< provides a list of synthetic and clear information and recommendations>

1. **FAIRness** is a **goal** not a status, therefore a **continuous improvement incremental approach** should be followed.
   1. Do not pretend to implement everything since the beginning.
      1. either in term of principles to be realized
      2. either in term of maturity level
      3. either in term of communities coverage. For example a solution applicable within a well-defined community, may not fit for purpose for a wider target (e.g. global search)
   2. You need to be able to know where you are ("as is" assessment) and what do you want to achieve.
   3. Measurements, and then RDA indicators, are essential for evaluating achieved improvements.
   4. <…>
2. The **HL7 FHIR** standard is a widely recognized and used standard in the health space providing **value** in the **implementation** of **FAIR health data and services**
   1. Even if HL7 FHIR can provide support to data FAIRification, implementing HL7 FHIR is not a sufficient requirement for being FAIR. This guides provides suggestions on how to use FHIR to improve FAIRness.
   2. The HL7 FHIR standard provides its highest value in realizing **Interoperability** and Reusability principles. Hybrid solutions, i.e by using combined FHIR and non-FHIR technologies, can be used to realize the other FAIR principles.
   3. This would not exclude the possibility to realize also Findability and Accessibility principles  by using FHIR. However, a cost benefit evaluation, that should consider also the level of adoption by that community, should be accomplished.
3. As for the FAIR principle in general, also the FHIR implementation of the FAIR principles should follow an **incremental approach.**
   1. in this sense, depending on the usage context, including the standards adopted by the community, the cost-effectiveness evaluation and the community goals, an architectural migration path with a consistent set of intermediate objectives should be defined. Objectives might be related to:
      1. a set of RDA indicators to be realized.<add example>
      2. their realization maturity levels. <add example>
      3. the HL7 FHIR implementation. <add example>
4. FAIR / FHIR by design (future shape of success): hard to make data FAIR when data are poor (even if potentially findable and accessible...) or not designed for that.
   1. converting data in FHIR may be complex or not sufficient if data have not been designed since the beginning for that purpose
   2. the specification/adoption of FHIR profiles against which to assess the data content may help on this;
   3. the availability of natively conformant FHIR data is an added value

**there is a very minimal set of indicators to be always realized:** **essential as minimal set**  
  
  
Information on data provenance and licence could be included in the metadata with a clear header rather than in comment.

### Findability

Findability covers a wide range of different expectations and users: not of all of them are supposed to be realized by using HL7 FHIR based technologies. For example, a human being makes a web searches to find generically available data about COVID; a researcher knows that the XYZ repository makes available Traumatic Brain Injury Research data and cosnlut that site to search data set with specific characteristics.

Consider a **multi-layered** and **hybrid approach**: that is combination of FHIR and non-FHIR based technologies, enabling computable and human findability. For example, <….>  
If a search mechanism is adopted and accepted solution this will be used even not FHIR ( as google style web search).

Describe how to handle allow the search when data are no longer available.  
Cases where you cannot get data (e.g. for privacy reason) proprietary patient data (but a summary or a description of the data can be available). Machine can work  
FAIR is 90% metadata  
Depending on the access right FHIR server can return only partial information

### Accessibility

<…>

### Interoperability

For subject level data objects reuse where applicable existing FHIR implementation guides

### Reusability

FAIR Implementation Profile enable to compare the way a community implement FAIR (evaluate if  
One of the community standards mentioned could be FHIR

A clear licence and consent is important for reusability    
<…>