Id	Property	Description
1	Identifier	The DOI to be registered. With RADAR, this cannot be determined before creating the archive, it is therefore skipped for the local creation of the BagPack.
2	Creator	The list of researchers and developers involved in the creation of openCARP. For each person, properties 2.1-2.5 are collected.
2.1	creatorName	Full name of the creator.
2.2	givenName	Given name of the creator.
2.3	familyName	Family name of the creator.
2.4	nameIdentifier	ORCID iD of the creator.
2.4.a	nameIdentifierScheme	The scheme of identifier for 2.4: `ORCID`.
2.4.b	schemeURI	The URI of the scheme for 2.4: http://orcid.org.
2.5	affiliation	The affiliation(s) of the creator.
2.5.a	affiliationIdentifier	The ROR of the affiliation.
2.5.b	affiliationIdentifierScheme	The scheme of identifier for 2.5: `ROR`.
2.5.c	SchemeURI	The URI of the scheme for 2.5: http://ror.org.
3	Title	The name or title by which the resource is known: openCARP. As the alternative title: Cardiac Electrophysiology Simulator
3.a	titleType	Only used for the alternative title: `AlternativeTitle`
4	Publisher	The institution responsible for the publication of the resource: `Karlsruhe Institute of Technology (KIT)`.
5	PublicationYear	The year of the particular release.
6	Subject	The list of subjects for openCARP, taken from the Library of Congress Subject Headings.
6.b	schemeURI	The URL for the Library of Congress Subject Headings: http://id.loc.gov/authorities/subjects.
6.c	valueURI	The URL for the particular subject, e.g. http://id.loc.gov/authorities/subjects/sh85082124.
7	Contributor	The list of persons and institutions involved in the publication and archival of openCARP. For each person/entity, properties 7.1-7.5 are collected.
7.a	contributorType	Type of contributor from the DataCite controlled vocabulary, e.g. `DataCurator`, `HostingInstitution`.

Id	Property	Description
7.1	contributorName	Full name of the contributor.
7.2	givenName	Given name of the contributor.
7.3	familyName	Family name of the contributor.
7.4	nameIdentifier	ORCID iD of the contributor.
7.4.a	nameIdentifierScheme	The scheme of identifier for 7.4: `ORCID`.
7.4.b	schemeURI	The URI of the scheme for 7.4: http://orcid.org.
7.5	affiliation	The affiliation(s) of the contributor.
7.5.a	affiliationIdentifier	The ROR of the affiliation.
7.5.b	affiliationIdentifierScheme	The scheme of identifier for 7.5: `ROR`.
7.5.c	SchemeURI	The URI of the scheme for 7.5: http://ror.org.
8	Date	Important dates for the resource, for openCARP we use `Created` for the date of the release and `Issued` for the date of the upload in the archive.
8.a	dateType	The type of date from the DataCite vocabulary: `Created` or `Issued`.
9	Language	Language of the resource: `en-US` for American English.
10	ResourceType	The type of resource: `Simulation code`.
10.a	resourceTypeGeneral	The general type of resource from the DataCite vocabulary: `Software`.
11	AlternateIdentifier	The list of altenative identifiers for the resource. We only give the link to the release page in the openCARP GitLab repository: https://git.openCARP.org/openCARP/openCARP/-/releases.
11.a	alternateIdentifierType	The type of identifier for 11: `URL`.
12	RelatedIdentifier	The list of related identifiers for the resource. We use `IsNewVersionOf` to link back to an older release of openCARP and `IsVersionOf` to link to a concept DOI for openCARP.
12.a	relatedIdentifierType	The type of identifier for 12: `DOI`.
12.b	relationType	The type of relation for 12: `IsNewVersionOf` and `IsVersionOf`.
15	Version	The version of the openCARP release, identical to the tag in the software repository.
16	Rights	The licence for openCARP: "ACADEMIC PUBLIC LICENSE (openCARP, v1.0)"
16.a	rightsURI	The URL where the licence can be found: https://openCARP.org/download/license

Id	Property	Description
17	Description	A short description of openCARP.
17.a	descriptionType	The type of the description for 17: Abstract
19	FundingReference	A list containing references about funding.
19.1	funderName	Name of the funder.
19.2	funderIdentifier	ROR of the funder.
19.2.a	funderIdentifierType	The type of identifier for 19.2: `ROR`.
19.2.b	SchemeURI	The URI of the scheme for 19.2: https://ror.org.
19.3	awardNumber	The identifier for the funding grant/award assigned by the funder.
19.3.a	awardURI	URL for more information about the funding grant/award.
19.4	awardTitle	Title for the funding grant/award.

Table 1: Adoption of the DataCite 4.3 schema for openCARP. DataCite properties not suitable for openCARP are omitted from the table.

```
1   title: openCARP
2   additional_titles:
3   − additional_title: Cardiac Electrophysiology Simulator
4     additional_title_type: AlternativeTitle
5   keywords:
6   − cardiac electrophysiology
7   − simulation software
8   − in−silico medicine
9   − bidomain theory
10  − computational cardiology
11  publisher: Karlsruhe Institute of Technology (KIT)
12  descriptions:
13  − description: openCARP is an open cardiac electrophysiology simulator
        for in−silico experiments.
14    description_type: Abstract
15  subjects:
16  − subject: Mathematical models
17    value_uri: http://id.loc.gov/authorities/subjects/sh85082124
18    scheme_uri: http://id.loc.gov/authorities/subjects
19  − subject: Computer simulation
20    value_uri: http://id.loc.gov/authorities/subjects/sh85029533
21    scheme_uri: http://id.loc.gov/authorities/subjects
22  − subject: Biomedical engineering
23    value_uri: http://id.loc.gov/authorities/subjects/sh85014237
24    scheme_uri: http://id.loc.gov/authorities/subjects
25  − subject: Cardiology
26    value_uri: http://id.loc.gov/authorities/subjects/sh85020214
27    scheme_uri: http://id.loc.gov/authorities/subjects
28  − subject: Biophysics
29    value_uri: http://id.loc.gov/authorities/subjects/sh85014253
30    scheme_uri: http://id.loc.gov/authorities/subjects
```

```
31   radar_subjects:
32   − LifeScience
33   − ComputerScience
34   − Medicine
35   resource: Simulation code
36   resource_type: Software
37   alternate_identifiers:
38   − alternate_identifier: https://openCARP.org/download/releases
39     alternate_identifier_type: URL
40   related_identifiers:
41   − relation_type: IsVersionOf
42     related_identifier:
43     related_identifier_type: DOI
44   − relation_type: IsNewVersionOf
45     related_identifier:
46     related_identifier_type: DOI
47   rights: ACADEMIC PUBLIC LICENSE (openCARP, v1.0)
48   rights_url: https://openCARP.org/download/license
49   rights_holder: NumeriCor GmbH
50   funding_references:
51   − name: Deutsche Forschungsgemeinschaft
52     ror: https://ror.org/018mejw64
53     award_number: 391128822
54     award_uri: https://gepris.dfg.de/gepris/projekt/391128822
55     award_title: "Sustainable Lifecycle Management for Scientific Software
           (SuLMaSS) − Software Dissemination and Infrastructure Development
           Driven by a Cardiac Electrophysiology Simulator"
```

Listing 1: METADATA.yml for openCARP