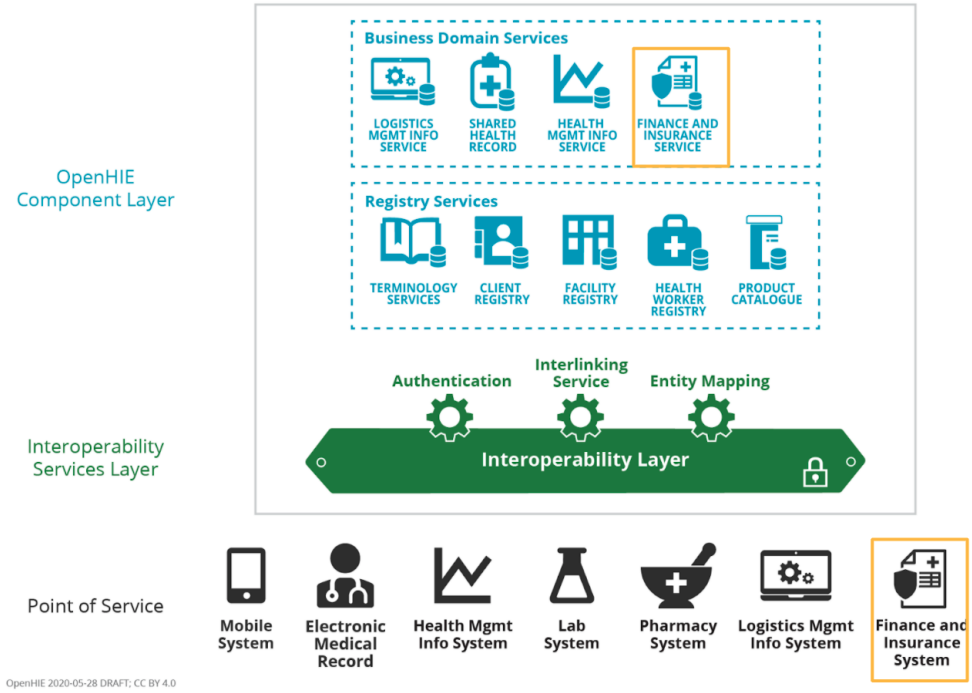
Integrating health financing into the OpenHIE Landscape

In the light of the new global paradigm of universal health coverage (UHC), the issue around the financing of health care services is receiving new and strong recognition by international partners and national governments. The early development and adoption of integrated digital tools plays a crucial role in a successful implementation of UHC strategies. The openIMIS Initiative was set up as a joint initiative by the Swiss and the German Development Cooperations to establish a community of users and developers around an Open Source software for the management of health financing schemes (openIMIS) and to provide for a seamless integration into the activities of related communities from the global digital health ecosystem such as the Open Health Information Exchange (OpenHIE) community. Currently being used to manage a variety of health insurance schemes in Nepal, Tanzania, Cameroon, Chad, and DRC, openIMIS offers seamless connections between beneficiaries, health service providers, and payers.

See the openIMIS Workflows slide deck for an overview of this content, outlining ideas and propositions for how openIMIS can be leveraged as a potential OpenHIE health financing reference technology, along with sample draft workflows relevant to health financing.

Proposed Function of health financing in OpenHIE Architecture

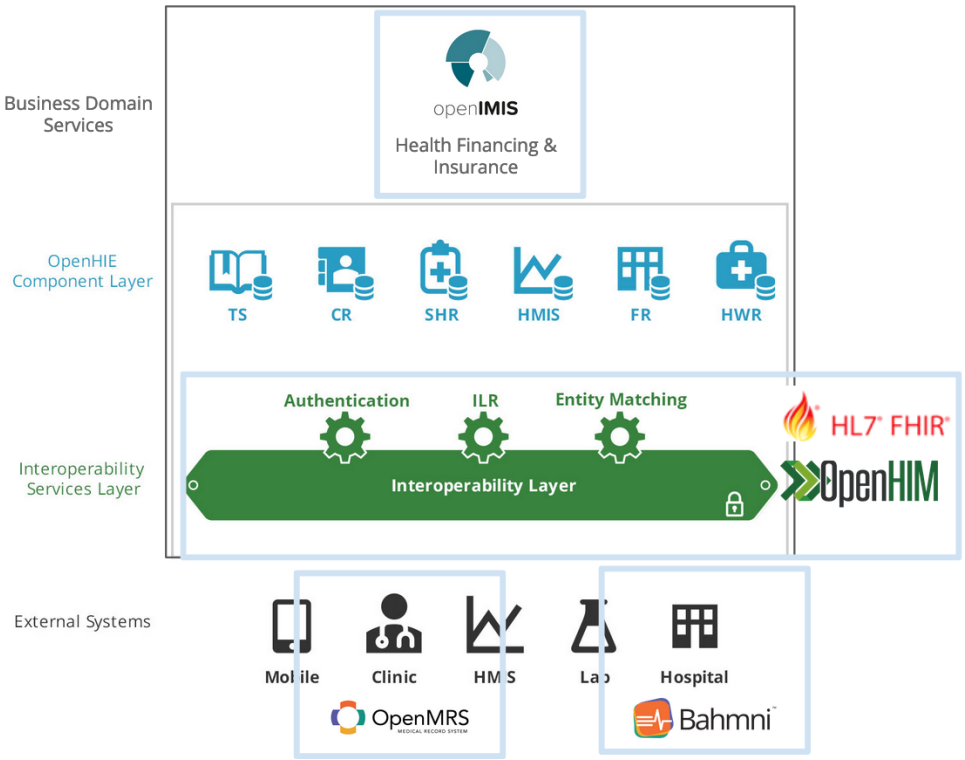
As part of the overall software development investments into the openIMIS technology stack, global good developers were invited to propose development projects that would introduce openIMIS interoperability with other global goods from the OpenHIE architecture. In a co-creation process that was managed by the Digital Square platform, three proposals were selected and funded to develop an integration of openIMIS with DHIS2, OpenMRS and Bahmni on the basis of the HL7 FHIR interoperability standard. The three teams were integrated into the openIMIS developers committee to enable a seamless integration into the openIMIS roadmap and release cycle. In addition, the openIMIS community has been working with the OpenHIE community to ensure that data exchange processes and requirements meet the needs of healthcare financing communities, and to develop and adapt OpenHIE workflows to incorporate health finance data sharing use cases and country needs. The figure below illustrates the anticipated role of openIMIS as it is integrated into the OpenHIE landscape, supporting *health financing and insurance* business domain services within a health information exchange (HIE).



Health Financing Interoperability Use Cases

openIMIS now possesses a set of HL7 FHIR compatible APIs that allow the exchange of patient and claim data with other information systems in the health sector. Countries and organisations that have adopted an eHealth strategy based on HL7 FHIR are able to implement more efficient digital workflows to strengthen their road to UHC. The standards-based approach also opens up opportunities for supporting a range of HIE workflows and interacting with other HIE components and registries (e.g. Shared Health Record, Client Registry, Facility Registry, Product Registry, Terminology Services), as well as a move towards openIMIS in the role of a *health financing for UHC* OpenHIE reference technology.

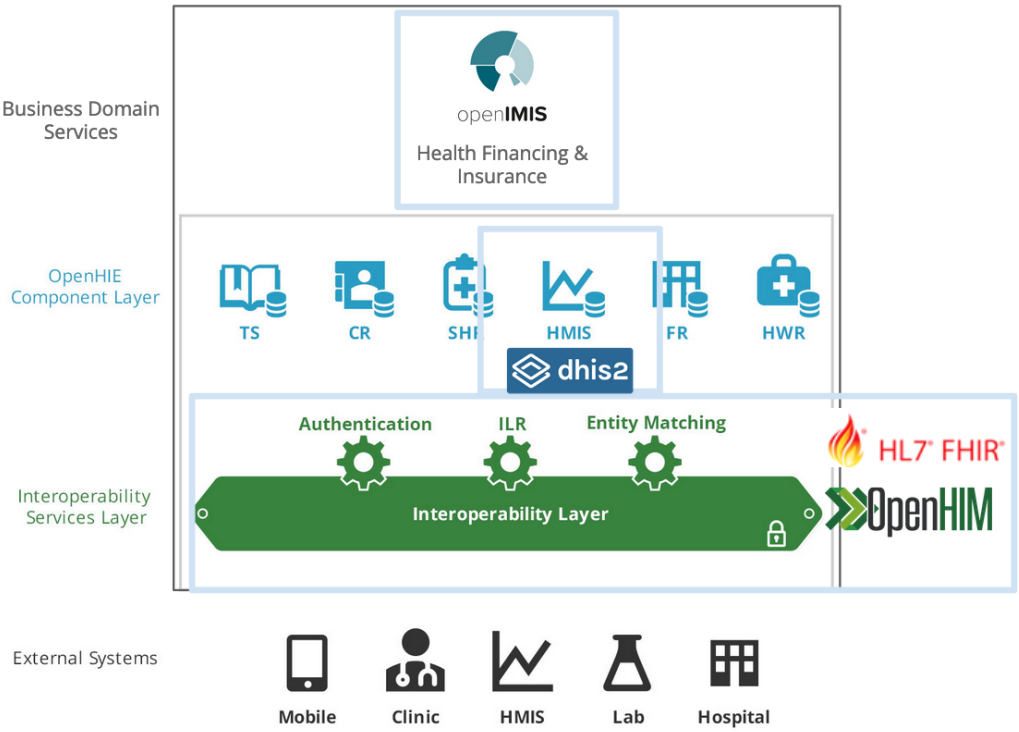
Bahmni and OpenMRS

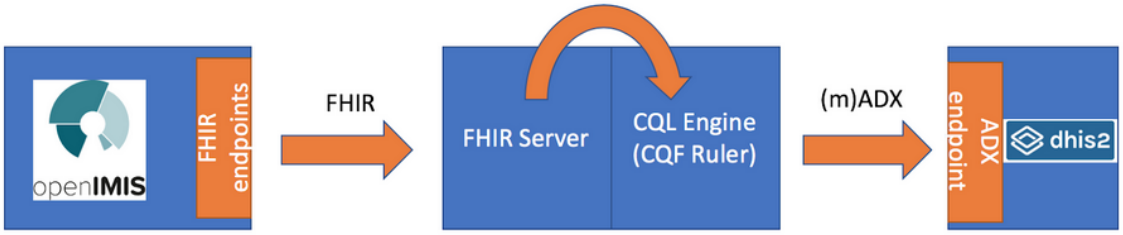


Workflows:

- **Beneficiary enrollment**
  - Check enrollment status
  - Enrol beneficiary
- **Claim submission**
  - Check beneficiary validity
  - Check beneficiary balance/treatment options
  - Preauthorization of claim
  - Track status of claim
  - Submit claim

DHIS2





- **ADX indicator reporting from openIMIS to DHIS2**
- **Patient Level indicator reporting & ADX on FHIR**
  - IHE updating ADX to support FHIR terminology services for management of disaggreators
  - Use of Clinical Quality Language (CQL)