Steinbuch Centre for Computing (SCC) Data Exploitation Methods (DEM)

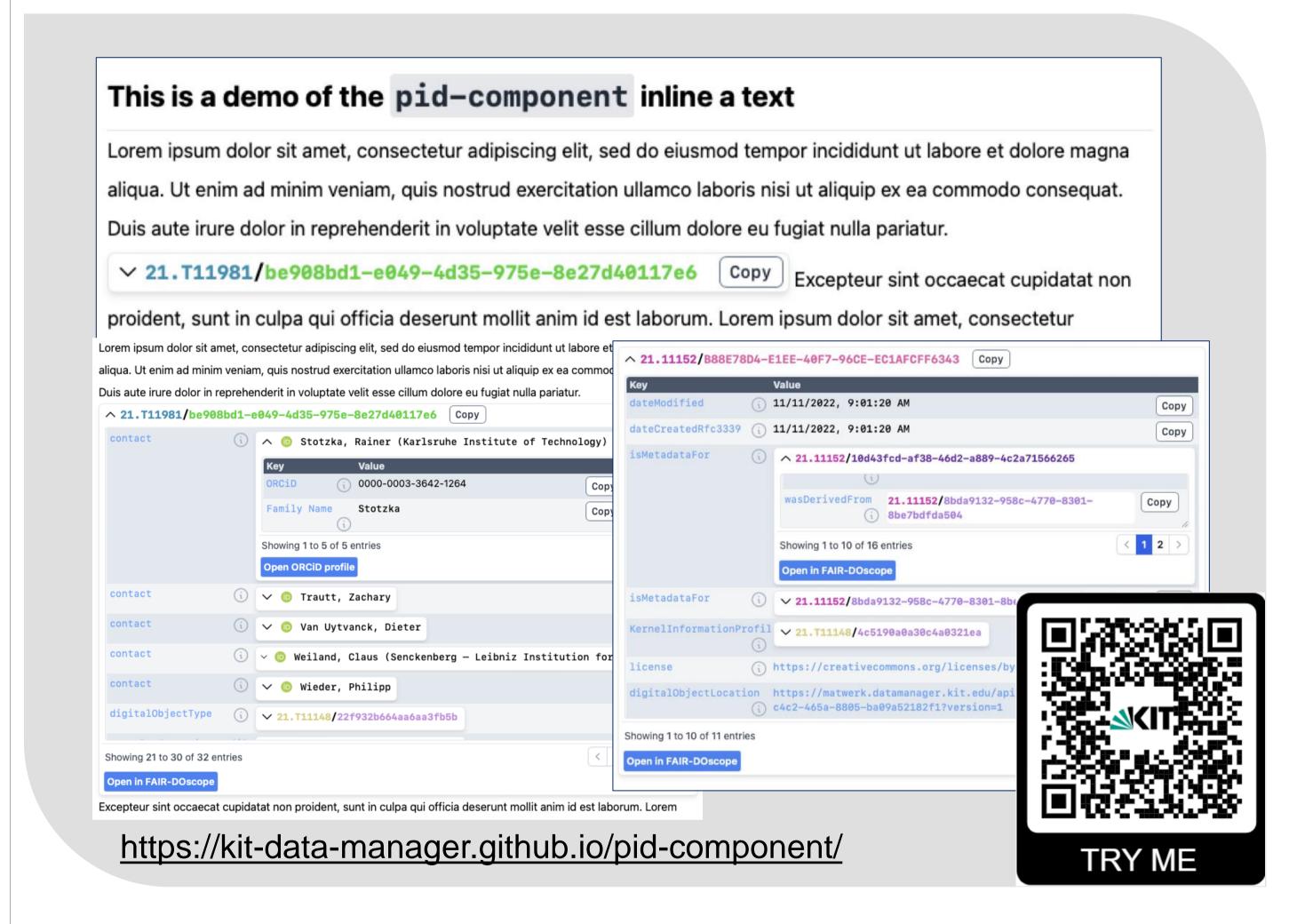


User-Oriented, Reusable Components and Tools for the Integration of FDOs into the Daily Research Routine

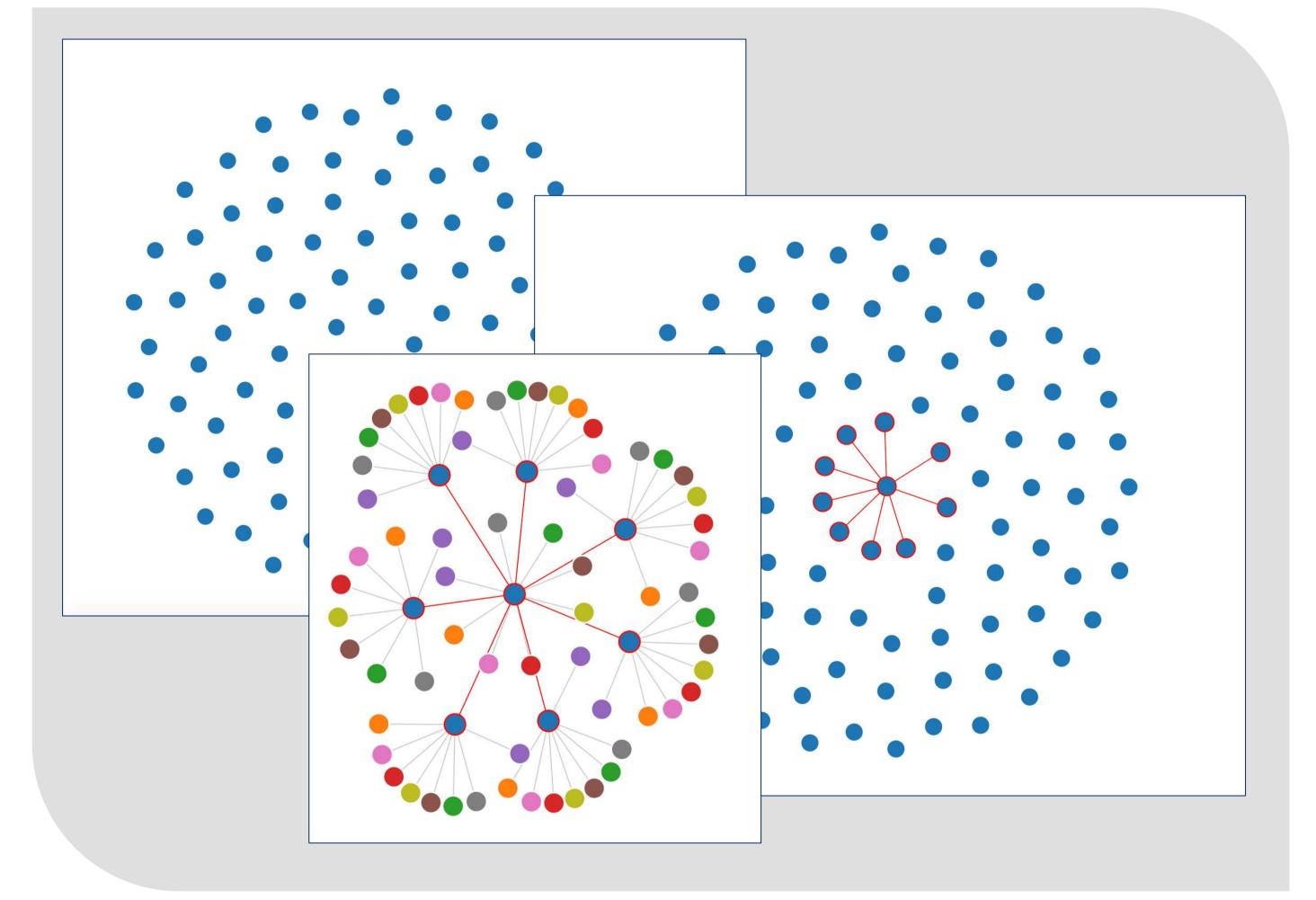
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While the number of FAIR Digital Objects (FDOs) and their application domains are constantly increasing, there is still a lack of appropriate end-user tools offering a user-friendly representation of and interaction with FDOs and PIDs in general.

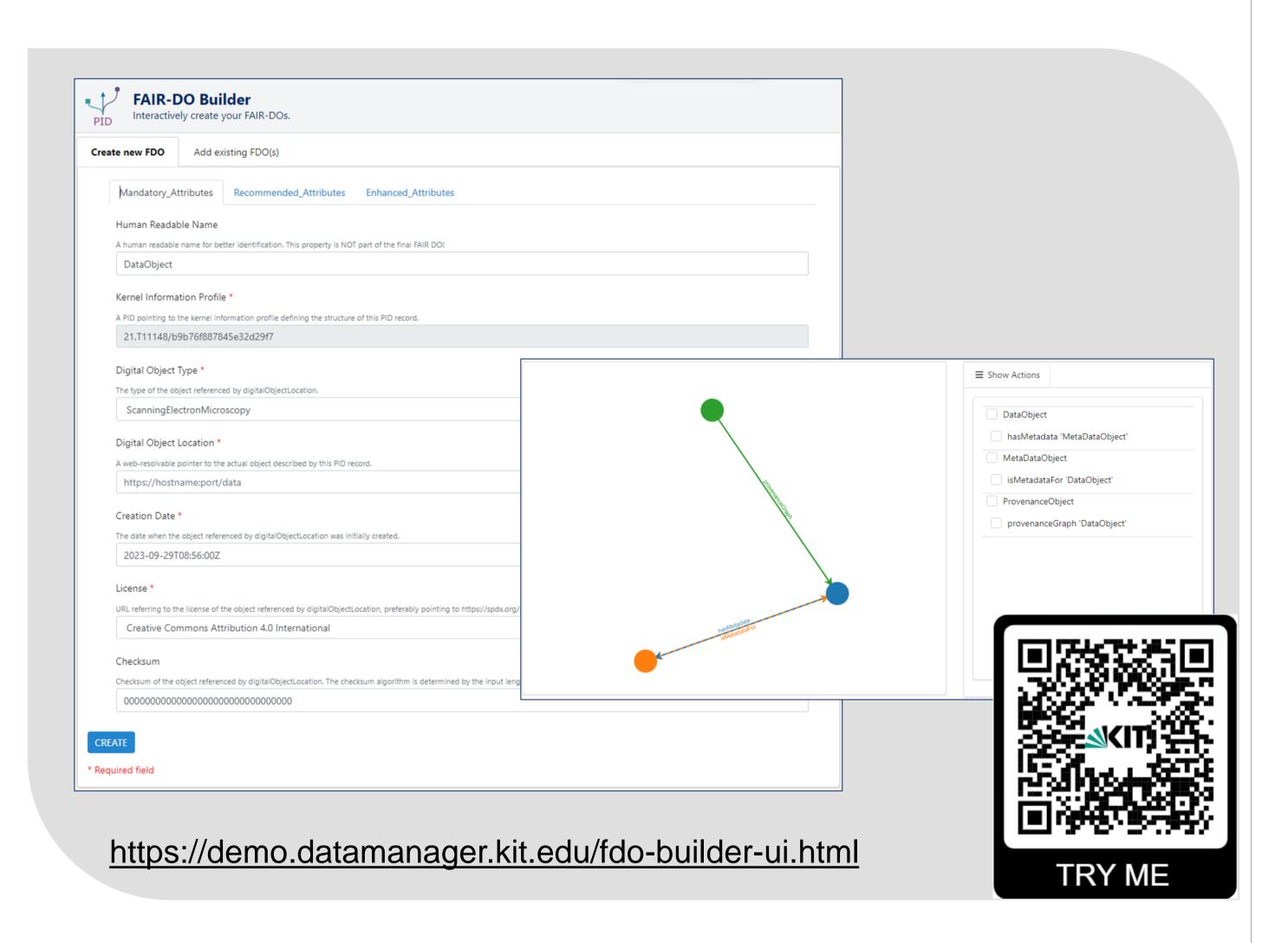
FDOs offer two main advantages: 1) the focus of FDOs is on machine-readability, which ensures an easy evaluation of information represented in an FDO by machines. 2) they easily allow to integrate external, machine-readable information, e.g., ORCiDs, RORs, or Webresolvable URLs, for automatic enrichment of an FDO's representation provided to a researcher.



PID-Component for integrating FDOs (and PIDs in general) seemlessly into any webpage. With countless customization options and reusable sub-components, this component is ideal to render PIDs, i.e., FDOs or ORCiDs, in a user-friendly way. It shows the potential of FDOs for carrying huge amounts of information, which can be easily obtained by machines, in a compact representation.



FDOGraph-Component for visualizing FDO graphs with different complexity. Designed for rendering complex FDO graphs, this component also supports a high degree of customization and allows to visualize single FDOs and their direct relationships in a user-friendly and interactive manner.



FAIR-DO-Builder is a Web tool that allows to create single FDOs easily in a form-based way. Running on top of a Typed PID Maker instance, this tool can directly trigger the validation and creation of valid FDOs assigned with a PID. Furthermore, it allows an easy creation of relations between FDOs in a graphical way.

recognizable and their contents consumable by researchers.

All developments presented here show the potential for a user-oriented and reusable As next steps we will bring these developments to production readyness, extend them tooling on top of FDOs. An easy integration into existing Web environments makes FDOs based on user feedback, and complement them with additional components to satisfy upcoming needs towards integrating FDOs in the daily research routine.