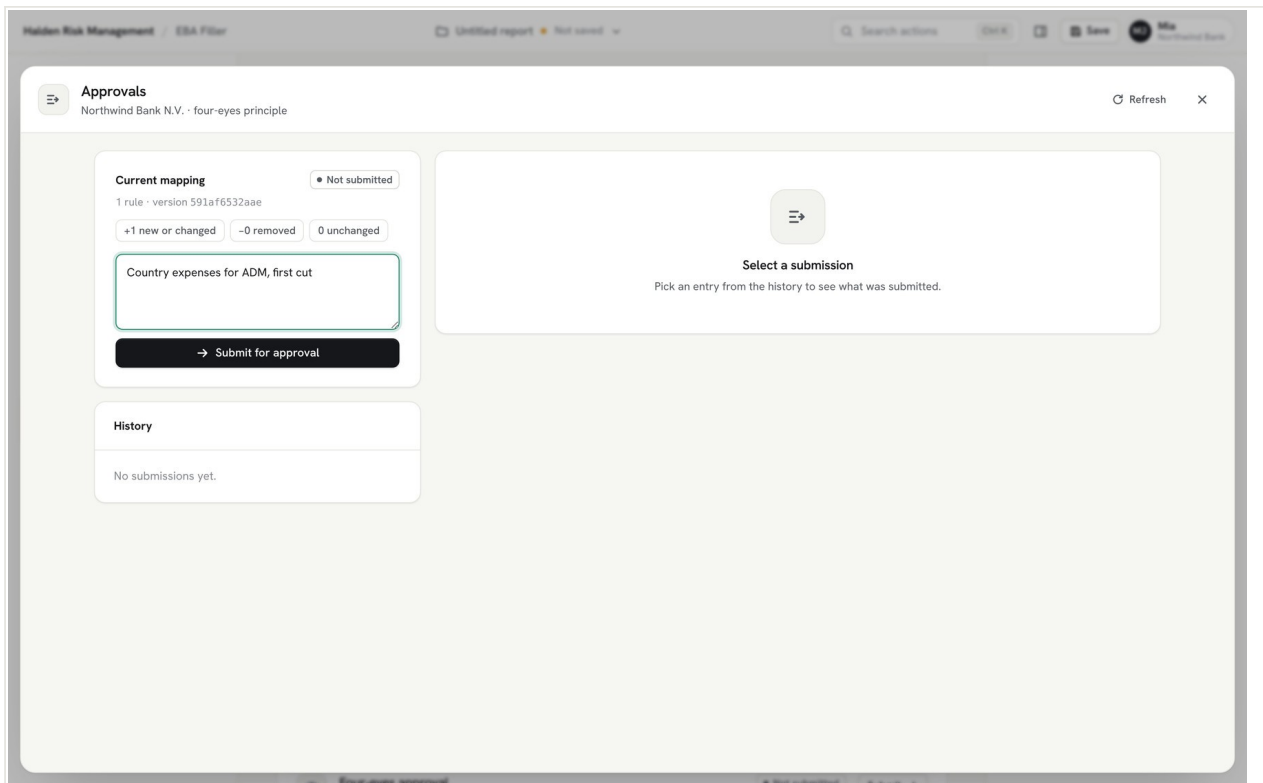


Figure 34 Approvals: the maker submits the current mapping version

Approve (checker)

The checker opens the submission and sees the maker's note, the validation result (values, blocking issues, notes) and every new or changed rule with its source and destination. Add a comment, then **Approve** or **Reject** (a rejection needs a comment). You cannot approve your own submission.

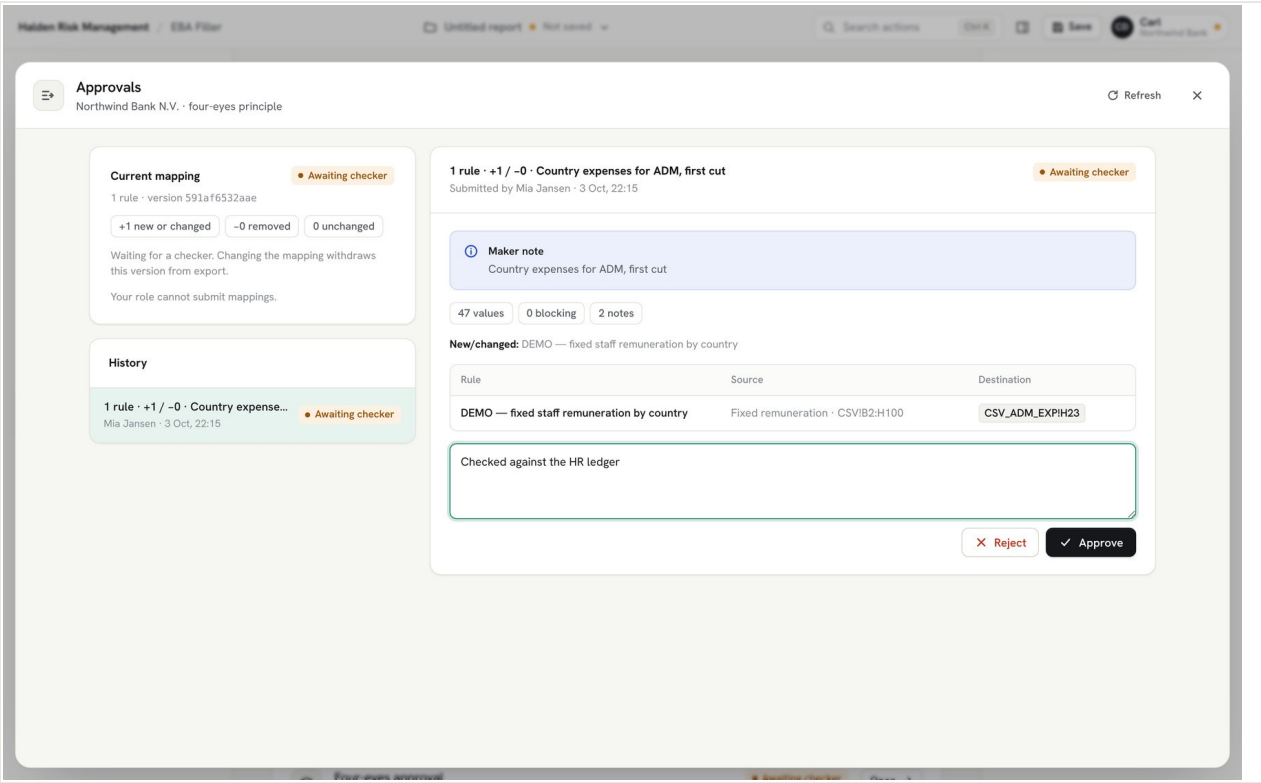


Figure 35 The checker reviews and approves

The approval belongs to this exact version of the mapping. Change any rule and the status returns to *Not submitted*; it needs approval again.

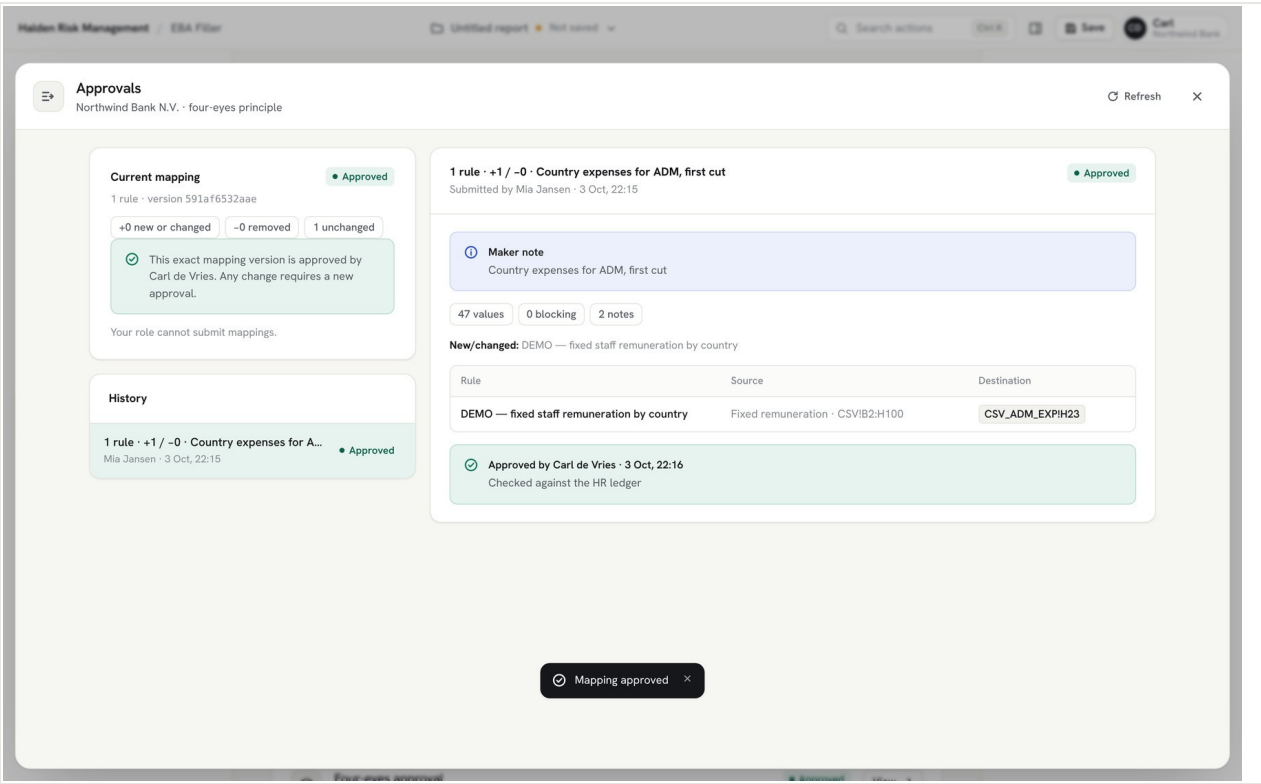


Figure 36 Approved: this exact mapping version

Export

Choose **Export workbook** (Ctrl Enter) and a file name. The app writes a new workbook; the template and sources stay untouched.

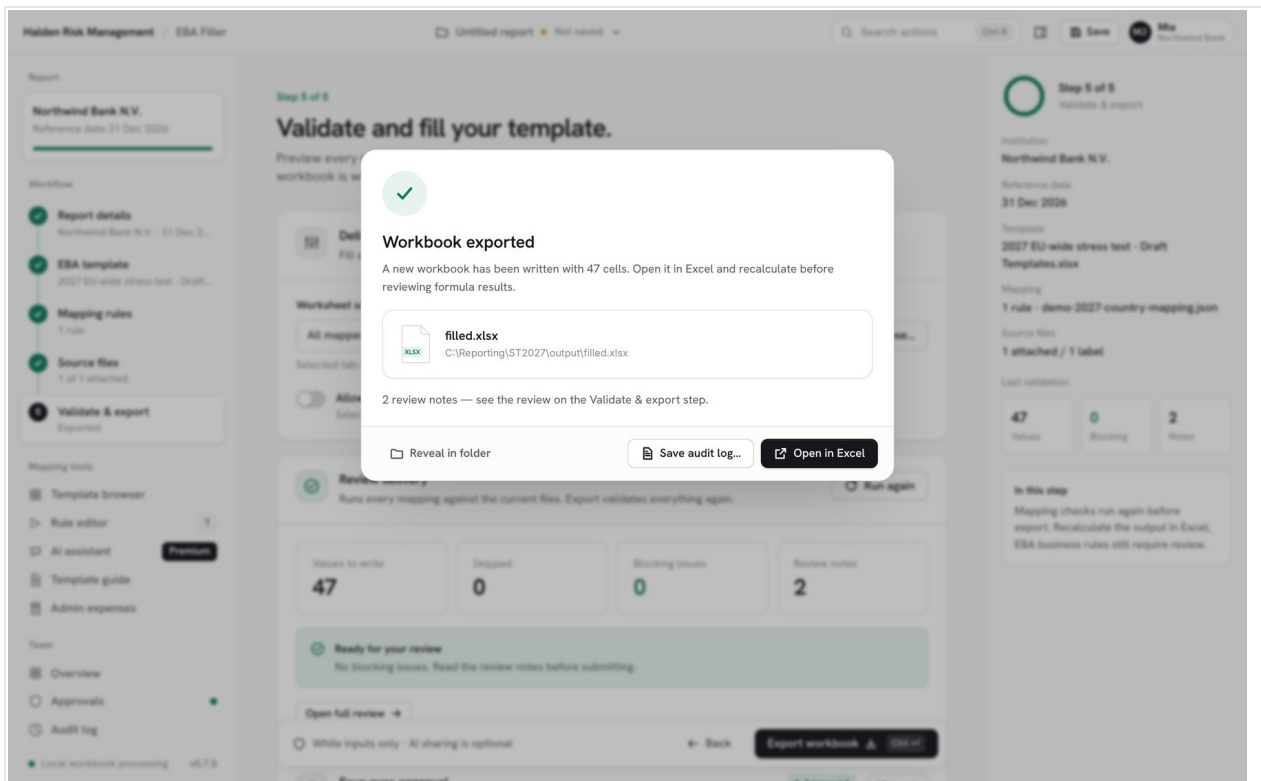


Figure 37 Workbook exported

- **Open in Excel** and recalculate before you review formula results: the app writes input values, Excel calculates the rest.
- **Save audit log...** writes a JSON file with the mapping, old and new cell values, and the SHA-256 hashes of template, sources and output. It can contain confidential values; store it like the report itself.

Lineage

Click *Lineage* on any value in the review to see its full story: source file and cells with hash, rule and factor, the template cell with its EBA row and column labels, who approved it, the run it was recorded in, and the template hash.

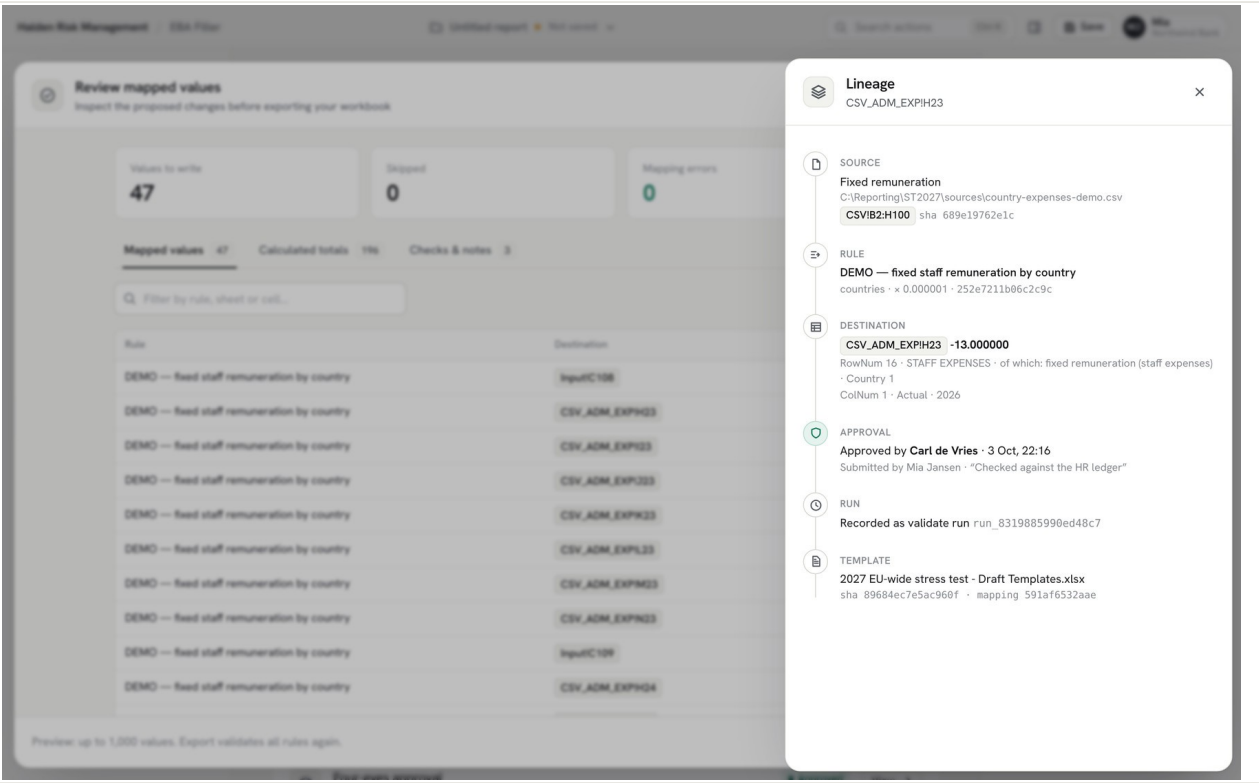


Figure 38 Lineage of CSV_ADM_EXP!H23

10 Team overview, audit log and users

Overview (sidebar, Team) shows template coverage per tab (mapped cells against reportable cells), values in the last validation, blocking checks, the mapping approval, recent runs, and notes on the draft EBA documents.

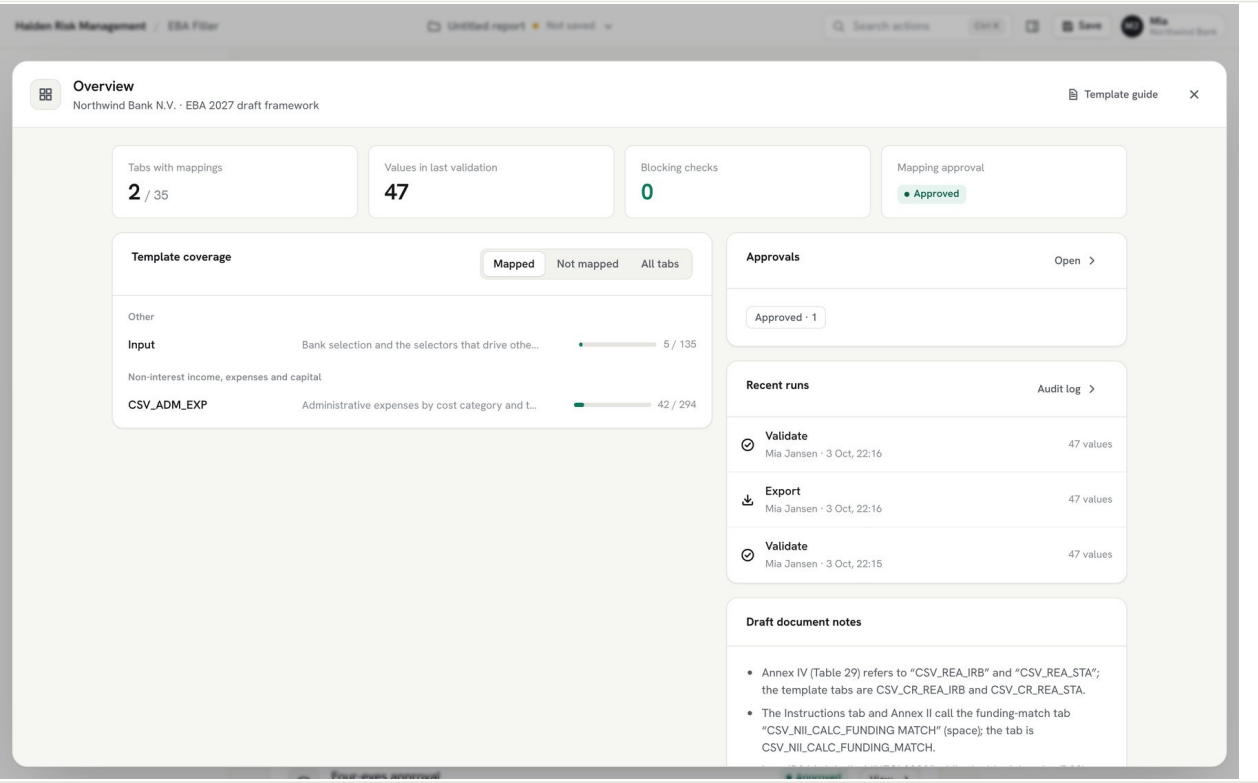


Figure 39 Overview: coverage, approvals and recent runs

Audit log lists every event for this project or the whole organisation: sign-ins, submissions, approvals, validation runs, exports. The badge at the top right says whether the hash chain is intact (*Chain verified*).

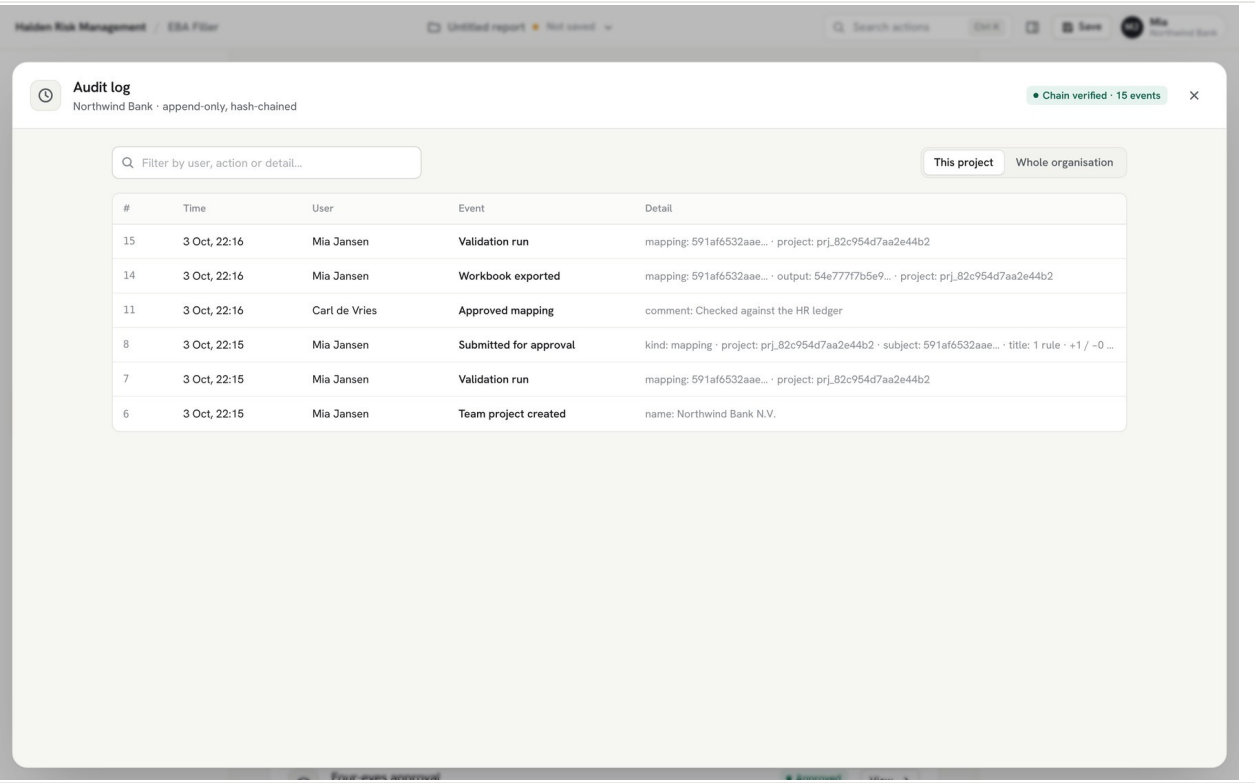


Figure 40 Audit log: append-only and hash-chained

Manage users (administrators only, from the account panel) adds users and sets their roles. *Sign out* ends all of a user's sessions (for example after a lost laptop); *Reset password* issues a temporary password and ends the user's sessions; *Deactivate* blocks sign-in at once. Users created by your identity provider carry a *SCIM* badge.

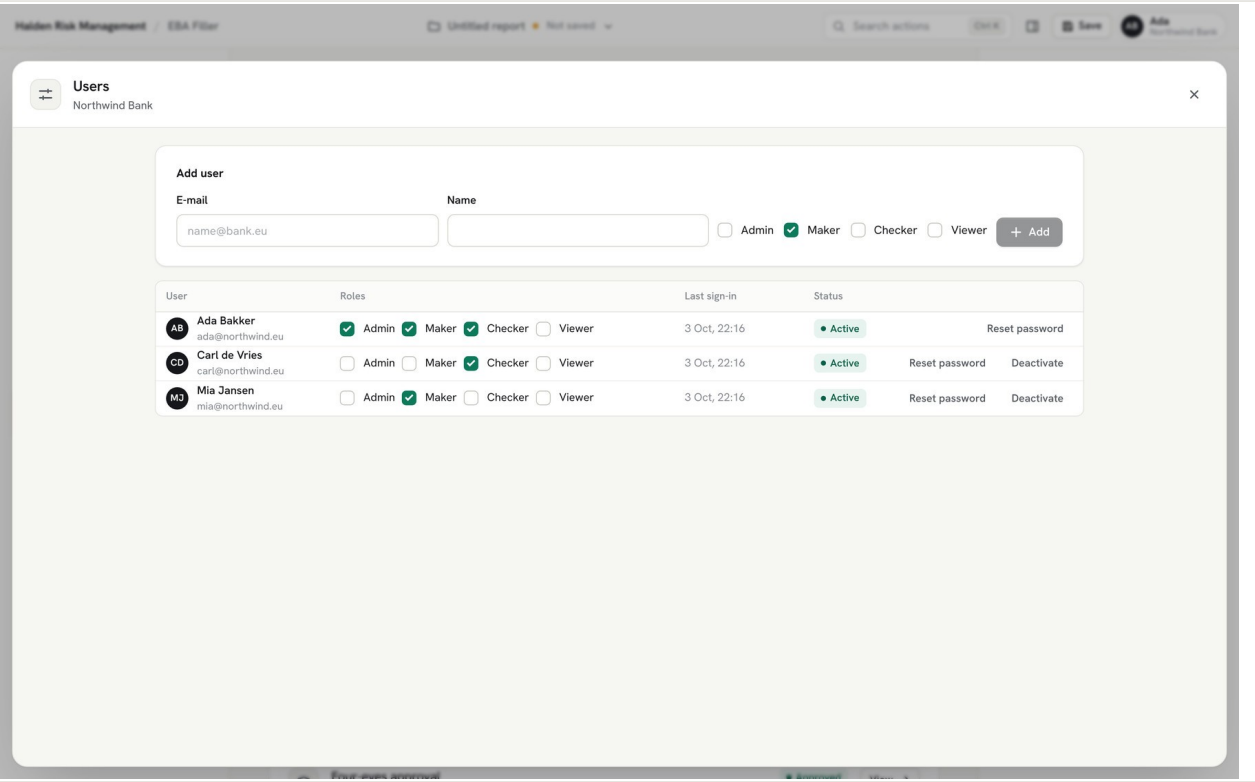


Figure 41 Users and roles

Role	Can
Maker	Create team projects, submit a mapping for approval, withdraw an own submission
Checker	Approve or reject submissions by others
Admin	Manage users, plus everything a maker and checker can do
Viewer	Read only: overview, approvals, audit log

Organisation settings (administrators)

Account → **Organisation settings** holds everything IT, security and audit ask for. Every change is recorded in the audit log with old and new values.

Security policy. Require checker approval before export (on by default), the session length (1–24 hours) and an optional sign-out after inactivity.

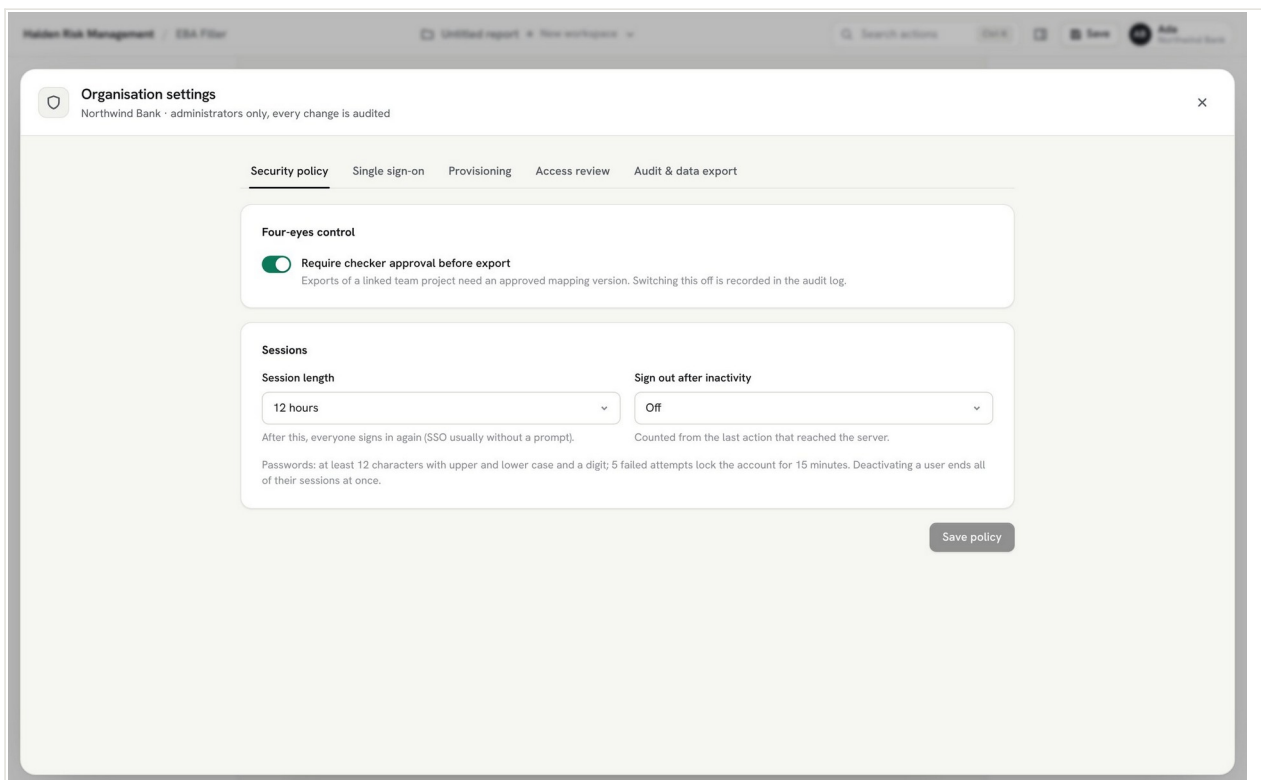


Figure 42 Organisation settings: security policy

Single sign-on. Choose your provider (Microsoft Entra ID, Okta, Google Workspace or another OpenID Connect provider), copy the redirect URI into the provider, and enter the issuer URL, client ID, client secret and your e-mail domains. Under *Roles from the identity provider* you can map groups to Halden roles, one per line, such as `Halden-Checkers = checker`; roles are then updated at every sign-in, and users in none of these groups cannot sign in. *Create accounts on first sign-in* and *Allow password sign-in* complete the setup. *Test configuration* checks the live provider: discovery document, PKCE, signature algorithm, signing keys and the client secret.

Organisation settings
Northwind Bank · administrators only, every change is audited

Security policy **Single sign-on** Provisioning Access review Audit & data export

Active · Microsoft
Users at northwind.eu sign in through http://127.0.0.1:8792. Last changed 4 Oct, 12:23.

Identity provider Other OpenID Connect provider

Redirect URI (register this at the provider)
http://127.0.0.1:8798/v1/auth/sso/callback

Issuer URL
http://127.0.0.1:8792
e.g. https://idp.example.com/realms/bank

Name shown to users Optional
Microsoft

Client ID
halden-northwind

Client secret
***** unchanged
Set (stored on the server). Leave empty to keep it.

E-mail domains
northwind.eu
Users with these domains are sent to this provider, e.g. northwind.eu, northwind.nl

Security policy saved · recorded in the audit log

Roles from the identity provider
Keycloak, Ping, ADFS 2016+, OneLogin, Auth0 and others: use the issuer from the discovery document.

Group mapping Optional

Figure 43 Single sign-on settings with the configuration check

Provisioning (SCIM). Lets Entra ID or Okta create, rename and deactivate accounts automatically. Copy the SCIM base URL, create a token (shown once) and paste both into the provider's provisioning settings. Revoke a token here at any time.

Organisation settings
Northwind Bank · administrators only, every change is audited

Security policy Single sign-on **Provisioning** Access review Audit & data export

With SCIM your identity provider creates, renames and deactivates Halden accounts automatically; leavers lose access the moment they are disabled there. Roles come from the roles attribute, the default role of single sign-on, or the group mapping.

SCIM base URL (Tenant URL)
http://127.0.0.1:8798/scim/v2

Secret token · shown once
hsc_FYIX8GVyT84XGTR4c_vmRERGMgcUkCSzhX28A-czpy
Paste it in the provider's provisioning settings now; Halden only keeps a hash.

New token for
Entra ID provisioning Create token

Token	Created	Last used	Status	
Okta	4 Oct, 12:23	Never	Active	Revoke
Entra ID provisioning	4 Oct, 12:23	Never	Active	Revoke

Microsoft Entra ID
1. Enterprise application → Provisioning → Automatic.
2. Tenant URL: the base URL above; Secret token: the token.
3. Test connection, map userPrincipalName → userName, assign users or groups, start provisioning.

Okta
1. App → General → enable SCIM provisioning.
2. Base URL above; unique identifier userName; authentication: HTTP header (Bearer).
3. Enable Create, Update and Deactivate users.

Figure 44 SCIM provisioning: base URL and tokens

Access review. Lists every account with roles, last sign-in, method and source, and flags dormant accounts, accounts that never signed in, and people who are both maker and checker. Download the list as CSV, deal with what needs changing, then record the review with a short note. The review is stored in the audit log with a fingerprint of the list you reviewed.

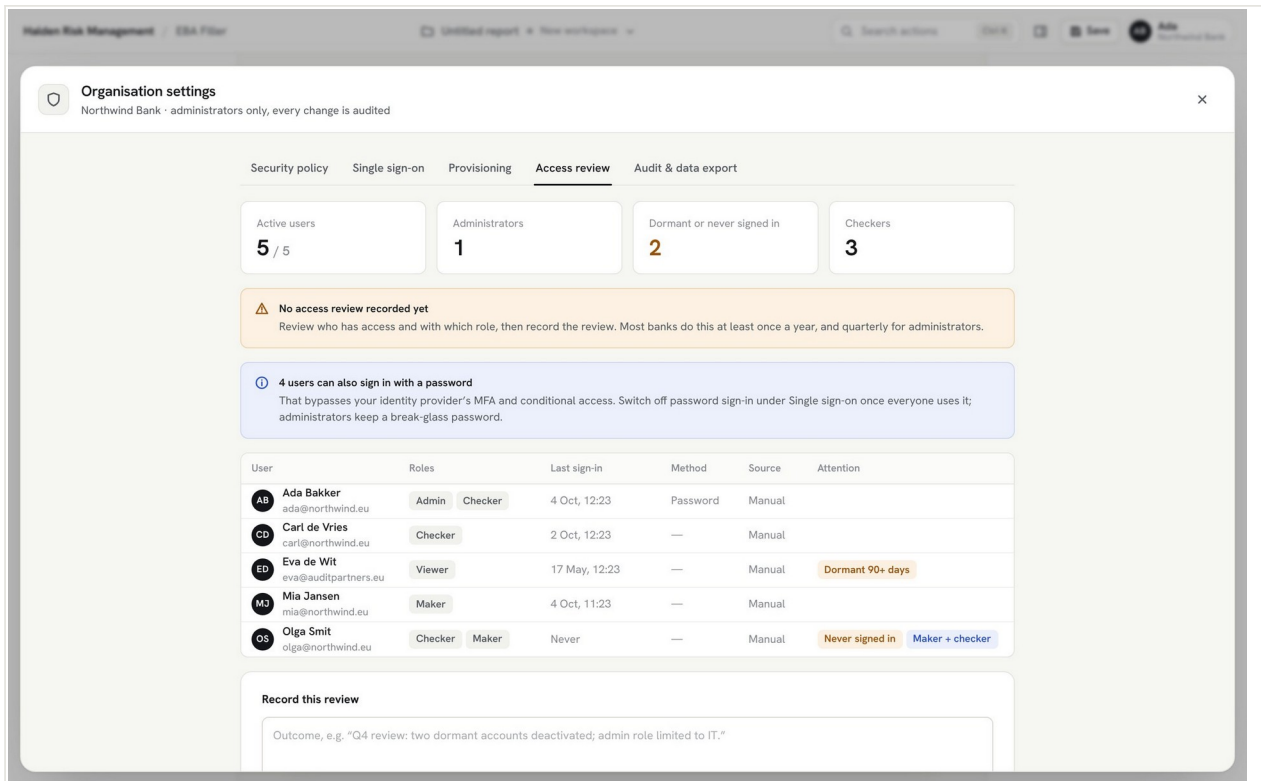


Figure 45 Access review with flags and sign-off

Audit & data export. Export the full audit log (CSV or JSON Lines) with its hash chain for an auditor or your SIEM, or export all organisation data as one JSON file, for example for an exit or a data request.

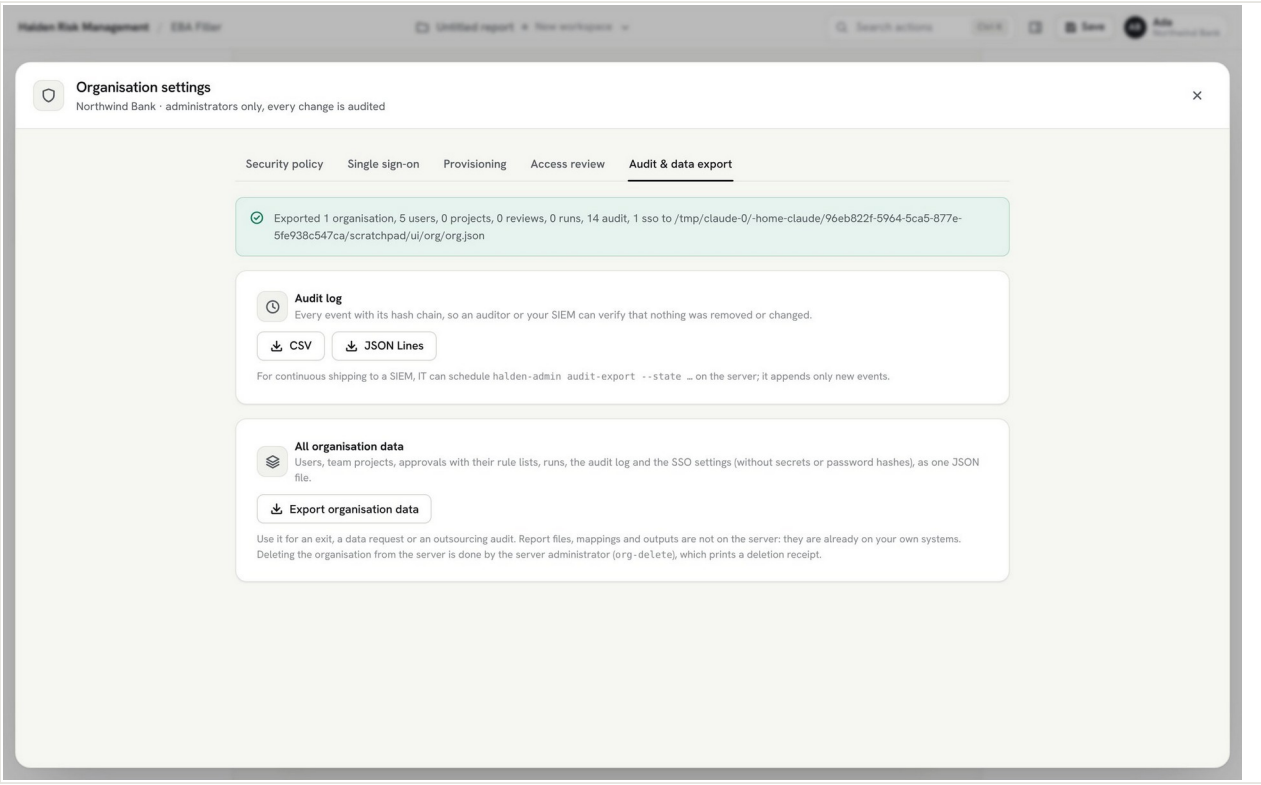


Figure 46 Audit log and organisation data export

11 Shortcuts, files and troubleshooting

Shortcut (⌘ on a Mac)	Action
Ctrl K	Search every action
Ctrl Enter	Continue to the next step; export on step 5
Ctrl S / Ctrl Shift S	Save project / Save project as
Ctrl O	Open project
Ctrl \	Show or hide the right panel
Esc	Close the open panel

File	What it is
.rifproject	Your workspace: report details, embedded mapping, file locations, last step
.rifproject.bak	The previous saved version, kept automatically
Mapping .json	Rules and source labels, reusable across projects and cycles
Filled .xlsx	The export: the template with your input values
Audit .json	Mapping, old and new values, hashes of all files

Problem	What to do
"Can't reach your organisation's Halden server"	Check your network or VPN. If it persists, ask IT; <i>Connection settings</i> shows the address in use.
The browser did not open for SSO	Choose <i>Open browser again</i> . If your default browser is blocked by policy, ask IT.
"There is no Halden account for ..."	Your administrator needs to add you, or switch on automatic accounts for SSO.
Template not recognised	Use the exact original EBA file. A re-saved copy has a different hash; checks are then limited.
"Source formulas" blocked	Recalculate and save the source in Excel, then allow cached results in step 3, or paste values.
Export blocked: not approved	Submit the mapping in Approvals; a checker must approve this exact version.
A file moved	Open the project, then <i>Replace</i> the file on the label in step 4.
"Rule not saved: ... non-white template cell"	The rule would write outside the white input cells. Use <i>Cell preview</i> → <i>Read destination</i> and choose the correct top-left cell.
"Your account is not in a group that has access"	SSO group mapping is on and you are in none of the mapped groups. Ask IT to add you to the right group.

Problem	What to do
"You were signed out after ... minutes without activity"	Your organisation's inactivity policy. Sign in again; your work is saved locally.