TTP-Dispatcher-Frontend

Current Docker-Version of TTP-Dispatcher: 1.18.0 (Jan. 2023)

Contents

1 Introduction

Within the Trusted Third Party (TTP) of the University Medicine Greifswald, the TTP-Dispatcher provides a REST-Interface for all functions. This interface is documented in the corresponding interface specification (REST-Spec). Each function has the type action and/or form. Action means the whole function can be called and finished via REST. This type is usually used by external systems to call functions within the TTP. Some functions can also be of the type form, which means the actual call of the function can be invoked by a user via a web form, e.g. directly from a web browser. The form type is usually necessary to embed an iframe with a web form from the TTP in an external system - the external system only knows pseudonyms, whereas the user can work with identifying data. This document describes how to use those embedded forms and provides necessary examples.

2 Getting a Form-URL

The REST-Spec lists all functionalities for which also “form” types, like *addPatient* form, are available.

As described in the REST-Spec, for each function-call a session and a token need to be requested. See the Spec for further instructions. For functions that provide forms, the token-response (e.g. *F_AP-N_TR*) contains a form-URL. This URL can be called by a web browser to show the form.

Example Token-Response:

```
{
    "call": {
        "form": {
            "method": "GET",
            "url": "http://localhost:8080/ths-web/rest/html/public/patient/add?tokenId=3619676d-ebe1-4fb5-9967-6debe1ffb539"
        },
        "action": {
            "method": "POST",
            "url": "http://localhost:8080/THS/rest/patient/add/3619676d-ebe1-4fb5-9967-6debe1ffb539"
        }
    },
    "tokenId": "3619676d-ebe1-4fb5-9967-6debe1ffb539",
    "uri": "http://localhost:8080/THS/rest/sessions/00e9d89b-884d-4d93-a9d8-9b884ddd938a/tokens/3619676d-ebe1-4fb5-9967-6debe1ffb539"
}
```

3 Calling the Form-URL

For example, the forms of function *addPatient* will look like the following screenshots. It depends on the configuration which forms and consents are displayed. The default workflow starts with a) acquisition of person identifying data (IDAT), followed by b) mapping and upload of a scanned consent form (PDF file) or digital acquisition of a consent and c) provision of a project-specific pseudonym.

3.1 Introduction (optional)

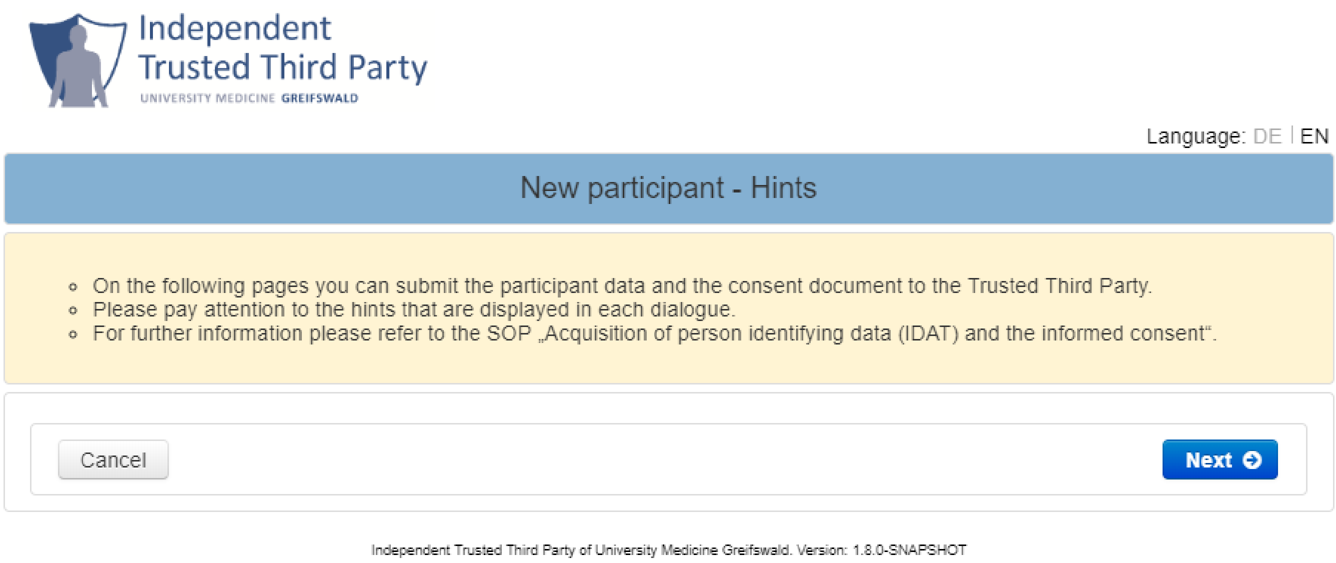


Figure 1: Exemplary start page of web form as provided by the TTP-dispatcher when calling the addPatient-Form variant. The shown logos and most texts are configurable.

3.2 Acquisition of person identifying data (IDAT)

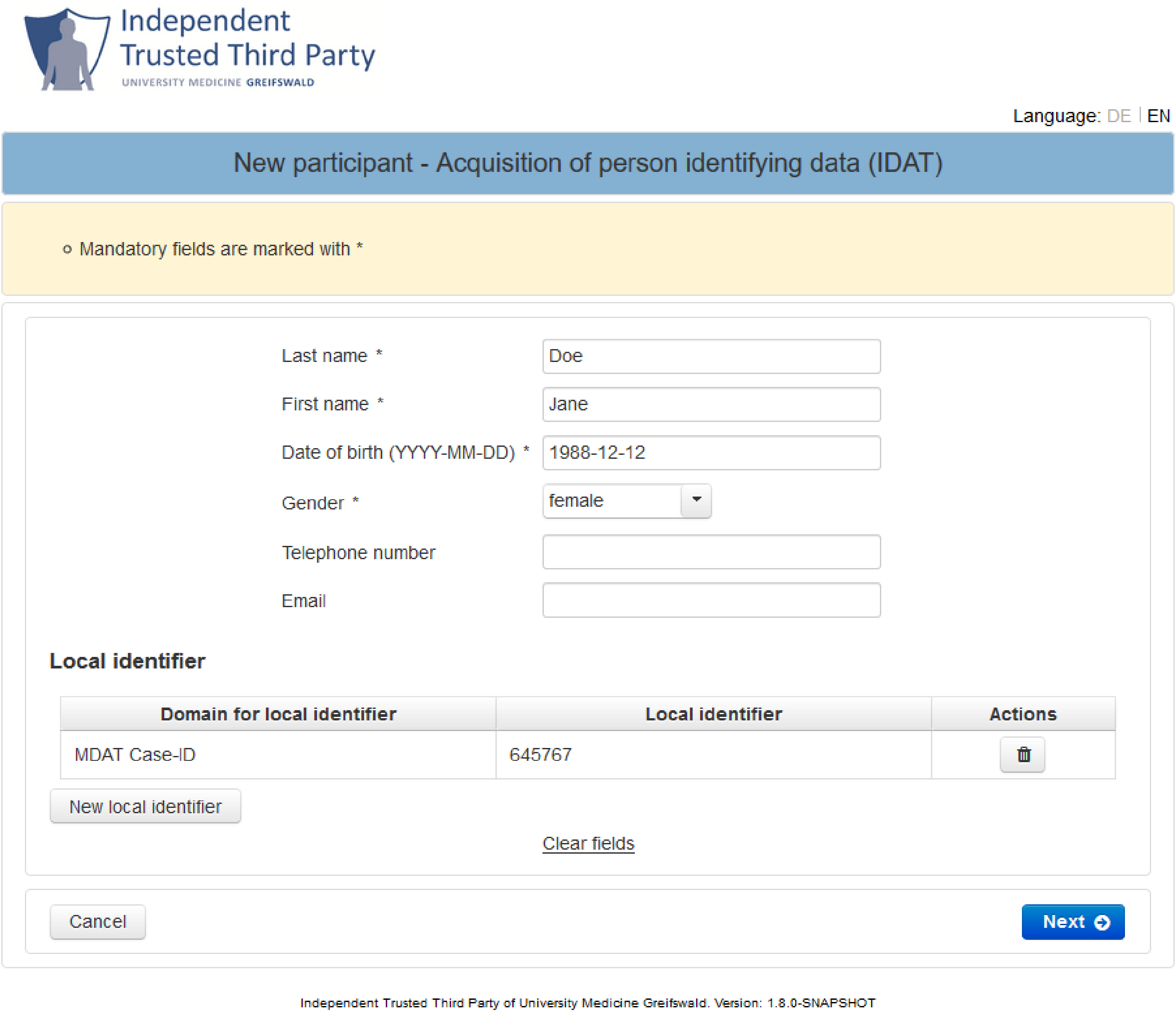


Figure 2: IDAT acquisition form, which validates mandatory fields and will check for matches in the E-PIX®.

The list of displayed and mandatory fields is configurable in the dispatcher-configuration and can contain all IDAT-Fields of the E-PIX®. In addition, project-specific local identifiers (e.g. *patient-id*, *case-id*) might be added, if required.

3.3 Informed Consent (optional)

Recording a consent is not necessary in all scenarios, therefore this step is optional.

Depending on the workflow of obtaining the consent, study personal needs to either digitally map a paper-based consent form into data fields, scan and upload the consent form as PDF file, or acquire the consent completely digital using a SignPad (from signoTec). In addition, filling out and uploading multiple consents is possible. Consents can be mandatory or optional to fill out by the user. Optional ones can be skipped; mandatories ones are necessary to include the patient in the respective study. This is configurable in the dispatcher-configuration and the gICS-templates.

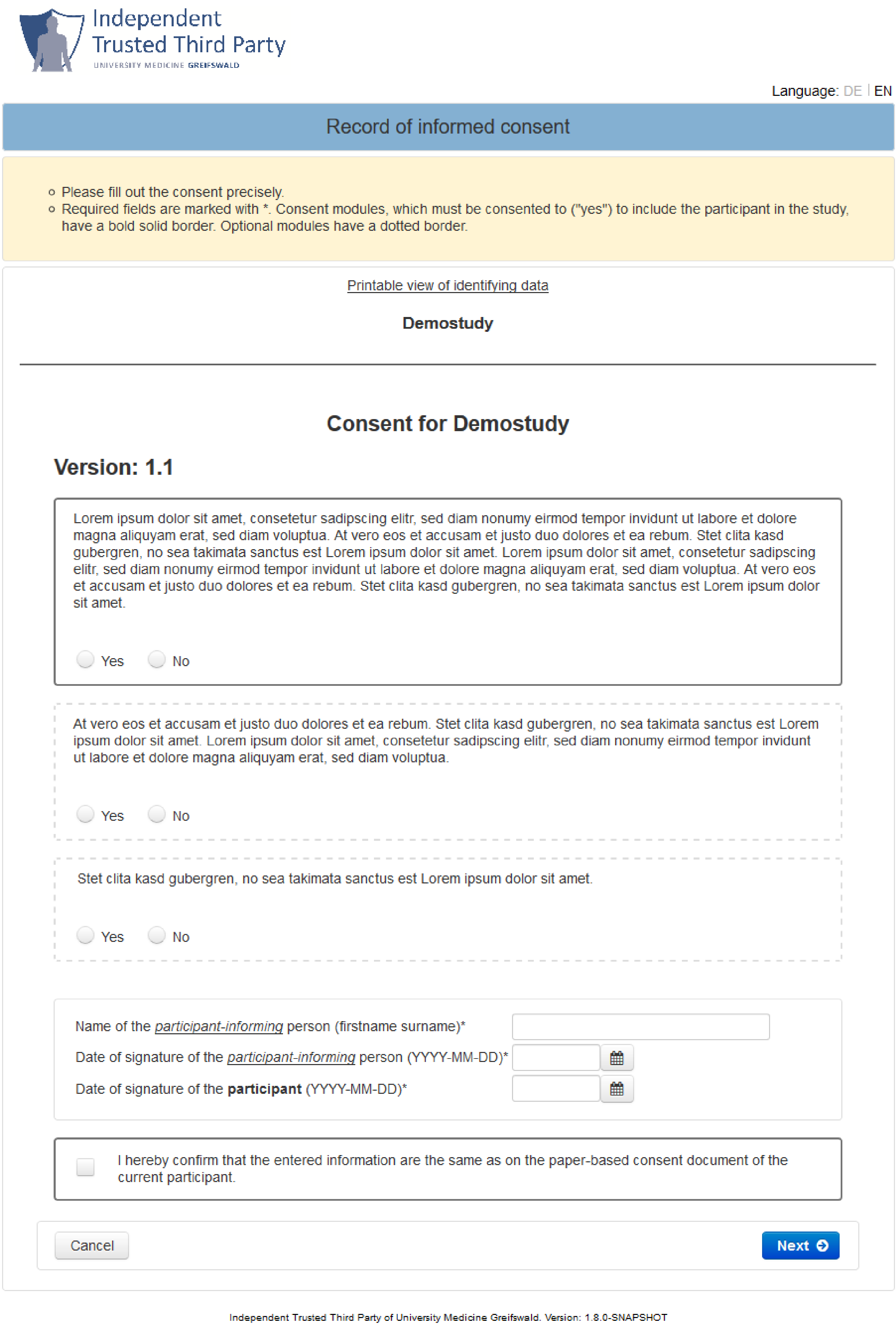
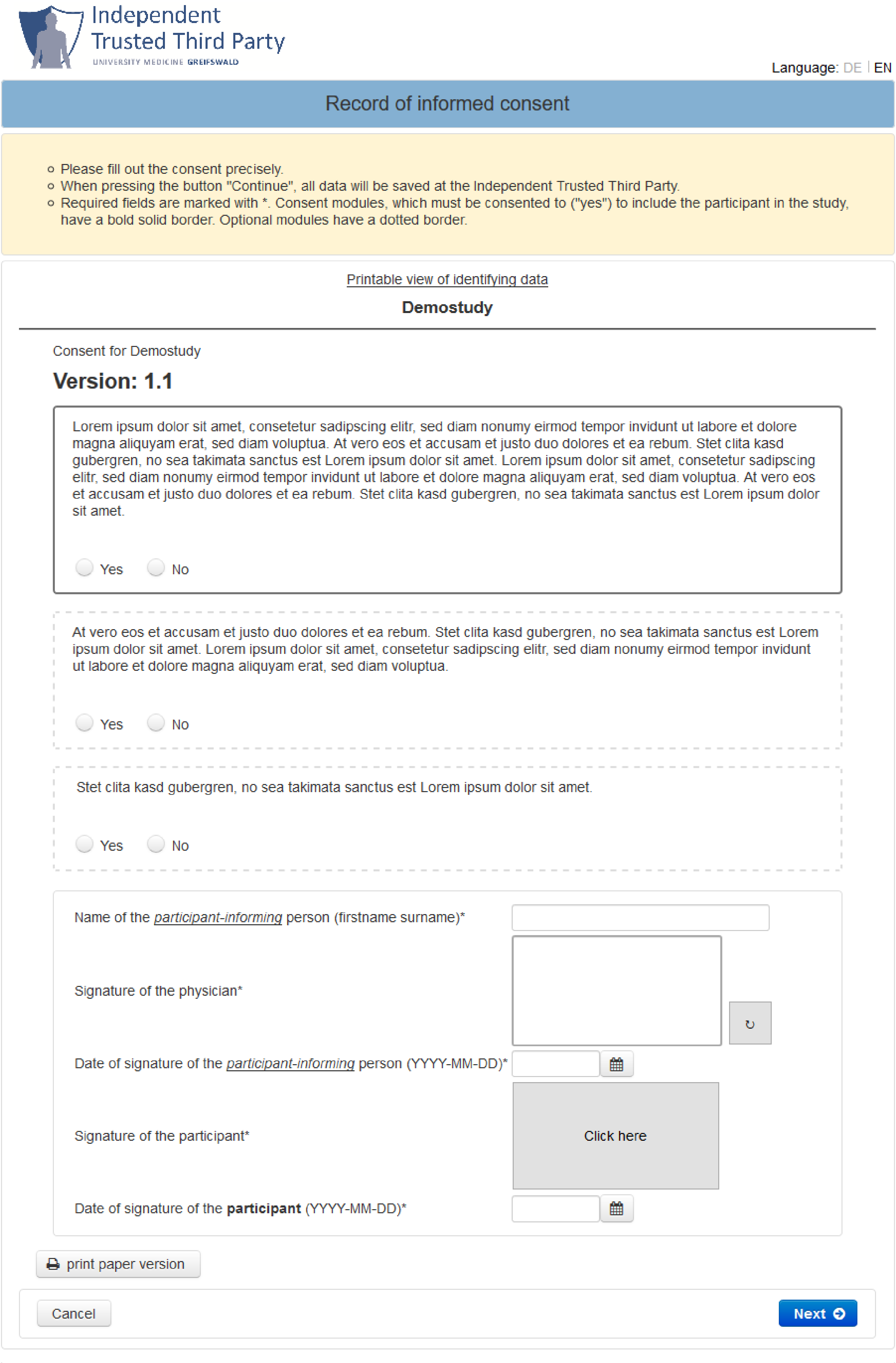


Figure 3: Filling out the digital consent without using a SignPad. For example, if none is available (paper-based workflow).



Independent Trusted Third Party
UNIVERSITY MEDICINE GREIFSWALD

Language: DE | EN

Record of informed consent

- Please fill out the consent precisely.
- When pressing the button "Continue", all data will be saved at the Independent Trusted Third Party.
- Required fields are marked with *. Consent modules, which must be consented to ("yes") to include the participant in the study, have a bold solid border. Optional modules have a dotted border.

Printable view of identifying data

Demostudy

Consent for Demostudy

Version: 1.1

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Yes No

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Yes No

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Yes No

Name of the *participant-informing* person (firstname surname)*

Signature of the physician*

Date of signature of the *participant-informing* person (YYYY-MM-DD)*

Signature of the participant*

Click here

Date of signature of the **participant** (YYYY-MM-DD)*

print paper version

Cancel

Next

Figure 4: Filling out a consent using a SignPad. There is no need to upload a scan afterwards, instead the digital consent is printed out for the participant.

3.4 Provision of pseudonym and user-friendly summary of processed identifying data (printable)

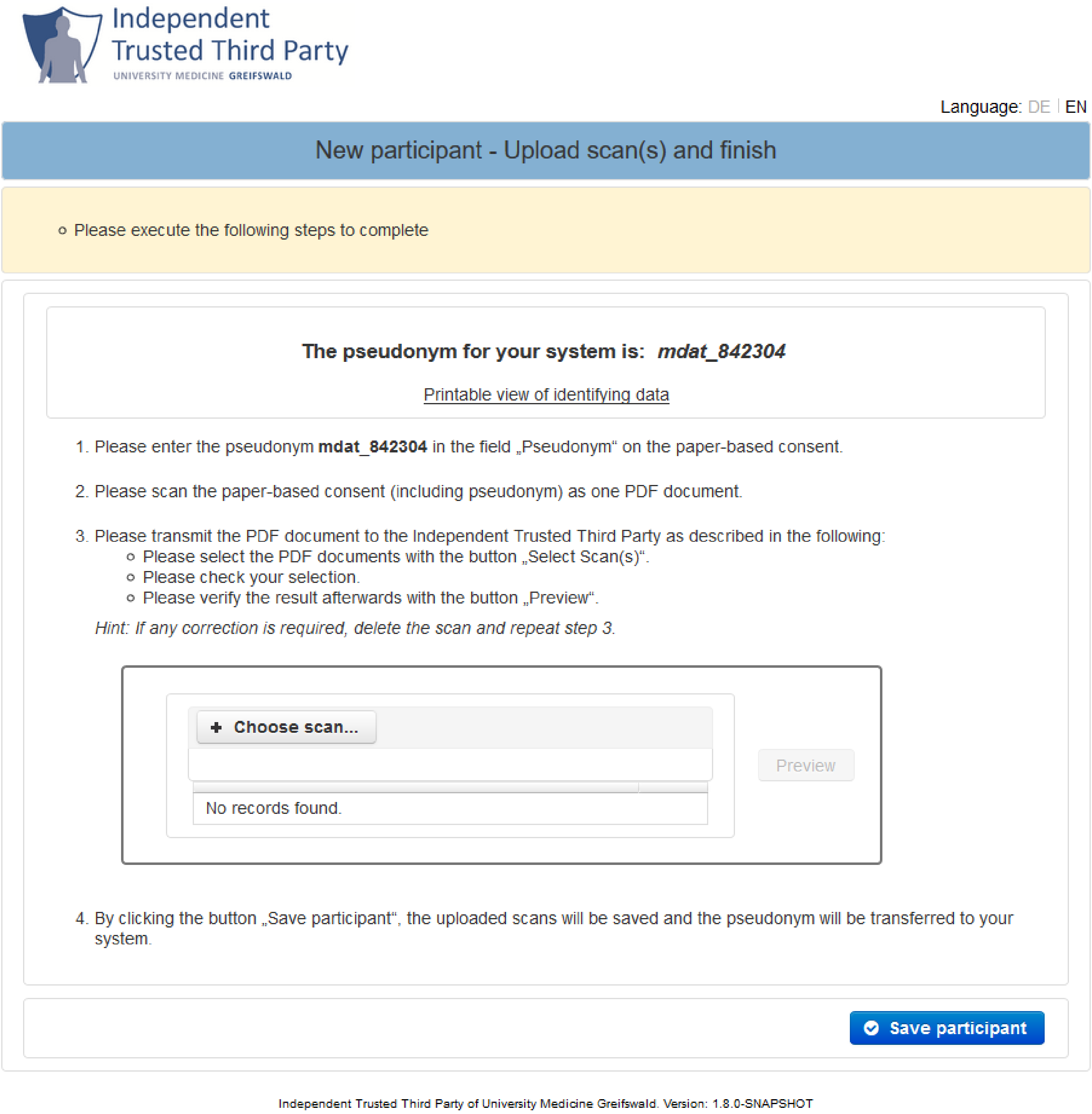

Figure 5: In the last step of addPatient form (without SignPad), the user needs to scan the paper-based consent and upload this to the TTP. In addition, the pseudonym of the participant is shown and will be transferred to the external system by clicking “save participant”.

4 Search Participant and other functions

Similar to *addPatient* form, embedding *searchPatient/managePatient* form via iframe is also possible. By selecting the desired participant, more functions via forms are available, e.g. “show participant record in external system”, *addConsent*, *addRevocation*, *addConsentScan* or *updateIDAT*.

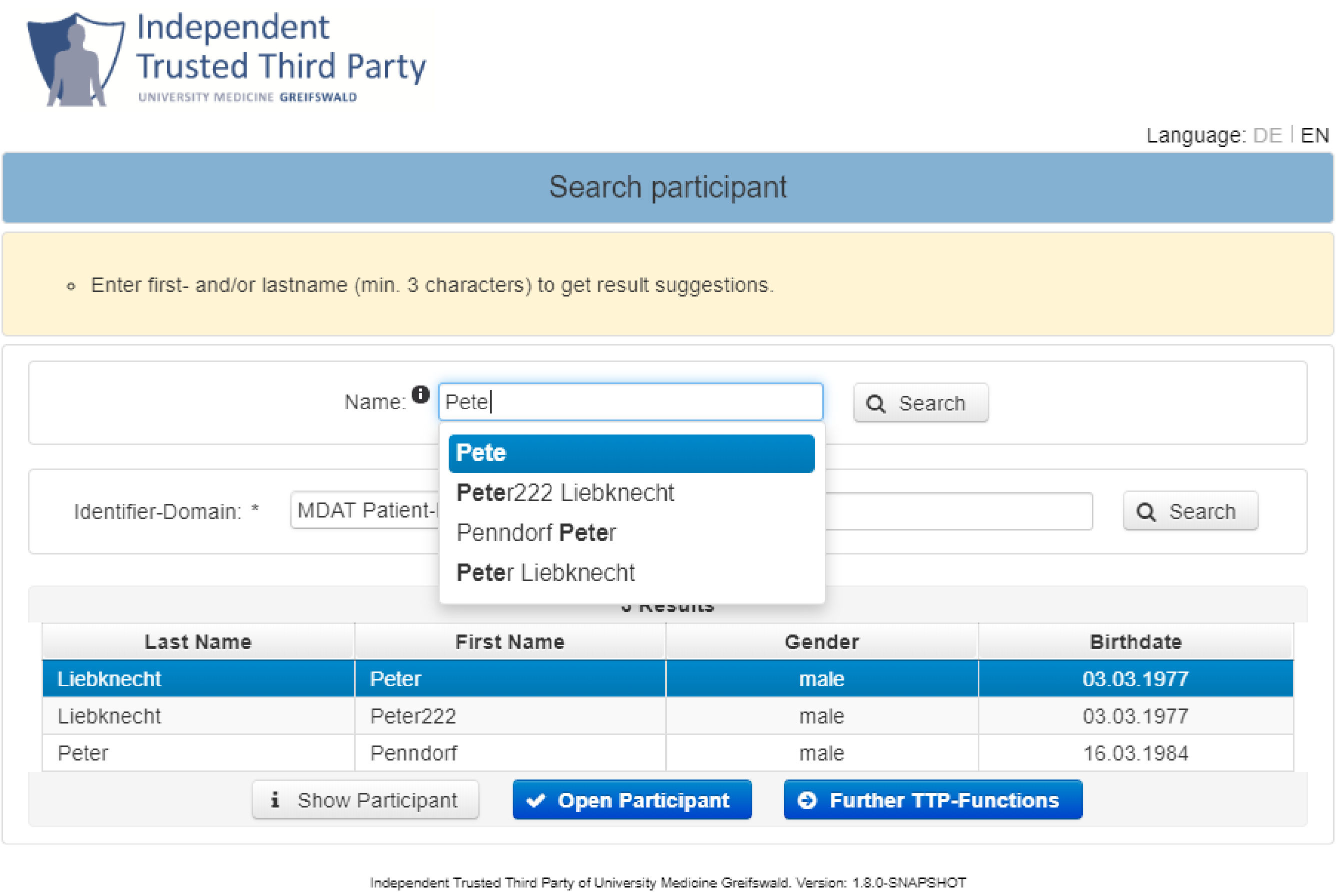

Figure 6: Searching a participant by IDATs or local identifier. “Open Participant” uses the pseudonym to open the participants study records in the external system. “Further TTP-Functions” enables the user to use TTP-Functions that are more specific (see Figure 7).

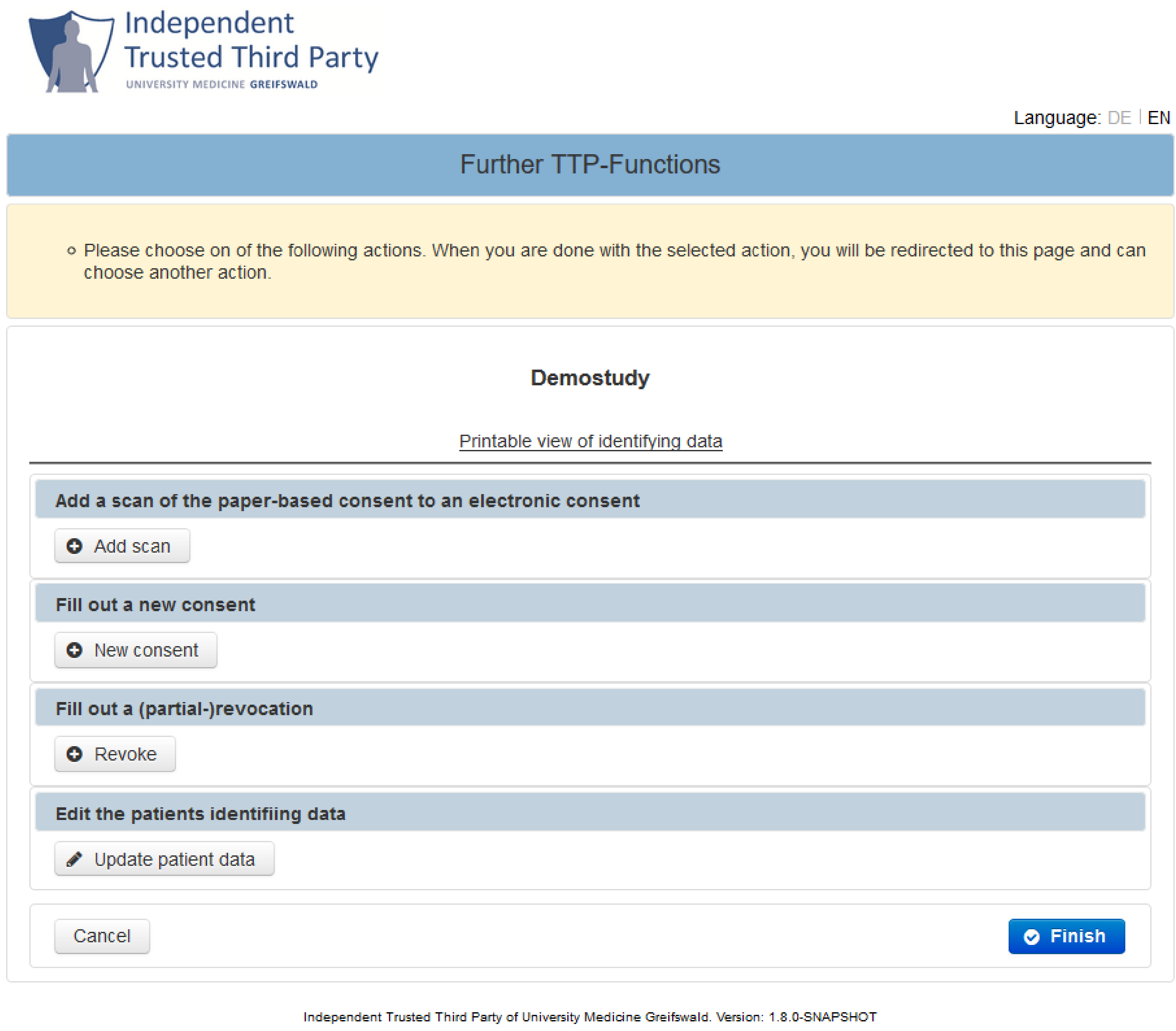

Figure 7 Further TTP-Functions - it is configurable, which functions are presented to the user, e.g. depending on the user/ role rights of the external system embedding this iframe.

5 Full support for system integration

The REST-Interface allows the external systems to choose between actions (REST-Calls) and forms (integrated iframe). When using actions, most responsibility for the workflow falls to the external system. When using forms, the user (e.g. study nurse) gets initial training and, at all times, is guided through the workflow by the forms of the TTP, described in this document.

For the workflow of including a participant in a study and create the study record with medical data (MDAT), using the form is the only way of separating the IDATs from the study records in the external system, which should only know the pseudonym (PSN):

- external System = MDATs + PSN
- TTP = IDATs + PSN + consent

This workflow of separation of concern is a way of fulfilling data privacy protection regulations.

The integration of the REST-Interface and the call of forms has been implemented in well-known commercial products (exemplary):

- SecuTrial (iAS), Link: https://www.secutrial.com
- CentraXX (Kairos), Link: https://www.kairos.de/produkte/
- M-KIS (Meierhofer), Link: https://www.meierhofer.com/de_de/kis-fuer-akut-misch-und-psychiatrische-kliniken
- SAP (with custom development), Link: https://www.sap.com/germany/industries/healthcare.html
- VivianClient (MicroNova), Link: https://www.micronova.de/home.html

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Credits

Concept and implementation: P. Penndorf, A. Blumentritt, L. Geidel
Web-Client: P. Penndorf, A. Blumentritt
Docker: R. Schuldt, F. M. Moser

License

Contact: https://www.ths-greifswald.de/kontakt/

Supported languages

German, English