FRBR$_{OO}$ and Seriality

Adapted for
CIDOC CRM SIG/FRBR-CRM Harmonization WG
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FRBR and serials

FRBR and serials: Preamble

- *FRBR Final Report,* 1.3 "Areas for Further Study:"
  - "Certain aspects of the model merit more detailed examination. The identification and definition of attributes for various types of material could be extended through further review by experts and through user studies. **In particular, the notion of "seriality"** and the dynamic nature of entities recorded in digital formats **merit further analysis**."

FRBR and serials: Literature survey

- Ed Jones ("The FRBR Model as Applied to Continuing Resources," 2005)
  - FRBR Work is defined in terms of *content,* a title change does not (necessarily) affect content ➔ "abandonment of the title-based definition of [serial] *Work*"
    - [Tillett's reply, 2006: a title change does not mean that there is a new *Work,* it only affects *Manifestation*]
  - Mergers can occur at the Expression level instead of Work level
  - "Frequently revised Works" such as *The World of Learning* can be viewed either as monographs or serials
    - [Tillett's reply, 2006: no new problem]
  - A single record can describe various formats, hence more than one Manifestation
    - [Tillett's reply, 2006: FRBR does not imply that a bibliographic record should correspond to only one Manifestation]

FRBR and serials: Literature survey

- Steve Shadle ("FRBR and Serials," 2006)
  - Each of *Serial, Issue,* and *Article* are Works, each with its own Expressions and Manifestations
  - A *Serial Work* serves to collocate *Issue Works*
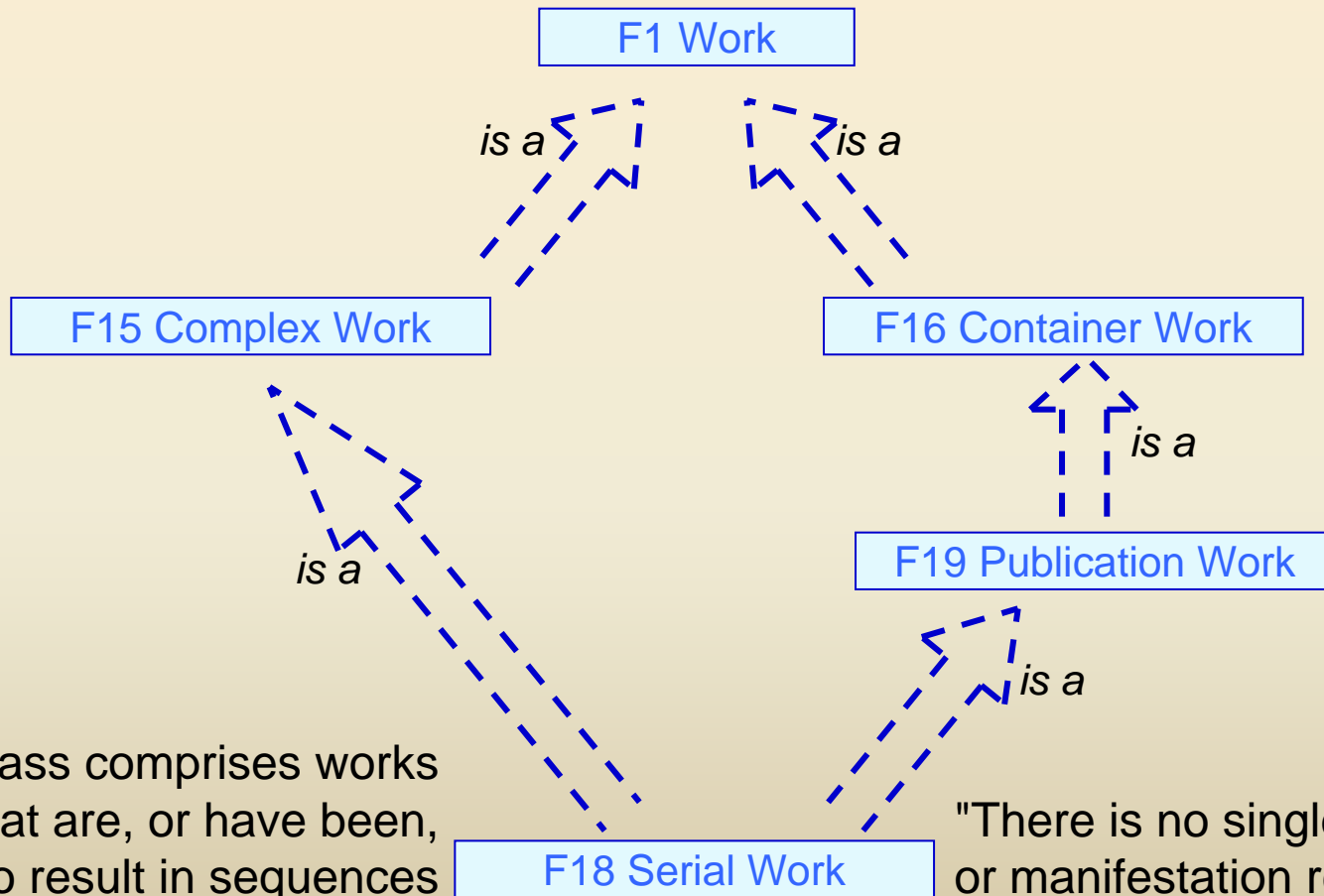
FRBR and serials: Literature survey

- Adolfo R. Tarango ("FRBR for Serials: Rounding the Square to Fit the Peg," 2008)
  - Serial Work = the historical run of a serial, <u>through its various major changes</u>, described in an authority record
  - Bibliographic records describe "<u>Work segments</u>" (blending both Expression and Manifestation levels)

FRBR$_{OO}$

How it addresses serials

Serial Works in FRBR$_{OO}$

F1 Work

is a   *is a*

F15 Complex Work   F16 Container Work
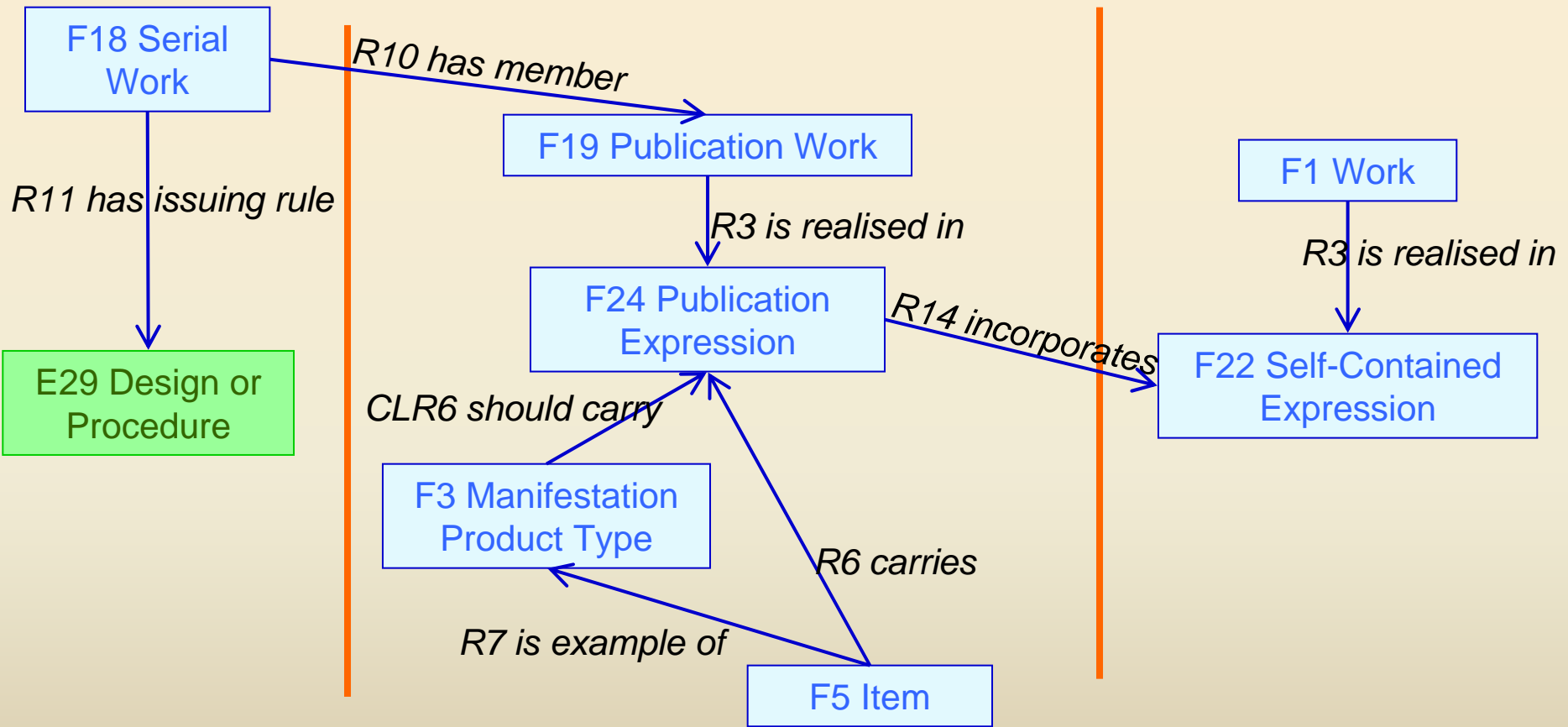
is a

F19 Publication Work

is a

is a

F18 Serial Work

"This class comprises works that are, or have been, planned to result in sequences of manifestations with common features."

"There is no single expression or manifestation representing a complete serial work, unless the serial work is dead."

Periodical / Issue / Article

F18 Serial Work

R10 has member

F19 Publication Work

R11 has issuing rule

R3 is realised in

E29 Design or Procedure

F24 Publication Expression

R14 incorporates

F1 Work

R3 is realised in

F22 Self-Contained Expression

CLR6 should carry

F3 Manifestation Product Type

R6 carries

R7 is example of

F5 Item

Periodical

Issue

Article

F18 Serial Work

- An instance of F18 Serial Work is the sum of concepts that defines a continuing resource
- As an instance of a subclass of F15 Complex Work, it has other works as its members
  - Each individual issue is an instance of F19 Publication Work and a member of the instance of F18 Serial Work (cf. Steve Shadle)
  - It can have other instances of F18 Serial Work as its members; e.g., a major title-change can be said to result in a new instance of F18 Serial Work, and all related instances of F18 Serial Work resulting from major title changes can be said to be members of a single umbrella instance of F18 Serial Work (cf. Adolfo R. Tarango)
- As an instance of a subclass of F1 Work, it can also be a member of an instance of F15 Complex Work
  - The reprint of all issues of a serial as a monograph is not a serial; but the serial and the monograph can be said to be members of the same instance of F15 Complex Work
- It follows issuing rules, i.e. an instance of E29 Design or Procedure (which involves: regularity of issue, frequency of issue, numbering; and might also involve: language)
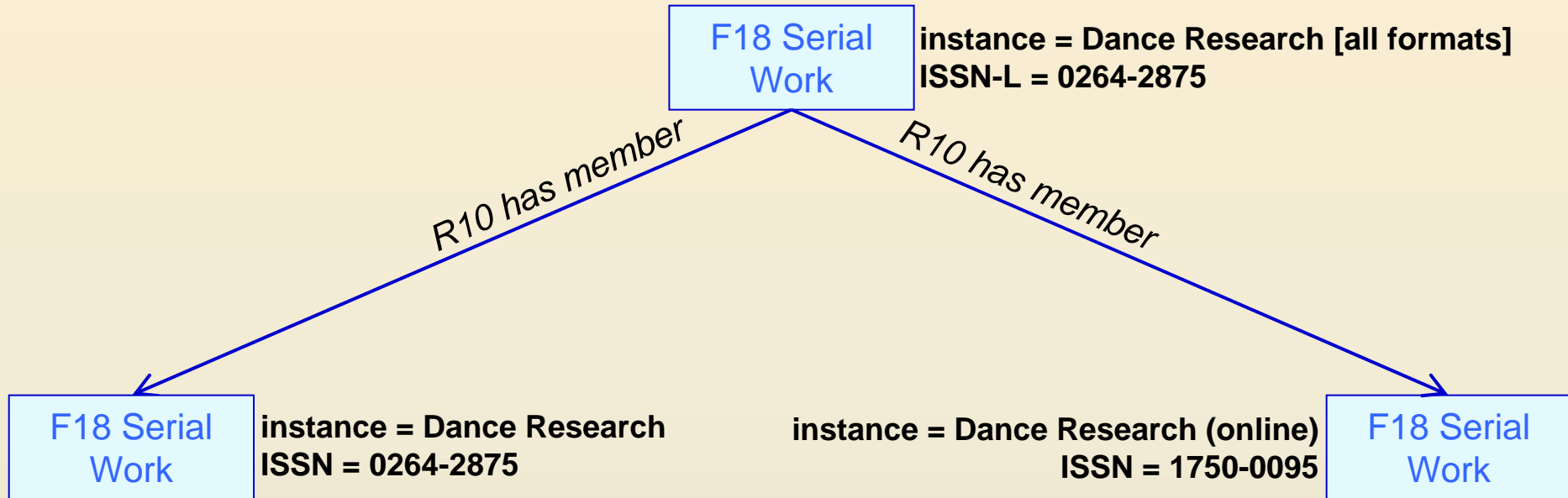
Paradigm shift

- With FRBR$_{OO}$, the issue is no longer:
  - "Is this a new Expression of the same Work, or a new Work?"
- but:
  - "Can (should) these two Works be gathered (collocated) as members of the same Complex Work?"
- (much more flexible!)
- ISSN-L can be said to identify an instance of F18 Serial Work that has other instances of F18 Serial Work as its members

Paradigm shift

- Local editions of continuing resources are no longer treated as "Expressions" (as in $FRBR_{ER}$), but as "Works" in their own right, which are members of a common "Serial Work"
  - ➔ no more restrictions on attributes

FRBR$_{OO}$ and ISSN-L

F18 Serial Work

instance = Dance Research [all formats]
ISSN-L = 0264-2875

R10 has member

R10 has member

F18 Serial Work

instance = Dance Research
ISSN = 0264-2875

instance = Dance Research (online)
ISSN = 1750-0095

F18 Serial Work

PRESS$_{OO}$

What's that???

PRESS$_{OO}$…?

- 2011: BnF submitted a request for funding in response to a call for proposals issued by the French Agence Nationale de Recherche

  – objectives of submitted research project: integrate from various sources (library catalogue, digitized tables of contents of periodicals) information about periodicals and their digitisations, and publish the resulting information as linked data

- April 2012: no response so far…

PRESS$_{OO}$…?

- The project includes a modelling aspect
  - develop an ontology for press-specific information, based on FRBR$_{OO}$
- I started that development process as part of the preparation of the BnF's project submission
  - PRESS$_{OO}$ is a draft extension to FRBR$_{OO}$ for periodicals
  - If the BnF's project is accepted, PRESS$_{OO}$ will be used as a first step towards a fully developed ontology for periodicals
  - If not…

The trouble with PRESS$_{OO}$…

- It has not been intellectually validated by any Working Group

- It has no official value

- It is only available from my hard disk…

PRESS$_{OO}$

What does it add to FRBR$_{OO}$?

Limitations of FRBR$_{OO}$

- The development of FRBR$_{OO}$ was based on the attributes and relationships listed in FRBR$_{ER}$
- Important relationships among CR are not detailed in FRBR$_{ER}$
- ➔ They are not explicit in FRBR$_{OO}$ either
- ➔ The objective of PRESS$_{OO}$ is to make them explicit

Colour codes

- In the following slides:

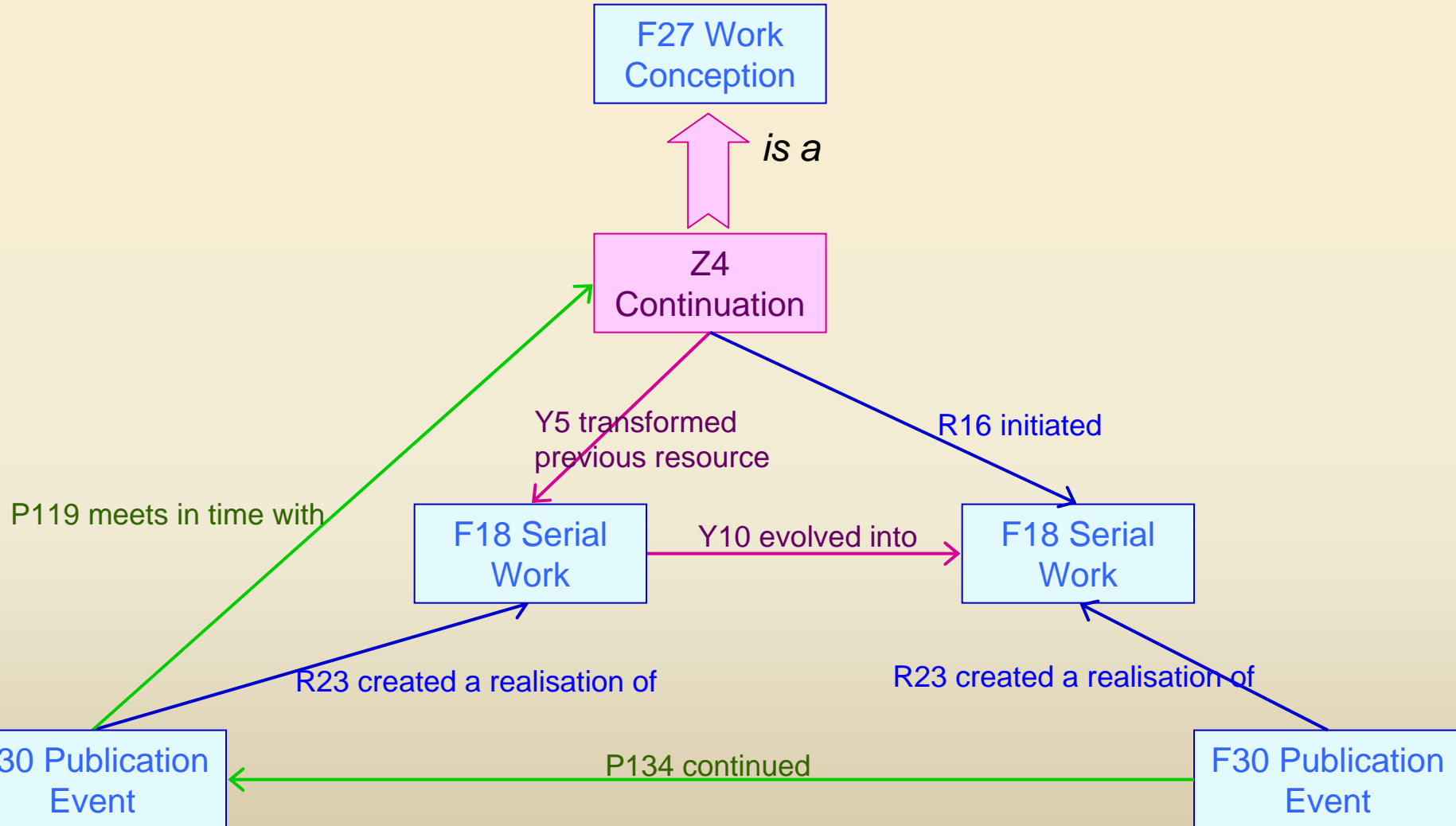|	
E… (green box)	= a class from CIDOC CRM
P… (green arrow)	= a property from CIDOC CRM
F… (blue box)	= a class from $FRBR_{OO}$
R…, CLP… or CLR… (blue arrow)	= a property from $FRBR_{OO}$
Z… (pink box)	= a class from $PRESS_{OO}$
Y… (magenta arrow)	= a property from $PRESS_{OO}$

Mergers, splits, and so on…

- Can be modelled in CIDOC CRM/FRBR$_{OO}$ as types of F27 Work Conception or E7 Activity, but this is rather cumbersome:
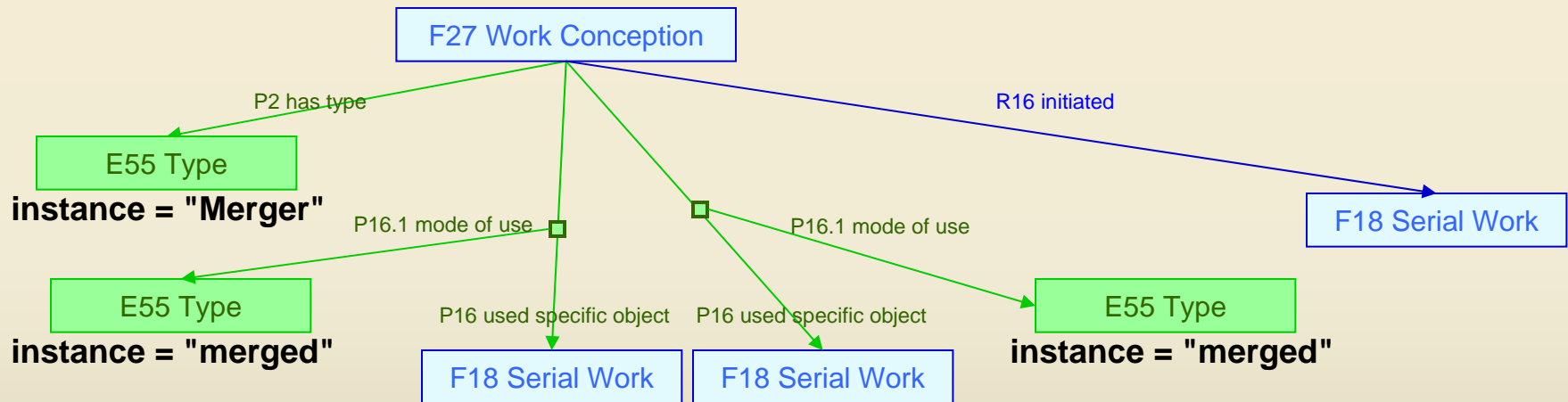
- In PRESS$_{OO}$, these activities are modelled as additional classes, with their own specific properties

PRESS$_{OO}$: continuations

F27 Work Conception

is a

Z4 Continuation

Y5 transformed previous resource

R16 initiated

P119 meets in time with

F18 Serial Work

Y10 evolved into

F18 Serial Work

R23 created a realisation of

R23 created a realisation of

F30 Publication Event

P134 continued

F30 Publication Event

PRESS$_{OO}$: absorptions

PRESS$_{OO}$: mergers

PRESS$_{OO}$: splits
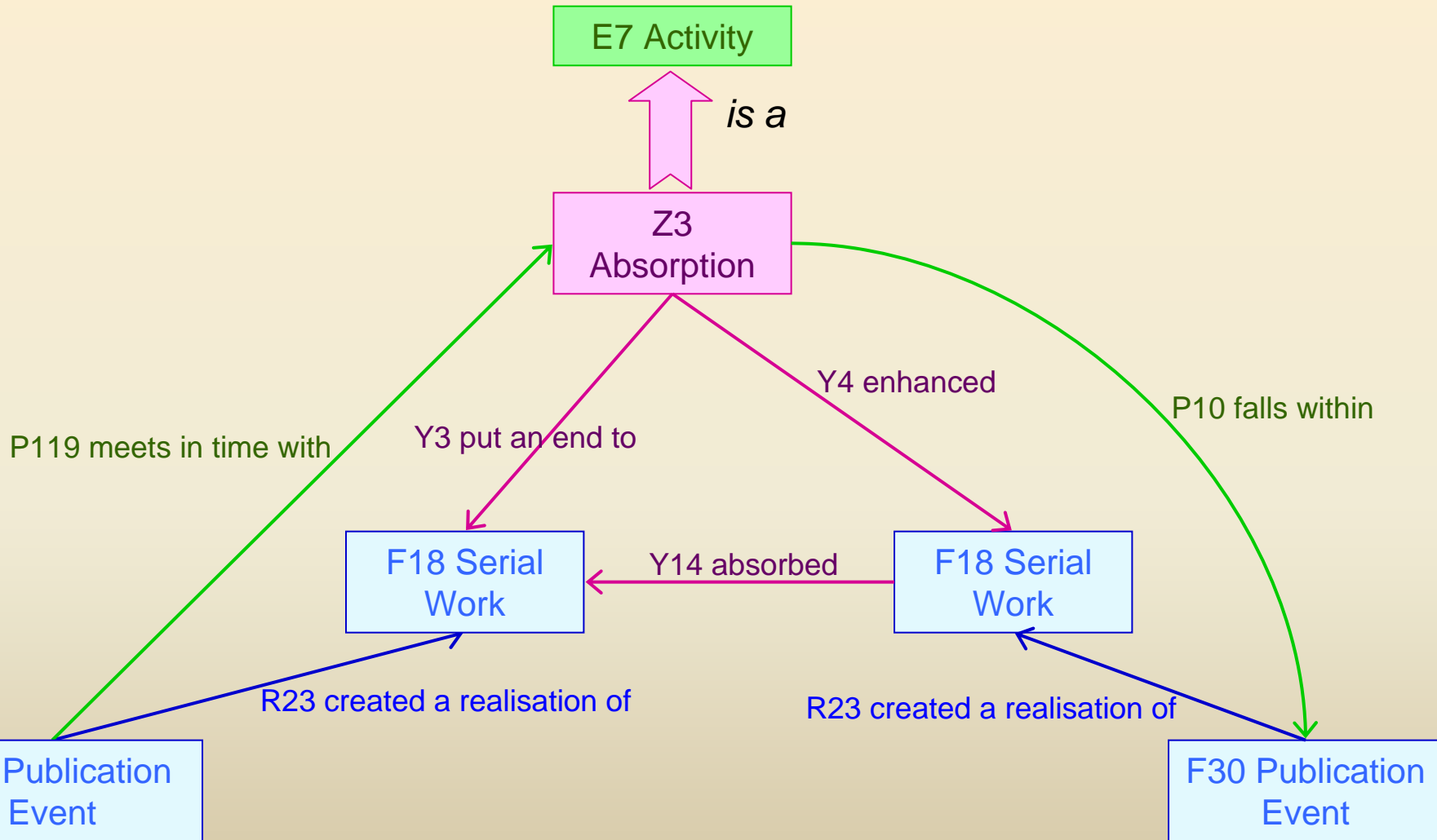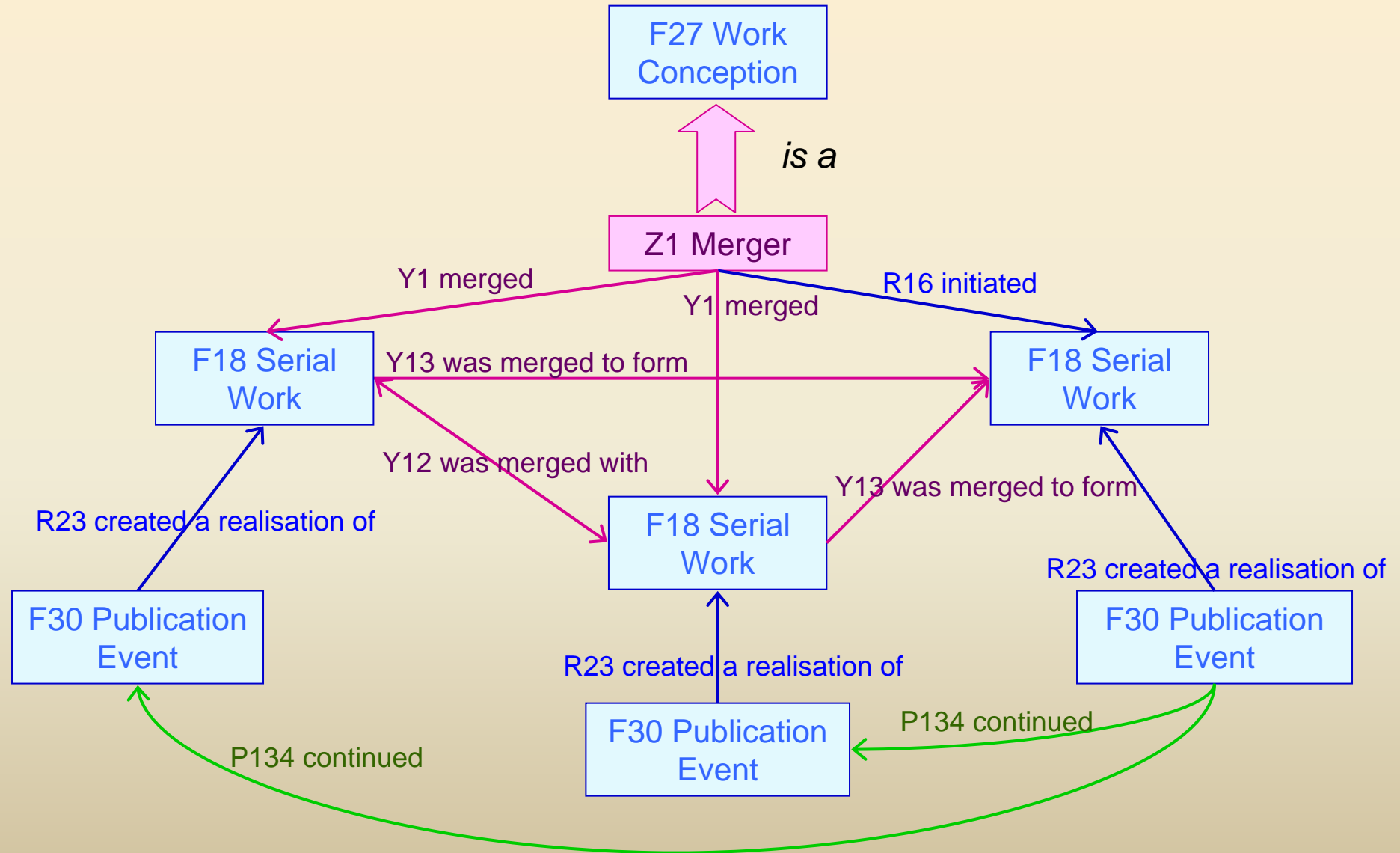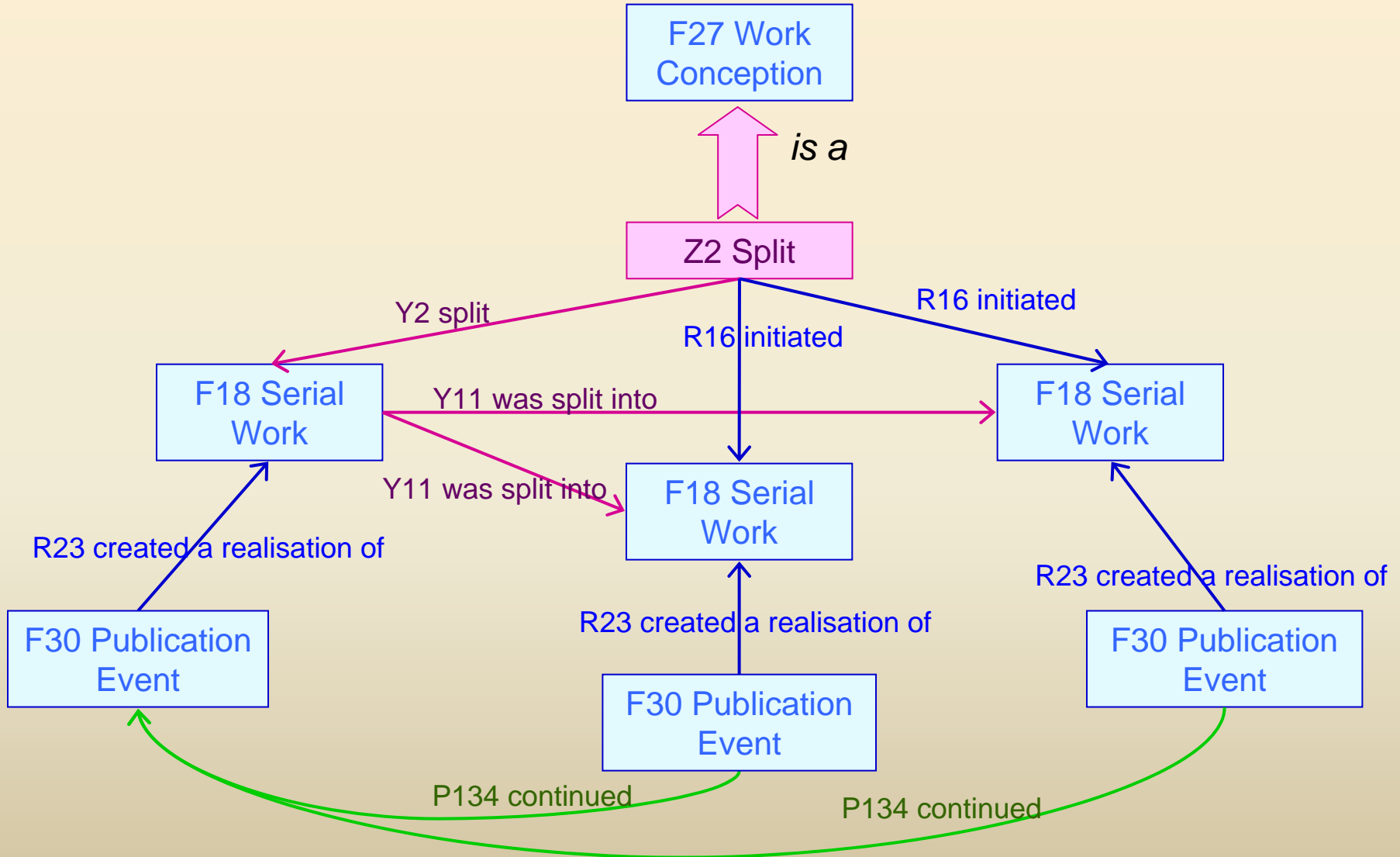
PRESS$_{OO}$: publication of a reprint of a serial as a monograph
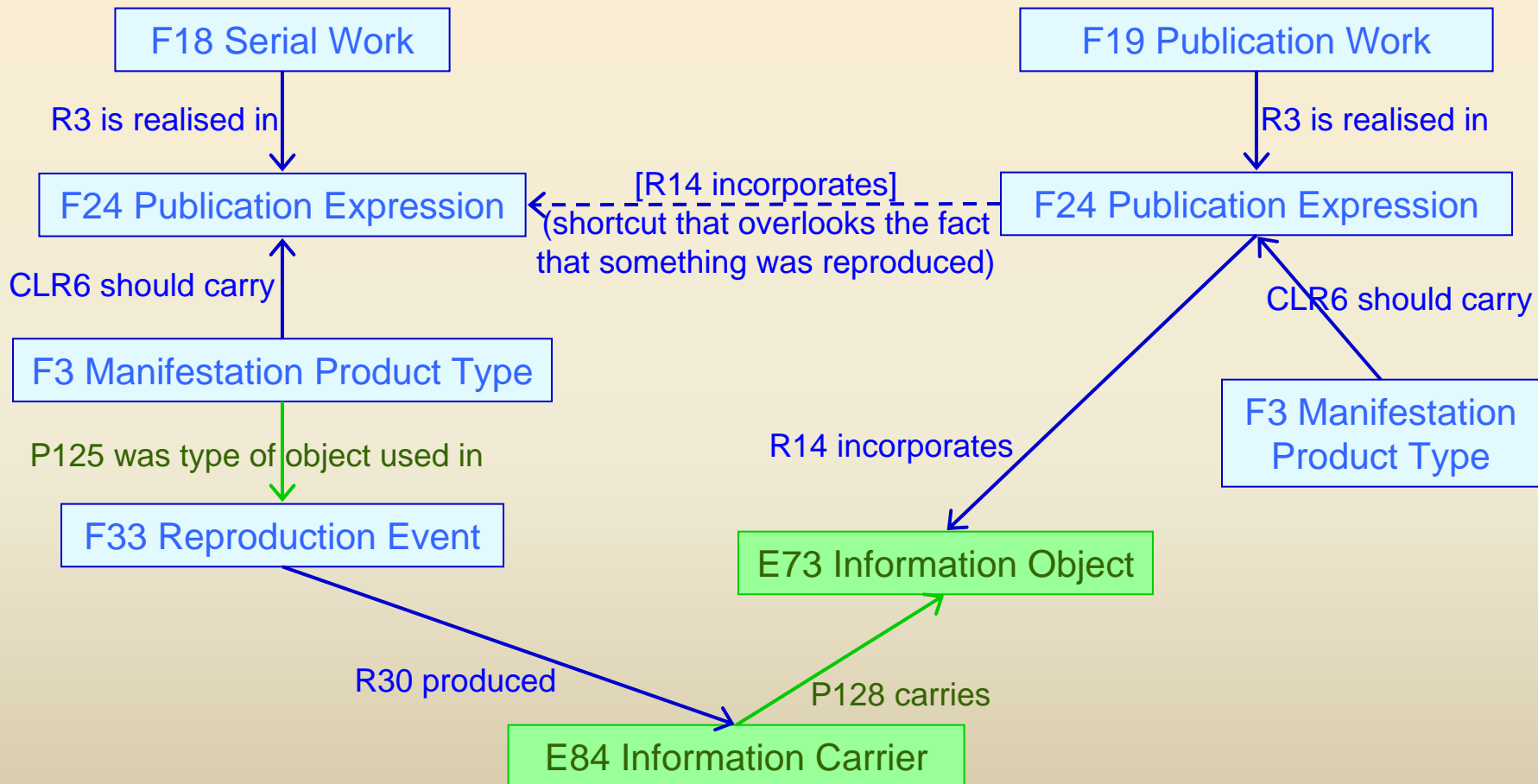
FRBR$_{OO}$/PRESS$_{OO}$ and the ISSN IC Document

(excerpts)

Issues related to the attributes of the Group 1 entities (3)

❑ In this example, if we want to use the ISSN-L as the identifier of the expression level, we should "assign" two different ISSN-L for the two expressions of "Klar tale " but it would not be consistent with the role of the ISSN-L : to group all the media versions of the same continuing resource:

Title : Klar tale
Form : Continuing resource (?)
Date : 1999-

Title : Klar tale
Form : alphanumeric notation
Language : Norvegian
Frequency: weekly
Date: 1999-
ISSN-L: XXXX-XXXX ?

Title : Klar tale
Form : spoken word
Language : Norvegian
Frequency: unknown
Date: 19uu-2004
ISSN-L: YYYY-YYYY ?

Title : Klar tale
Place Pub. : Oslo
Publish. : Klar Tale
Date: 1999-
Carrier: print
Identifier: 0804-1180
Status: current

Title : Klar tale
Place Pub. : Oslo
Publish. : Klar Tale
Date: 199u-
Carrier: online
Identifier: 1500-4104
Status: current
URL: klartale.no/

Title : Klar tale
Place Pub. : Oslo
Publish. : Klar Tale
Date: 19uu-2004
Carrier: Sound cassette
Identifier: 1504-727X
Status: dead

Klar tale

Issues related to the attributes of the Group 1 entities (5)

❑ **n° 2: s**hould we consider that frequency and regularity are attributes of the manifestation level and not attributes of the expression level (issue discussed during the Glasgow Harmonization meeting, November 2011) ?

F18 Serial Work	R11 has issuing rule →	E29 Design or Procedure

P67 refers to   P67 refers to

P67.1 has type   P67.1 has type

E55 Type	E55 Type	E55 Type	E55 Type
instance = either "regular" or "irregular"	**instance = "regularity"**	**instance = "frequency"**	**instance = "weekly" or "quarterly" etc.**
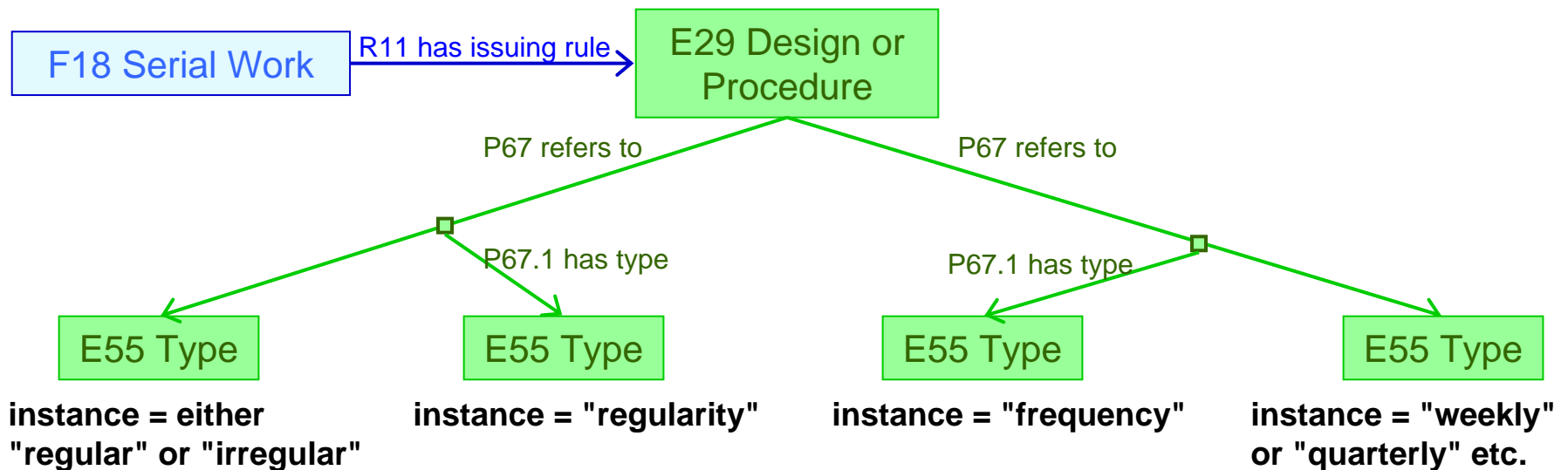
Alternative

- To declare specific properties in PRESS$_{OO}$, on the same pattern as the CIDOC CRM Property:
  E29 Design or Procedure *P68 foresees use of* E57 Material

F18 Serial Work → R11 has issuing rule → E29 Design or Procedure

Y15 foresees type of regularity

Y16 foresees type of frequency

E55 Type

E55 Type

instance = either "regular" or "irregular"

instance = "weekly" or "quarterly" etc.
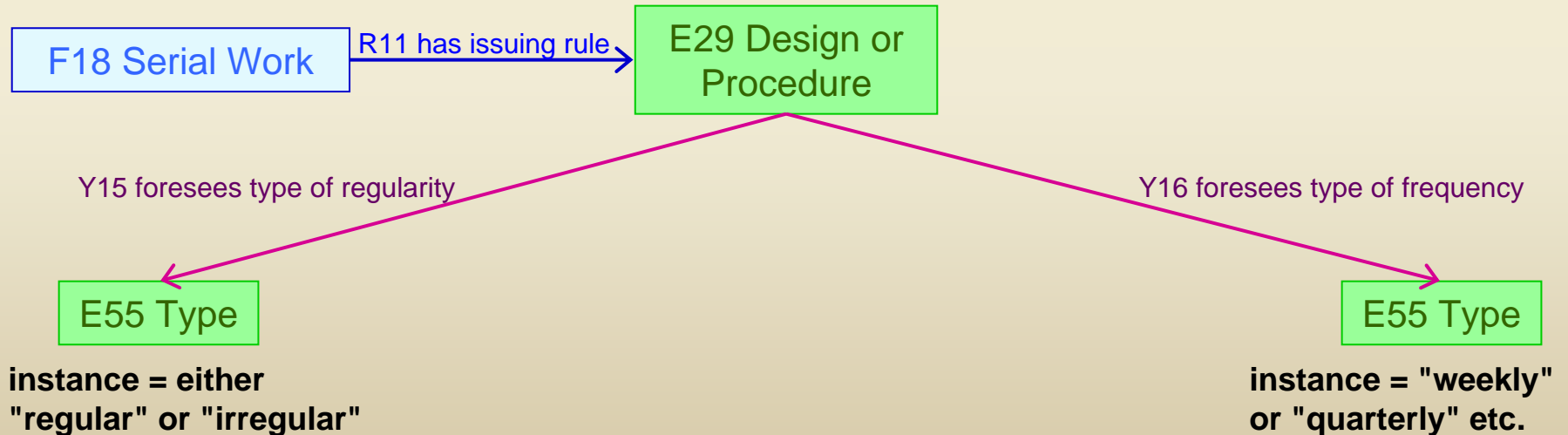
The ISSN record representing several manifestations

- Basically, an ISSN record describes one sole manifestation but it can represent other related manifestations.

  – In $FRBR_{OO}$ and $PRESS_{OO}$, ISSN records can be said to describe instances of F18 Serial Work

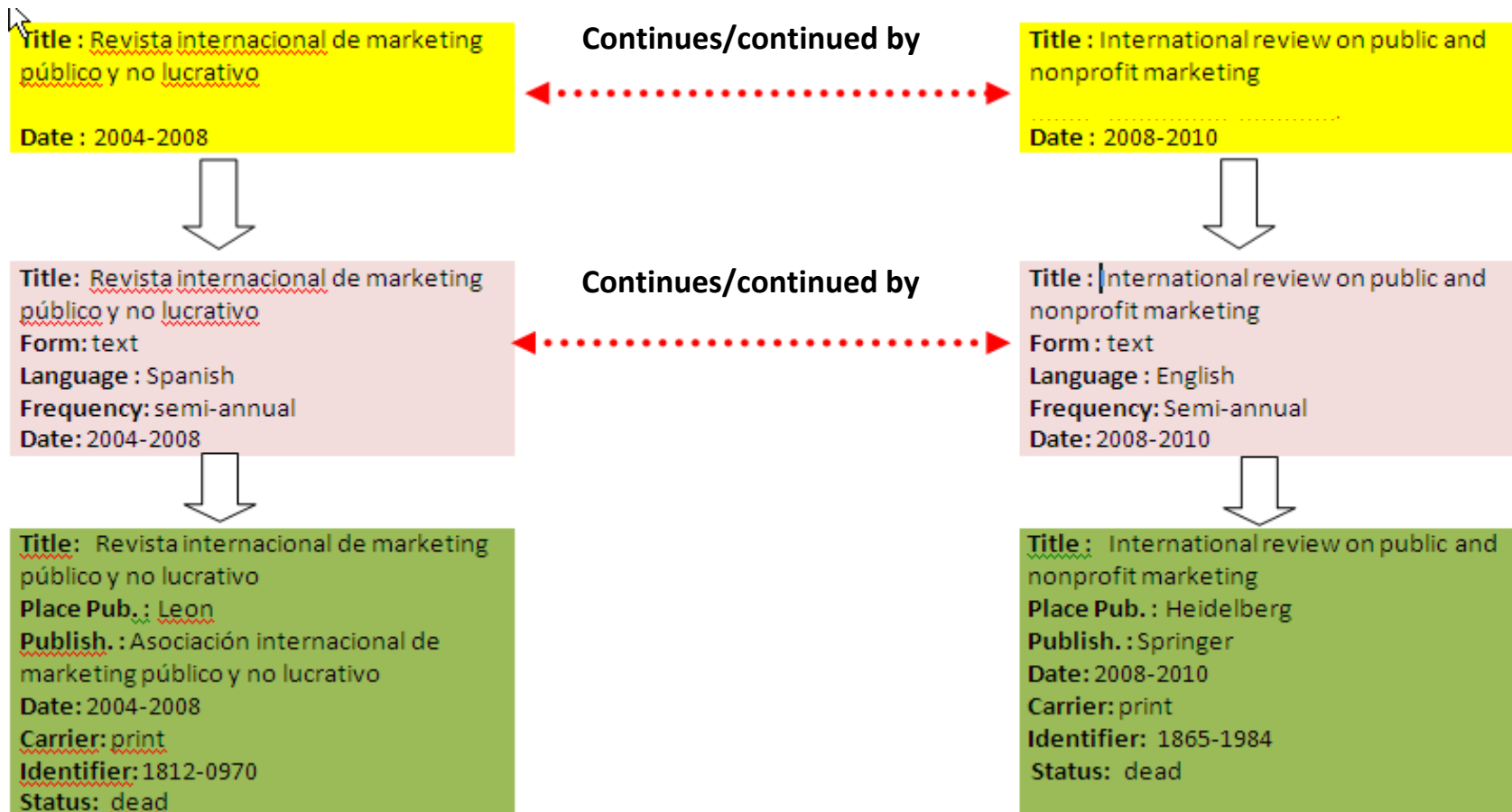- E.g: provisional rule adopted for the online resources in November 2011:

"A single ISSN is assigned to identify all "online" versions made available under the same title including: versions digitized from print, born digital versions, versions in PDF, HTML or other encoding formats, and versions for devices such as mobile phones, e-readers etc"

  – In $FRBR_{OO}$ (and $PRESS_{OO}$), digital publishing is not associated with instances of F3 Manifestation Product Type, but with one or more than one instance of E29 Design or Procedure containing instructions as to "how to download" copies of the published files

n° 7: a discussion is needed regarding this practice from the FRBR viewpoint

Difficulties in recording relationships between FRBR entities (2)

❑ **n° 8:** In the example below, should the former/successor relationship be created between the two expressions or between the two works ? FRBR states that this relation "will be most commonly stated at the expression level" but doesn't give any further information.

Title : Revista internacional de marketing público y no lucrativo

Date : 2004-2008

Continues/continued by

Title : International review on public and nonprofit marketing

Date : 2008-2010

Title: Revista internacional de marketing público y no lucrativo
Form: text
Language : Spanish
Frequency: semi-annual
Date: 2004-2008

Continues/continued by

Title : International review on public and nonprofit marketing
Form : text
Language : English
Frequency: Semi-annual
Date: 2008-2010

Title: Revista internacional de marketing público y no lucrativo
Place Pub. : Leon
Publish. : Asociación internacional de marketing público y no lucrativo
Date: 2004-2008
Carrier: print
Identifier: 1812-0970
Status: dead

Title : International review on public and nonprofit marketing
Place Pub. : Heidelberg
Publish. : Springer
Date: 2008-2010
Carrier: print
Identifier: 1865-1984
Status: dead

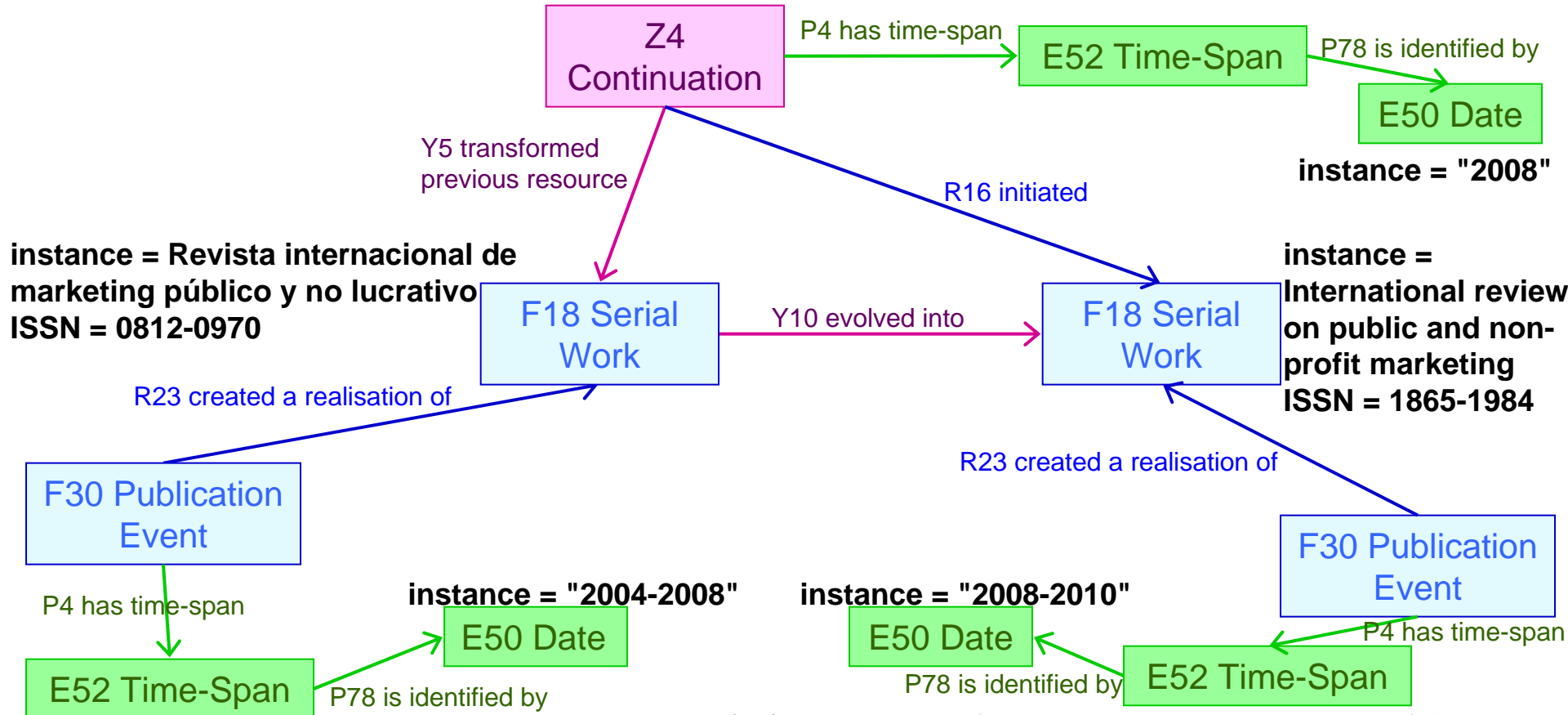# Difficulties in recording relationships between FRBR entities (2)

❑ **n° 8:** In the example below, should the former/successor relationship be created between the two expressions or between the two works ? FRBR states that this relation "will be most commonly stated at the expression level" but doesn't give any further information.
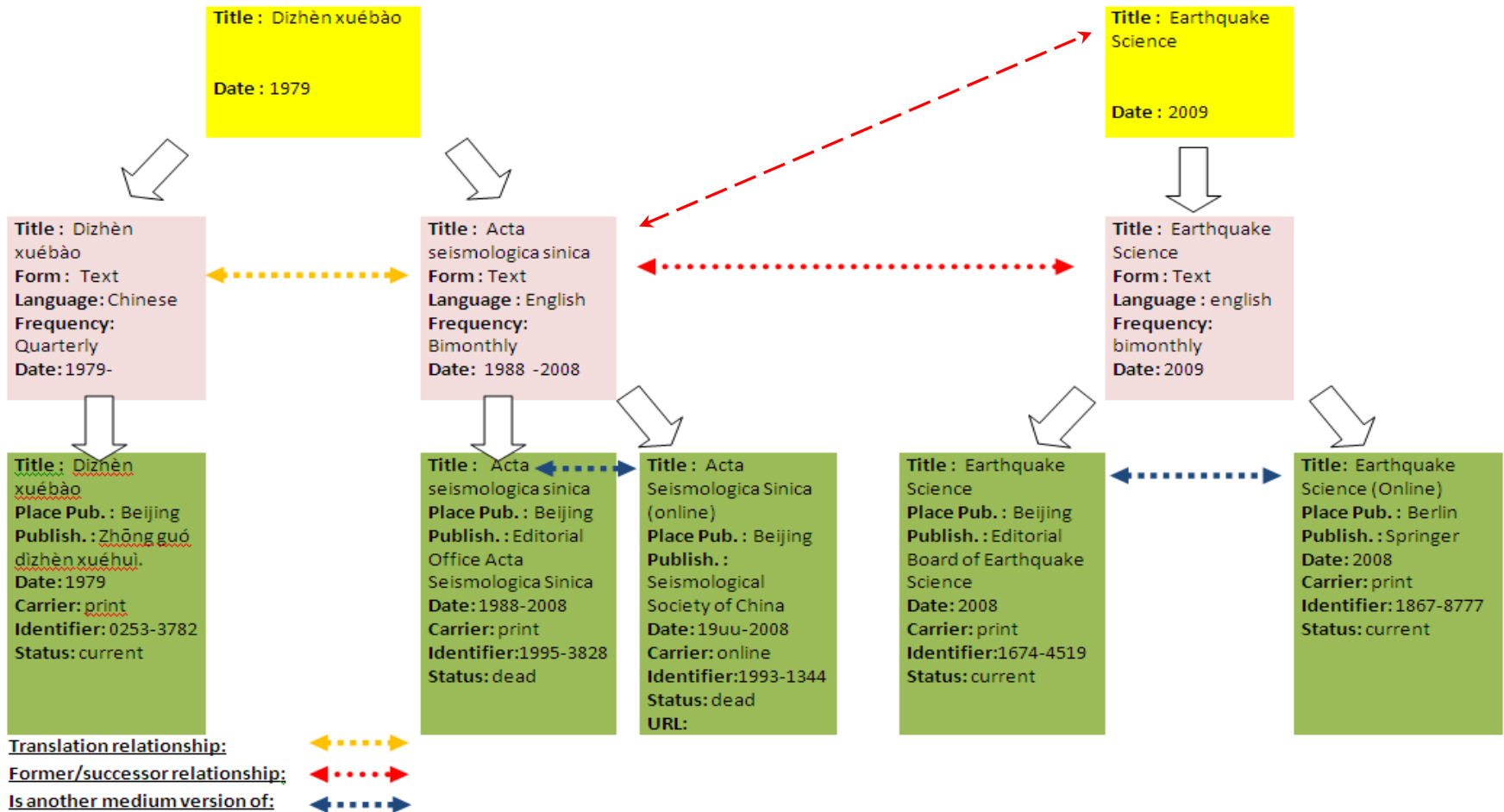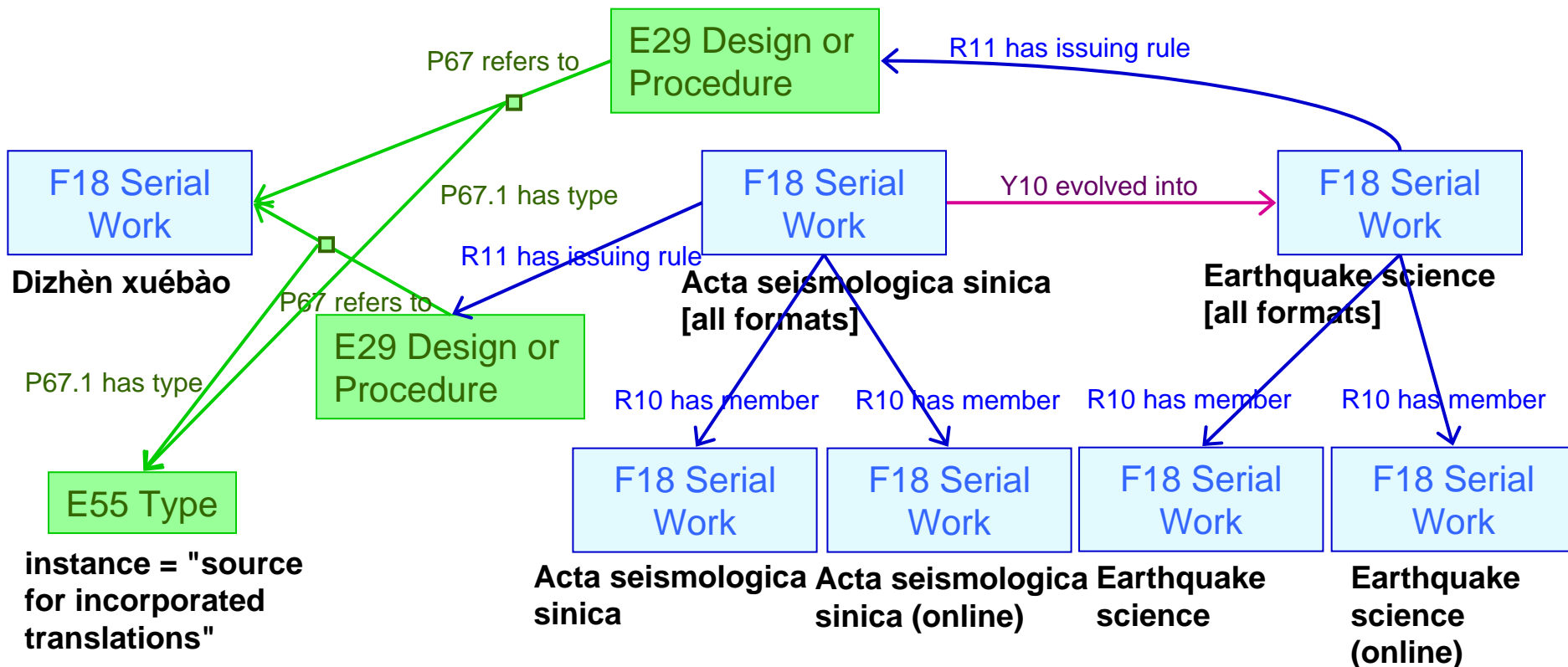
Difficulties in recording relationships between FRBR entities (3)

❑ **n°9**: Where to record the former/successor relationship ? Between the expression "Acta seismologica.." and the work "Earthquake Science" or between the expression "Acta seismologica.." and the expression of the work "Earthquake Science" ? Probably between the expression and the work levels ?

Difficulties in recording relationships between FRBR entities (3)

❑ **n°9**: Where to record the former/successor relationship ? Between the expression "Acta seismologica.." and the work "Earthquake Science" or between the expression "Acta seismologica.." and the expression of the work "Earthquake Science" ? Probably between the expression and the work levels ?

Difficulties in recording relationships between FRBR entities (4)

N°10: In the example hereafter the successor/relationship could be recorded at the work level or at the expression level.

❑ But whatever the solution adopted, FRBR modeling will create discrepancies:

> ❑ Start date of the successor work is earlier than the end date of the former work

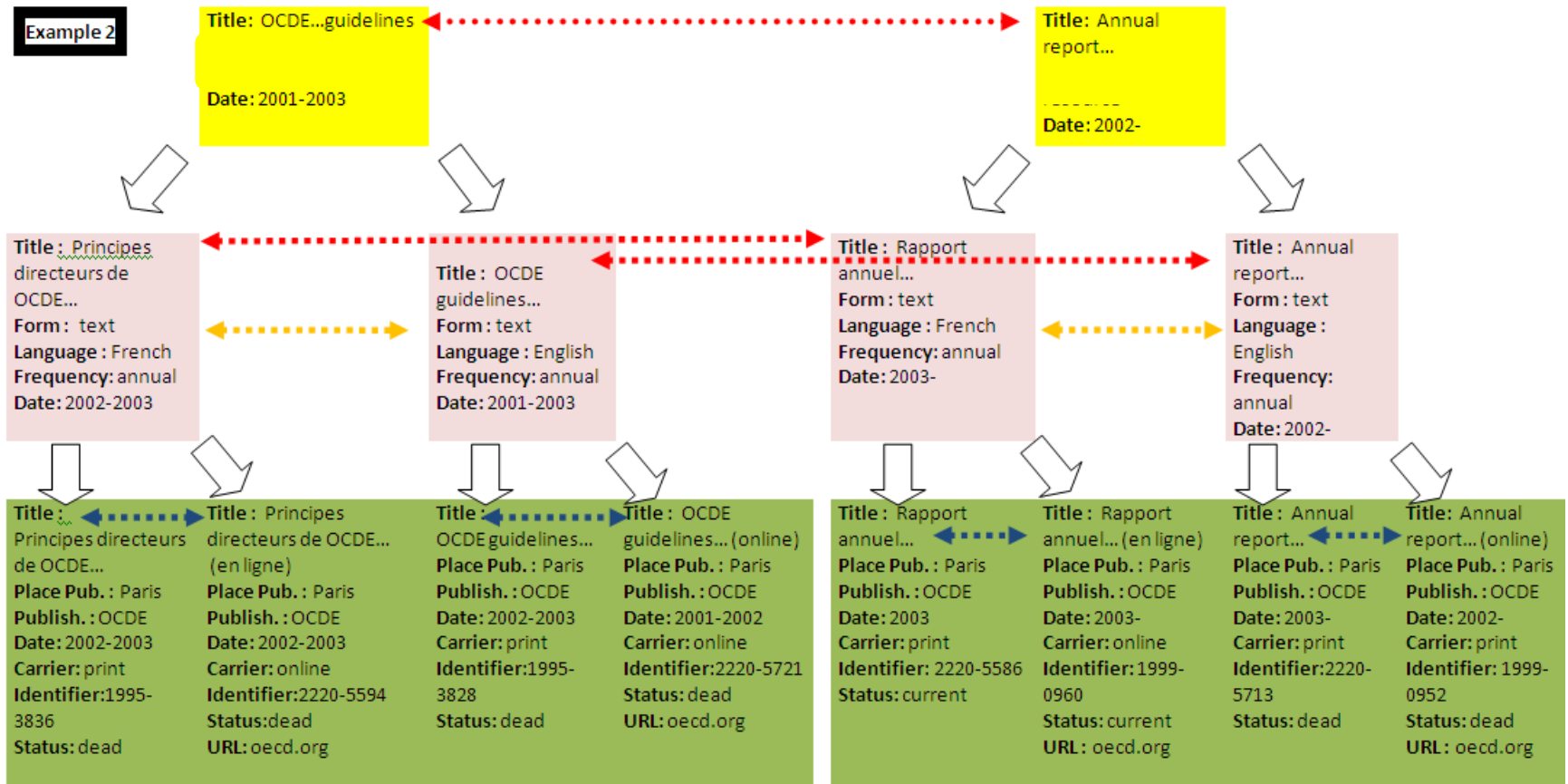> ❑ Start date of one of the successor expressions is earlier than the end date of the corresponding former expression (OCDE Guidelines > Annual Report)
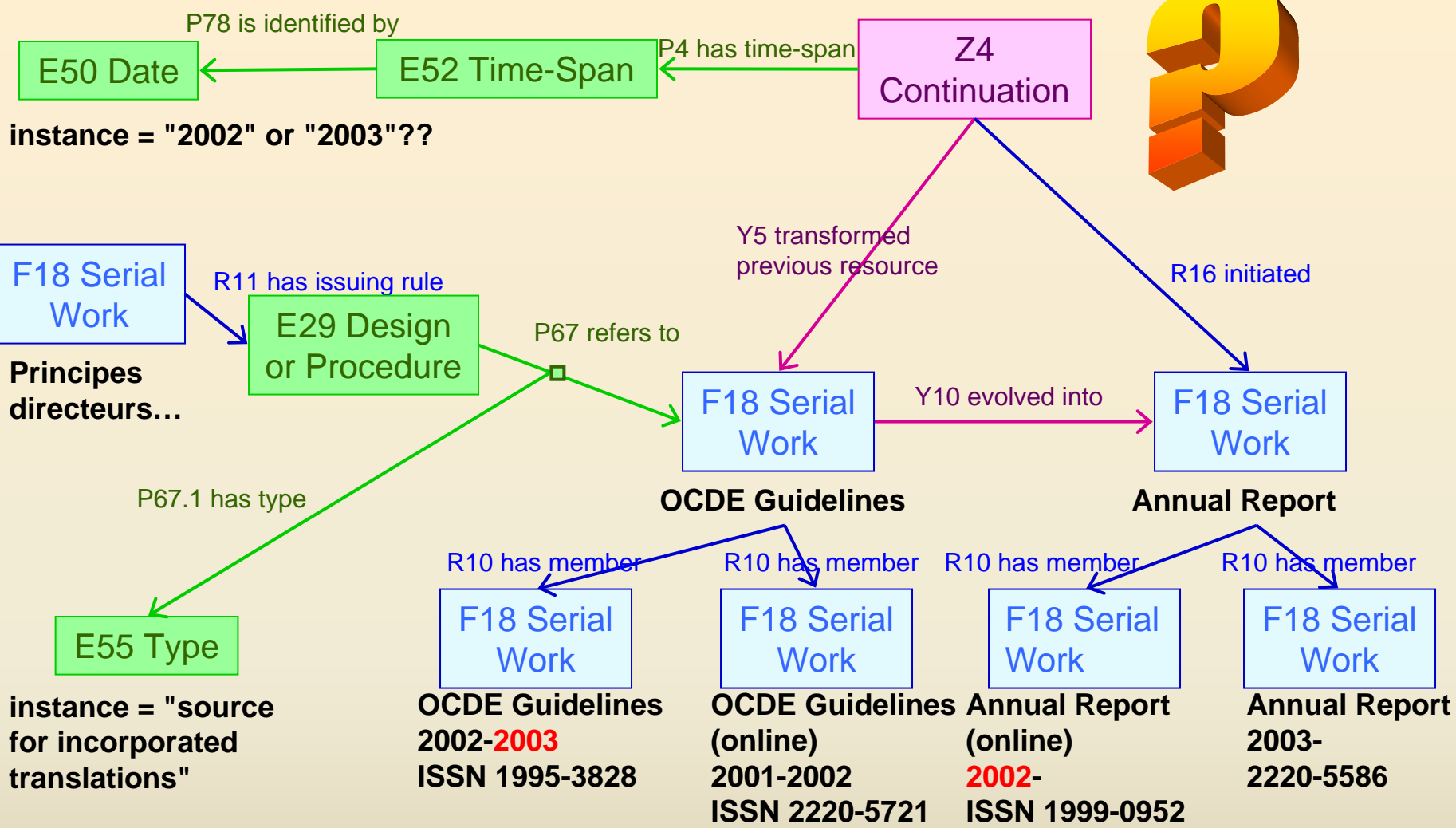
Difficulties in recording relationships between FRBR entities (5)

Former/successor relationship : ◄···►
Translation relationship : ◄···►
Additional physical form : ◄····►

Example 2

Title: OCDE...guidelines ◄······································►
Date: 2001-2003

Title: Annual report...
Date: 2002-

Title : Principes directeurs de OCDE...
Form : text
Language : French
Frequency: annual
Date: 2002-2003

Title : OCDE guidelines...
Form : text
Language : English
Frequency: annual
Date: 2001-2003

Title : Rapport annuel...
Form : text
Language : French
Frequency: annual
Date: 2003-

Title : Annual report...
Form : text
Language : English
Frequency: annual
Date: 2002-

Title : Principes directeurs de OCDE...
Place Pub. : Paris
Publish. : OCDE
Date: 2002-2003
Carrier: print
Identifier: 1995-3836
Status: dead

Title : Principes directeurs de OCDE... (en ligne)
Place Pub. : Paris
Publish. : OCDE
Date: 2002-2003
Carrier: online
Identifier: 2220-5594
Status: dead
URL: oecd.org

Title : OCDE guidelines...
Place Pub. : Paris
Publish. : OCDE
Date: 2002-2003
Carrier: print
Identifier: 1995-3828
Status: dead

Title : OCDE guidelines... (online)
Place Pub. : Paris
Publish. : OCDE
Date: 2001-2002
Carrier: online
Identifier: 2220-5721
Status: dead
URL: oecd.org

Title : Rapport annuel...
Place Pub. : Paris
Publish. : OCDE
Date: 2003
Carrier: print
Identifier: 2220-5586
Status: current

Title : Rapport annuel... (en ligne)
Place Pub. : Paris
Publish. : OCDE
Date: 2003-
Carrier: online
Identifier: 1999-0960
Status: current
URL: oecd.org

Title : Annual report...
Place Pub. : Paris
Publish. : OCDE
Date: 2003-
Carrier: print
Identifier: 2220-5713
Status: dead

Title: Annual report... (online)
Place Pub. : Paris
Publish. : OCDE
Date: 2002-
Carrier: print
Identifier: 1999-0952
Status: dead
URL: oecd.org
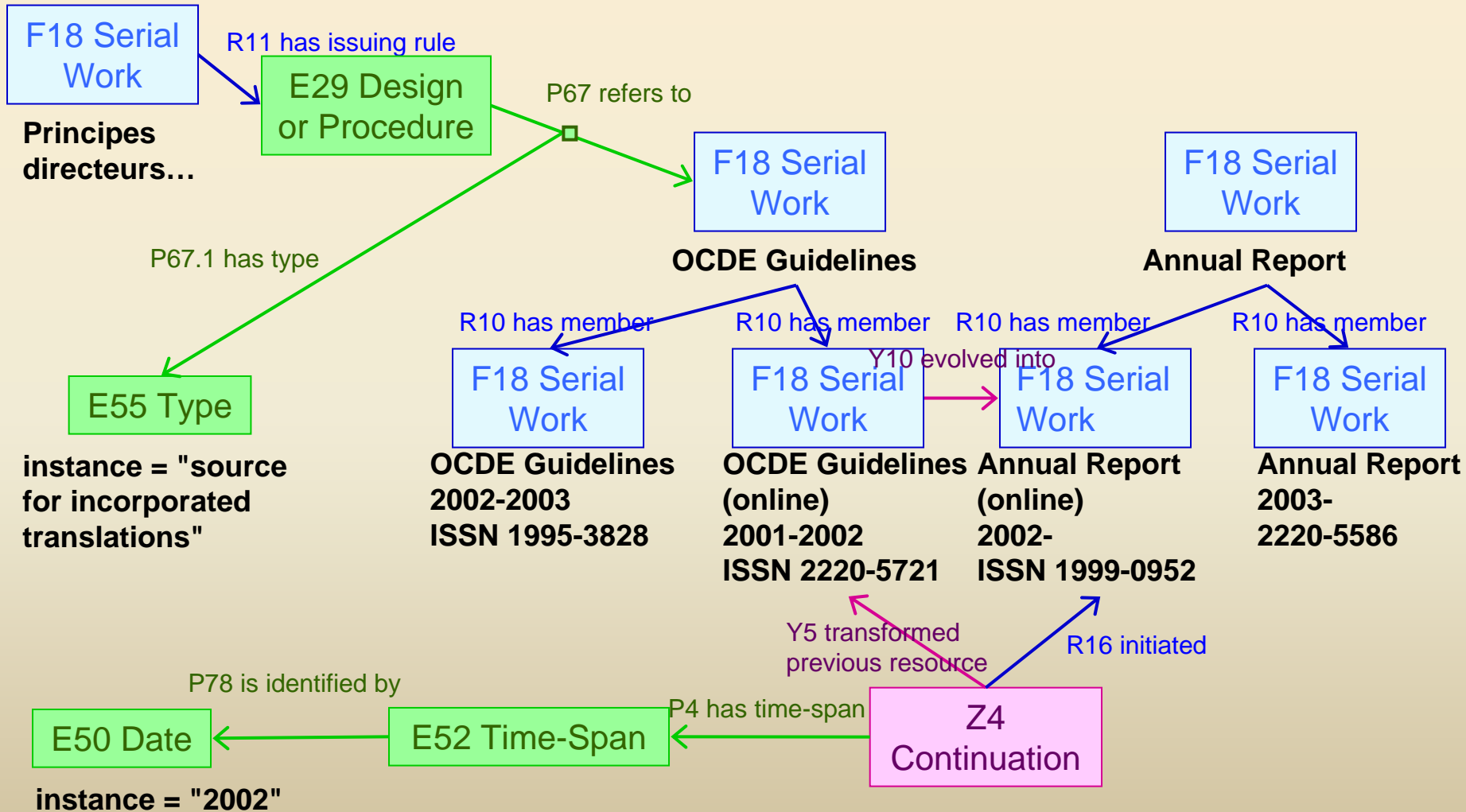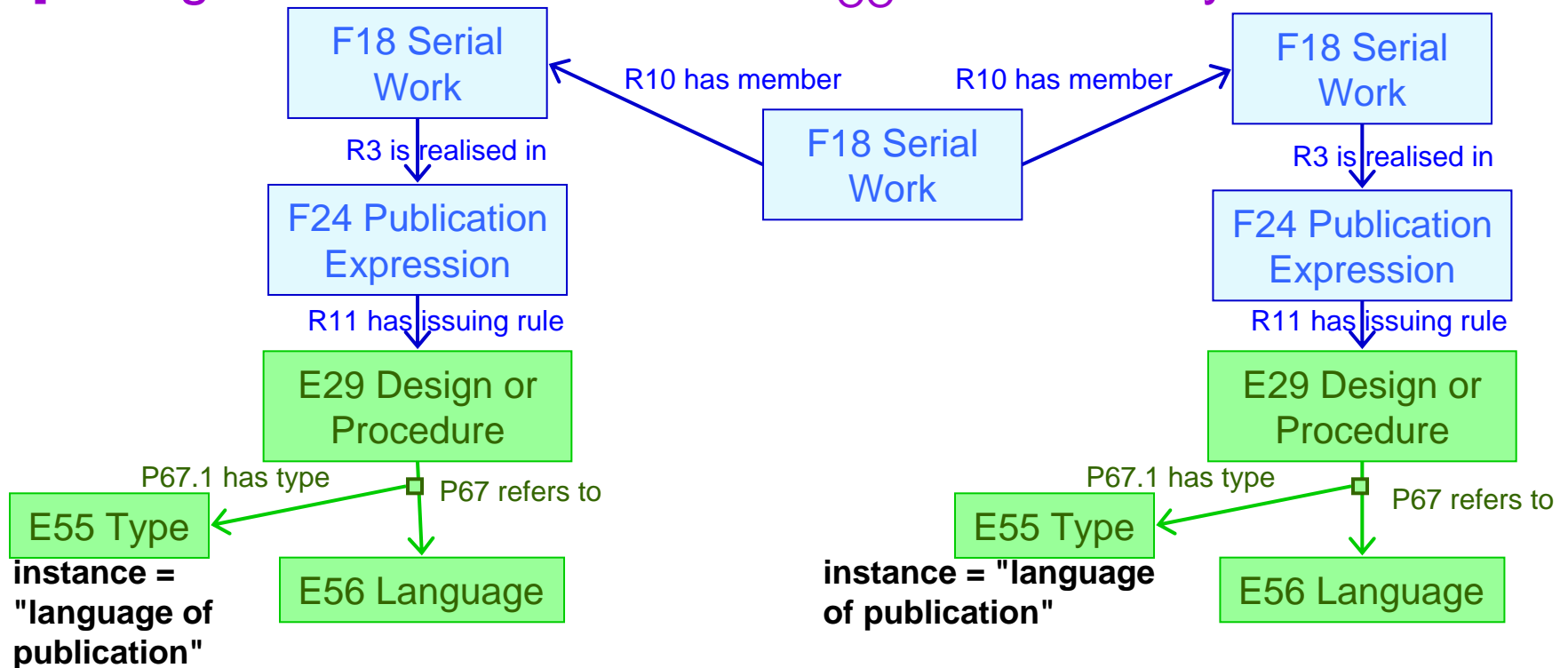
"Missing" or "unclear" relationships in FRBR model (2)

➢ Language edition (continuing resource issued simultaneously in more than one language different from translation relationship): between two expressions of the same work ?

Two possibilities:

A] Using CIDOC CRM and FRBR$_{OO}$ such as they stand:

➢ Language edition (continuing resource issued simultaneously in more than one language different from translation relationship): between two expressions of the same work ?

Two possibilities:
B] Declaring a specific property in PRESS$_{OO}$: