

Table 1

Semantic Area Model Requirements	LinkEHR +SIAM Data Dictionary Plus	11179 Data Dictionary	Comments
CEN/ISO Standards Based	+	+	
Document structure using sub- and superordinate Nodes	+	+	
Allow optionallity in the structure	+	-	Data Dictionaries define the semantics aspects but not the structure
Allow for optionality for data Types	+	-	Data Dictionaries define the semantics aspects but not the structure
Allow the expression of alternative data types concepts	+	-	Alternative nodes and data types e.g. Enter a code or text or units as mM/l or mM/ml or gr/l
Document structure by means of occurrences	+	-	Data Dictionaries define the semantics aspects but not the structure
Allow to apply constraints to numbers in Leaf Nodes	+	-	There is no checking on value ranges
Document structure by means of cardinailties	+	+	
Attach an unlimited number of codes from all possible coding systems to each node	+	+	
Allow Nodes to have any name in any language	+	+	
Allow Leaf Nodes to be attached to one or more Data Types	+	+	
Allow the expression of Units of Measurement at Leaf Nodes	+	+	
Allow at Leaf Nodes any (Set of) codes from any coding system	+	+	
Allow at Leaf Nodes the attachment of any term list	+	+	
Allow internal checking of consistency	+/ \pm	+	13606 Archetypes are produced using a fixed SIAMM pattern. This enforces consistency
Present data in standardised tree, graphical, matrix, and proven technical IT-exchange formats that can be used by the healthcare domain and IT-domain	+	+	Since Archetype define structure and carry semantics archetypes (templates that express data sets) can be used to transform proprietary formats to the standardised format and vice versa. Data dictionaries only transform the semantics and not the structure completely.
CONCLUSIONS	Structure plus semantics	Semantics	