

Walkthrough

How to report data to IFR Industrial Robot Statistics

This version: 7 December 2023



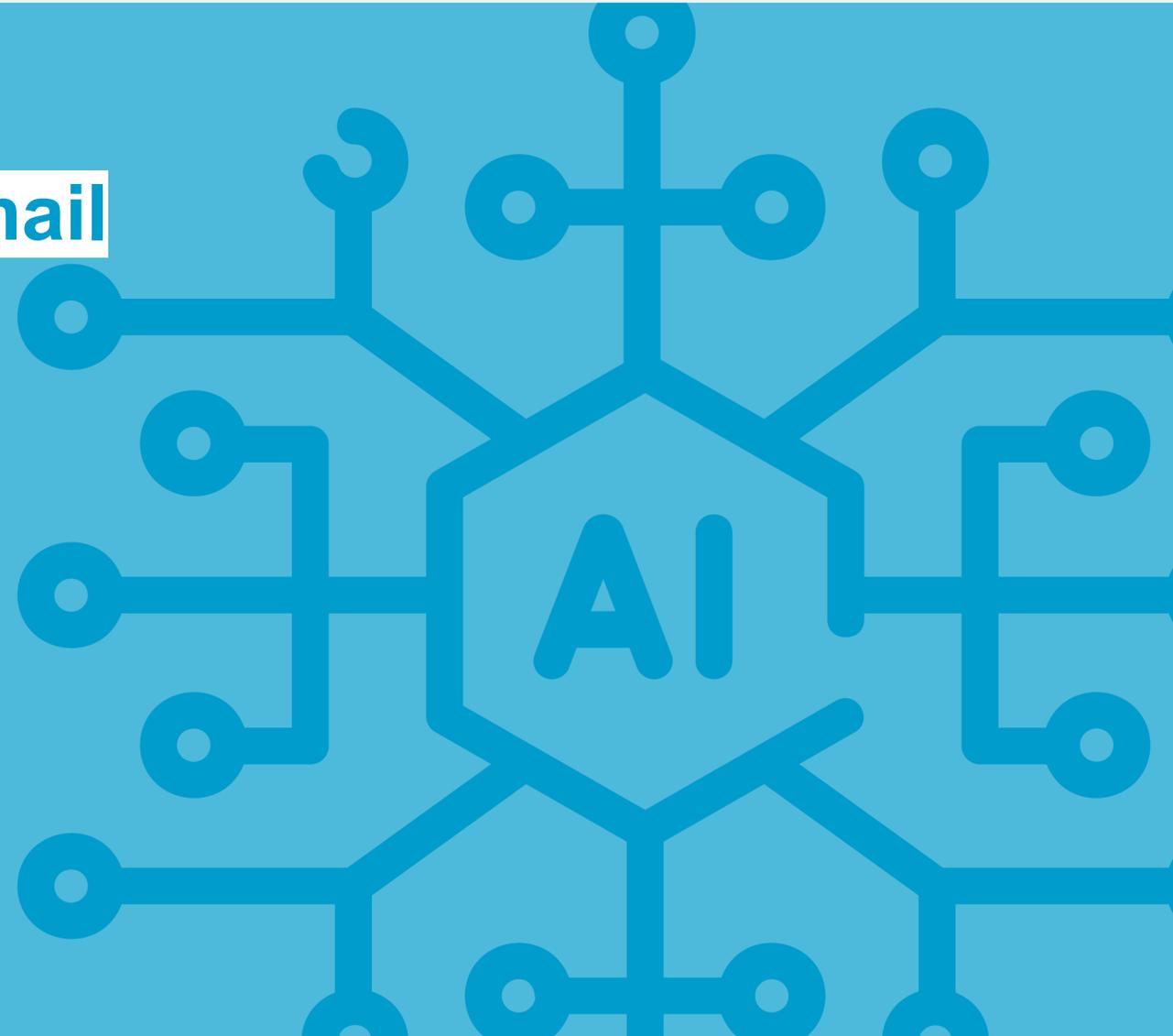
4 options to report data

Choose your favorite option from the following alternatives:

1. Submit Excel files via e-mail (statistics@ifr.org)
2. Upload CSV files to my.worldrobotics.org
3. Enter data manually on my.worldrobotics.org
4. Push data through API

Note: The additional surveys on “collaborative robots” and “mobile manipulators” currently require the submission of Excel files.

1 Submit Excel files via e-mail



1 Excel files

- Use the provided Excel sheets “Applications 2023.xlsx” and “Industries 2023.xlsx”
- 1) Please tell us who the sender and contact for questions is
- 2) Columns follow IFR application (or industry) classes and offer a short definition (full definitions provided in separate document)
- 3) Rows follow IFR geography classes
- 4) There are 6 sheets, each representing one IFR industrial robot type class

Automatisches Speichern Applications 2023.xlsx Keine Bezeichnung • Zuletzt geändert: 9. November Christopher Müller

Datei Start Einfügen Zeichnen Seitenlayout Formeln Daten Überprüfen Ansicht Automatisieren Hilfe Acrobat

C13

IFR Statistics on Industrial Robots		110 Handling operations/ Machine tending – Assistant processes for the primary operation (the robot doesn't process the main operation directly)										160 Welding and soldering (all materials)			
Articulated robots		Handling operations for metal casting	Handling operations for plastic molding	Handling operations for stamping/forming/bending	Handling operations at machine tools	Machine tending for other processes	Handling operations for measurement, inspection, testing	Handling operations for palletizing	Handling operations for packaging, picking and placing	Material Handling n.e.c.	Handling operations unspecified	Arc welding	Spot welding	Laser welding	other welding
Total:		0	0	0	0	0	0	0	0	0	0	0	0	0	0
Europe total:	EU	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Austria	AT														
Belarus	BY														
Belgium/Luxembourg	BE														
Bosnia Herzegovina	BA														
Bulgaria	BG														
Croatia	CR														
Czech Republic	CZ														
Denmark	DK														
Estonia	EE														
Finland	FI														
France	FR														
Germany	DE														
Greece	GR														
Hungary	HU														
Iceland	IC														
Ireland	IE														
Israel	IL														
Italy	IT														
Latvia	LV														
Lithuania	LT														
Ukraine	UA														

1 Excel files

- 1) Enter the number of installed robots in the calendar year (0 may be omitted)
- To assist you, the sheet computes some control sums:
- 2) The right-hand side column offers the total by geography unit across all applications/industries
- 3) The top row contains the total by application across all territories
- 4) There are sub-totals for the continents (Asia, The Americas, Europe, Africa)

	Assembly and disassembly unspecified	Clean room for FDP	Clean room for semi-conductors	Clean room for others	Others	Unspecified	
EU	0	0	0	0	0	0	0
AT							0
BY							0
Belgium							0
Bosnia							0
BG							0
CZ							0
DK							0
EE							0
FI							0
FR							0
DE							0
GR							0
HU							0
IC							0
IE							0
IL							0
IT							0
LV							0
LT							0
MT							0

1 Excel files

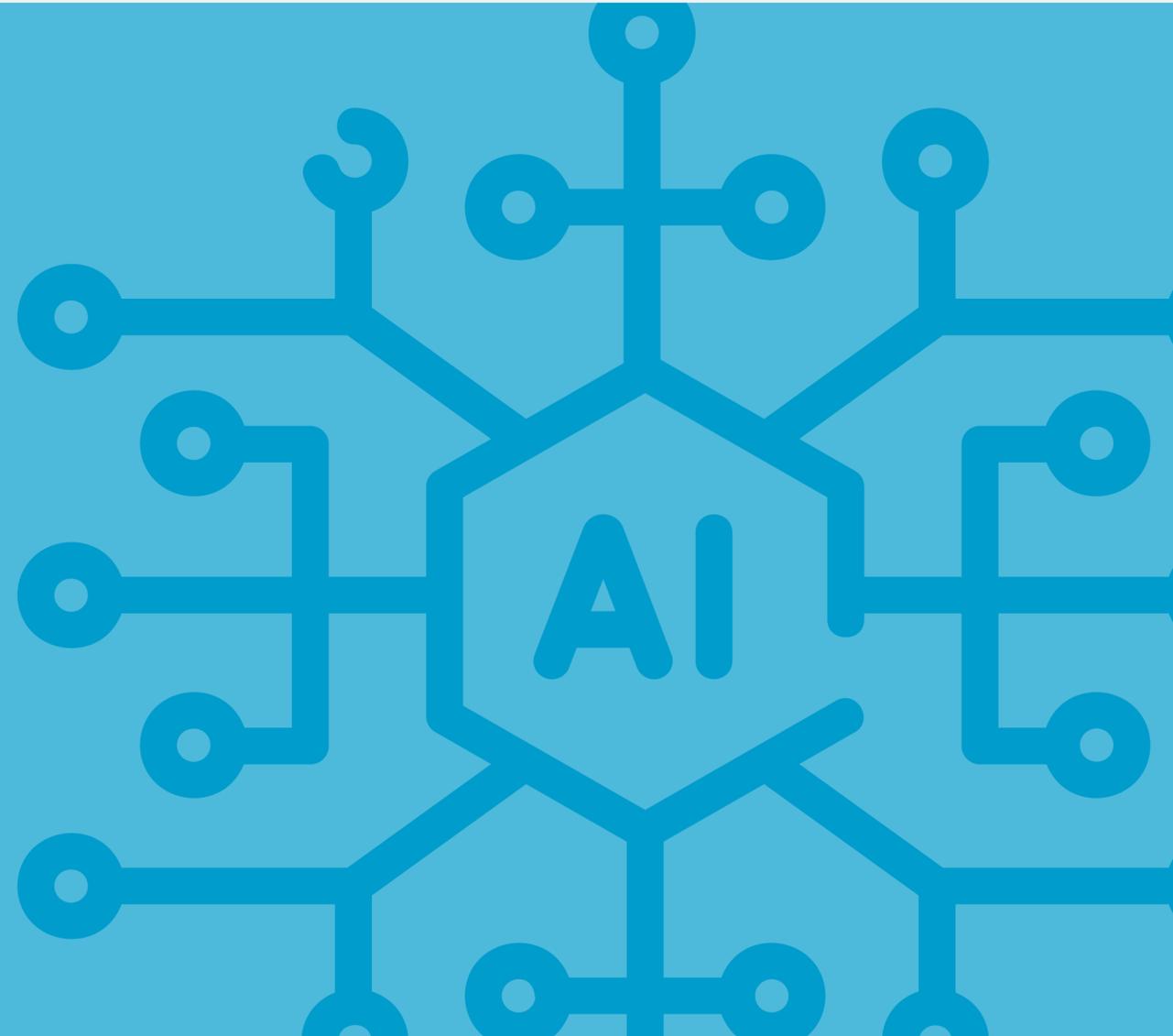
Please note:

- Only **natural numbers** are allowed (no decimals or negatives)
- You can only report to lowest-level classes. **You cannot report into aggregate classes** (e.g. application 110 as the aggregate of all handling/machine tending applications). If you do not know the lowest level class, please use the corresponding “unspecified” class (e.g. if you know the robot is used for handling, but not the exact application, report it to class 120 “Handling operations unspecified”).
- **Do not alter the structure of the file** as it is processed semi-automatically. That is:
 - Do not shuffle the order of the sheets
 - Do not rename sheets
 - Do not add, remove or shuffle rows or lines

When done, submit the Excel files via e-mail to statistics@ifr.org.

This is also your contact for questions.

2 Upload CSV file to my.worldrobotics.org



2 Upload CSV file

- **Recommended if you have a well-maintained database** of your company's robot installations that allows you to extract data compliant with IFR classes.
- **Preparation** (before you submit): Configure your system to export separate CSV files for each *type x application* and each *type x industry* (i.e. one CSV file corresponds to one sheet in the Excel file). **Name files according to this rule:**

[YYYY]_[MM]_[APPIND|APPLICATION|INDUSTRY]_[COMPANY-CODE]_[ROBOTTYPE-CODE].csv

where:

[YYYY] = calendar year the data refers to

[MM] = currently always 00 (double zero)

[APPIND|APPLICATION|INDUSTRY] = currently either APPLICATION or INDUSTRY

[COMPANY-CODE] = the pseudonymous assigned by IFR Statistical Dpt.

[ROBOTTYPE-CODE] = the IFR robot type code

(10 = articulated, 20 = cartesian, 30 = cylindrical, 40 = parallel, 50 = SCARA, 99 = others)

Example: 2023_00_application_A123_10.csv

2 Upload CSV file

- Each file contains data according to the following format:
- One line for each datapoint (i.e. one line corresponds to one cell in the Excel file)

1. Reporting by Applications:

[COUNTRY-CODE];[APPLICATION-CODE];[INSTALLED UNITS]

Example:

DE;111;10

KR;118;4

2. Reporting by Industries:

[COUNTRY-CODE];[INDUSTRY-CODE];[INSTALLED UNITS]

Example:

DE;291;10

KR;162;4

2 Upload CSV file

[COUNTRY-CODE]: According to IFR geography classification (see documentation, no aggregate classes)

[APPLICATION-CODE]: According to IFR application classification (see documentation, no aggregate classes)

[INDUSTRY-CODE]: According to IFR industry classification (see documentation, no aggregate classes)

[INSTALLED UNITS]: Number of industrial robots newly installed in the corresponding year

2 Upload CSV file

- After preparing the CSV files:
- 1) Go to my.worldrobotics.org
- 2) Log in
- Use “password forgotten” if necessary.
- If you do not have an account yet, please contact IFR Stat. Dpt. (statistics@ifr.org or by phone)
- If you need support, please contact IFR Stat. Dpt.

World Robotics

https://my.worldrobotics.org/index.php/login 1

World Robotics Industrial Robots 2023

World Robotics Service Robots 2023

Login (my)

Username:

Password: 2

Login

Password forgotten

Welcome to the World Robotics Wizard

This version of World Robotics Wizard is an application for customers and members of IFR.
You may download the chapters of World Robotics or the current market data in your own created report.

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2 Upload CSV file

3) Click “Dispatches” to see the “List of Dispatches” – your company’s data submissions to the IFR. It is structured as follows:

“Dispatch”: The calendar year of the data

“Type”: Type of dispatch (industry or application)

- do not confuse with kinematics (“robot type”)
- companies reporting payloads to the German statistics will find “payloads”, too.

“Status”: Status of this dispatch

- ✓ verified and submitted to IFR
- 🕒 pending (verified but not submitted)
- ⚠️ not verified

World Robotics | Books | **Dispatches** | Config | Logout

3 List of Dispatches

Show 10 entries Search: [] [Download] [Back]

Dispatch	Type	Status	Action
Year 2023	Industrieroboterarten nach Nennlastbereichen	🕒	[edit] [delete] [refresh]
Year 2023	Robots by Industry	🕒	[edit] [delete] [refresh]
Year 2023	Robots by Applications	🕒	[edit] [delete] [refresh]
Year 2022	Industrieroboterarten nach Nennlastbereichen	🕒	[edit] [delete] [refresh]
Year 2022	Robots by Industry	🕒	[edit] [delete] [refresh]
Year 2022	Robots by Applications	🕒	[edit] [delete] [refresh]
Year 2021	Robots by Applications	✓	[edit] [delete] [refresh]
Year 2021	Robots by Industry	✓	[edit] [delete] [refresh]
Year 2021	Industrieroboterarten nach Nennlastbereichen	✓	[edit] [delete] [refresh]
Year 2020	Industrieroboterarten nach Nennlastbereichen	⚠️	[edit] [delete] [refresh]

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2 Upload CSV file

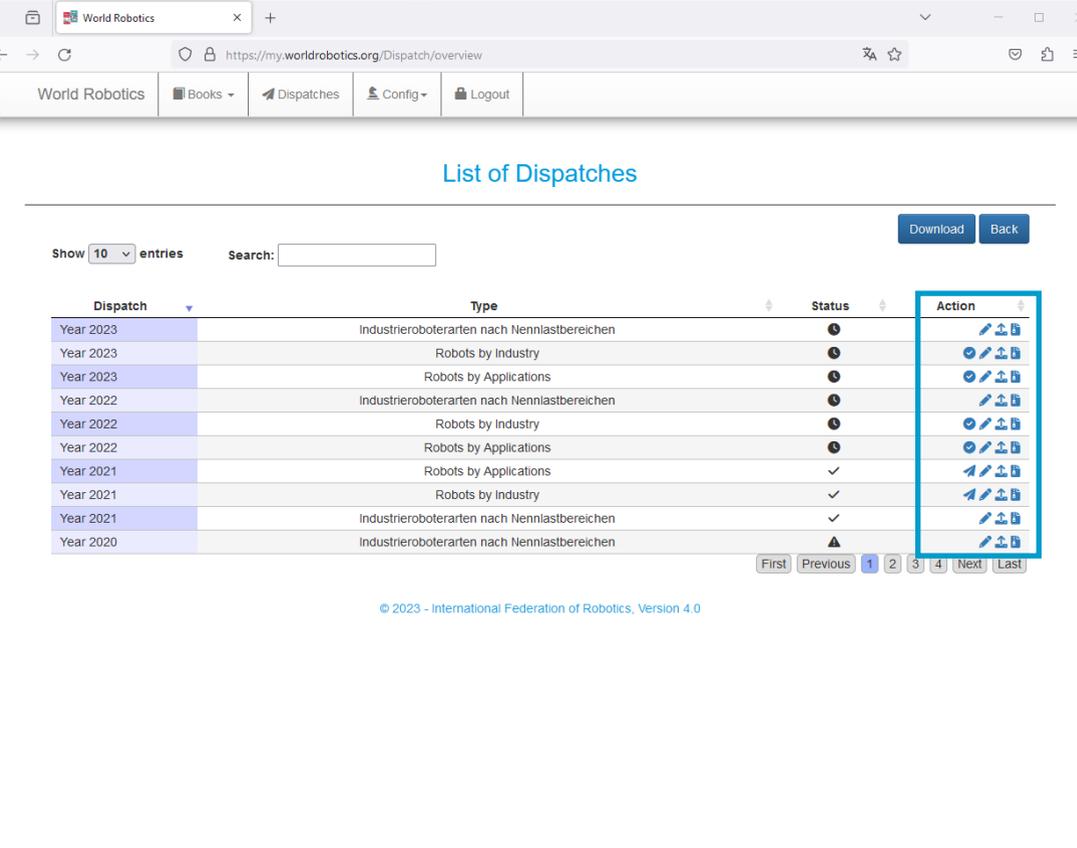
■ “Action”: Things you can do

-  edit data in manual editor
-  upload CSV file
-  download your latest dispatch
-  verify dispatch
-  send to IFR

- Verification means that the system does the basic plausibility check

-Upon success, the symbol will switch to “send to IFR”

-Upon failure, you will receive a report about the mismatches that need to be fixed

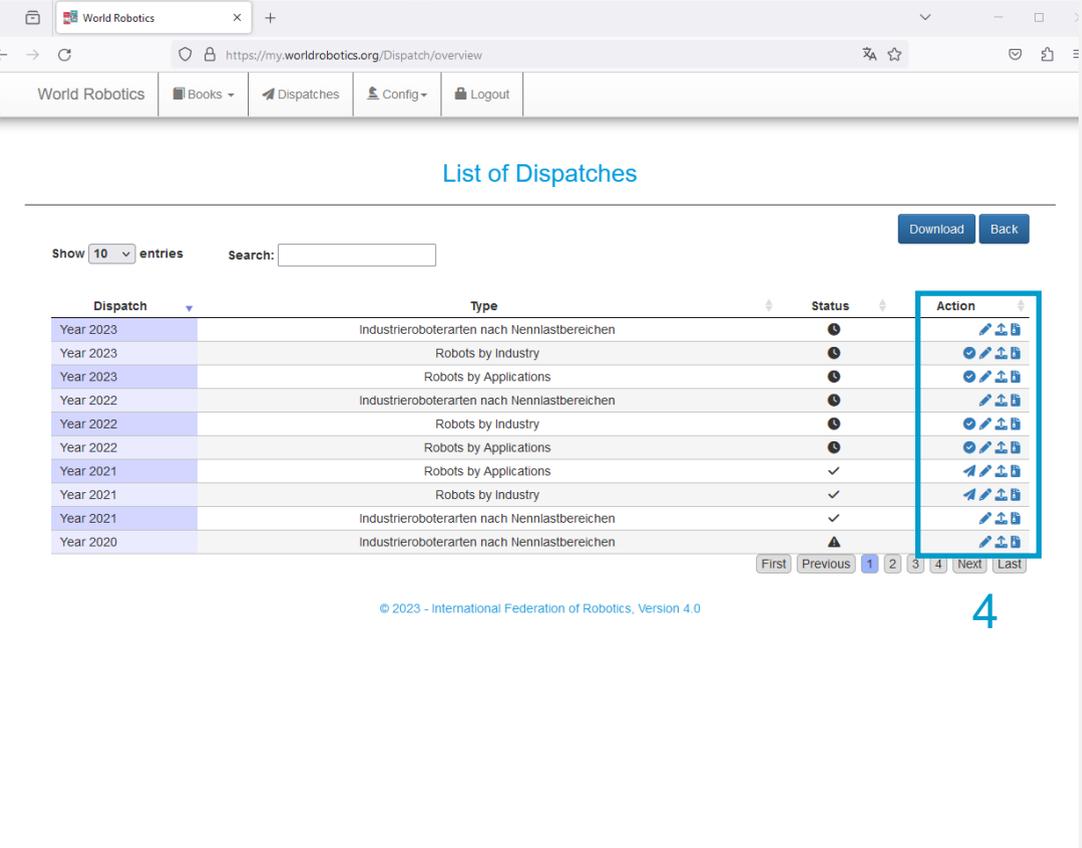


The screenshot shows the 'List of Dispatches' interface in the World Robotics system. The page includes a search bar, a 'Download' button, and a 'Back' button. The table below lists dispatches with columns for Dispatch, Type, Status, and Action. The Action column is highlighted with a blue box, showing icons for edit, upload, download, and send to IFR.

Dispatch	Type	Status	Action
Year 2023	Industrieroboterarten nach Nennlastbereichen	⚙️	   
Year 2023	Robots by Industry	⚙️	   
Year 2023	Robots by Applications	⚙️	   
Year 2022	Industrieroboterarten nach Nennlastbereichen	⚙️	   
Year 2022	Robots by Industry	⚙️	   
Year 2022	Robots by Applications	⚙️	   
Year 2021	Robots by Applications	✓	   
Year 2021	Robots by Industry	✓	   
Year 2021	Industrieroboterarten nach Nennlastbereichen	✓	   
Year 2020	Industrieroboterarten nach Nennlastbereichen	⚠️	   

2 Upload CSV file

4) To upload your CSV files, click the upload button  for the corresponding year and dispatch type.



World Robotics

Books Dispatches Config Logout

List of Dispatches

Show 10 entries Search:

Download Back

Dispatch	Type	Status	Action
Year 2023	Industrieroboterarten nach Nennlastbereichen	🔒	  
Year 2023	Robots by Industry	🔒	  
Year 2023	Robots by Applications	🔒	  
Year 2022	Industrieroboterarten nach Nennlastbereichen	🔒	  
Year 2022	Robots by Industry	🔒	  
Year 2022	Robots by Applications	🔒	  
Year 2021	Robots by Applications	✓	  
Year 2021	Robots by Industry	✓	  
Year 2021	Industrieroboterarten nach Nennlastbereichen	✓	  
Year 2020	Industrieroboterarten nach Nennlastbereichen	⚠️	  

First Previous 1 2 3 4 Next Last

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4

2 Upload CSV file

5) Click “Select import files” and select the CSV files according to the year and dispatch type.

- You can upload all CSV files of the same dispatch type and year at once
- The protocol will tell you if formal errors were found (i.e. wrong country codes or wrong application or industry codes)
- The system will reject files with incorrect name (see instructions for naming of files)

World Robotics

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Import Dispatch

Edit Info Back

Import Dispatch

This form enables you to import a complete folder of dispatch files.
You can create these files automatically by your ERP systems.
Please use the pre-defined codes known from the reports.

Find a description for the import file here.

Year	2023
Company	adlix
Data type	Robots by Industry

Select import files...

5

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2 Upload CSV file

6) After uploading all data, **click the “Verify” button**  to perform the basic plausibility check.

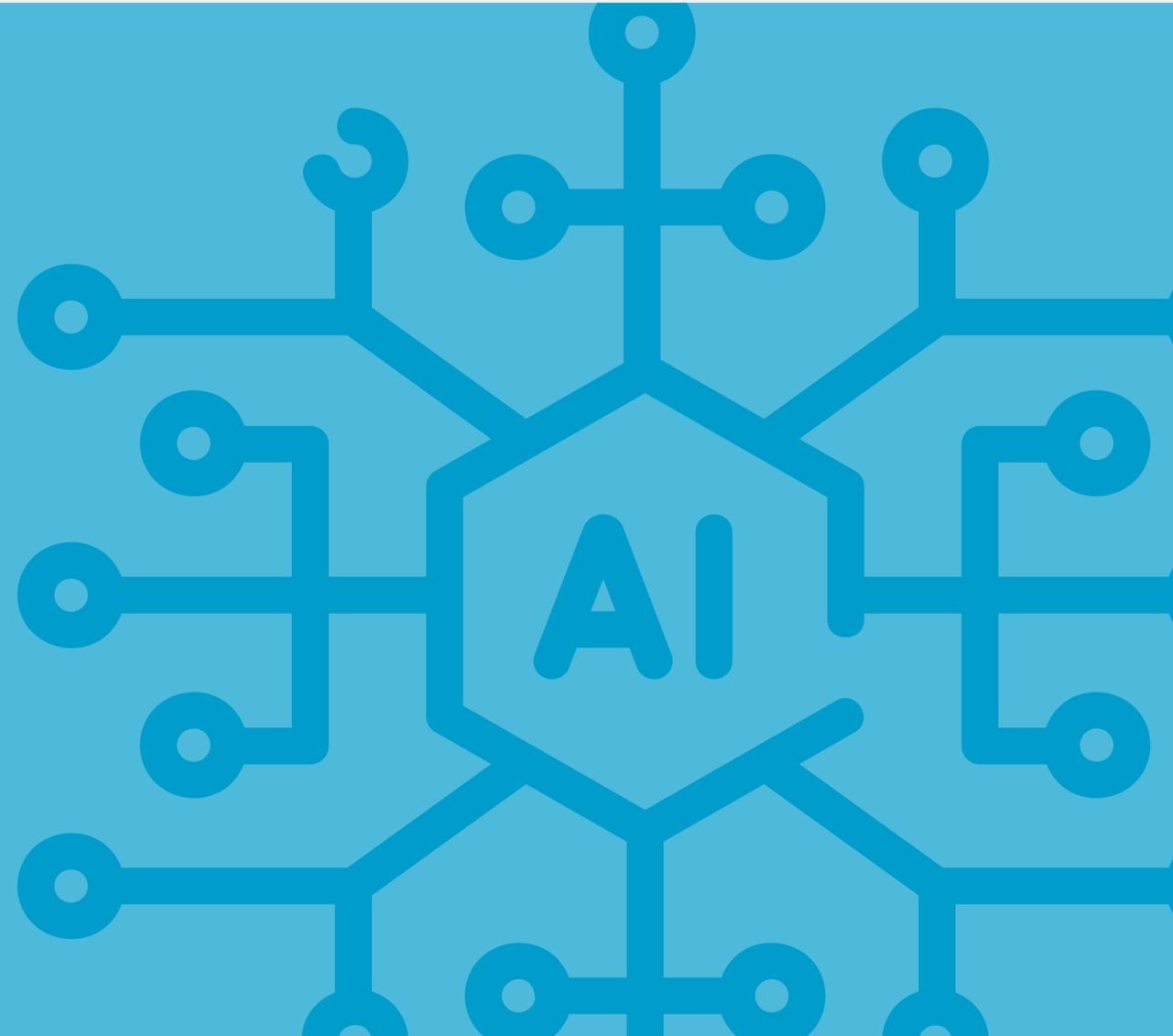
-The total by geography class and robot type must be the same for the dispatch by application and by industry

-Upon failure, the error report will show the identified mismatches. You can fix the CSV files and upload again or click  to make the corrections in the built-in editor.

7) Upon success, **click**  **to submit** the data to IFR.

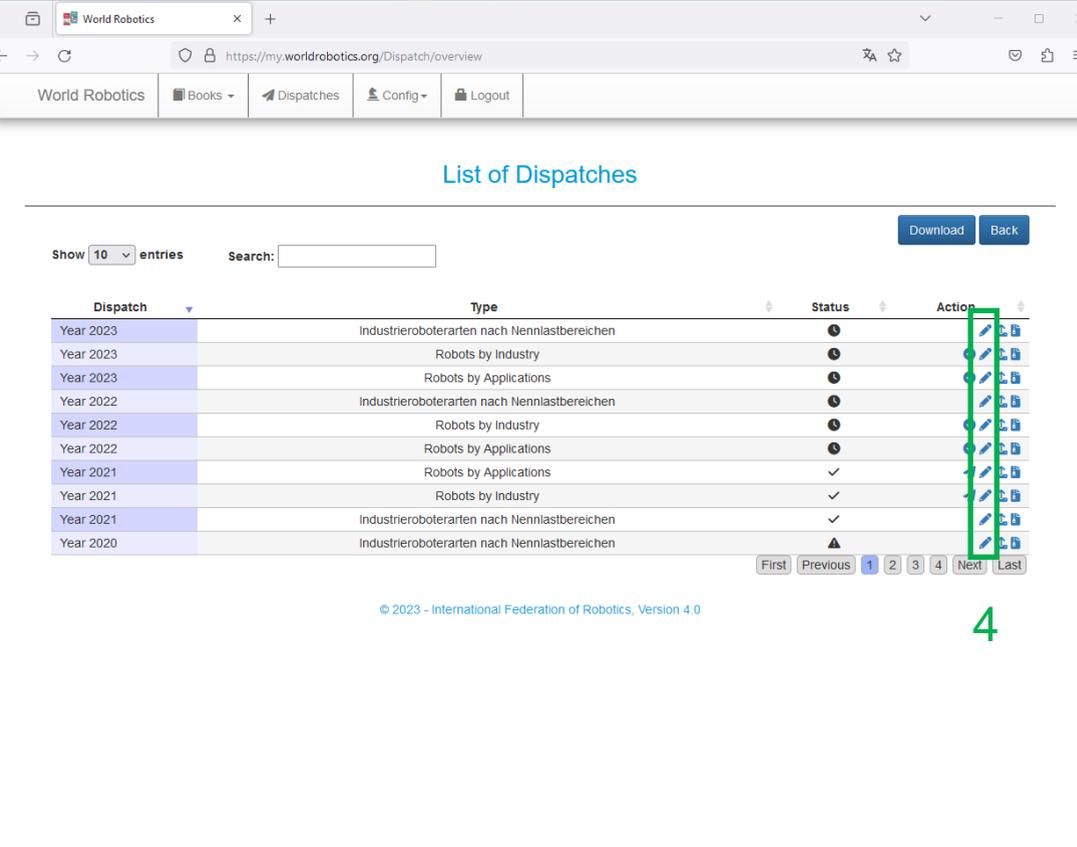
YOU'RE DONE. THANK YOU!

3 Enter data manually on my.worldrobotics.org



3 Enter data manually

- **Recommended for very small companies** or companies active in a limited environment (few countries, few applications, few industries) that do not want to send Excel files.
- Log in to my.worldrobotics.org, and click “dispatches” (see steps 1 to 3 in the “upload CSV” section)
- Use the pen symbol  to open the editor



World Robotics | Books | Dispatches | Config | Logout

List of Dispatches

Show 10 entries Search:

Download Back

Dispatch	Type	Status	Action
Year 2023	Industrieroboterarten nach Nennlastbereichen	🔴	  
Year 2023	Robots by industry	🔴	  
Year 2023	Robots by Applications	🔴	  
Year 2022	Industrieroboterarten nach Nennlastbereichen	🔴	  
Year 2022	Robots by Industry	🔴	  
Year 2022	Robots by Applications	🔴	  
Year 2021	Robots by Applications	✓	  
Year 2021	Robots by Industry	✓	  
Year 2021	Industrieroboterarten nach Nennlastbereichen	✓	  
Year 2020	Industrieroboterarten nach Nennlastbereichen	⚠️	  

First Previous 1 2 3 4 Next Last

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3 Enter data manually

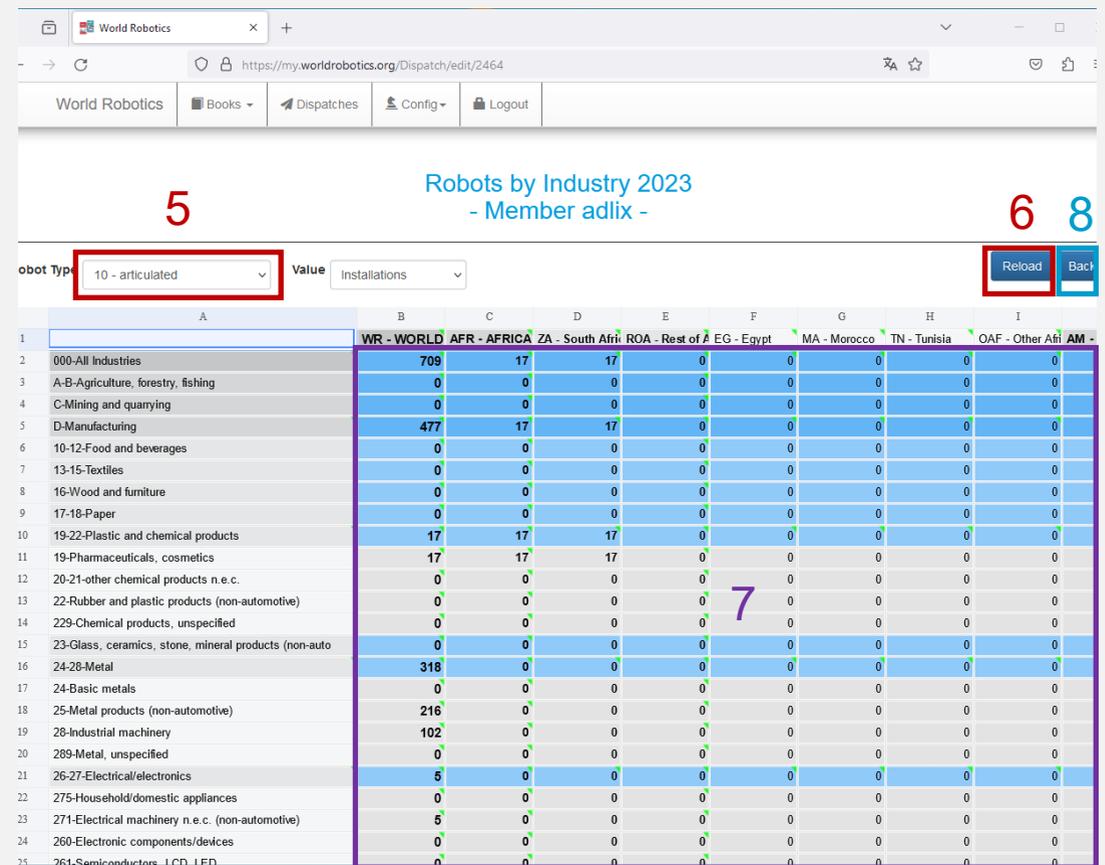
5+6) Choose the appropriate robot type and click “Reload” to switch to the corresponding table

7) Enter your data

Note: You can only enter data at the lowest hierarchy levels. It is not possible to enter data on aggregate levels. If your input is not accepted, it is most likely because you tried to enter data on an aggregate level.

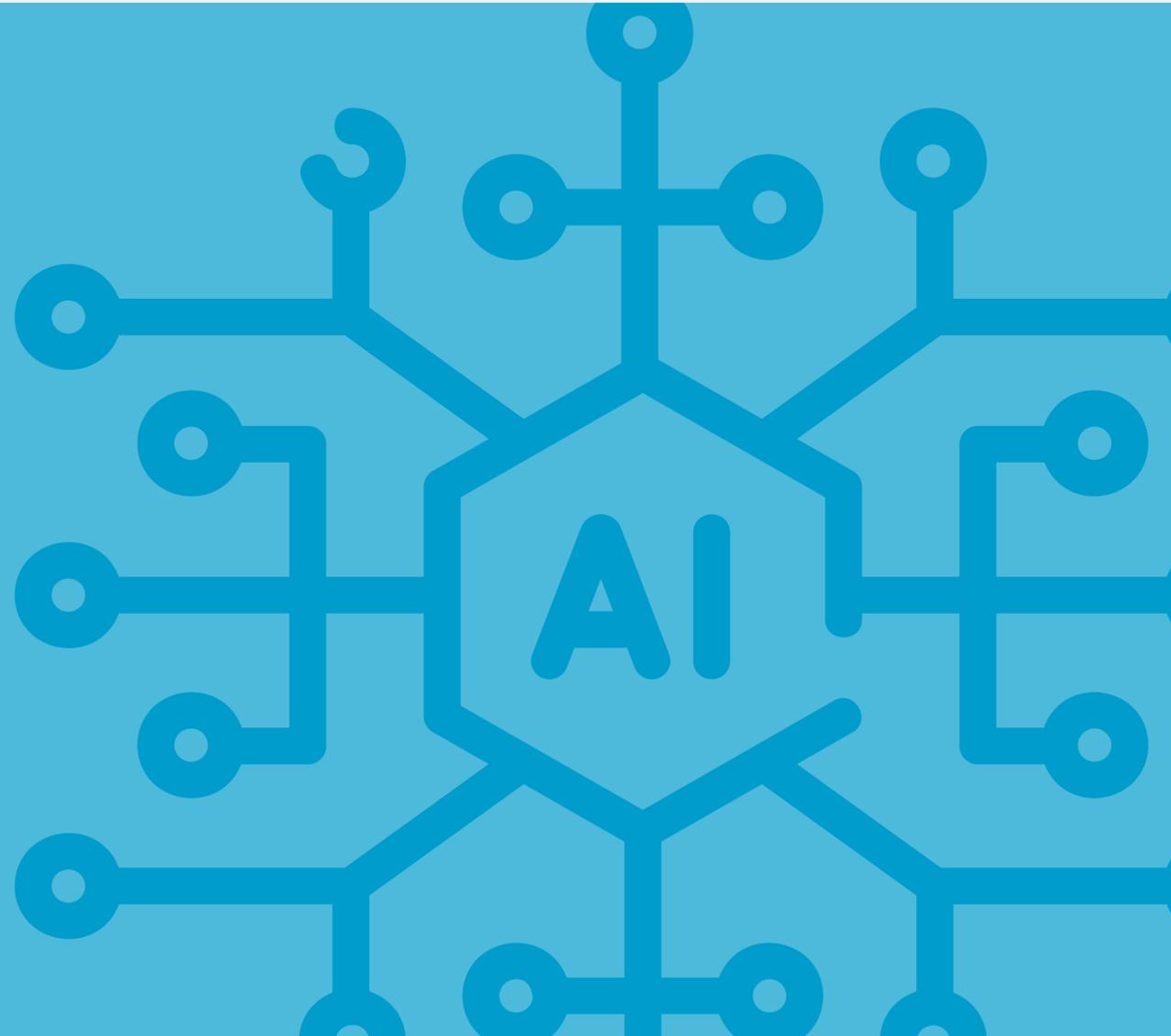
8) When finished, click “back”

9) Verify and send to IFR as described in steps 6 and 7 in the “upload CSV” section.



	A	B	C	D	E	F	G	H	I	J
	WR - WORLD	AFR - AFRICA	ZA - South Africa	ROA - Rest of Africa	EG - Egypt	MA - Morocco	TN - Tunisia	OAF - Other Africa	AM - Americas	
1										
2	000-All Industries	709	17	17	0	0	0	0	0	0
3	A-B-Agriculture, forestry, fishing	0	0	0	0	0	0	0	0	0
4	C-Mining and quarrying	0	0	0	0	0	0	0	0	0
5	D-Manufacturing	477	17	17	0	0	0	0	0	0
6	10-12-Food and beverages	0	0	0	0	0	0	0	0	0
7	13-15-Textiles	0	0	0	0	0	0	0	0	0
8	16-Wood and furniture	0	0	0	0	0	0	0	0	0
9	17-18-Paper	0	0	0	0	0	0	0	0	0
10	19-22-Plastic and chemical products	17	17	17	0	0	0	0	0	0
11	19-Pharmaceuticals, cosmetics	17	17	17	0	0	0	0	0	0
12	20-21-other chemical products n.e.c.	0	0	0	0	0	0	0	0	0
13	22-Rubber and plastic products (non-automotive)	0	0	0	0	0	0	0	0	0
14	229-Chemical products, unspecified	0	0	0	0	0	0	0	0	0
15	23-Glass, ceramics, stone, mineral products (non-auto)	0	0	0	0	0	0	0	0	0
16	24-28-Metal	318	0	0	0	0	0	0	0	0
17	24-Basic metals	0	0	0	0	0	0	0	0	0
18	25-Metal products (non-automotive)	216	0	0	0	0	0	0	0	0
19	28-Industrial machinery	102	0	0	0	0	0	0	0	0
20	289-Metal, unspecified	0	0	0	0	0	0	0	0	0
21	26-27-Electrical/electronics	5	0	0	0	0	0	0	0	0
22	275-Household/domestic appliances	0	0	0	0	0	0	0	0	0
23	271-Electrical machinery n.e.c. (non-automotive)	5	0	0	0	0	0	0	0	0
24	260-Electronic components/devices	0	0	0	0	0	0	0	0	0
25	261-Semiconductors - LCD, LED	0	0	0	0	0	0	0	0	0

4 Push data through API



4 Push data through API

- Recommended for **power users with a well-maintained database** of your company's robot installations that allows you to compile data compliant with IFR classes.
- Please contact IFR Statistical Department through your preferred means of communication as we will need to cooperate closely during the setup process.