

WITH STANDARDS – UNLOCK THE POWER OF DATA



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Concept-based standards in OpenStudyBuilder supporting structured protocol content and submission deliverables

Mikkel Traun, Novo Nordisk A/S

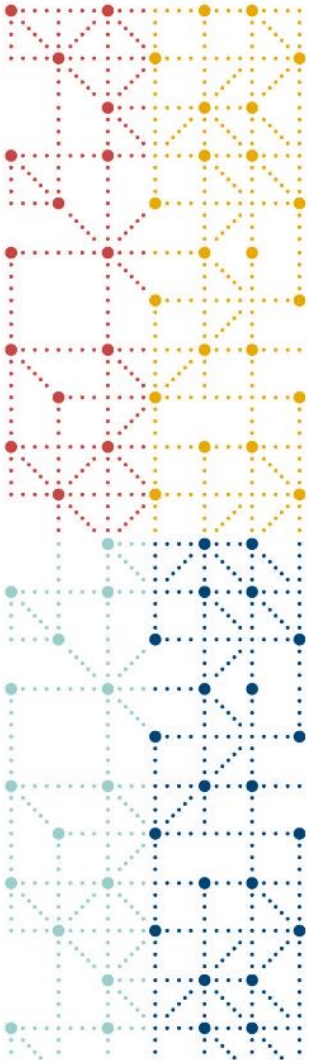
Meet the Speakers

Mikkel Traun

Title: Principal System Developer

Organization: Novo Nordisk A/S

Mikkel is one of the product owners for the next generation study builder and data standards repository solution at Novo Nordisk. Mikkel is also an active member of the TransCelerate and CDISC Digital Dataflow project, and previously the CDISC 360 project. He has worked as a principal system developer supporting the clinical data warehouse solution and the CDISC implementation at Novo Nordisk. Previously he has worked on several projects in pre-clinical, clinical and outcome research.



What is the OpenStudyBuilder ...

The OpenStudyBuilder is the new approach to study specification that will:

- Ensure a higher degree of end-to-end consistency
- Have built-in compliance with external and internal standards
- Facilitate more automation and content reuse

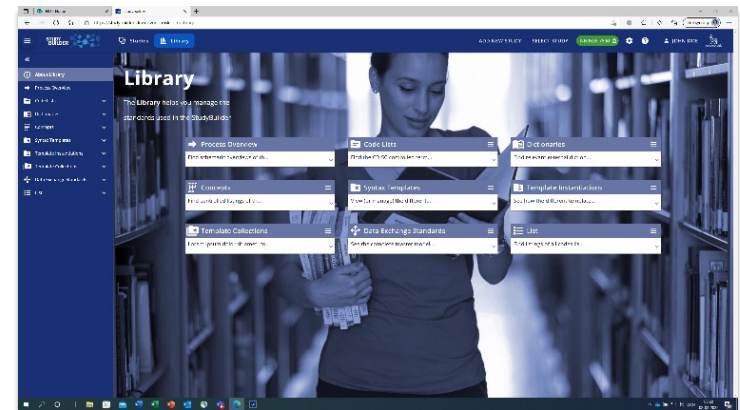
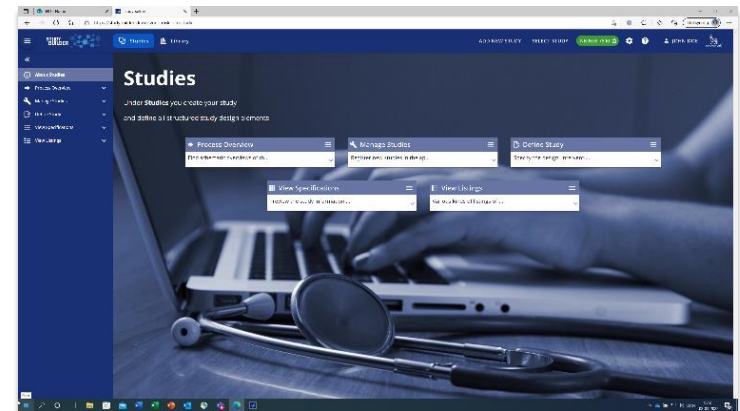
The OpenStudyBuilder comprises three elements:

- **Clinical Metadata Repository (clinical MDR)**
(central repository for all study specification data)
- **OpenStudyBuilder application**
(web-based user interface)
- **API layer**
(allowing interoperability with other applications)
(DDF API Adaptor – enabling DDF SDR Compatibility)

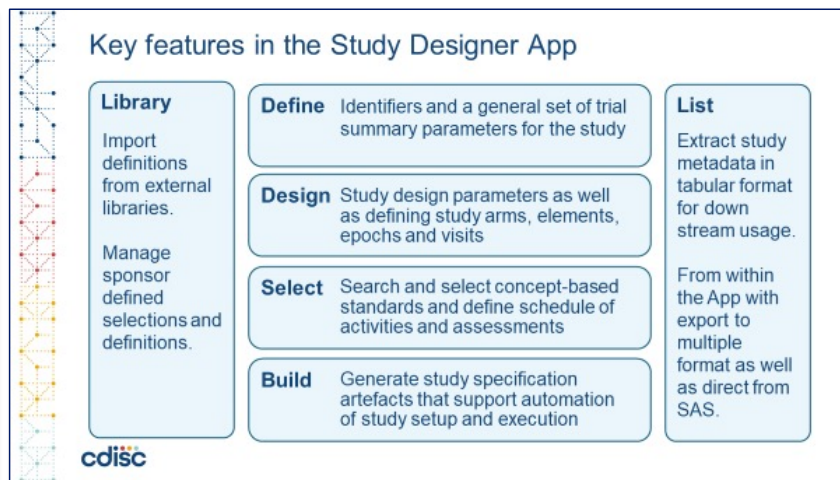
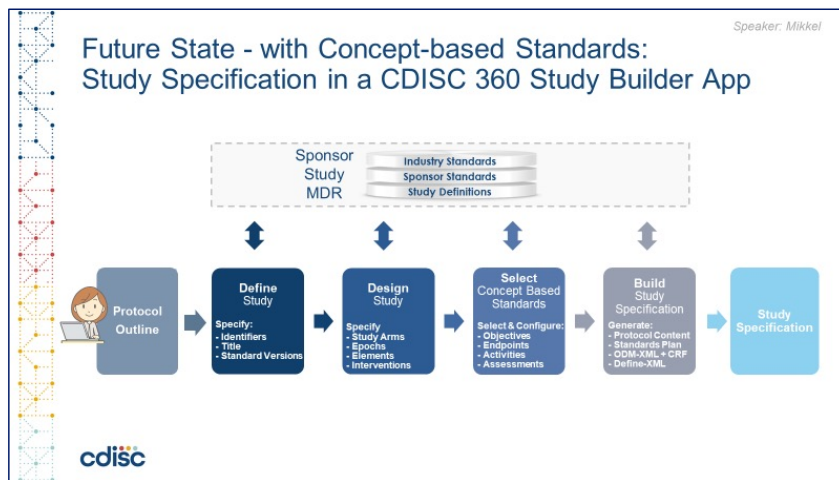


The OpenStudyBuilder includes:

- A **Studies** part for specification of studies (incl. disease area and study type, objectives and endpoints, population and eligibility criteria, study compounds and other interventions, study design, arms and visits, schedule of activities and associated procedure and assessment instructions)
- A **Library** part for maintenance of terminology standards (incl. CDISC controlled terminology, relevant parts of external dictionaries for medical terms, pharmacological classes, units, a detailed compound library, a granulated library of activity terms) as well as syntax templates for cross-study and cross-project harmonisation)
- An underlying **knowledge database** (enabling complex queries and visualisations for aggregation of information and showing how things are connected end-to-end)



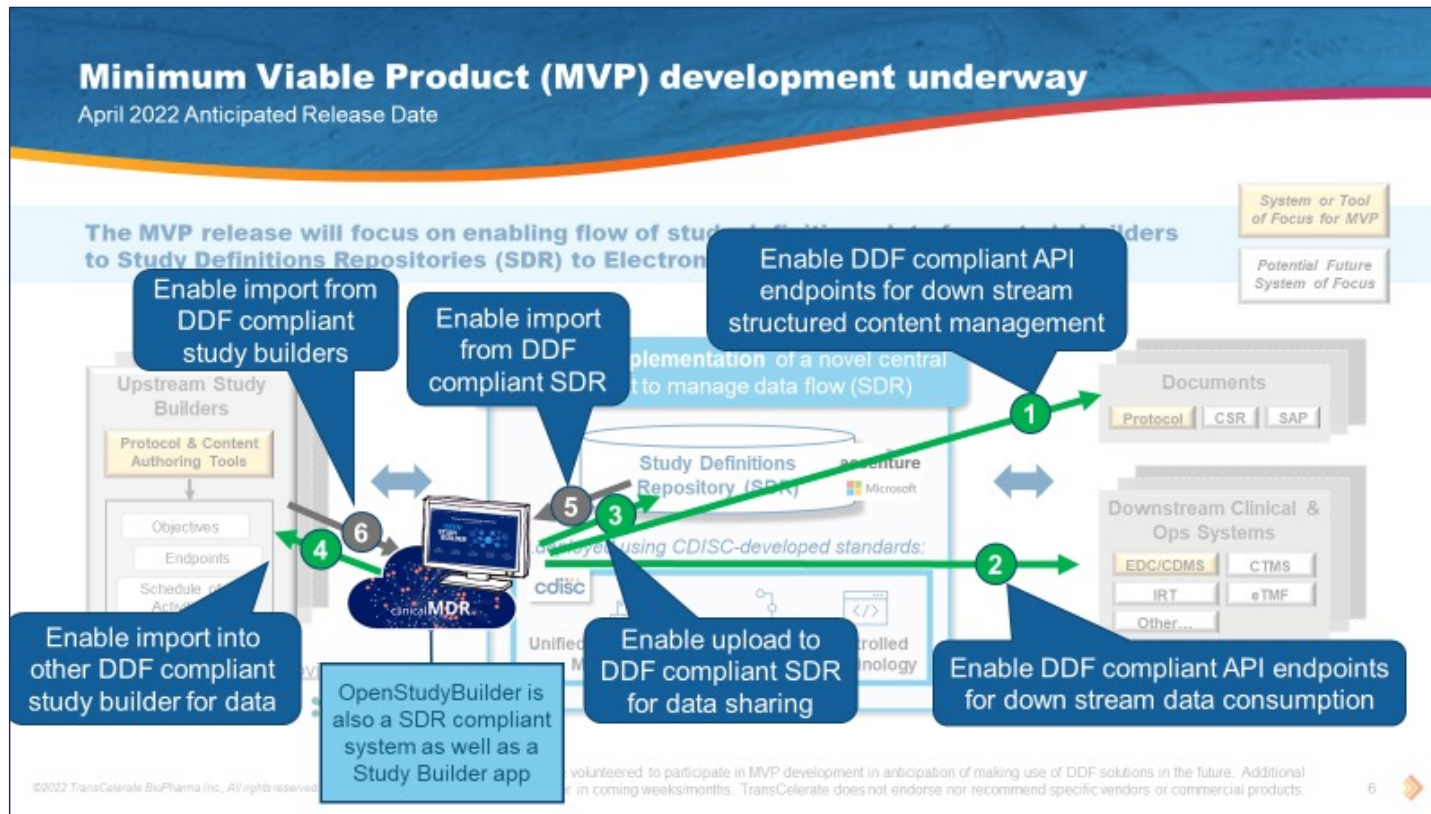
We are building OpenStudyBuilder as an open-source MDR and SDR solution based on the CDISC 360 POC



<https://www.cdisc.org/cdisc-360>

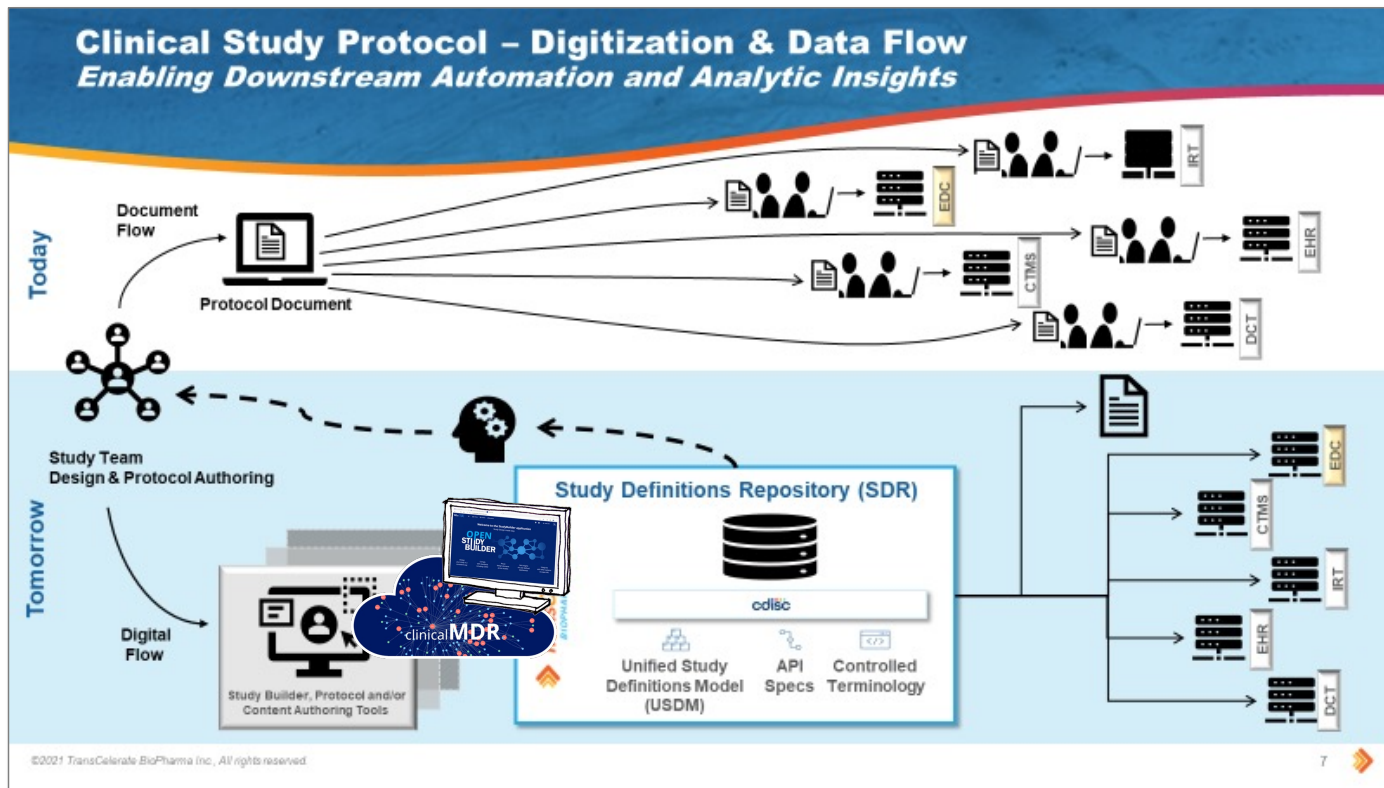
- Our goal is to replace our legacy MDR solution with a new modern solution
- As an open-source project in collaboration with CDISC, TransCelerate DDF and suppliers

OpenStudyBuilder will also be DDF Compatible



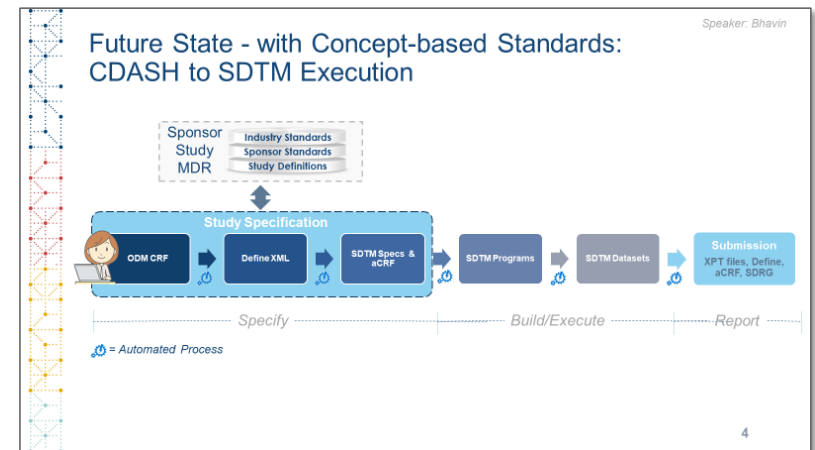
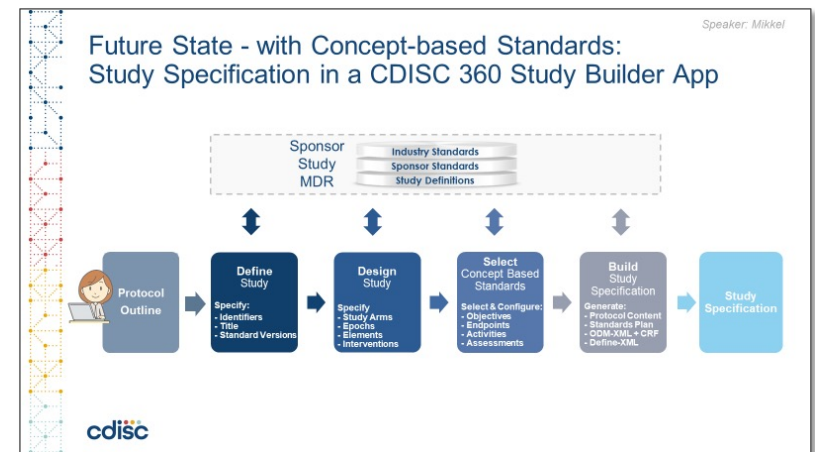
<https://transcelerate.github.io/ddf-home/>

8 DDF is moving away from Document focused processes to Connected Data Driven processes



To apply concept-based data standards end-to-end

- From protocol preparation through study conduct to reporting and submission of applications to health authorities
 - and with reference to externally-compliant concept-based data standards and terminology
- Ensuring build-in compliance, and enabling more automation, efficient reuse across studies and projects, and aggregation of study specification details for insights



Demo OpenStudyBuilder

The screenshot displays the OpenStudyBuilder interface. The top navigation bar includes the 'STUDY BUILDER' logo, 'Studies' and 'Library' tabs, and buttons for 'ADD NEW STUDY', 'SELECT STUDY', and a highlighted 'CDISC DEV-0001' button. The user 'MT (MIKKEL TRAUN)' is logged in. The left sidebar contains navigation options: 'About Studies', 'Process Overview', 'Manage Studies', 'Study List' (selected), 'Study Status', 'Project Standards', 'Define Study', 'View Specifications', and 'View Listings'. The main content area shows the 'Study List' with a search bar containing 'DDF' and a table of studies.

Clinical Programme	Project ID	Study number	Study ID	Study acronym	Study title
CDISC Development programme	CDISC DEV	0002	CDISC DEV-0002	DDF-SampleData-0002	BMS Test Study
CDISC Development programme	CDISC DEV	0001	CDISC DEV-0001	DDF-SampleData-0001	Umbrella Study of DDR (DNA-Damage Response) Targeting Agents in Advanced Biliary Tract Cancer

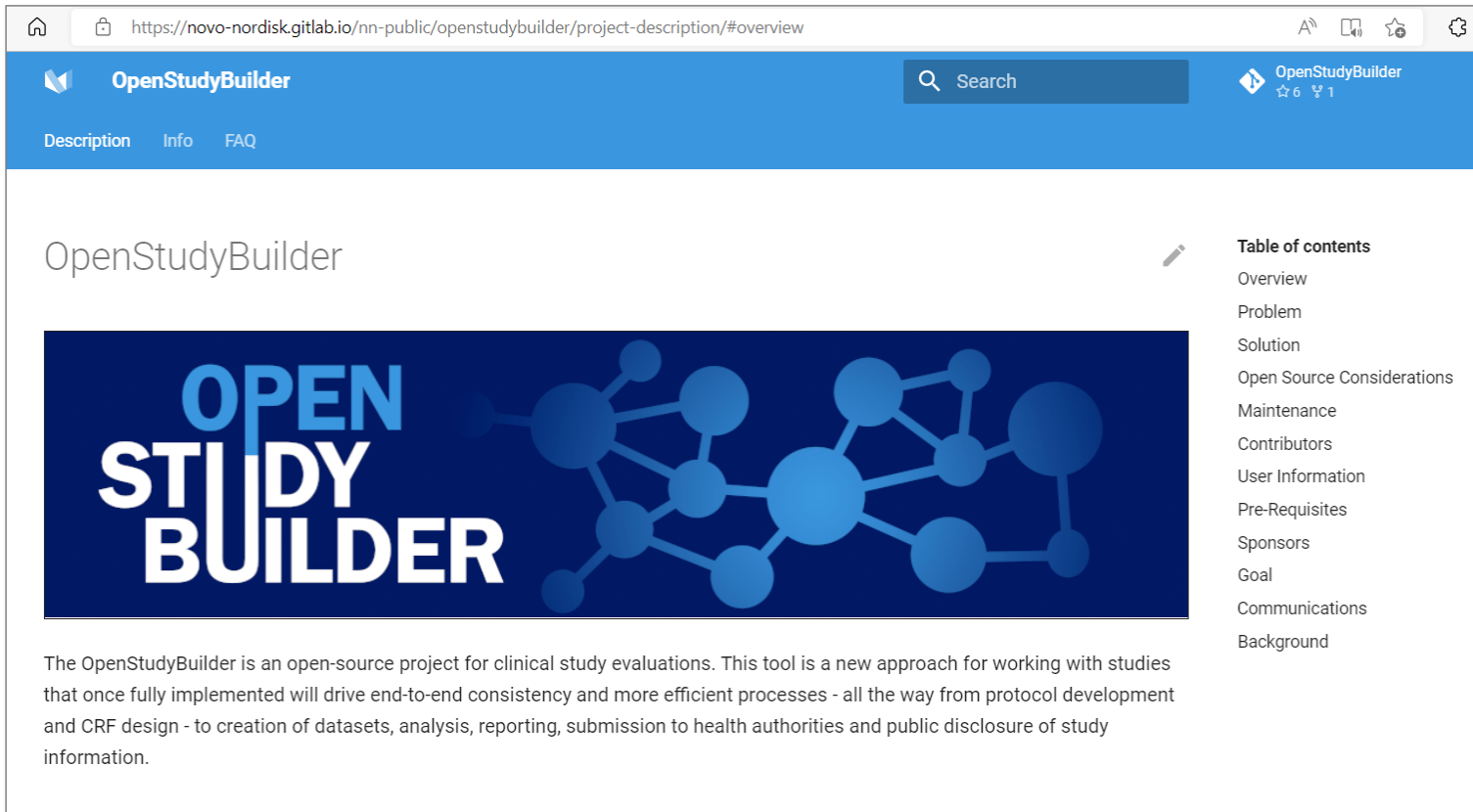
At the bottom of the table, there is a pagination control showing 'Rows per page: 10' and '1-2 of 2'.

OpenStudyBuilder next steps

- Non-GCP MVP released internally at Novo Nordisk in September 2022
- Plan a GCP release
- Share as open source project under COSA in Q3 2022
 - <https://cosa.cdisc.org/directory/openStudyBuilder>
 - <https://novo-nordisk.gitlab.io/nnp-public/openstudybuilder/project-description/>
Currently only containing a project description
- Seek to actively collaborate with CDISC, TransCelerate DDF, peers and vendors



How do I get started on OpenStudyBuilder?



The screenshot shows a web browser window displaying the OpenStudyBuilder project description page. The URL in the address bar is <https://novo-nordisk.gitlab.io/nn-public/openstudybuilder/project-description/#overview>. The page features a blue header with the OpenStudyBuilder logo, a search bar, and navigation links for Description, Info, and FAQ. The main content area includes the title "OpenStudyBuilder", a large blue banner with the text "OPEN STUDY BUILDER" and a network diagram, and a "Table of contents" sidebar. The table of contents lists: Overview, Problem, Solution, Open Source Considerations, Maintenance, Contributors, User Information, Pre-Requisites, Sponsors, Goal, Communications, and Background. Below the banner, a paragraph describes the project as an open-source tool for clinical study evaluations, aimed at driving end-to-end consistency and efficiency from protocol development to public disclosure of study information.

OpenStudyBuilder

**OPEN
STUDY
BUILDER**

The OpenStudyBuilder is an open-source project for clinical study evaluations. This tool is a new approach for working with studies that once fully implemented will drive end-to-end consistency and more efficient processes - all the way from protocol development and CRF design - to creation of datasets, analysis, reporting, submission to health authorities and public disclosure of study information.

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- Overview
- Problem
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<https://novo-nordisk.gitlab.io/nn-public/openstudybuilder/project-description/>

Thanks!
Questions?

OPEN
STUDY
BUILDER

