



# **DIGITAL PLATFORM**

FOR PUBLIC INTERNAL CONTROL AND INTERNAL AUDIT MONITORING AND REPORTING MANUAL © PEMPAL Secretariat

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# **Abbreviations**

сни	Central Harmonization Unit
IA	Internal Audit
IACOP	Internal Audit Community of Practice
IC	Internal Control
PEMPAL	Public Expenditure Management Peer Assisted Learning network
PIC	Public Sector Internal Control

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# Acknowledgements

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### What are PEMPAL and IACOP?

PEMPAL is a network to facilitate exchange of professional experience and knowledge transfer among public financial management practitioners in countries across the Europe and Central Asia Region. The network, launched in 2006, aims to contribute to strengthening public financial management practices in member countries through developing and disseminating information on good practices and their application.

PEMPAL organizes around three thematic communities of practice:

- Budget Community of Practice,
- > Treasury Community of Practice, and
- > Internal Audit Community of Practice (IACOP).

The main overall objective of the IACOP is to support its member countries in establishing modern and effective internal audit systems that meet international standards and good practices, important for good governance and accountability in the public sector.

The key donors and development partners to the program are the Swiss State Secretariat for Economic Affairs, the World Bank, and the European Commission. The Dutch National Academy for Finance and Economics and other partners provides nonfinancial support. This document is one in a series of IACOP knowledge products. Others, all available from www.pempal.org, include:

- > Good Practice Internal Audit Manual Template
- Good Practice Continuing Professional Development Manual Template
- Internal Audit Body of Knowledge
- Risk Assessment in Audit Planning
- Ocooperation Among Public Sector Audit and Financial Inspection Entities
- Ouality Assessment and Improvement Guide
- PEMPAL Guidance on Internal Audit: Demonstrating and Measuring Added Value
- Key Performance Indicators for Internal Audit Function
- Impact of COVID-19 on the Role and Activities of Internal Audit
- Assessing the Effectiveness of Internal Control: PEMPAL Guidance for Public Sector Internal Auditors
- Guidance on Monitoring of the Internal Audit Function by the Central Harmonization Unit
- IT Audit. Practical Guidance for Internal Auditors in the Public Sector

### Preface

PEMPAL IACOP member countries are very interested in digitalization of reporting and monitoring of internal audit and internal control activities. To meet this strong demand, the IACOP community and the resource team have developed an IT tool – the Digital Platform for Public Internal Control and Internal Audit Monitoring and Reporting.

The Digital Platform supports online collection, consolidation, monitoring, and analysis of the internal control (IC) and internal audit (IA) status in the public sector at country level or in organizations. It is designed to be used in central government, for example by a central harmonization unit (CHU) within the ministry of finance which is responsible for overseeing an effective public internal control (PIC) system and providing assurance to the government, parliament, and wider public.

Main CHU roles are to develop and oversee policies on IC and IA and to establish the necessary legal and methodological frameworks and monitor their implementation, updating as necessary. The CHU should provide regular reporting presenting key PIC data and identifying any areas of concern and undertake monitoring of compliance with standards/ regulations/methodology and quality/added value. Monitoring provides the basis for determining how well IA is functioning in the public sector and the results should be reported annually to the government.

The Digital Platform for Public Internal Control and Internal Audit Monitoring and Reporting supports PEMPAL IACOP member countries to improve efficiency of IC and IA consolidated reporting by allowing CHUs to digitalize several important tasks:

- Generate public sector organizations' IC and IA status reports (including vertical and horizontal consolidation of reported data within public sector organizations);
- Verify IC and IA status report data (through arithmetic, logical, and other types of verification);
- Check for completeness and timeliness of IC and IA status reporting as per established regulations;
- Produce consolidated managerial reporting, statistical and analytical data, and graphic representation of the status of public sector IC and IA.

The Digital Platform has been developed as a flexible tool that can easily be adapted to the country circumstances, legal and regulatory requirements, and practices. It is free of charge and open source. [DG1]

This User Manual aims to support implementation of the Platform by illustrating, describing, and explaining the Platform's functionality and how to use its practical features, including setup; types of user and process of registration; IC and IA reporting template and operational specifics, ways to consolidate reports, analytical possibilities for comparison and visualization, and using the activity log. The User Manual can be used by different stakeholders such as CHU, IT and IC managers, and specialists or internal auditors.

Any PEMPAL country that is interested in using the Digital Platform is asked to please contact the PEMPAL Secretariat for more information and access.

# 1. IT platform setup

### 1.1. Super admin role

Default condition of the IT platform is without any set up. Entering for the first time as super admin to country default IT platform setting page will appear. In settings, page system requests to fill down the relevant information about two main sections.

### 1.1.1. System general settings setup

Where super admin should fill the information

- System Name
- Ocuntry IT platform operation country.
- Time zone IT platform time zone for correct notification system.
- System start year IT platform establishment year, for better reporting and data collection experience.

### 1.1.2. System Mail Settings setup

Where super admin should fill the data for setting up email SMTP server.

- Mail driver
- Mail host
- Mail port
- Mail username
- Mail password
- Mail encryption
- Mail form address
- Mail form name

Super admin should request this data from governmental IT department. Regularly this data is not available for public use.

Setting page is available only for super admin role user. Development team does not recommend update data about general settings after the set up (mainly the operation year). However, for mail settings no regulations.

### 2. User manual

# 2.1. Terminology used in current document

Organizations – represents the government bodies with or without their own vertical structural hierarchy, such as:

- ⊘ ministry
- ⊘ agency
- (>) other type
- D municipalities
- ⊘ organization of local self-government.

Users of the IT platform are employees of the structural divisions of the Organization.

User type – represents the types of the user based on the types of control.

- Internal Audit (IA)
- Internal Audit + internal control (IA+IC)
- O Central Harmonization unit (CHU)

User role – represents the user accesses in accordance with the functional authority and the vertical structural hierarchy adopted in the organization:

- Moderator. So called manager of the organization, exercising control within the framework of his authority over the operations carried out by users of the IT platform of the corresponding organizational hierarchy.
- Operator. So called worker of the organization, responsible for the formation and timely provision of data in the IT platform

This document contains information about user manual. Below is described functions

- > User types and user roles information
- Organization structures and types
- > Registration to Pempal.codeman.am
- > Authorization to pempal.codeman.am

# 2.2. User types and user roles information

IT platform created to help CHU data collection and analysis processes. For making the full product work we need to create all corresponding organizations in selected country, assign users with corresponding user types and roles for management and data collection.

CHU moderator who is going to have the most possible permissions in the system will log in first to the system to create the first direct reportive organizational lines to CHU. After which Moderators of all created organizations should register to IT platform. All registration require moderation and submission by the first moderator from management. For example, see **Figure 1**.

### MUST REMEMBER

User's registration permission granted by corresponding user type moderator. IA moderator submits the registration request of IA operator.

**NOTE:** CHU moderator will see all requests for registration as a matter of control, but is not must to approve.

Every action by any user in the system will be logged for a matter of control. User's activity like filling the form with indicators. Or publishing new reports with indicators will create call-to-action notifications visible in Dashboards of corresponding user.

MUST REMEMBER Within one organization, only one moderator of one user type can be created.





# 2.3. Organization structures and types

CHU moderator creates organization types dynamically based on corresponding country needs. Organizational types exist to separate organizations in Country Hierarchy. Only CHU moderator account has permission to edit organizational types. By default, there are three types of organization in first set up IT platform.

- ➢ Ministry
- ⊘ Agency
- O Public Sector Organization

Organizational types are available from this link
{PEMPAL-DOMAIN}/dashboard/department\_type or
from menu bar in the screen in Figure 2.

#### Figure 2. Organization types

n Dashboard	2 Organization Types	Organizations
Organizations	Exists 3 types.	Exists 7 organizations.
Report Indicators     Report Documents     Analytics Reports		
Activity Log		

### 2.3.1. Information required creating new organization type.

- ⊘ Type name
- Status
  - Active –Visible in system while creating organizations
  - **Passible** Hidden in system while creating organizations.

After all relevant organizational types are created CHU can move on filling the list of first reportive line governmental organizations creation.

Organizations are available from this link **PEMPAL-DOMAIN** dashboard/departments/tree/view
or from menu bar in the screen in Figure 3.

Organizations represented by hierarchy tree. Users positioned in higher hierarchy organization can see below organizational structure. Users positioned Lower hierarchy organization will see only the tree line information where he is located. For example. User from Ministry of Finance will not see the structure information from Ministry of Health.

Organizations reportive to CHU ( $2^{nd}$  line in Hierarchy) will see the CHU organization only. Organization lower than  $2^{nd}$  line will not see CHU as a matter of control.

### 2.3.2. Possible actions on organization tree view.

- Oreate Sub organization function to create new organization under selected organization.
- Edit organization function to edit information related to selected organization
- Add member Function to add a user to selected organization for already registered users
- Invite member function to invite user to selected organization from outside of platform
- View all members function to see the list of users available in selected organization.

Dashboard	Organization Types Exists 3 types.	2 Organizations Exists 7 organizations.
Organizations     Users	Show all typ	es Show all organization
Report Indicators  Report Documents  Analytics Reports		
Activity Log		

#### Figure 3. Organizations

## 2.3.3. Required fields to fill while creating new sub organization.

- Name
- O Parent organization fixed by system, non-editable
- Type should be fixed from already created organization types
- Has unite separation tooltip available. Function to separate organization who has central/sub unit's separation.
- O Address organization legal address
- Email organization contact email address
- Phone organization contact phone number with a country code.
- Status function to identify organization is active or passive.
- Additional notes Additional information related to organization.

# 2.3.4 Required fields to fill while editing new sub organization.

- Name
- > Parent organization fixed by system, non-editable
- Type should be fixed from already created organization types
- Has unite separation tooltip available. Function to separate organization who has central/sub unit's separation.
- O Address organization legal address
- S Email organization contact email address
- Phone organization contact phone number with a country code.
- Status function to identify organization is active or passive.
- O Additional notes Additional information related to organization.

### 2.3.5 Required actions to add new member

- $\odot$  Search for the user by email address or name
- Select the checkbox from the left side of user name

- Select user type from right side of the user name
- Select user role from right side of the user name

### 2.3.6 Required fields to fill while editing new sub organization.

- > Email address of user
- O User type by what user will authorize to PEMPAL portal
- ③ User role by what user will authorize to PEMPAL portal
- Organization non-editable, fixed based on the selected organization.

### 2.3.7. Organization profile page

Several details are presented on the organizations page, which can help to find desired information about the selected organization. See **Figure 4** for an example.

# 2.4. Registration to Pempal. codeman.am

For registering, a new user there is two function. Function of invite presented above already. Below you will find the logic of direct registration, by using the direct link to the portal.

Difference between invitation and direct registration. During invitation user is not filling the information about organization or position. This information is already defined when moderator invites a user. Invitation link is active for 48 hours after being sent. If employee is not registered within 48 hours, inviter should resend the invitation link.

For registering a new account throw public registration link, user must enter to register now from login page.

### 2.4.1 Steps to complete registration.

- ③ General information
- Organization

#### Figure 4. Organization profile page

CHU	Users assigned to CHU	
Ministry	CHU	
Active	OB Ohan Bakhshyan CHU   Moderator	View Profile
Details Edit		
Coordinate Organization No coordinate Organization		
Official email address minfin@gov.com		
Official phone +37491457564		
Address Ministry Address		
Additional notes		
CHU located		

- ⊘ Account password
- S Email verification
- Sinalization

# 2.4.2 Required fields to fill in registration

### General information

- First name
- Middle name
- S Last name
- S Email address (email format validation is active)
- Personal or working number (Phone number country validation is active)

### Organization

- Select organization type
- Select organization if picked organization has a lower level of organizations new input will open to select lower level, if needed.
- O Unit Free input without select to write down the unit user is assigned

- Your position in your unit what is user position in selected unit
- Select type user should pick from types list which type of user s/he registers for
- Select role user should pick from roles list which role user should have
- O Add and authorization document User should upload document of appointment.

#### Account password

- Password password should be strong one, and indicator below will show when password is strong. It is not a must, but recommended to have
- O Confirm password re-enter prewritten password.

### **Email verification**

On given email in general information user will receive verification email. After verification of the email, user's account will be created with a pending status. Further higher-level manager should approve the request of registration.

#### Figure 5. Data review example

	Overview	
Ohan Bakhshyan Activo Details	Organizations where Ohan Bakhshyan assigned	
	CHU CHU   Moderator	
	Files attached to Ohan Bakhshyan	
Unit CHU Position in unit CHU	Employment order Gmail – Fwd_ FLYONE – Booking Confirmation – M4WDP	View File
<b>Email</b> ohan.bakhshyan@gmail.com		
Phone +355 <mark>692192555</mark>		
Last Login 2022-01-11 13:00:34		

#### User registration approval

After higher-level moderator receives a request for registration, s/he has possibility to accept, reject or review the profile.

**Figure 5** presents what kind of data is available for review by higher-level moderator:

- Name
- Status
- Details like
  - O Unit
  - O Position in unit
  - O Email

- O Phone
- O Last login
- Approve or reject registration request (not visible as example user is approved)
- Organization where user is assigned
- Scanned copy of the appointment document

After registration request approval, user can log in to PEMPAL portal with <u>{PEMPAL-DOMAIN}/login</u> link.

All emails sent to accounts have a default expiration time 72 hours. If user did not react to already sent email. Moderator should send new email.

#### Figure 6. Deactivating account example

User F	Profile Home - Users - User Profile		Logged in as	CHU   Moderator 📑	<b>•</b> 2	Ohan Bakhshyan	ОВ
		Overview					
	8	Organizations where Narek Mod assigned					
	Narek Mod	Finance Ministry IA+IC   Moderator					
	Details	Files attached to Narek Mod					
	Unit Unite Position in unit	Employment order codeman-fb-cover_T19sXR6WMI.png			View Fi	le	
	Email nikonar91@gmail.com						
	+35525634646						
	Deactivate Account	1)					

### 2.5. Manage account details

This page is for users to review or edit their information provided while registration. User can edit avatar of the profile, data presented in registration. It is not possible to change email address after registration.

User can activate two factor authorization powered by google for security reasons. Every time, as user wants to log in or submit data, they will be requested to enter the code from Google. If two-factor authorization is disabled, user will enter password. This action is close to be e-signature.

### 2.5.1. User deletion

Every moderator registered in system, have access to deactivation of the users from his organization level to lower levels. For deactivating the user moderator should open user profile page. Users can be found from users section in navigation panel, or through organizations section.

In user profile there is deactivate account button (see **Figure 6**). Hitting it and providing moderators account password, user will be deleted. Deleting user process initiator should provide a reason, why they did so.

## 3. Indicators creation and reporting

In this section, you can find information about indicators creation and Report publishing. CHU moderator is the only user who has permission to create edit or publish the indicators for further use by other users.

CHU moderator creates indicators based on the defined types units.

- ⊘ Internal control type
- Internal audit type
- Ocho CHU type

# **3.1. Indicator template creation**

To create indicators CHU moderator should enter the "Report indicators" tab from left menu (see **Figure 7**). After which CHU moderator will see the blocks, which separates the types by units (IA, IC and CHU). There are two main actions

- **1. View indicators forms** this will direct CHU moderator to the lists of indicators in table view
- 2. Edit name this allows CHU moderator to change the block name

When CHU moderator enters to view the indicators form, a table with already created indicators will show. It is possible to create new template of indicators. See **Figure 8**.

	PEM®PAL «	Indicators Home - Users - Report Indicators		Logged in as web   Super-admin 🍧 📕	Studio CS
	n Dashboard	IC	IA	СНИ	
	MENU  Organizations  Users	Last updated date 1:00am on Thursday Ist January 1970 Total reports with this type: 2 2 View Indicator forms Edit Name 3	Last updated date 1500am on Thursday 1st January 1970 Total reports with this type: 1 View Indicator forms Edit Name	Last updated date 100am on Thursday 1st January 1970 Total reports with this type: 1 View Indicator forms Edit Name	
1	Report Indicators Report Documents Analytics Reports	0 0			
	<ul> <li>Activity Log</li> <li>Settings</li> </ul>				

#### Figure 7. Report indicators tab example

PEM®PAL «	Explore Indicator Templates Hom	e - Report Types - IC	Logged in as web   Supe	r-admin 📰 🌲 CODEMAN CS
n Dashboard	Q. Search		<b>T</b> Filter	© New Template
Crganizations	NAME	STATUS	CREATED DATE Y	ACTIONS
Report Indicators     Report Documents	Test IC	Pending Completed	Tuesday, January 25, 2022 11:31:21 AM Thursday, January 20, 2022 3:44:17 PM	Actions ~ 2 Actions ~
<ul> <li>Analytics Reports</li> <li>Activity Log</li> </ul>	Showing 1 to 2 of 2 records (filtered	from 4 total entries)		
Settings				

For the template, it is possible to do three actions.

- > Edit details represents the field where CHU moderator establish the parameters of report publish
- > Edit indicators opens the page where CHU moderator can create or edit already created indicators.
- > Preview form opens a preview form for already created indicators.

Figure 9. Already created indicators view example

### 3.1.1. Full indicator list examples

CHU moderator can create, delete, edit and deactivate indicators in selected template. As presented in previous section every template has possibility to edit indicators.

As you can see from **Figure 9**, there is a gradation of the levels. With question sections and sub-sections, which raw is question, required answer from operator, which section is just informative.

MUST<br/>REMEMBEROnly indicators starting from<br/>third level can be answer type.

lanage IC form report indicators		
IC form		
Control environment	without answer	
Institutional aspects of control environment	without answer	
Head count of the administrative office of the entity	without answer	
regular	Number with answer	
	Number with answer	
Number of territorial bodies of the entity	Number with answer 🕑 🔀 🔋	
Total head count of territorial bodies	without answer	
regular	Number with answer 🛛 🔀 💼	
actual	Number with answer 🕑 🔀 📴	
Financial aspects of control environment	without answer	
Budget appropriations, of which	Number with answer	
to implement government programs	Number with answer	

#### Figure 10. Filled preview example

PEM®PAL «	Explore Report Details Home - Report Indicators - IC - Report Form Preview				Logged in as web   Super-admin 📰 📕	CODEMAN Studio	CS			
A Dashboard				IC form						
MENU  Organizations  Users	Account: CODEMAN Studio Date: 25.01.2022 Organization: CHU Report Type: IC									
Report Indicators		<b>War</b> This i	ning is a preview mode. You cannot submit this form from prev	iew mode.						
Analytics Peports		Nº	Indicator	Criterion	Data					
	Se	Section 1. Control environment								
Activity Log		1.1	Institutional aspects of control environment	1.1.1 Head count of the administrative office of the entity	e					
Settings				1.1.1.1 regular	number					
				1.1.1.2 actual	number					
				1.1.1.3 Number of territorial bodies of the entity	number					
				1.1.2 Total head count of territorial bodies						
				1.1.2.1 regular	number					
				1.1.2.2 actual	number					
Documentation		1.2	Financial aspects of control environment	1.2.1 Budget appropriations, of which	amount					

#### Figure 11. "Starting from zero" view example

Manage Test IC report indicators		
Test IC	without answer	+

Filled preview example in **Figure 10** will make it easy to understand. The screen of preview is the same indicators.

As you can see from **Figure 11** we have only one action to take here "+". This is a logic of creating a gradation. Filled example is above I will go with possibilities.

**NOTE:** If you click the circle, "+" button will add new line, which is a hierarch sequence to lower level.

### 3.1.2. Adding new indicator.

Initially as mentioned in note to remember CHU moderator should pick the line under what s/he wants to add a new raw. Required fields to fill while creating new line:

Section name – this is the only parameter, this represents the name of the representing indicator and criteria name.

After row creation, in **Figure 12** example "test line", it is possible to do: by picking, the checkbox to the right of "without answer" CHU moderator will state that this line is question, and operators should fill it when providing the analytical data. If checkbox is not filled data will not be required and as shown in preview that field will be in Gray. You can see the Name of the line and status. Status provides opportunity to activate or deactivate Indicator.

New answer button will open next required data to fill, to finalize indicator. See **Figure 13**.

Figure 12. After row creation example

ettings	×
Label Name Test line	Status Enable/Disable
New Answer	

#### Figure 13. New answer example

Settings			×
Label Name Test line New Answer Placeholder %		Status Enable/Disable	Remove Answer
Name Test line Input Types • Number	rercent O Logic (	) Enum	
			Close Save

- Placeholder this information will display, in the input box to operator, who will understand what kind information is required. Example if the type of indicator is percent, placeholder can be "%" or "percent" up to CHU moderator.
- Name is the name of indicator within double use. In case, CHU wants to create a logic out of already created indicators. It would be easier to find indicators if you give a proper internal name for search.
- > Input types system identifies 4 times of indicators
  - O Number numerical value
  - O Percent value in percentages
  - Logic logical connection between two already created indicators (see Figure 14). Generally calculates the percent.
  - Enum this type is for picking yes or no answers (see Figure 15). However, the answers not limited to yes or no. It is possible to create new types of answers while creating the indicator

Se	ttings		1
	Label Name Test line	Status Enable/Disable	
	New Answer		
	Placeholder		Remove Answer
	%		
	Name		
	Test line		
	Input Types • Number Percent O Logic Enur	n	
	Indicator 1 *		
	Select Indicator	~	
	Indicator 2 *		
	Select Indicator	~	
			Close

Figure 14. Logical connection between two already created indicators example

Figure 15. Enum indicator example

Settings							×
Label Name				Status	Facility (Diagonal		
Test line					Enable/Disable		
New Answer							
Placeholder						Remove Answer	
%						Ē	
Name							
Test line							
Input Types *	Percent	Logic	O Enum				
Options *							
1					~		
Yes							
No							
Partially						Close	Save
Othor							

#### Figure 16. Filled example

Results of assessment of institutional framework for IA units activity		without answer	$\Box$
IA unit headcount		without answer	
IA unit head count sufficient to cover all the auditees for 3 to 5 years	Enum	with answer	
IA unit independence		without answer	
Institutional independence ensured	Enum	with answer	
Functional independence ensured	Enum	with answer	
Access to the information		without answer	
Internal auditors' access to information, assets, and employees of the entity at all the levels is ensured	Enum	with answer	
Internal regulations		without answer	
Internal regulations re. IA arrangement and conduct comply with Internal Audit Standards	Number	with answer	
Number of deficiencies in internal regulations re. IA arrangement and conduct:		without answer	$\bigcirc$
revealed	Number	with answer	
eliminated	Number	with answer	

#### Figure 17. Publish a report operator example

	PEMIPAL «	Reports Home - Report Documents Logged	lin as CHU   Moderator	Ohan Bakhshyan OB
	A Dashboard	2 Published forms Submitted Reports Ready Move up Submitted / Rejected reports		
	MENU			a ter brand i si
	1 Organizations		$\bigcirc$	Park link France
	Lusers	Q Search form	3	Publish Form
		10 🗸		
	Report Indicators	RAW ID FORM NAME FORM TYPE PUBLISH TYPE FOR	YEAR	ACTIONS
(1	Report Documents	No data available in table		1
	Analytics Reports			
		Showing no records		<u> </u>
	<ul> <li>Activity Log</li> </ul>			

Filled example in **Figure 16** will make things look easier. Example: "IA unit head count sufficient to cover all the auditees for 3 to 5 years" this indicator has answer of a type enum.

If CHU moderator wants to edit already created indicator, Yellow button is the edit.

If CHU moderator wants to delete already created indicator, Red button is the Delete.

**NOTE:** Don't rush to delete indicator, keep in mind you can deactivate it.

# 3.2. Indicator publish for reporting

When indicator form created, CHU moderator should change the status from **Actions -> Edit details**, from pending to "completed"

After this action CHU moderator can enter to pempal.codeman.am/report-documents#published\_forms report documents section and publish a report operators to feel. See Figure 17. Figure 18. Example of information required to publish a form

Publish /Republish Form	×
Report Form Name *	
Select Form Name 🗸 🗸	
Publish Type *	
Select Publish Type V	
DeadLine dates count *	
Deadline	
Remind every x days before deadline *	
Interval in days	
Year *	
Select Year 🗸	
Discard Submit	

- Report form Name CHU moderator should pick which form is necessary to publish.
- Publish type CHU moderator picks the publish type out of defined
  - Every month in this case this form will be available every next month to reporting month
  - **Every quarter** in this case published form will be available to fill every next month to reporting quarter.
  - **Every half year** in this case published form will be available to fill every next month to reporting half year.
  - Every year in this case published form will be available to fill every next month to reporting year.
- Deadline dates count field CHU moderators fills the days count during which operator should fill the form.
- Reminder every X days before deadline Every mentioned day count system will send reminder notification.

Year – CHU moderator picks the year for with form published.

### MUST REMEMBER

#### IT is not allowed to publish different indicator forms with the same publish type.

You can't have IA indicator form 1 and IA indicator form 2 published by yearly publish type

### 3.2.1. Notification logic

Every time report published, system creates a sequence of notification, which are sent to operators based on need. If notification is opened by month. Every first day of next month to reporting, system will send notification to point operator attention, that there is report to fill. System will send reminding based on the parameter "**Reminder every X days before deadline**" this will shut down if operator submits the report, or deadline passes.

# 4. Indicators filling and consolidation

In this section, you will find detailed steps on filling the information.

Must steps to do before reaching here:

- System should have at least two organizations in vertical line
- In organization, at least one moderator or operator should be active with the indicator type. To fill the data after publish.

Below you will find details about one example of how to fill the data as operator and how to process the data as moderators.

In **Figure 19** you will see organizational tree created for demonstration. It also shows that test users are available as well.

#### Figure 19. Organizational tree created for demonstration

Central harmonization unit			
CHU Active	the second second second		
Members			
ОВ			
•			
entral harmonization unit			
	Masurite sensation		
Finance Ministry	Ministry of Health		
Ministry Active	Ministry	Active	
Members	Members		
OB OB U7	OB OB U2 U6		
inistry of Health			
,			
Sub ministry department 1	Sub ministry department	2 💼	
Ministry Active	Ministry	Active	
Members	Members		
OB OB U3 U4 U7	OB OB UI U9		

#### Figure 20. Example of aorm of IC for filling

Manage IC Reporting for guide report indicators							
O IC Reporting for guide							
Section 1	without answer						
Criteria 1	without answer						
Question number	Number with answer 🗸 🔀 🗊						
Question number 2	Number with answer 🗸 🔀 🗊						
Question %	Percent with answer 🕑 🔀 🗊						
question Logic	Logic with answer 🗸 🔀 🗊						
Question enum	Enum with answer 🗸 🗴 🗊						

#### Figure 21. Example of forms available to fill

PEM®PAL «	Reports Home	- Report Documents				Logged in as	A+IC   Operator 📑 🛛	3 Ohan Bakhshyan	OB
n Dashboard		Published forms	Submitted / Rejected reports	Draft forms					
MENU									
<ul> <li>Organizations</li> <li>Users</li> </ul>		Q Search form							
		10 🗸							
Report Documents		RAW ID	form NAME	FORM TYPE	PUBLISH TYPE	FOR YEAR	ACTIONS		
<ul> <li>Activity Log</li> </ul>		#1	IC Reporting for guide	IC	Every month	2022	Actions $\checkmark$		
		Showing 1 to 1 of 1 records							

As you can see from **Figure 20**, there are five indicators, every one of which represents one type of indicator at a time. (See 3.1.2)

Guide will start the processes from the first layer (sub ministry department 1).

### 4.1. First step as operator

As IA+IC operator user can enter to report documents where he can find the published forms (1) tab. This tab is default active.

Operator will see the information about the form which is available to fill. See **Figure 21**.

By clicking on the name of on action button at the right side, operator can enter fill the published form.

Before starting user can read some information about published form:

- Raw ID
- Sorm Name
- Sor type
- Publish type
- Sor year
- O Actions → open form

After opening the form operator will see following information as shown on **Figure 22**.

- 1. Name of the form
- 2. Data about user who will fill the report.
- 3. Possibility to print.
- 4. Data period report operator submits data for: user can change month. If data for selected month is filled, month will be not pick able.

Figure 22.	Example	of form	of IC	for filling
------------	---------	---------	-------	-------------

ccount: <b>C</b> rganizati	on: Sub ministry department 1			Date: 22.02.20
eport Typ	e: IC			3 Print
		4		
2022		Every month	January	× ~
Nº	Indicator	Criterion	Data	
Sectior	1. Section 1		1	
1.1	Criteria 1	1.1.1 Question number	Add number	
		1.1.2 Question number 2	Add number	
		1.1.3 Question %	%	%
		1.1.4 question Logic	Number 1 / Number 2 * 100%	
		1.1.5 Question enum	Yes / no	~

- 5. Indicators and fields to fill the data.
- 6. Submit a report
- 7. Save as a draft.

MUST

REMEMBER

**NOTE:** User can save and edit form as a draft infinite times. Data will be saved in drafts.

We have 3 type of reporting forms IA, IC and CHU related. And we have operator types IA, IC, IA+IC and CHU. If IA form is available to fill, both operator types IA and IA+IC will see that form to fill.

After filling and saving the data, Data will be saved and sent

to nearest mod moderator to review filled information.

**NOTE:** There are 4 types of data operator can fill.

- 1. **Number type** where operator should fill the number value
- 2. Percentage type where operator should fill the value not more than 100
- **3.** Logic type this field is calculated automatically and is not changeable.
- **4. Enum type** here operator should chose from already defined drop down list.

#### Figure 23. Example of notifications

PEMIPAL «	Dashboard	Logged in as IC   Moderator 📑	Ohan Bakhshyar	ов
A Dashboard		There are no new requests for your approval You will receive a notification about new members.		
MENU				
Crganizations				
Lusers		Quick Actions Notifications		
Report Documents 1 (2)		New January form to check		
Analytics Reports		Users         Invite User         Dear Ohm Bitherhynan (Ahm Bitherhynan operator has submitted IC January           Users         Invite User         I week ago		
Activity Log		You was added to department. You was added to departments Finance Ministry, Finance Ministry and 6 more. 1 month ago		
		You was removed from department Onon Baihington remove you from Central hormonization unit as IC Operator. 1 month ago		
		View All $\rightarrow$		

#### Figure 24. Example of submitted reports

PEM®PAL «	Reports Home	- Report Documents						Logged in as	IC   Moderator	2	Ohan Bakhshyan	ОВ
n Dashboard		Published forms 1	Submitted Reports 1	Ready Move u	p Submitted / Reject	ted reports						
MENU												
Organizations		O Cassel farm	(1)									
🚉 Users		Q sedicition										
		10 🗸										
Report Documents 1		USER	ORGANIZATION	ТУРЕ	FORM	PERIOD	STATUS	FROM	воттом 🍸	ANSWE		
Analytics Reports		Ohan Bakhshyan	Sub ministry department 1	IC I	C Reporting for guide	January	Submitted		No	Monday 2022 1(		
<ul> <li>Activity Log</li> </ul>		Showing 1 to 1 of 1 records							K I	×		

# 4.2. Acceptance of the form by nearest moderator

When operator fills the data, nearest moderator will receive a notification about filled form to review. See **Figure 23**.

When entering to reporting documents moderator will see the published forms, with action to view. This helps moderator to be aware what kind of data operator should fill.

In submitted reports moderator will see submitted data from nearest operator. See **Figure 24**.

Moderator can see initial data about submitted report in table. At the end of the row moderator have action to do - view report. See **Figure 25**. **Section 1:** Moderator will see who submitted the form from which department.

**Section 2:** Moderator will see when form was submitted.

**Section 3:** Moderator will see submitted forms year, periodic type and the period of filled data.

Under every answer moderator has possibility to fix a comment in case form has incorrect data. Comment will be available to operator if form is rejected.

Under the form moderator has two action. Either accept the form, either reject it.

When moderator accepts the form:

1. In case there is no any suborganization to current organization where moderator is assigned,

	· ·			
PEMIPAL «	Explore Report Details Home - Submitted Reports - #1		Logged in as IC   Moderator	Ohan OB Bakhshyan
Dashboard	Account: Ohan Bakhshyan Granitation: Sah ministry (department )	IC Reporting for guide	2 Dote: 28.03.2022 Status: Submitted	
Crganizations	Report Type: IC		Print	
Report Documents     Analytics Reports	2022 ×	Every month X Y	January X Y	
	N2 Indicator	Criterion	Data	
Activity Log	4 Section 1. Section 1 Criteria 1	1.1.1 Question number 1.1.2 Question number 2	100 Reason for rejection 1500	
		11.3 Question %	25 % Reason for rejection	
		1.1.4 question Logic	6.67 % Reason for rejection	
<b>8</b>		1.1.5 Question enum	Yes v Reason for rejection	
		⊘ Accept X Reject		

#### Figure 25. Example of submitted reports

accepted from will be consolidated automatically and will moved up to higher organization's moderator.

2. In case there is a suborganization to current organization where moderator is assigned, form will move to "ready to move up" tab. And will wait to be consolidated with other available forms.

When moderator rejects the from with commenting or without. Form will be sent back to operator who filled the data. Comments will be available near every number so operator can understand what to change. After submitted form again, Moderator will see the new values with already changed ones. (one step change tracking).

# 4.3. Consolidation of collected information.

Consolidation of accepted forms is merging the data together by logics of indicators. As we already know there are 4 main types of indicators

#### 2. Percent

- 3. Logic
- 4. Enum

For all types system has it own way to consolidate the data:

- Number consolidation system will sum all the data within the same indicators
- Percent consolidation system will calculate average percent within the same indicators
- Logic consolidation system will calculate the weighted average based on the logic indicators within the same indicators
- Enum consolidation System will calculate and present the values of how many times which answer were picked before consolidation. After which moderator who does consolidation will pick the relevant answer before consolidation.

Every moderator who has several forms collected from operators or subordinate organization will have that forms in the ready to move up tab (see **Figure 26**) in reports documents.

#### Figure 26. Ready to move up tab

Reports	Home -	Report Documents					Logged in as web	Super-admin	٠	SUPER ADMIN	SA
		Published forms	Submitted Reports	Ready Move up	Submitted / Rejected reports	Draft forms					
		Q Search form					Generate Consolidation	<b>Y</b> Filter			
		10 🗸									
		USER	ORGANIZATION	YEAR	PUBLISH TYPE	MONTH	MOVED UP	D FROM			

Figure 27. "Generate consolidation" example

Consolidation				×
Year *				
Select year			~	
Publish Type *				
Select optio	'n		~	
Month *				
Select optio	n		~	
	× Cancel	View Consolidation		

If all documents are accepted by and will be marked to accept and ready to move up, system will be ready to consolidate data.

When data are ready to consolidate moderator should hit the button "generate consolidation", a form will open as shown in **Figure 27**.

Moderator should pick from this form in order to clarify for system which type of reports should be consolidated together into one form.

- Year is the year of collected reports which are not consolidated yet
- > **Publish type** is the published type of report
- Month is the specific period

After these parameters are fixed moderator should hit view consolidation, and system will percent the new created form with consolidated data in it.

Whenever moderator finishes the consolidation new form will be created. If the organization, for which consolidation is created considers to be subordinate to some other organization, later will receive the consolidated report in ready to move up table for further consolidation till the CHU level.

After consolidation is finished, moderator can find consolidated report in the Submitted / rejected forms tab in reports documents, where moderator can view the consolidation. On the down of the page, system will show which reports were used to create this consolidation for further checks I needed.

# 5. Data comparison and visualization: Analytic reports

In the left menu all moderators have "analytics reports" section (see **Figure 28**) where they can do data analysis based on collected data from operators. Every moderator can do data visualization on their level of organization chart. No one can see data visualization from above organizations. There are 4 steps for creating a report analysis.

- Report type here moderator should pick which type of report data they want to analyze or compare.
- 2. Compare type here moderator should pick which organization and which report they want to include in analysis



#### Figure 28. "Generate consolidation" example



								4
Se	elect the orgo	anization	n for which yo	ou want t	o view the analytics report			Remove block
	Organizatior	1*			Choose department			
J)	СНИ			~	Bashkia e Tiranes	~		
2)	Is consolidat Yes	red * ~	Year * 2021	~	Reporting frequency *	Reporting period •	~	
					🖨 Add compa	rison 3		

#### See Figure 29:

- First section is where moderator should pick the relevant organization. In default the main organization will be fixed for moderators from lower levels. As you can see picking organization who has a subordinate organization will open a new box from right, so moderator can filter deep to select the relevant report to view.
- 2. Second section is for picking the parameters for reports.
  - a. If moderator wants to see a report which is under a specific organization they should pick "is consolidated = no"
  - b. If moderator wants to see a report for upper organization they should pick "is consolidated = yes"
  - c. Year is the data collection year
  - d. Reporting frequency is the same as publish type. For year type we do not pick anything
  - e. Reporting period is set to be or month or quarter or half year.

- 3. Add comparison button is for adding another comparison organization or period with the same time period to see indicators change through time or organizations. It is possible to view total country report with a specific organization. It is possible to compare one period of the same report with another period.
- 4. If you add a block and want to remove it there is a remove block button.

See **Figure 30** for a final example of Step 2. It is picked one organization to compare with whole information from all organizations

See **Figure 31** for indicator step is for picking the relevant indicators moderator wants to see the reporting or data visualization. Here only active indicators in fixed form will be visible. So, if CHU moderator will deactivate a specific indicator in picked form type, in this step that indicator will not be hidden. You can see indicator name with section / criteria / indicator form. So it is easy to understand what indicator is presented. In this step for presentation we picked all indicators.

Select the organization for whi	ch you want to view the analytics report	Transformation Remove block
Organization *	Choose department	
СНИ	<ul> <li>Bashkia e Tiranes</li> </ul>	
Select the reporting period an	d the type of consolidation to search for report data	
Is consolidated * Year *	Reporting frequency *	
No v 2021	✓ Every year ✓	
	Add comparison	Torman black
Select the organization for whi	ich you want to view the analytics report	Remove Diock
Organization *	Choose department	
СНИ	✓ Choose department ✓	
Select the reporting period an	d the type of consolidation to search for report data	
Is consolidated * Year *	Reporting frequency *	
Yes ~ 2021	✓ Every year ✓	
	Add comparison	

### Figure 30. Final example of Step 2

### Figure 31. Indicator step example

Report Analytics	ome - Report Filter	Logged in as	web   Super-admin 🌅	۰	SUPER ADMIN	SA		
Rep	ort Type Compare Date Indicator Preview Chart preview							
	Choose indicator							
-2	Institutional aspects of the Internal Audit activity / Organization of internal audit service / Internal Audit Directory							
	Institutional aspects of the Internal Audit activity / Organization of internal audit service / Internal Audit Sector							
	Institutional aspects of the Internal Audit activity / Organization of Internal audit service / Internal Audit Function							
	Institutional aspects of the Internal Audit activity / Internal Audit Staffing / Regular/Planned number of Internal Auditors							
	Institutional aspects of the Internal Audit activity / Internal Audit Staffing / Current number of internal auditors							
	Institutional aspects of the Internal Audit activity / Internal Audit Staffing / Vacant internal auditors positions							
	Institutional aspects of the Internal Audit activity / Internal Audit Staffing / Number of IA Directors				-			

#### Figure 32. Preview step example

Report Analytics	Home - Report Filter	Logged in as	web   Super-admin 🌅	٠	SUPER ADMIN	SA
	Report Type Compare Date Indicator <b>Preview</b> Chart preview					
		DASHKIA E TIRANES / 2021 /	2 CHU / 2021 / EVERY			
	INDICATOR	EVERY YEAR /	YEAR /			
	Institutional aspects of the Internal Audit activity / Organization of internal audit service / Internal Audit Directory	YES	YES			
	Institutional aspects of the Internal Audit activity / Organization of Internal audit service / Internal Audit Sector	-	-			
	Institutional aspects of the Internal Audit activity / Organization of internal audit service / Internal Audit Function	-	YES			
	Institutional aspects of the Internal Audit activity / Internal Audit Staffing / Regular/Planned number of Internal Auditors	9	22			
	Institutional aspects of the Internal Audit activity / Internal Audit Staffing / Current number of internal auditors	7	20			
	Institutional aspects of the Internal Audit activity / Internal Audit Staffing / Vacant Internal auditors positions	20	10			
	Institutional aspects of the Internal Audit activity / Internal Audit Staffing / Number of IA Directors	1	3			
	Institutional aspects of the Internal Audit activity / Internal Audit Staffing / Number of IA Head of Sectors	T	T			

In the preview step (see **Figure 32**), system will present all the indicators picked in step 3, with a values fixed during filling the data or consolidating:

- 1. Is presenting the data from specific organization
- 2. Is presenting the data from total consolidated report in CHU level.

It is possible to download this tables in excel form and do the visualization on the excel side. Moreover, several visualizations are possible to do directly from this system, just check some indicators, choose chart type and hit chart preview button (see **Figure 33**). In the result system will show the graph like in **Figure 34**.

Possible to pick three types of data visualization

- Bar chart
- ⊘ Line chart
- Pie chart

Moderator can download the image of the graph.

Figur	'e 33.	Chart	preview	button
-------	--------	-------	---------	--------

Report Analytics	Home - Report Filter	Logged in as web   Super-admin	ADMIN SA
	Capacity building and professional development / Professional profile of internal auditors / Diploma in legal and jurisprudence	2	
	Capacity building and professional development / Professional profile of internal auditors / Diploma in other sectors ( IT, engineering, ect)	2	
	Capacity building and professional development / Certification of Internal Auditors / Certified Internal auditors	18	
	Capacity building and professional development / Certification of internal Auditors / Internal Auditors of following Certification procedures	1	
	Capacity building and professional development / Certification of internal Auditors / Non certified internal auditors	1	
	Capacity building and professional development / Continuing Professional Training Program / IA following 40 realistic training hours per year	12	
	Capacity building and professional development / Continuing Professional Training Program / IA following 20- 40 training hours per year	6	
	Capacity building and professional development / Continuing Professional Training Program / IA following less than 20 training hours per year	1	
	← Back Choose chart type 🗸 🗠 Chart preview	ط Download Excel File	



#### Figure 34. Image of the graph download example

# 6. Activity log

This field is created for moderators to fix the activity of every user in the system. Moderators of lower level organizations will see only subordinate organizations users activity log. As you can see from **Figure 35**, system will present in the table view information. User name with email. Log message will present the information what the user did. Type of action is specified and the date when event accrued. Moderator has possibility to make filtration by date, by users and by types of action.

#### Logged in as web | Super-admin 📑 🌲 SUPER ADMIN PEM®PAL « Activity Logs Home - Activities A Dashboard 05/05/2022 - 06/03/2022 All types × ~ Q Search by user 10 🗸 Organizations Lusers MESSAGE TYPE DATE SUPER ADMIN SUPER ADMIN logged in. Login Friday, June 3, 2022 Report Indicators SA Report Documents CHU moderator Albana Gjinopulli from CHU created IA Every year 2022 consolidated form. Consolidation form created Friday, May 27, 2022 Analytics Reports Albana Gjinopulli AG Activity Log Albana Gjinopulli logged in. Login Friday, May 27, 2022 1 Albana Gjinopulli AG Settings Silvana Gushali logged out. Friday, May 27, 2022 Silvana Gushali Logout SG na.Gushali@kultura.aov.al Silvana Gushali logged in. Login Friday, May 27, 2022 Silvana Gushali SG Friday, May 27, 2022 Albana Gjinopulli logged out. Albana Gjinopulli Logout AG financa.gov.al Albana Gjinopulli logged in. Login Friday, May 27, 2022 AG Albana Gjinopulli Albana.gjinopulli@financa.gov.al

#### Figure 35. Activity log example

