Image: Schütze AG

Federal Ministry of the Interior, Building and Community

Federal Ministry of Finance

Operating guide for the web interface of the federal Central Invoice Submission Portal (ZRE)

Operating guide to manually producing electronic invoices (and test invoices) in XRechnung standard format – for suppliers and service providers to the federal administration

Version 0.1

Last updated: 16th September 2020

Point of contact for questions about the federal Central Invoice Submission Portal (ZRE):

Support hotline: +49 30 2598 4436

Monday to Friday from 8:00 a.m. to 4:00 p.m.

How are electronic invoices in XRechnung standard prepared and submitted using the German federal Central Invoice Submission Portal (ZRE)?

Background / Basics

As part of the digital transformation of the public administration, the German government has set up a standard electronic route for submitting invoices to the direct federal administration: the **federal Central Invoice Submission Portal (ZRE)** (German name: *Zentrale Rechnungseingangsplattform (ZRE) des Bundes)*[1].

You can use the ZRE to create electronic invoices and send them to recipients in the direct federal administration. During the process, electronic invoices are automatically checked to ensure that they are formally correct and complete. Details of requirements and accepted formats for electronic invoices can be found in the ZRE terms of use. The terms of use can be accessed via the ZRE web interface.

The invoices you create are forwarded to the customer by means of a buyer reference ("Leitweg-ID"), which the customer should have provided you with. Please ask your customer for a buyer reference if they have not yet provided you with one.

You can submit electronic invoices via the ZRE using the following transmission methods:

- web submission
- upload
- e-mail (production environment: xrechnung@portal.bund.de; test environment: ref.erechnung@portal.bund.de and ref.xrechnung@portal.bund.de)

In future, it will be possible to submit electronic invoices using two additional transmission methods:

- De-Mail
- Peppol

Please note that no matter which transmission method you use, you will have to create a ZRE account.

About this guide

The purpose of this operating guide is to familiarize suppliers and service providers with the ZRE web interface. The various steps involved in preparing an electronic invoice are explained using screenshots of the English language version of the ZRE interface.

The ZRE **test environment** can be accessed here: ref.xrechnung.bund.de. You can use it to test or practise general functions (such as creating invoices or administering user accounts). This is the environment on which this operating guide is based.

The **test environment** and the **production environment** are different systems. As an invoice sender you must create a separate account for each environment. Since the test environment is used for testing and development purposes, it may differ from the production environment. **Under no circumstances** should you use the production environment for test or practice purposes. The data displayed in this operating guide are fictitious and are included only as examples.

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[1] The comprehensive organizational strategy behind the transmission of electronic invoices via the ZRE can be found here: https://www.verwaltung-innovativ.de/SharedDocs/Publikationen/Organisation/e_rechnung_Architekturkonzept.pdf?__blob=publicationFile&v=4.

Important note

Please note that the screenshots on pages 7, 9, 12 and 31 of this document have not yet been translated into English, but will be translated in future.
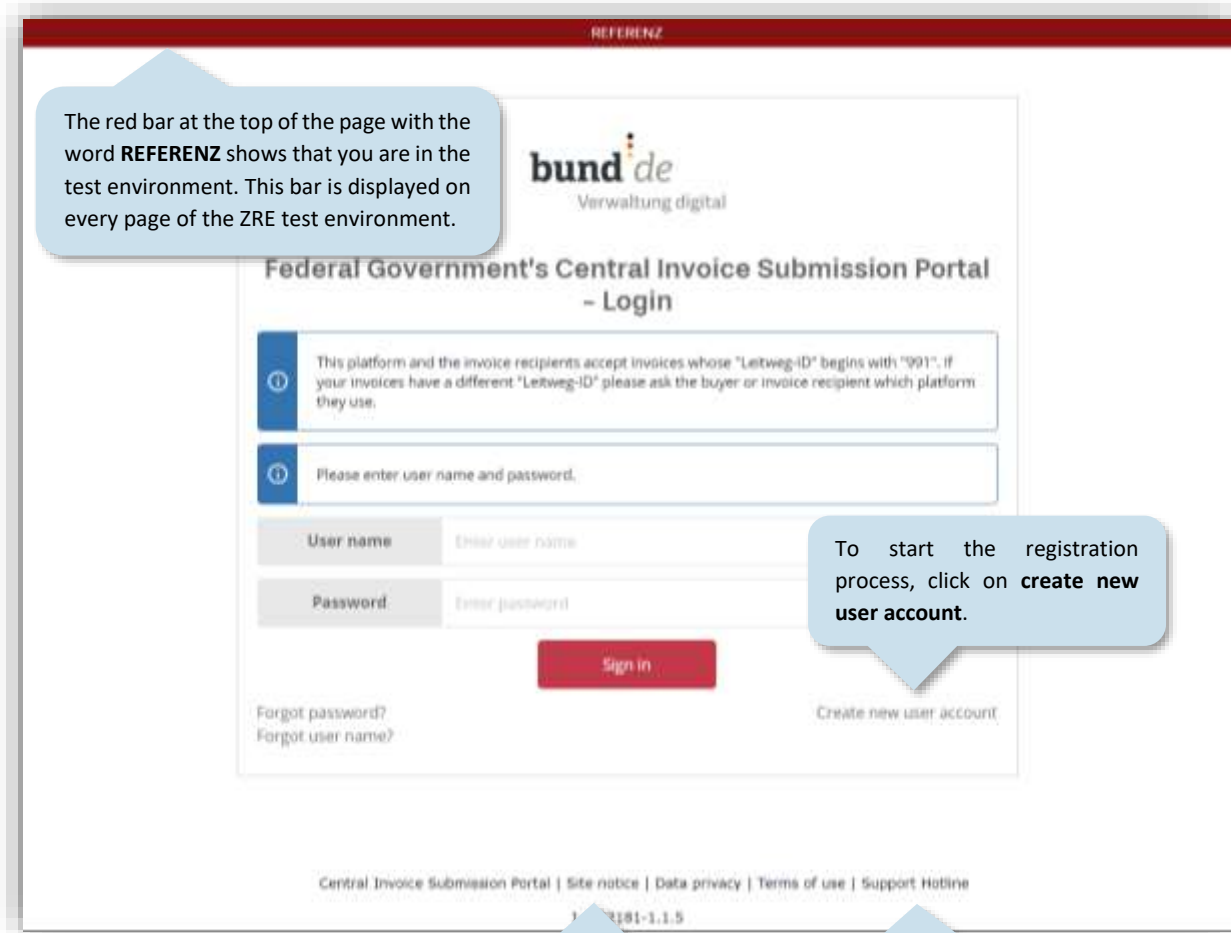
Please note that during the registration process, the registration portal could switch to the German version, even if the language has been changed to English in the ZRE settings. This might be solved by changing the settings of your internet browser to English. This problem is currently being worked on and will be resolved as soon as possible.

Contents

1 Registration

As an invoice sender you can access the ZRE web interface at ref.xrechnung.bund.de (test environment), which will take you straight to the **login** page. Here you can either sign in with your username and password or create a new user account.

The red bar at the top of the page with the word **REFERENZ** shows that you are in the test environment. This bar is displayed on every page of the ZRE test environment.

To start the registration process, click on **create new user account**.

The **site notice** provides contact information for the ZRE.

The **support hotline** provides first-level support and helps you to resolve issues.

Clicking on **create new user account** will take you to the registration page, where you can create an account.

Having registered successfully, an activation link will be sent to the e-mail address you provided. Please click on the link to activate your user account.
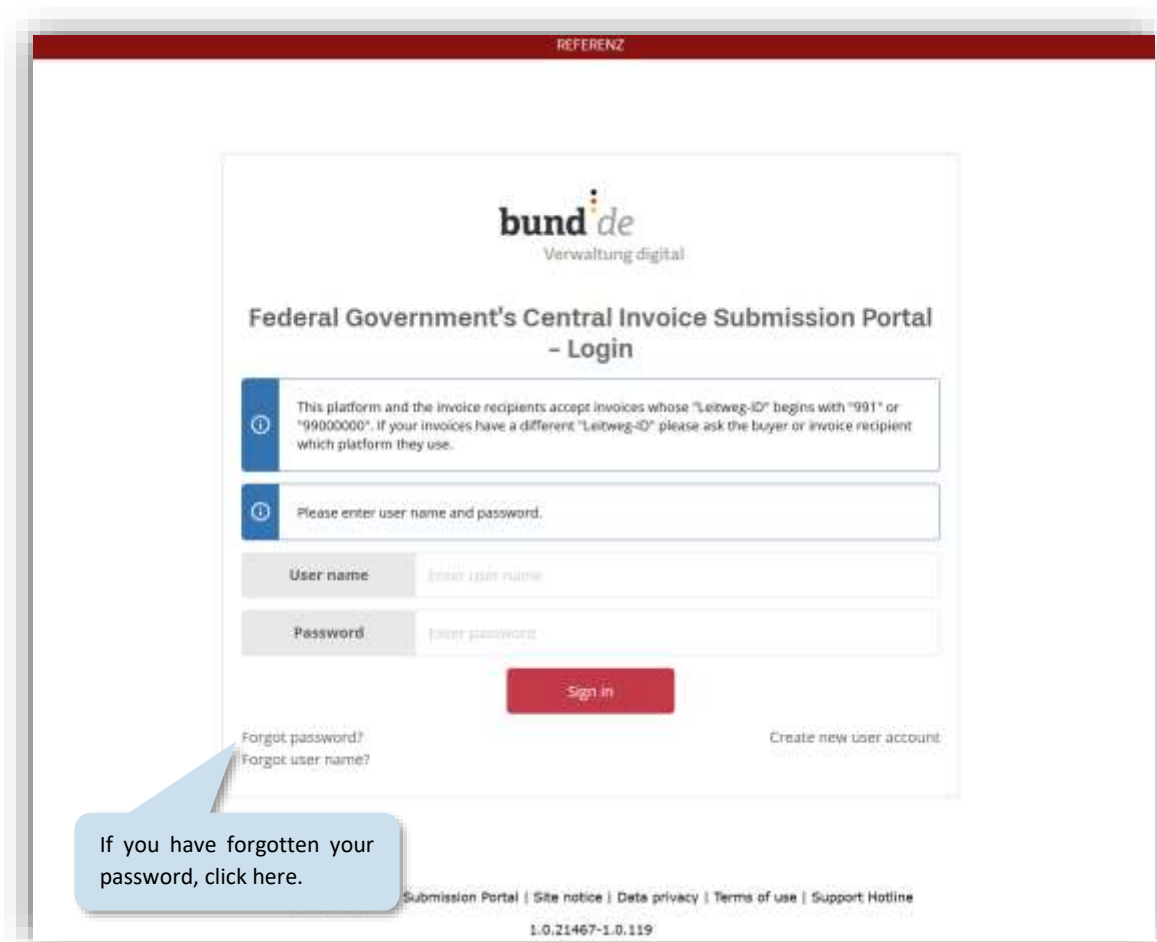
Success!.
You have been successfully registered.

You will receive an E-Mail in brief, to unlock your account.

Go to login

Clicking on the link will take you to the screen shown below, which indicates that your ZRE user account has been activated and you can sign in.

ZRE user account – Activation

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Success!
You have successfully activated your account.

ZRE-Benutzerkonto - Freischaltung

Das hat geklappt!
Sie haben ihren Zugang erfolgreich freigeschaltet.

Zur Anmeldung

Sign in

Click here to return to the login page and sign into your newly created account.
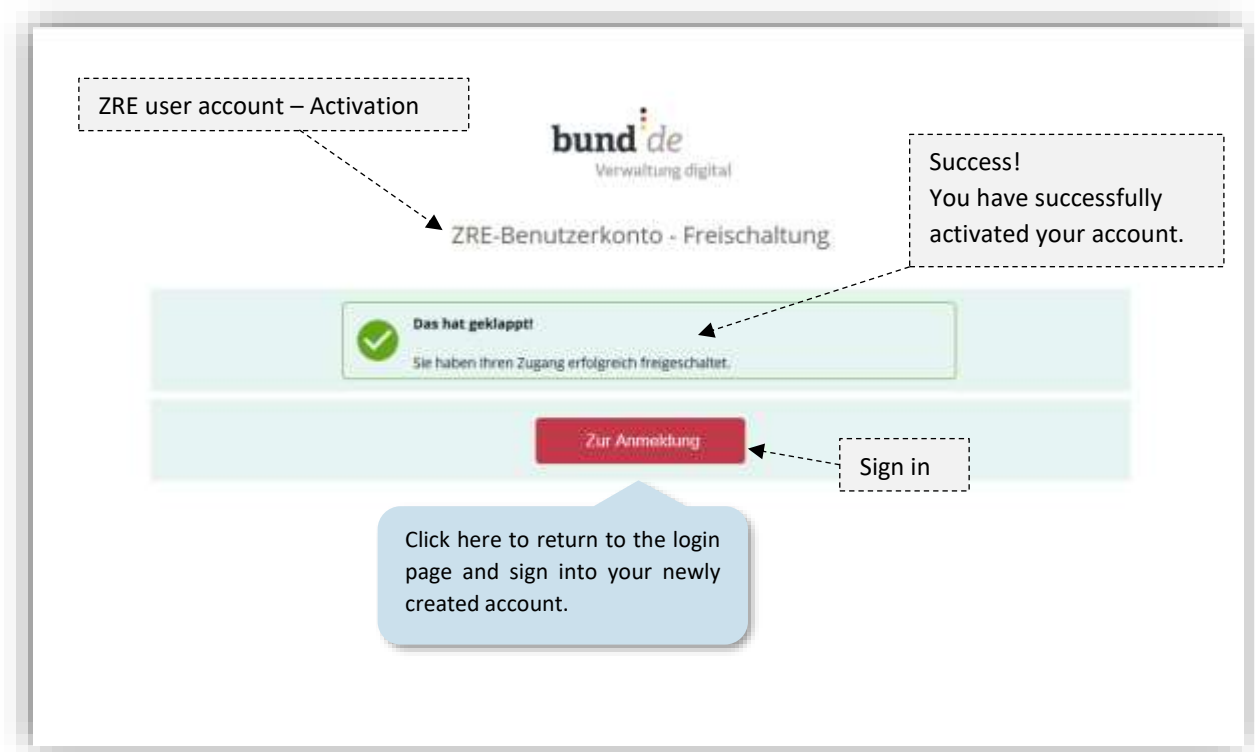
2   Login

As an invoice sender, if you are already registered, you can access the ZRE web interface at ref.xrechnung.bund.de (test environment) and sign into your account.

To receive an e-mail link to reset your password, you will need to enter your username.

Once you have received the e-mail link, click on it. This will take you to the following screen, where you can enter a new password of your choice.
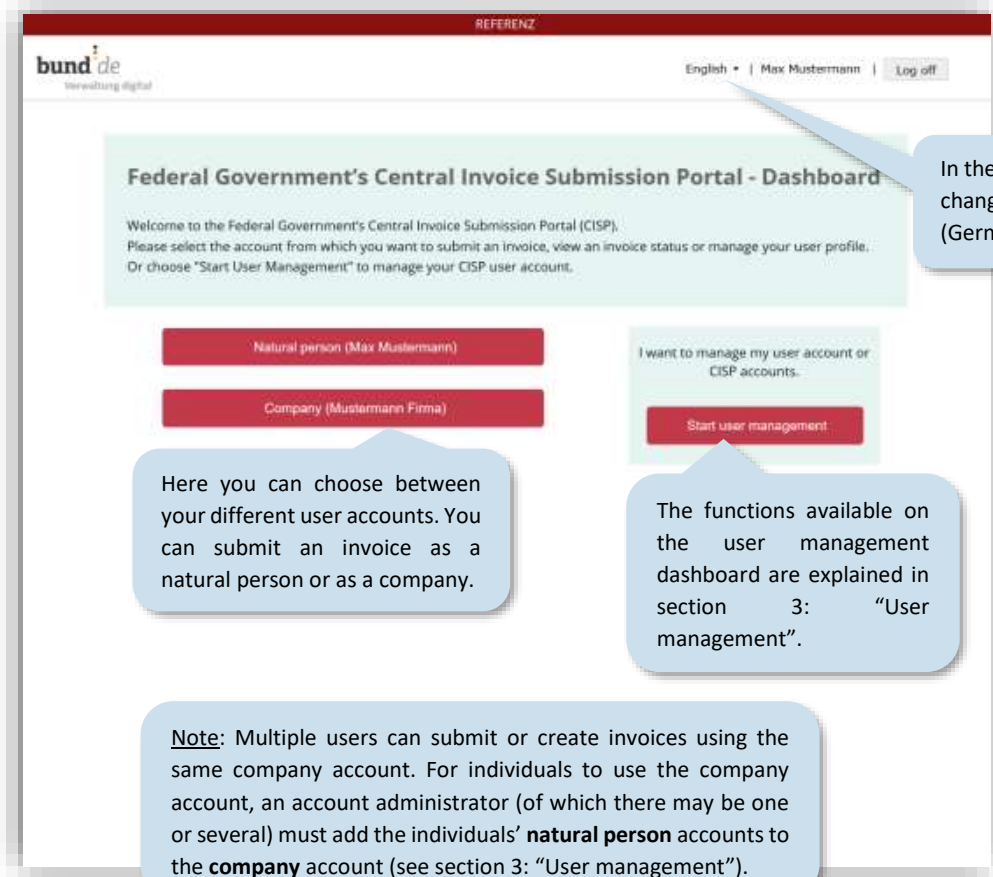
Please enter your new password and click on "change password".

The password must consist of at least eight characters, including one capital letter, one lower case letter, one number and one special character.

User account - Change password

Password

Re-enter password

Change password

Cancel

Enter the new password once again in the field **re-enter password**. If the two passwords match, you will be taken to a page telling you that the password has been changed successfully. From there you can return to the login page.

Operating guide for the web interface of the federal Central Invoice Submission Portal (ZRE)

2.1   Account overview

Once you have logged in, you must select a user account with which to use the ZRE. Select an account type from the left-hand side of the screen (**natural person** or **company**). This will take you to the dashboard. Your choice of account does not affect the functions available to you. From the dashboard you will be able to access all four main functions of the ZRE. For detailed information on the different functions see section 4 onwards.
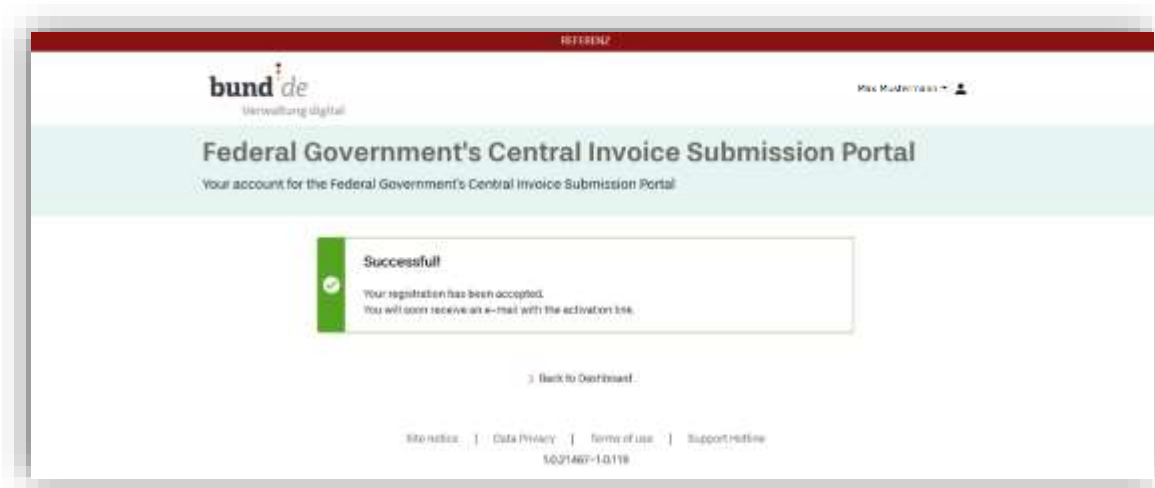
2.2 Account registration

If you are using the ZRE for the first time, your account must be enabled to create invoices. For this, an additional registration process is required. On your first attempt to enter the menu for creating invoices, you will be taken to the following page.

Once you have entered your e-mail address and accepted the terms of use, you will receive another activation link.

As soon as you have clicked on the activation link, your registration is complete, and you can begin creating invoices.

Federal Central Invoice Submission Portal

Your registration with the federal Central Invoice Submission Portal
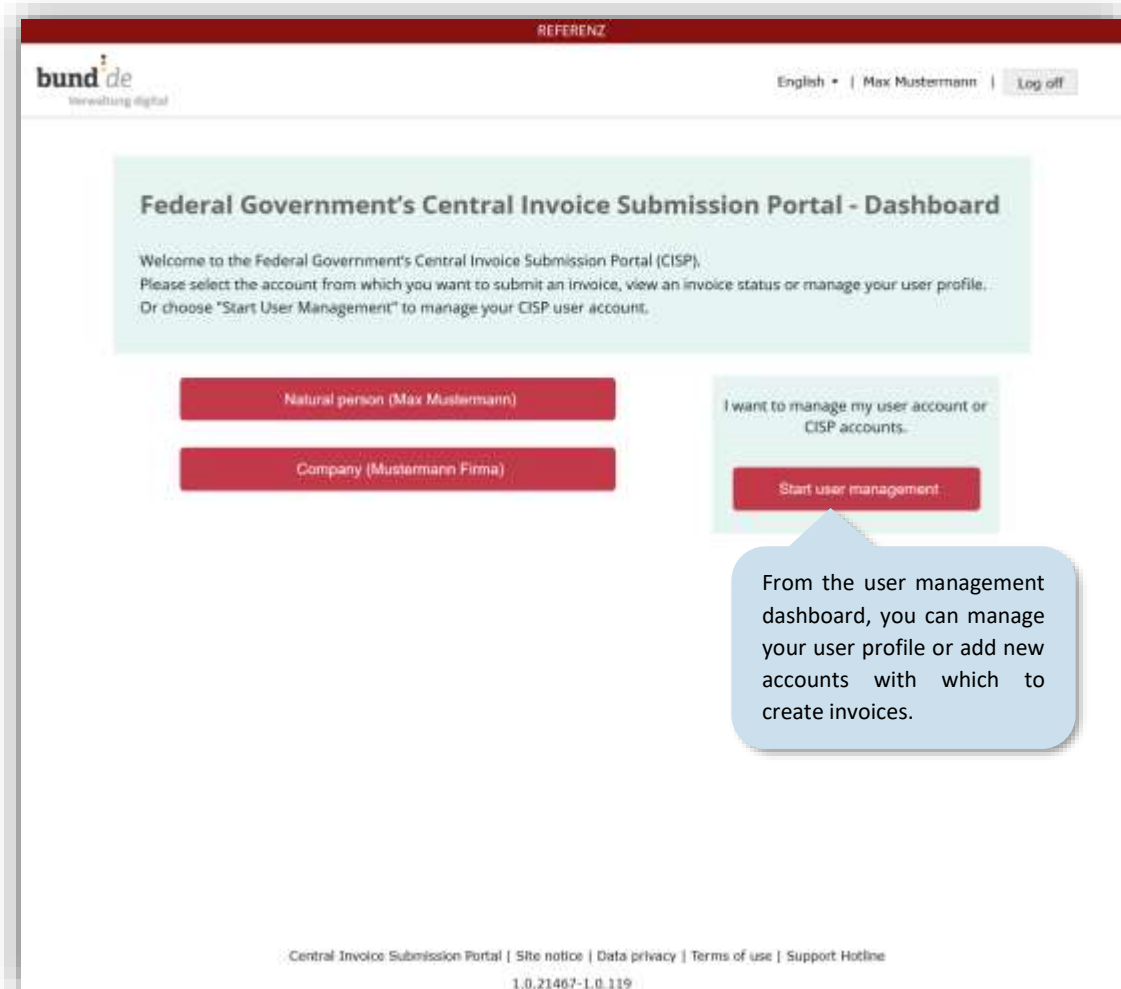
Zentrale Rechnungseingangsplattform des Bundes

Ihre Registrierung bei der Zentralen Rechnungseingangsplattform des Bundes

Das hat geklappt!

Die Aktivierung Ihres ZRE-Kontos ist nun erfolgreich abgeschlossen.

Startseite

Success!
Activation of your ZRE account is now complete.

Dashboard

3   User management

You can manage your ZRE user account via the user management dashboard. To do this, click on "Start user management".

On the user management page of your account you have a number of options to choose from. Apart from managing your own user profile, you can create and manage a company account and add users. Select one of the options.
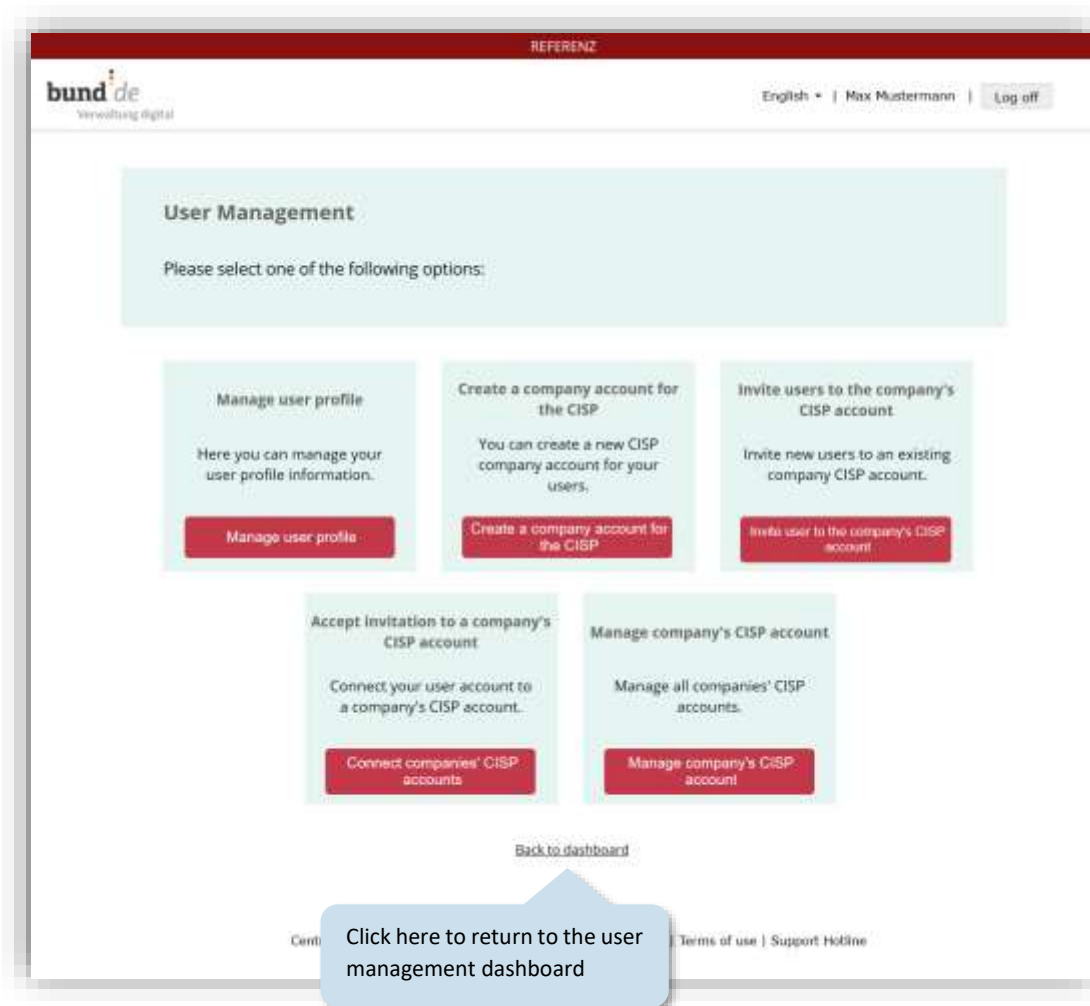
4   Creating invoices

Once you have selected an account on the user management dashboard, you will arrive at the ZRE dashboard, where you can choose between various options for creating invoices.
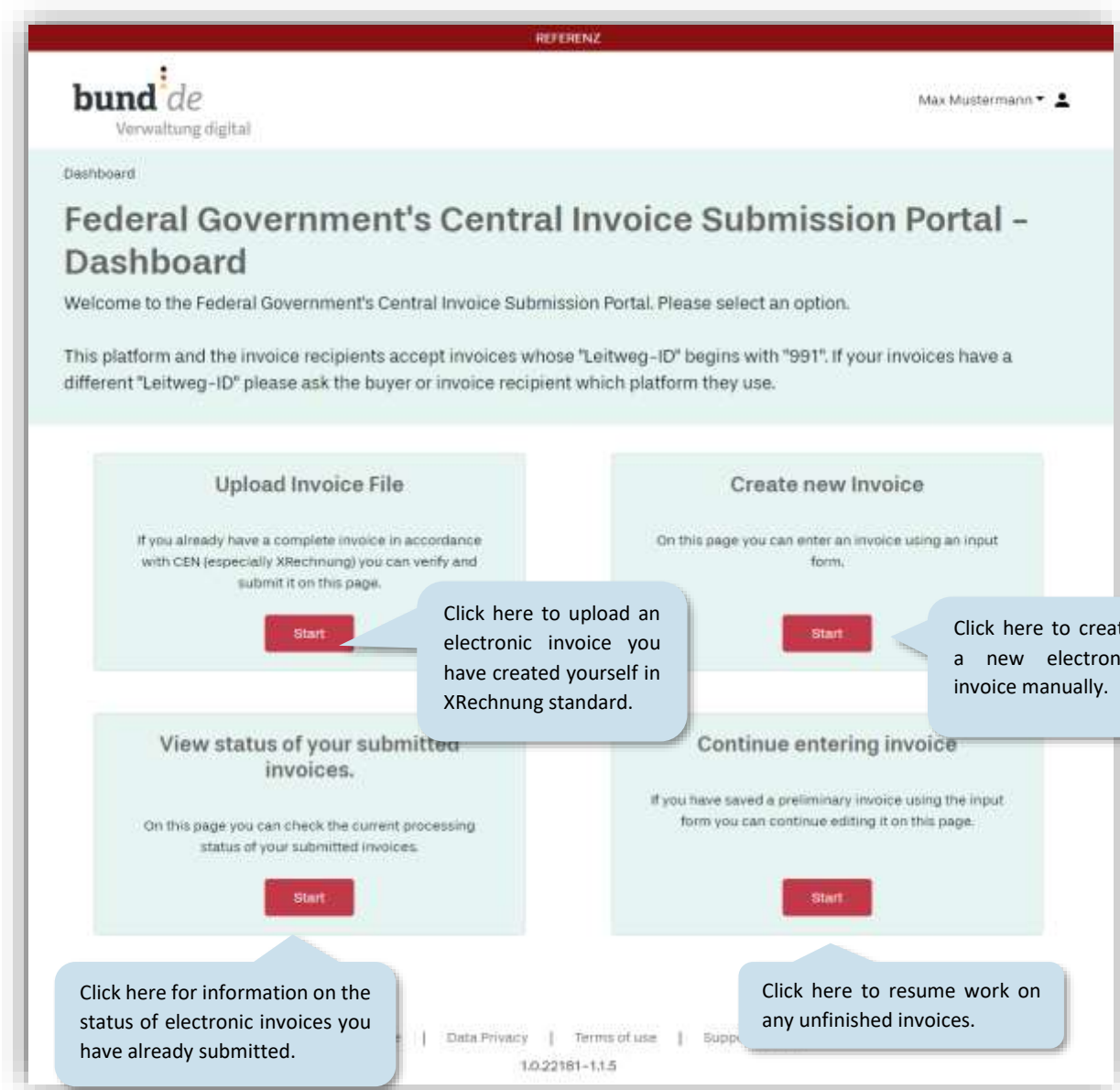
General notes on creating electronic invoices manually

Various functions are available to you when creating a new electronic invoice. These are explained in the screenshot below. Items marked with an asterisk (*) are required and must be filled out to complete the invoice.

At any time, you can use the drop-down menu next to your username to access your ZRE user profile, change to another account, or log out of the ZRE.

If you want to save a draft of your unfinished invoice, click on **download invoice draft** to download it as a file. To continue working on the invoice you must upload the downloaded file using the option **continue entering invoice** (see section 6).

Note: You can also create templates using this method.

Clicking here will **cancel** the process of creating an invoice. All the information you entered will be deleted and you will return to the dashboard.

If you click on **discard invoice**, the information you entered will be deleted and you can begin entering information for a new invoice.

The invoice creation process

The process of creating an electronic invoice using the ZRE can be divided into nine steps. You can save the invoice at any step during the process and upload it again later to continue working on it.
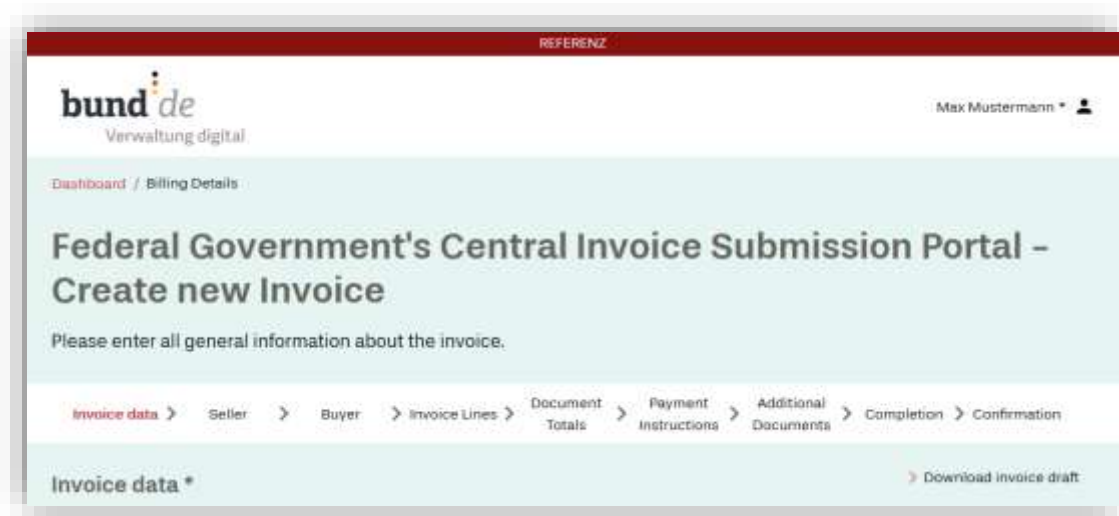
4.1 Entering invoice data (1/9)

In the screen entitled **invoice data** you can enter basic key data for your invoice.

You can find out the buyer reference ("Leitweg-ID") of the invoice recipient by entering their name/reference or budget manager number.

Federal Government's Cen
Create new Invoice

Please enter all general information about the invoice.

Invoice data >

Invoice data *

Determine Buyer Reference

ⓘ Please note: The federal and state
submission platforms. Please ask t.
use.

Search

It's possible to enter a * before and after the search text as a wildcard. The search text must be at least 3 characters long.

Buyer   Feinadressierung   Organisation

[   ]   [   ]   [   ]

Search   > Clear Search   « ‹ 1 › »

Buy   uyer Reference

> Cancel

The use of asterisks as wildcards as follows will usually help you in your search:

*xxx (search results must end with the characters after the asterisk)
xxx* (search results must begin with the characters before the asterisk)
xxx (search results must contain the characters between the two asterisks)

Once you have entered the recipient's buyer reference ("Leitweg-ID"), you can continue to enter more invoice data.

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Max Mustermann ▾ ▪

Dashboard / Billing Details

Federal Government's Central Invoice Submission Portal – Create new Invoice

Please enter all general information about the invoice.

Invoice data > Seller > Buyer > Invoice Lines > Document Totals > Payment Instructions > Additional Documents > Completion > Confirmation

Invoice data *

> Download invoice draft

Invoice type *	Commercial invoice

ⓘ The first (Grobadressierung) and last (Check digit) parts of the buyer reference can differ from the buyer reference on hand.

Grobadressierung *   Feinadressierung *   Check digit *

Buyer reference *   99 1

Please enter a 5-10-digit Feinadressierung.

Determine Buyer Reference

Invoice number *	20200122001
Invoice issue date *	22/01/2020
Currency *	Euro
Purchase order number	0987654321
Payment due date *	05/02/2020
Payment Terms	Cash Discounts

+ Add cash discount

Delays

+ Add delay

Other terms of payment

Invoicing period   From   To

Invoice note

▸ **Invoice references**

Next

Data Privacy | Terms of use | Support Hotline

1.0.21467-1.0.119

Callout (left): If you have received an invoice number from your customer, enter it here.

Callout (right): You can add information on cash discounts or payment delays by clicking on the plus signs here. Information about the discount/delay deadlines (number of days and percentage) is required. The basic amount on which the discount or delay is based can be entered at will (your choice is not restricted). You can enter various details about discounts and delays.

Callout (left): You can enter additional payment conditions here.

Callout (right): If you rendered a service within a certain period of time, you can specify that period here.

Callout (left): Click on **invoice references** to enter specific information such as project number, contract number, sales order number, tender number, or object identifier.

Callout (right): To proceed to the next screen, click **next**.

4.2   Information about the invoice sender (2/9)

In the screen entitled **seller** you can enter your identity, postal address and contact details.

If while creating your invoice a validation error is identified (e.g. a required field has not been filled out), you will be notified of this as soon as you attempt to leave the current step in the process (i.e. the current screen).

Seller postal address *

Street / house number	
Post-office box	
Post code / City *	
	Please enter a post code. Please enter a city name.
Federal state	
Country *	Germany

Seller contact details

Name *	Max Musterverkäufer
E-mail *	maxmustermann@test.de
Telephone *	12345678

☐ Payee other than seller

☐ Seller's Tax Representative

Validation Error ✕

Validation errors have occured.
Do you want to fix them now or at a later time?

[Now] [Later]

(* Mandatory Field)

› Cancel

[Previous] [Next]

A notification appears if you have forgotten to fill in a required field, or if some information you have entered does not conform to requirements.

If you want to make the correction at a later time, click **later** to continue the process without correcting the error.

You will be reminded of these errors at the end of the invoice creation process.

Site notice | Data Privacy | Terms of use | Support Hotline
1.0.21467-1.0.119

Operating guide for the web interface of the federal Central Invoice Submission Portal (ZRE)

4.3 Information about the invoice recipient (3/9)

In the screen entitled **buyer** you can enter details about your customer.

4.4   Invoice lines (4/9)

In the screen entitled **invoice lines** you can add specific line items to your invoice.

Enter the correct item number here.

Open this field to add additional data for the item in question.

You can enter the VAT rate for the product or service here.

You can add allowances and charges for each item by clicking on the plus signs. You will be required to give a reason for the allowance or charge and to enter the (net) amount. Various kinds of allowances and charges can be entered.

You can add further lines to your invoice here if required.

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4.5   Invoice amounts (5/9)

In the screen entitled **document totals,** the amounts from each invoice line item (entered in the previous screen) are added together. The total amounts are displayed and summarized according to their VAT rate. You can also add allowances and charges to the invoice as a whole.

REFERENZ

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Herr Mustermann ▾ ●

Dashboard / Document Totals

Federal Government's Ce — al –
Create new Invoice

Please provide all necessary additional information on the — tals. Furthermore it's possible to add allowances and charges at document level.

Invoice data > Seller > Buyer > — ines > **Document Totals** > Payment Instructions > Additional Documents > Completion > Confirmation

▸ Invoice level allowance   > Download invoice draft

> *Here you have the option to enter allowances and charges at invoice level. If you open these fields, you will be required to enter the net amount of the allowance or charge, the VAT and the reason for the allowance or charge.*

▸ Invoice level charges

Invoice level VAT breakdown

Total amount (VAT-exclusive) *	VAT rate	VAT amount *
2,000.00 ⑦	19.00%	380.00 ⑦

> *This field shows the total taxable invoice amount in this VAT category.*

> *This field shows the total amount of VAT payable in this VAT category.*

Exemption reason [   ]

> *In this field you can enter the reason for exemption from VAT tax.*

Document Totals

Sum of invoice line net amount *	2,000.00	⑦
Sum of allowances on document level		⑦
Sum of charges on document level		⑦
Invoice total amount without VAT *	2,000.00	⑦
Total VAT amount *	380.00	⑦
Total amount (VAT-inclusive) *	2,380.00	⑦
Paid amount		⑦
Rounding amount		⑦
Amount due for payment *	2,380.00	⑦

> *In this section the totals of all the invoice amounts are automatically displayed as a summary.*

4.6   Bank transfer details (6/9)

In the screen entitled **payment instructions** you can enter the bank transfer information required for your customer to send you the payment.

Reference information (e.g. invoice number) can be entered in this field **(remittance reference)** so that your invoice is correctly identified.
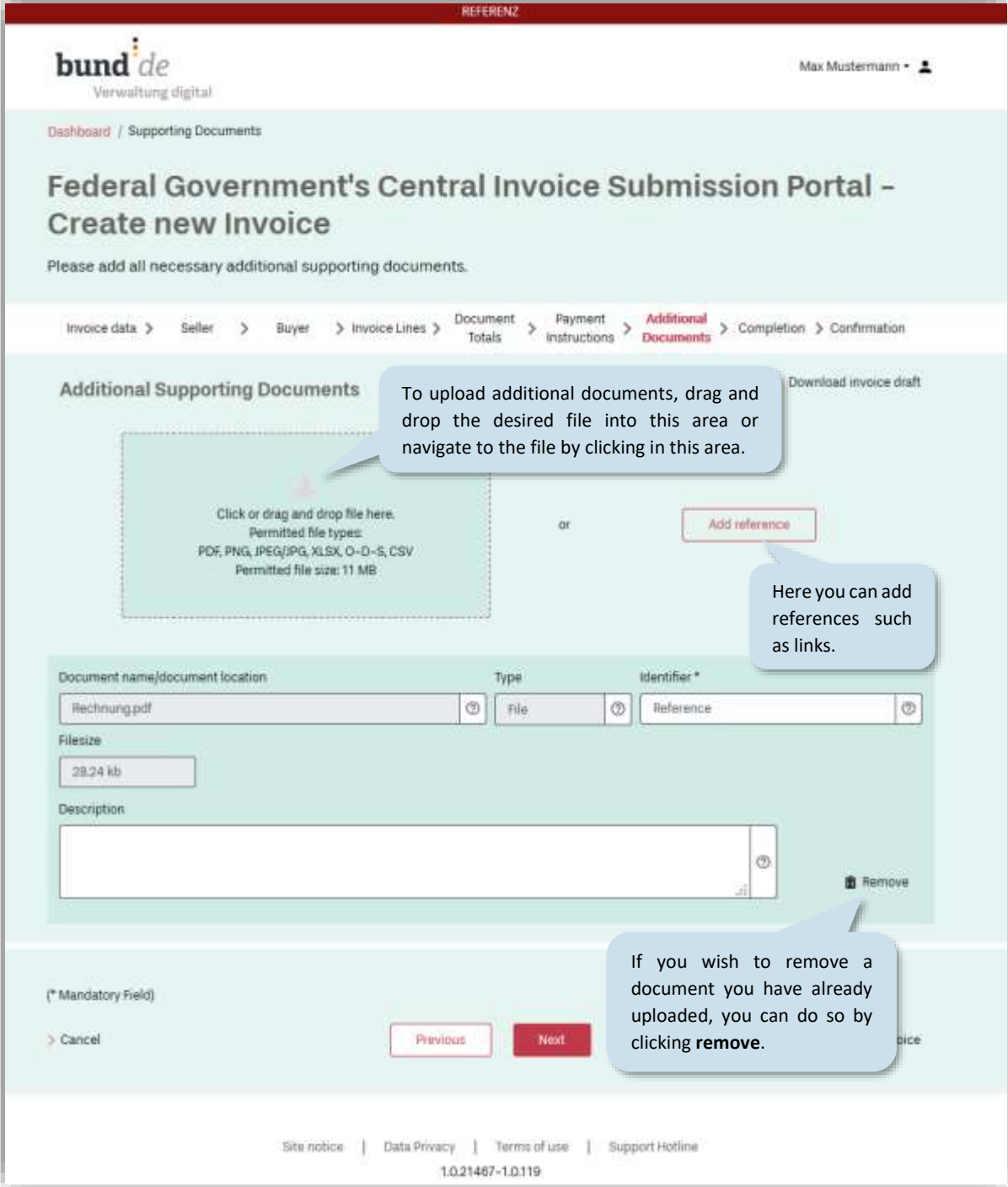
If you have arranged a **direct debit** with the invoice recipient, select that option here. Otherwise select **credit transfer** (i.e. bank transfer).

Please enter your International Bank Account Number (IBAN) so that your account can be properly identified.

If necessary, please enter your Bank Identifier Code (BIC) so that your bank can be properly identified.

4.7   Attaching additional documents (7/9)

In the screen entitled **additional documents** you can attach up to 200 files to support your invoice. The files should not exceed 11 MB in total.

4.8 Completing the invoice (8/9)

Almost done! The screen entitled **completion** allows you to check the information you have entered.

The checking or validation of your data is done in two steps.

Step one checks that your invoice is formally correct and complete.

Step two is a schema and schematron validation of your invoice. This involves checking whether all the data is correct and complete in terms of XRechnung standard.

Validation of the Invoice

Validation Errors

Errors at schema and schematron validation.

If you need help, please contact the Citizens Service.

> Support Hotline

If errors are detected by the validation check, information about the errors will be shown here.

Show results of validation check

Click here to see the results of the check.

(* Mandatory F

Submit invoice

> Cancel

Previous

> Discard invoice

Clicking on the button **show results of validation check** will open a report specifying the errors detected.

Error Report

Reference:
Time of validation:
Detected document:
Detected seller:
Detected invoice number:
Detected invoice date:

Prüfbericht

Information about the checked document

Angaben zum geprüften Dokument

Referenz:	invoice_2020-05-28-15-27.xml
Zeitpunkt der Prüfung:	28.5.2020 15:27:02
Erkannter Dokumenttyp:	EN16931 CIUS XRechnung (UBL Invoice)
Erkannter Rechnungssteller:	Max Musterverkäufer
Erkannte Rechnungsnummer:	20200122001
Erkanntes Rechnungsdatum:	2020-01-22

Konformitätsprüfung: Das geprüfte Dokument enthält 3 Fehler / 0 Warnungen. Es ist nicht konform zu den formalen Vorgaben.

Übersicht der Validierungsergebnisse:

Summary of validation results:

Prüfschritt	Fehler	Warnungen	Informationen
XML Schema for UBL 2.1 invoice (val-xsd)	0	0	0
Schematron rules for EN16931 (UBL) (val-sch.1)	2	0	0
Schematron rules for invoice - CIUS XRechnung (UBL) (val-sch.2)	1	0	0

Validierungsergebnisse im Detail:

All report results marked "error" must be fixed before you can submit your invoice. For help with fixing errors, please contact the support hotline (see contact information on page 1).

Pos	Code	Adj. Grad (Grad)	Text
val-sch.1.1	BR-S-02	error	[BR-S-02]-An invoice that contains an invoice line (BG-25) where the invoiced item VAT category code (BT-151) is "Standard rated" shall contain the Seller VAT Identifier (BT-31), the Seller tax registration identifier (BT-32) and/or the Seller tax representative VAT identifier (BT-63). Pfad: /ns0:Invoice
val-sch.1.2	BR-CO-26	error	[BR-CO-26]-In order for the buyer to automatically identify a supplier, the Seller identifier (BT-29), the Seller legal registration identifier (BT-30) and/or the Seller VAT identifier (BT-31) shall be present. Pfad: /ns0:Invoice/cac:AccountingSupplierParty[1]
val-sch.2.1	BR-DE-16	error	[BR-DE-16] In der Rechnung muss mindestens eines der Elemente "Seller VAT identifier" (BT-31), "Seller tax registration identifier" (BT-32) oder "SELLER TAX REPRESENTATIVE PARTY" (BG-11) übermittelt werden. Pfad: /ns0:Invoice

Bewertung: Es wird empfohlen das Dokument zurückzuweisen.

Dieser Prüfbericht wurde erstellt mit KoSIT Prüftool.

OK

Conformity check: The checked document contains 3 errors / 0 warnings. It does not conform to formal requirements.

Assessment: You are advised to reject the document

This error report was created using the KoSIT validation tool

| Validation step | Error | Warning | Information |

After you have made the corrections, run another check on the invoice.

Sum of invoice line net amount *	2,000.00 EUR
Invoice total amount without VAT *	2,000.00 EUR
Total VAT amount *	380.00 EUR
Total amount (VAT-inclusive) *	2,380.00 EUR
Amount due for payment *	2,380.00 EUR

Additional Supporting Documents

Document name/document location	Type	Identifier *
Rechnung.pdf	Datei	Reference

Validation of the invoice

✓ **Validation successful**
The validation was successful. You can submit the invoice now.

> Once your invoice has been corrected, it is valid and ready for submission.

Validate Invoice

(* Mandatory Field)

Submit Invoice

> To confirm that your invoice is correct, click on **submit invoice**.

> Cancel   Previous   > Discard invoice

Operating guide for the web interface of the federal Central Invoice Submission Portal (ZRE)

4.9   Confirming the invoice (9/9)

Before you see the screen confirming that your invoice was submitted successfully (see below), a message will appear informing you of your obligation to store a copy of the invoice for your records.
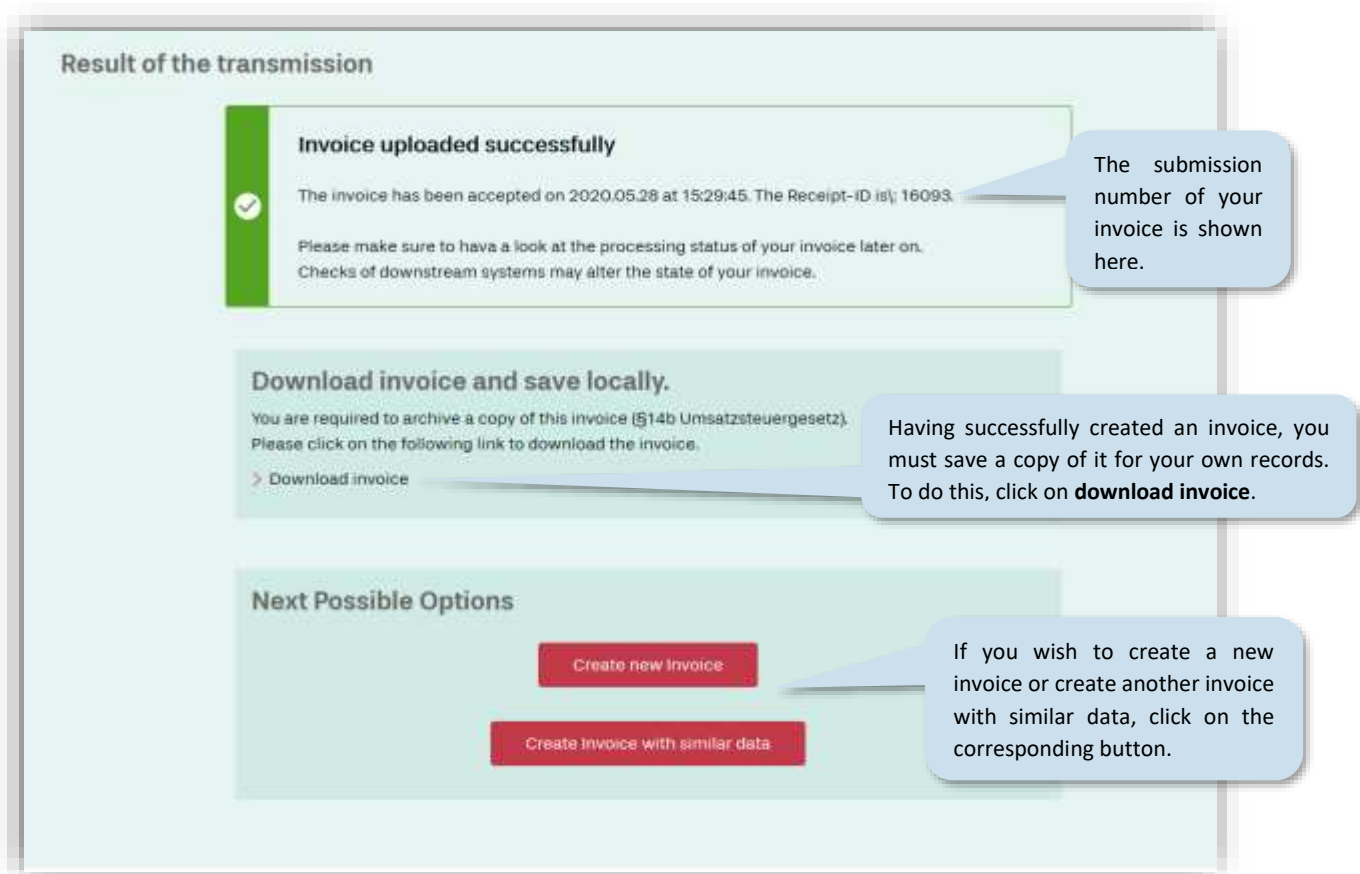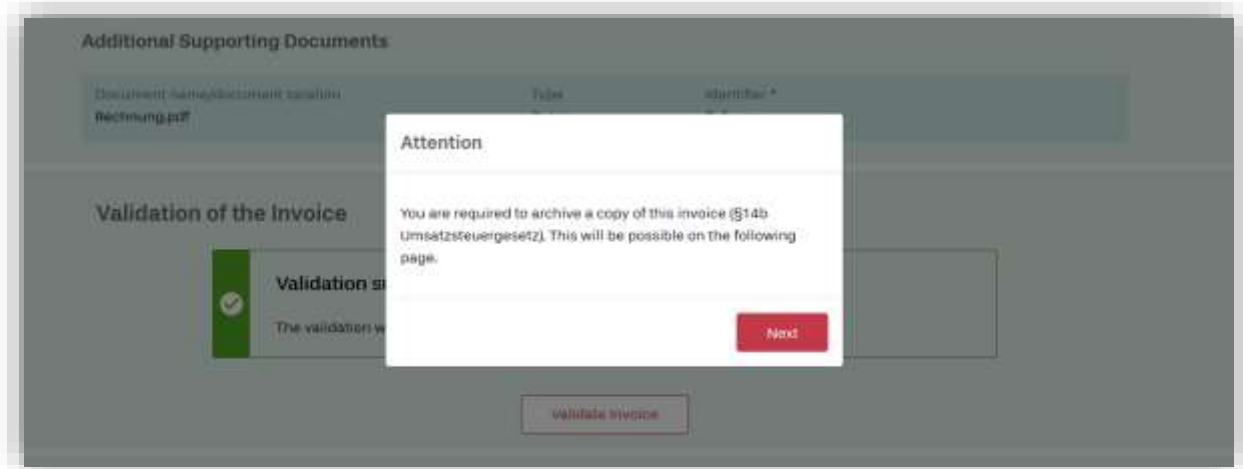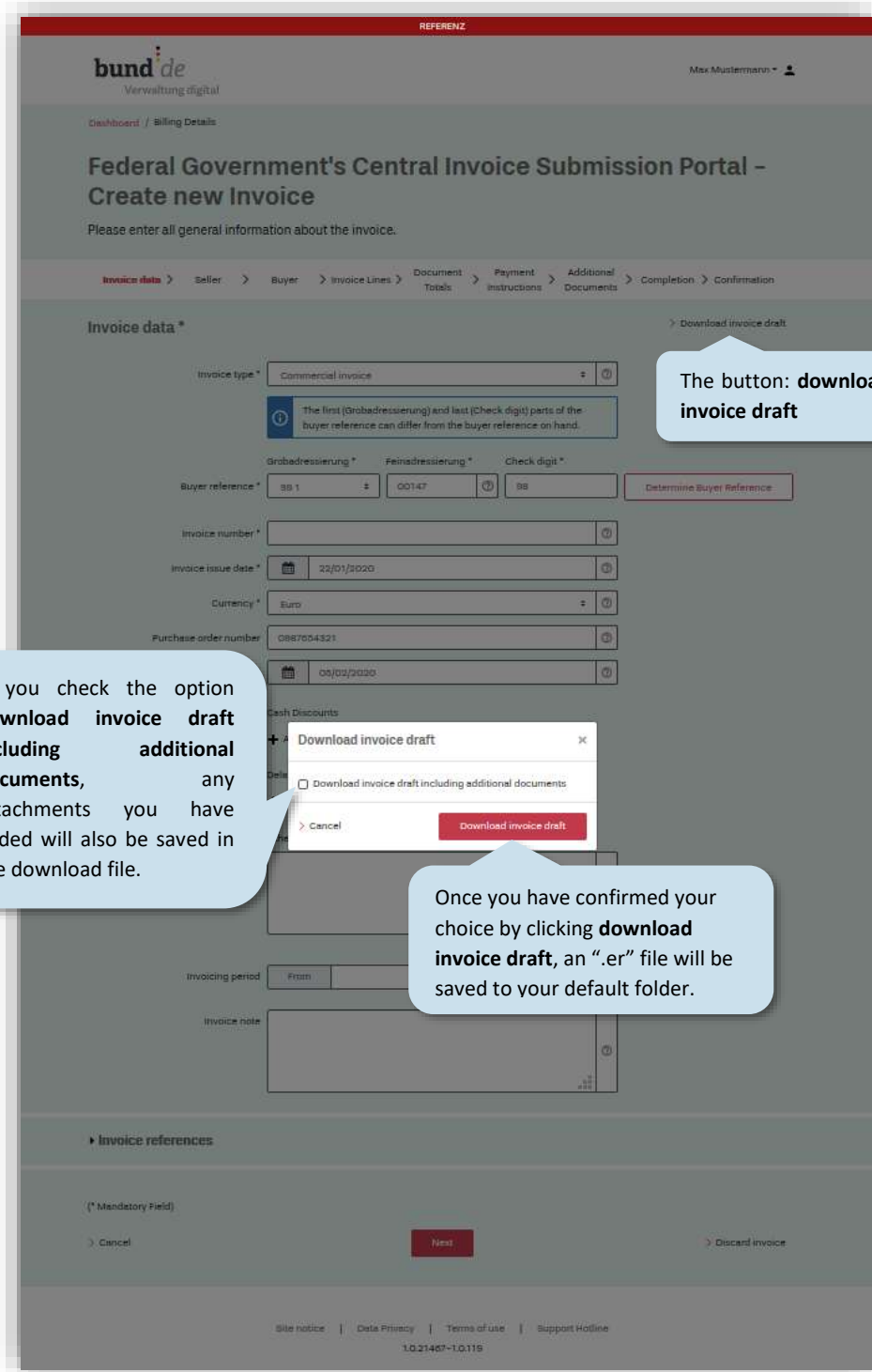
The invoice creation process is now complete. The invoice has been successfully submitted.

5   Creating an invoice template / downloading a draft invoice

The ZRE allows you to save your invoice data locally in the file format ".er" for later use. This means you can save invoices which are not yet finished, upload them again later to the ZRE, and continue the process from where you left off. You can also use these .er files as templates for (test) invoices. The advantage of this is that after uploading an .er file (see section 6, "Continuing to edit an invoice you started earlier") you can edit all the data and create a new invoice in just a few steps.

To save a draft of your invoice, click on **download invoice draft**.
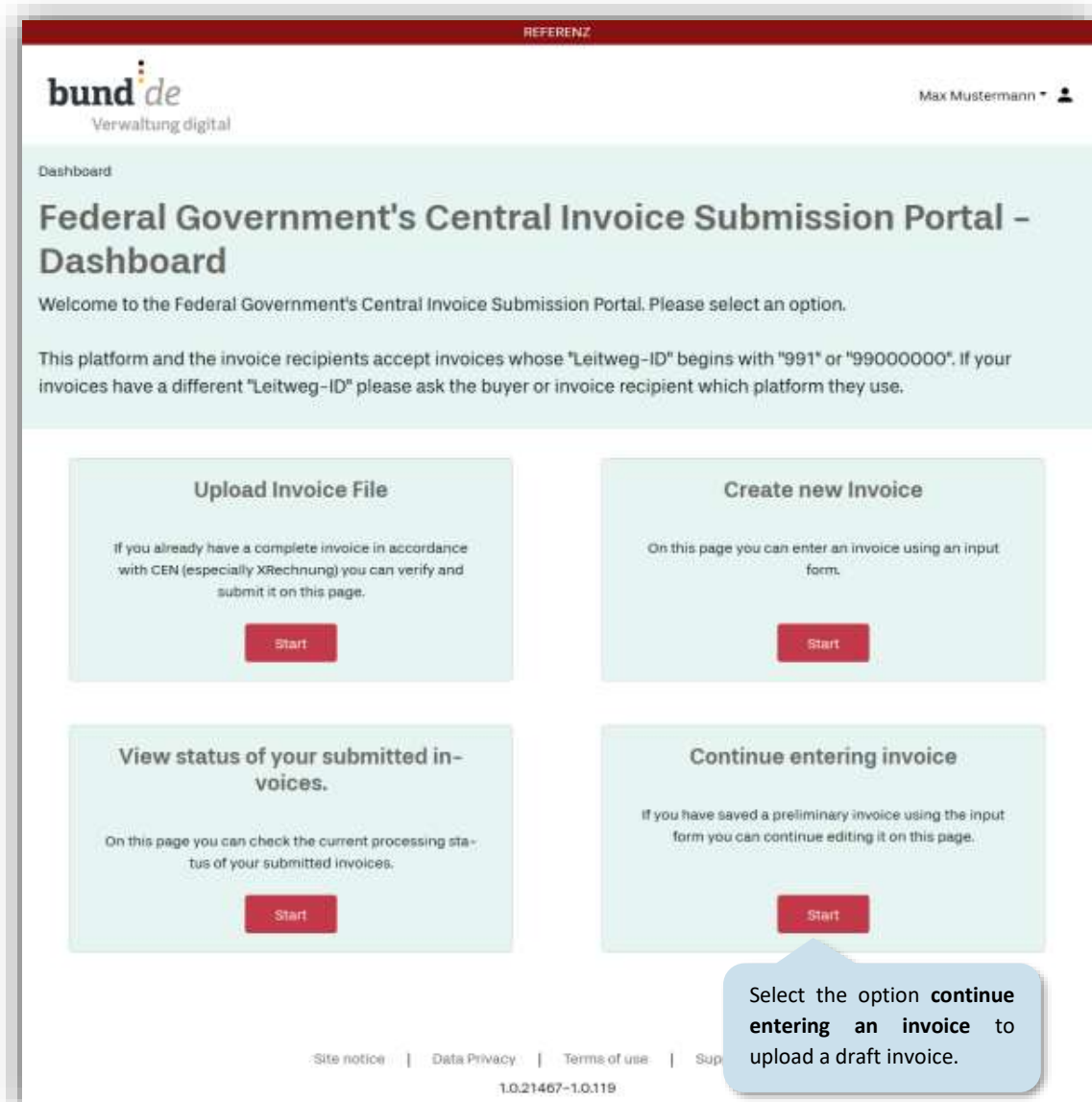
6 Continuing to edit an invoice you started earlier

To continue working on an invoice, or to upload an invoice template, return to the dashboard.

Selecting **continue entering an invoice** will take you to the upload screen shown below. Here you can upload the file you saved earlier.

Remember that the file to be uploaded must have the suffix ".er".

Click in this area to select the desired file or drag and drop the file into this area.

By clicking **cancel** you will return to the dashboard
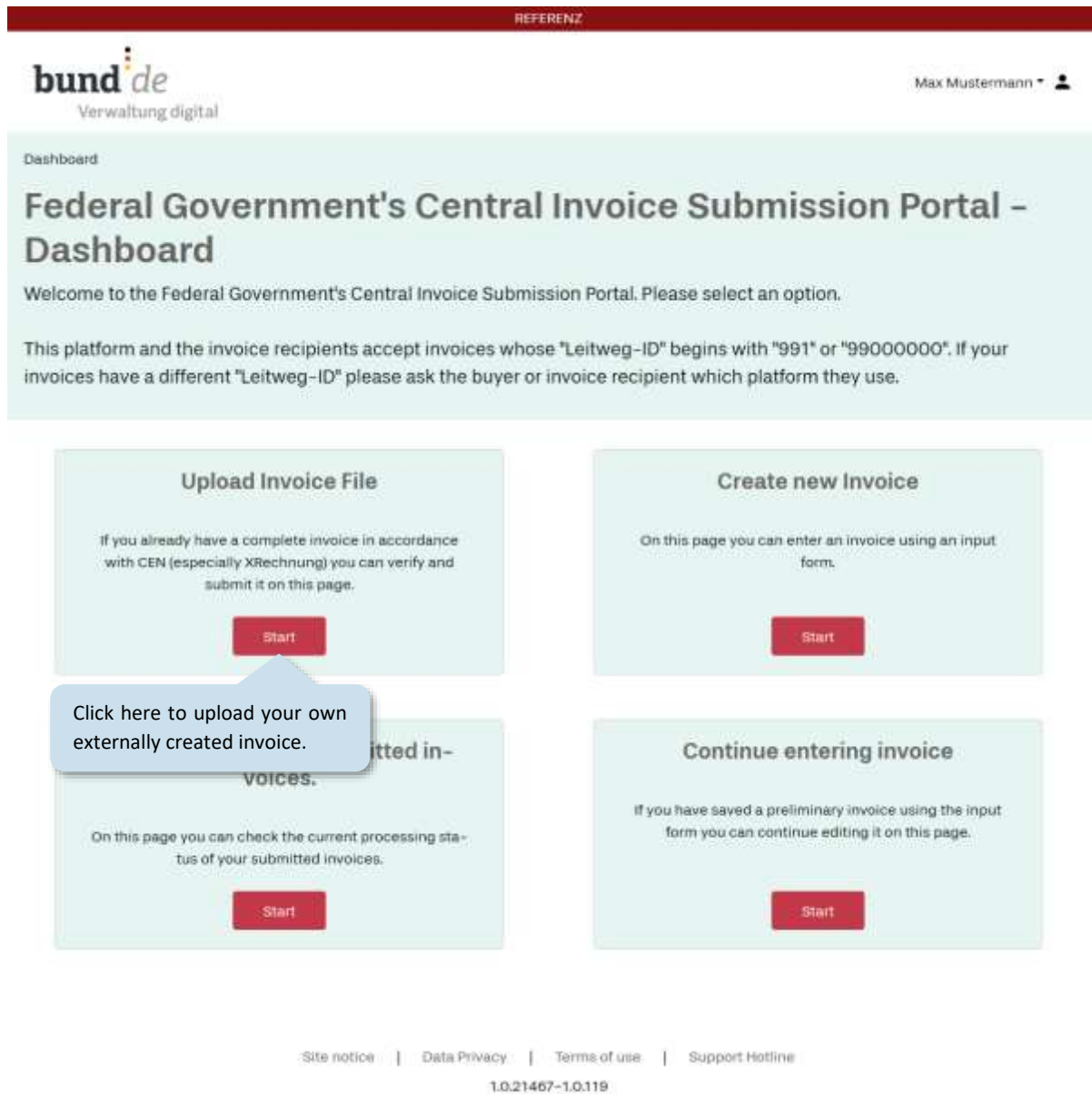
Having selected the desired file, you can upload it.
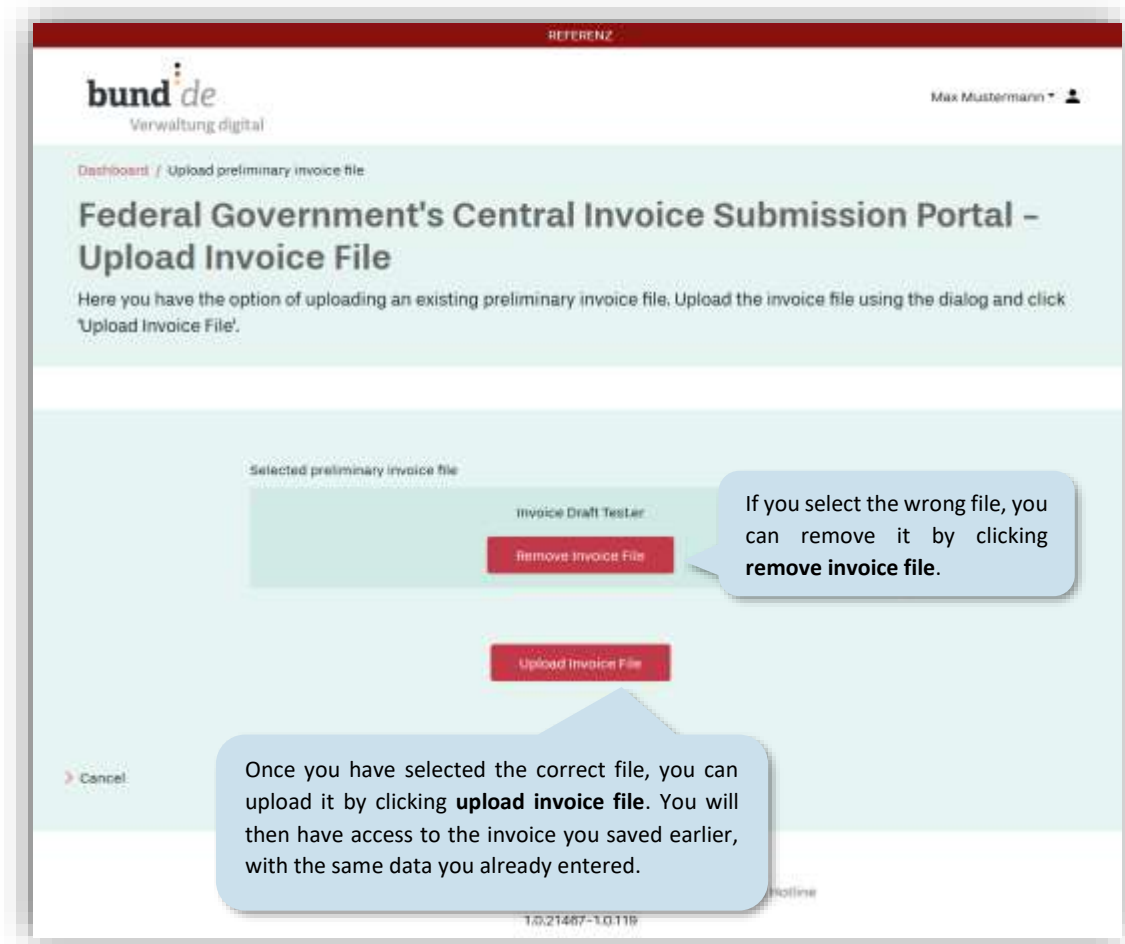
The data from the uploaded invoice can then be accessed via the relevant pages in the ZRE, allowing you to continue creating your invoice from where you left off last time (see section 4.1 onwards).

7   Uploading invoice files

To upload your own externally created invoices, go back to the dashboard and select the option **upload invoice file**.

Click on the outlined area to select a file from your computer or drag and drop the file into the outlined area.

Before you submit the uploaded invoice, you have the option to run a schema and schematron validation of your invoice. To do this, click on **validate invoice**. An example of a report showing the results of a validation check can be seen on page 29, in the section on completing an invoice.

If you select the wrong file, you can remove it by clicking **remove invoice file**.

Operating guide for the web interface of the federal Central Invoice Submission Portal (ZRE)

8   Viewing invoice status

To check the status of invoices you have sent, go back to the dashboard and select the option **view status of your submitted invoices**.

The invoice status pages list all the invoices you have sent, and show their current status.

The column marked **IC** (input channel) shows which transmission method was used for each invoice.

This symbol means that your invoice has been rejected.

This symbol means that your invoice has been collected.

This symbol means that your invoice is awaiting collection.

Click on the magnifying glass to see details of checks carried out at particular stages in the invoice creation process.

Clicking on the magnifying glass will take you to the page shown below. Here you can see the results of checks carried out at particular stages in the invoice creation process.
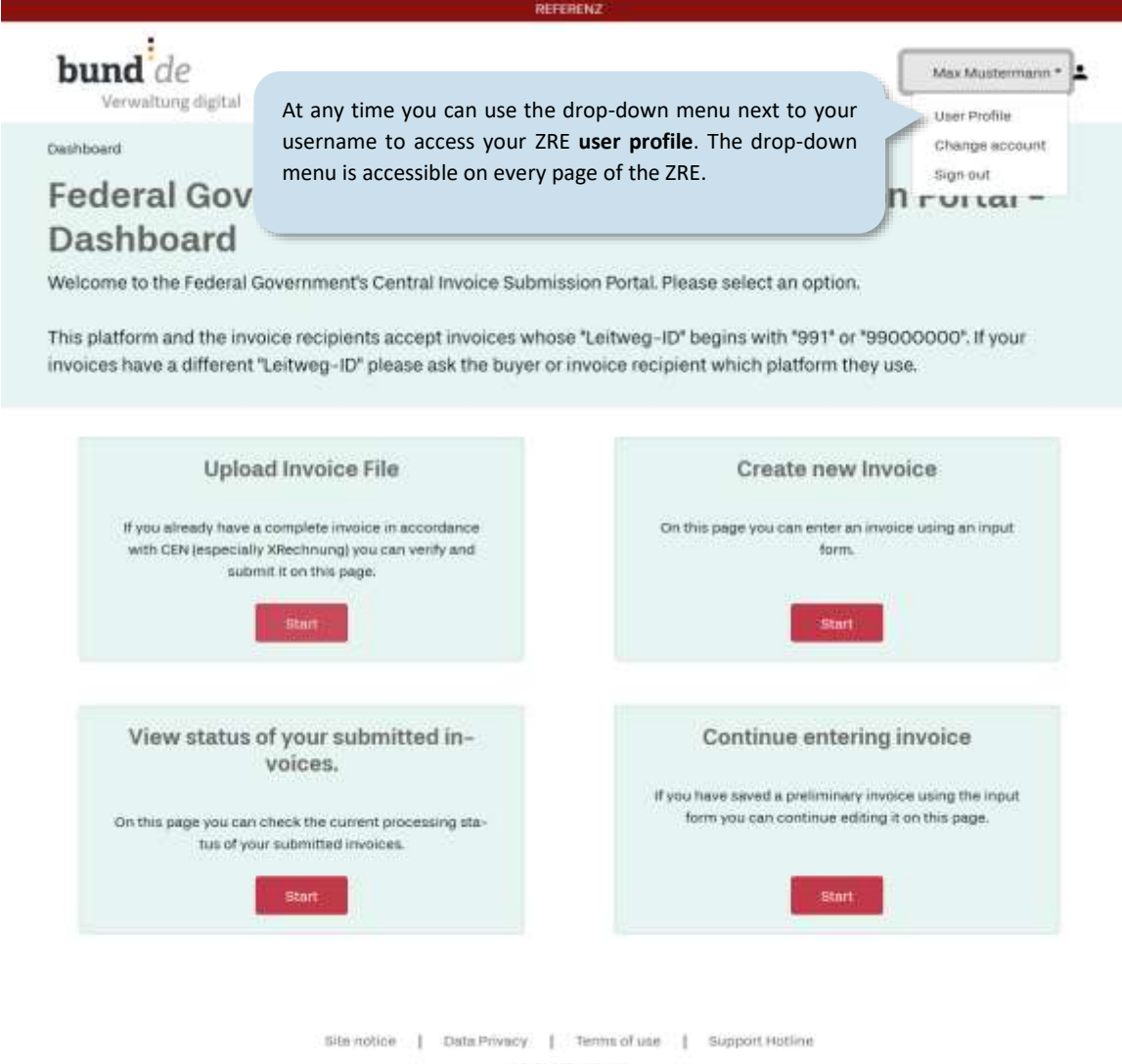
Processing step	Result	Date	Inducer	Additional text
REGISTRATION	✓	19/03/2020	ZRE	Received invoice (filename: Test_UNCEFACT.xml) from ER_385 (Servicekonto-ID). Receipt-ID: 14741. Person passing in the invoice: Max Mustermann (ER_385).
FILE SIZE VALIDATION	✓	19/03/2020	ZRE	File size: 16,208 bytes
ATTACHMENTS COUNT VALIDATION	✓	19/03/2020	ZRE	Number of invoice constituting documents below allowed maximum.
ATTACHMENTS FILE TYPE VALIDATION	✓	19/03/2020	ZRE	Invoice constituting documents have correct file types.
ATTACHMENTS FILE TYPE VALIDATION	✓	19/03/2020	ZRE	Secure invoice constituting documents are valid for security authority.
VIRUS CHECK	✓	19/03/2020	ZRE	There are no invoice attachments. A virus check is not necessary.
SCHEMATRON VALIDATION	✓	19/03/2020	ZRE	No error at schema and schematron validation. > Show results
CONVERSION	✓	19/03/2020		...has been ...ed to UBL.
LEITWEGID CHECK	✓	19/03/2020		...g-ID ...id.
DEPLOYMENT	✓	19/03/2020	ZRE	Invoice recipient: 991–18200–65 (ITZBund Bonn)
DEPLOYMENT	✓	19/03/2020	ZRE	Route card for invoice carrying Receipt-ID 14,741 established.
DEPLOYMENT	✓	19/03/2020	ZRE	Invoice container created for invoice having Receipt-ID 14,741.
CONFIRMATION	✓	19/03/2020	ZRE	The receipt of the invoice with Receipt-ID 14,741 has been confirmed.
DELETION	✓	19/04/2020	ZRE	The invoice was deleted from the ZRE.

OK

9   ZRE user profile

In your ZRE user profile you can change your e-mail address, the transmission method or the language of the web interface. Here you also have the option to delete your ZRE account.

In the language settings you can choose between German and English. To save your changes, click on **save profile**.

10   Transmission via e-mail

The ZRE allows you to submit invoices by e-mail. To use e-mail as a transmission method you will need to enable this option in your user profile.

To submit invoices by e-mail, activate the radio button **web submission and e-mail**.

Be sure to enter here the e-mail address from which you want to send your invoices.

Finally, save the changes to your user profile.

To send an electronic invoice by e-mail, attach the invoice as a file in XML format and send your e-mail to ref.erechnung@portal.bund.de   or   ref.xrechnung@portal.bund.de   in the   test environment, or to xrechnung@portal.bund.de in the production environment.

Please note:

1. You must send the invoice from the e-mail address you entered in your user profile.
2. You may attach only **one** XML file, otherwise your e-mail will be ignored.
3. The XML file must be in a format recognized by the ZRE. For details of currently valid file formats, see the ZRE terms of use, which can be accessed via the link on the portal's web interface.
4. You can check the **viewing invoice status** pages to see whether an invoice you have submitted has been delivered.