# Interoperability Network Architecture: ATLAS Services API

The specification for the ATLAS services API is provided through so-called "Service Templates". Service templates describe a unit of semantically related agricultural or technical functions. The templates enable a service consumer to communicate with any service implementing the same template without requiring any specific code, giving the end-users the choice to pick the service that best meets their specific needs and budget.

The specification for the service templates is done using OpenAPI. It describes the endpoints provided by the services. In detail, the specification provides information on which are the mandatory endpoints, which are the optional endpoints, the input parameters that an endpoint expects and the response schemas. The schemas are also provided with examples helping the developers of a service to get a better idea on the data model that will be present in both the request and the response.
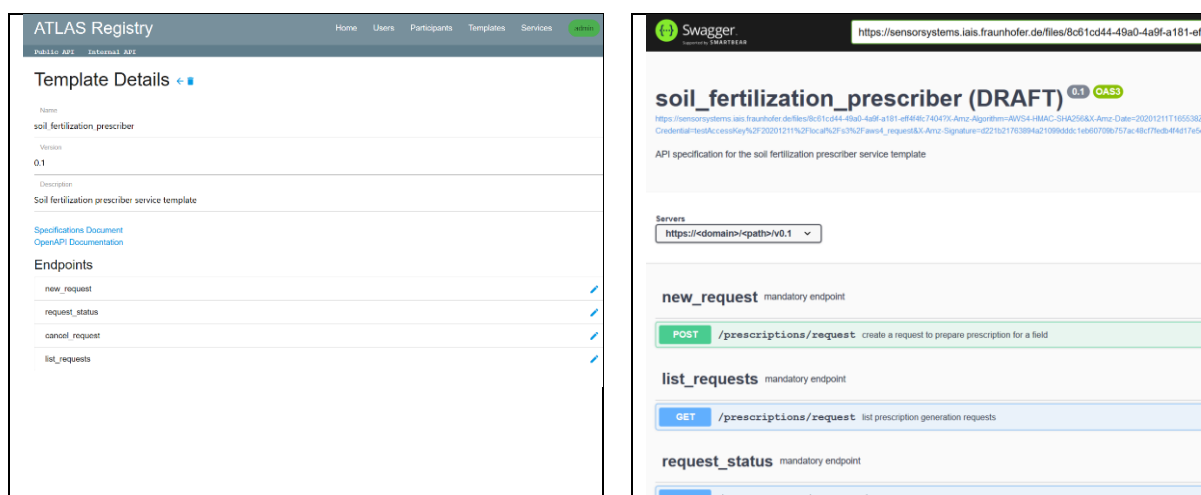


Figure 1: web-interface of the ALAS registry showing information for a service template (left). OpenAPI specification of the selected template in the Swagger editor (right).

In addition to the OpenAPI specification, there is also a detailed human-readable documentation provided for all the service templates which are provided in the ATLAS Registry. All service template specifications and the corresponding documentation are uploaded to the ATLAS registry and are made available to other participants who wish to either provide or consume an ATLAS service. The ATLAS registry is currently under development and expected to be released to the public in the first quarter of 2021. Currently the first versions of the service templates for a crop monitoring service, field data service, soil fertilization prescriber service, field fertilization application service have been created. The development of the service templates for a livestock monitoring service is currently ongoing.