Preparing FP7 EU Proposals and Reports in LATEX with `euproposal.cls`

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Abstract

The `euproposal` class supports many of the specific elements of a Framework 7 Proposal. It is optimized towards collaborative projects. The package comes with an extensive example (a fake EU proposal) that shows all elements in action.

Contents

1 Introduction

Writing grant proposals is a collaborative effort that requires the integration of contributions from many individuals. The use of an ASCII-based format like LaTeX allows to coordinate the process via a source code control system like Subversion, allowing the proposal writing team to concentrate on the contents rather than the mechanics of wrangling with text fragments and revisions.

The `euproposal` class extends the `proposal` class [Koh14a] and supports many of the specific elements of Part B of a Framework 7 Proposal. The package documentation is still preliminary, fragmented and incomplete and only dwells on the particulars of DFG proposals, so we treat [Koh14a] as a prerequisite. Please consult the example proposal `propB.tex`, which comes with the package and shows the usage of the class in action. It is intended as a template for your proposal, but please bear in mind that the EU guidelines may change from call to call, if in doubt, please consult the FP7 guide for proposers.[1]   EdN:1

The `eureporting` class supports most of the specific elements of the project reports to the EC. The example report `dfg/report.tex` is intended as a template for your final report.[2]   EdN:2

The `euproposal` and `eureporting` classes and the `eupdata` package are distributed under the terms of the LaTeX Project Public License from CTAN archives in directory macros/latex/base/lppl.txt. Either version 1.0 or, at your option, any later version. The CTAN archive always contains the latest stable version, the development version can be found at https://github.com/KWARC/LaTeX-proposal. For bug reports please use the sTeX TRAC at https://github.com/KWARC/LaTeX-proposal/issues.

2 The User Interface

In this section we will describe the functionality offered by the `euproposal` class along the lines of the macros and environments the class provides. Much of the functionality can better be understood by studying the functional example `proposal.tex` (and its dependents) that comes with the `euproposal` package in conjunction with the proposer's EU proposer's guidelines (we have included it as ******* for convenience into the package distribution).[3]   EdN:3

2.1 Package Options

As usual in LaTeX, the package is loaded by `\documentclass[⟨options⟩]{euproposal}`, where `[⟨options⟩]` is optional and gives a comma separated list of options specified in [Koh14a]. Some versions EU proposals want non-standard numbering schemes (e.g. starting with **B...** since we are writing Part B.), this can be reached by giving the `propB` option.

2.2 Proposal Metadata and Title page

The metadata of the proposal is specified in the `proposal` environment, which also generates   `proposal`
the title page and the first section of the proposal as well as the last pages of the proposal with the signatures, enclosures, and references. The `proposal` environment should contain all the mandatory parts of the proposal text. The `proposal` environment uses the following EU-specific keys to specify metadata.

- `callname` specifies the call the proposal addresses. It is usually a string of the form   `callname`
  `ICT Call 1`, `callid` is the corresponding identifier, usually a string of the form `FP7-???-200?-?`.   `callid`
  An overview over open calls can be found at http://cordis.europa.eu/fp7/dc/index.cfm
- The `challenge`, `objective`, and `outcome` keys specifies the specific parts in the call this   `challenge`
  proposal addresses. These are specified in the "call fiche" that can be obtained from the   `objective`
  URL above. All of these have an identifier, which can be specified via the `challengeid`,   `outcome`
  `challengeid`

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[1]EDNOTE: say something about the proposers guide.
[2]EDNOTE: say something about reporting
[3]EDNOTE: MK@MK do that and talk about reporting as well.

objectiveid, and outcomeid keys.[4]

- `topicsaddressed` allows to enter free-form text instead of specifying the `challenge*`, `objective*`, and `outcome*` keys.
- The `coordinator` key gives the identifier of the proposal coordinator. The `euproposal` package uses the `workaddress` package for representation of personal metadata, see [Koh14b] for details.
- If given, the `iconrowheight` key instructs the `euproposal` class to make a line with the logos of the participants at the bottom of the title page, and specify their heights; `1.5cm` is often a good value.

(margin notes: objectiveid, outcomeid, EdN:4, topicsaddressed, coordinator, iconrowheight)

2.3 Work Packages and Work Areas

(margin note: type) The `type` key specifies the activity type of the work package: `RTD` = Research and technological development (including any activities to prepare for the dissemination and/or exploitation of project results, and coordination activities); `DEM` = Demonstration; `MGT` = Management of the consortium; `OTHER` = Other specific activities, if applicable in this call.

(margin note: BNP:5)

2.4 Reporting Infrastructure

The `eureporting` class gives an infrastructure for writing final reports of completed projects (see the file `finalreport.tex` in the package distribution). The `report` environment has functionality analogous to the `proposal` environment. It takes the same metadata keys — making it easy to generate by copy/paste from the proposal — but adds the keys `key` can be used to specify the reference key (something like `KO 2428 47-11`) given to the project by EU. Note that in the case of multiple proposers, you can use multiple instances of `key` to specify more than one reference key.

(margin notes: report, key, ENP:5)

3 Limitations and Enhancements

The `euproposal` is relatively early in its development, and many enhancements are conceivable. We will list them here.

1. none reported yet.

If you have other enhancements to propose or feel you can alleviate some limitation, please feel free to contact the author.

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[4]EDNOTE: MK@MK: the outcomeid should key should be a list key, I am not implementing this right now, since it comes more natural when we change the class to metakeys support.

[5]NEW PART: MK@MK: This is new, and only partially implemented

4 The Implementation

In this section we describe the implementation of the functionality of the `euproposal` and `eureporting` classes and the `eupdata` package.

4.1 Package Options and Format Initialization

We first set up the options for the package.

```
1 ⟨*cls⟩
2 \newif\ifpartB\partBfalse
3 \DeclareOption{partB}{\partBtrue}
4 \DeclareOption*{\PassOptionsToClass{\CurrentOption}{proposal}}
5 ⟨/cls⟩
6 ⟨reporting⟩\DeclareOption*{\PassOptionsToClass{\CurrentOption}{reporting}}
7 ⟨cls | reporting⟩\ProcessOptions
```

Then we load the packages we make use of

```
8 ⟨cls⟩\ifpartB\LoadClass[report,noRAM]{proposal}\else\LoadClass[noRAM]{proposal}\fi
9 ⟨reporting⟩\LoadClass[report,noRAM]{reporting}
10 ⟨*cls | reporting⟩
11 \RequirePackage{longtable}
12 \RequirePackage{eurosym}
13 \RequirePackage{wrapfig}
14 \RequirePackage{eupdata}
15 ⟨/cls | reporting⟩
```

4.2 Proposal Metadata and Title Page

We extend the metadata keys from the `proposal` class.

```
16 ⟨*pdata⟩
17 \define@key{prop@gen}{coordinator}{\def\prop@gen@coordinator{#1}\pdata@def{prop}{gen}{coordinator}{#1}}
18 \def\prop@gen@challenge{??}\def\prop@gen@challengeid{??}
19 \define@key{prop@gen}{challenge}{\def\prop@gen@challenge{#1}\pdata@def{prop}{gen}{challenge}{#1}}
20 \define@key{prop@gen}{challengeid}{\def\prop@gen@challengeid{#1}\pdata@def{prop}{gen}{challengeid}{#1}}
21 \def\prop@gen@objective{??}\def\prop@gen@objectiveid{??}
22 \define@key{prop@gen}{objective}{\def\prop@gen@objective{#1}\pdata@def{prop}{gen}{objective}{#1}}
23 \define@key{prop@gen}{objectiveid}{\def\prop@gen@objectiveid{#1}\pdata@def{prop}{gen}{objectiveid}{#1}}
24 \def\prop@gen@outcome{??}\def\prop@gen@outcomeid{??}
25 \define@key{prop@gen}{outcome}{\def\prop@gen@outcome{#1}\pdata@def{prop}{gen}{outcome}{#1}}
26 \define@key{prop@gen}{outcomeid}{\def\prop@gen@outcomeid{#1}\pdata@def{prop}{gen}{outcomeid}{#1}}
27 \define@key{prop@gen}{callname}{\def\prop@gen@call{#1}\pdata@def{prop}{gen}{callname}{#1}}
28 \define@key{prop@gen}{callid}{\def\prop@gen@call{#1}\pdata@def{prop}{gen}{callid}{#1}}
29 \define@key{prop@gen}{iconrowheight}{\def\prop@gen@iconrowheight{#1}}
30 \define@key{prop@gen}{topicsaddressed}{\def\prop@gen@topicsaddressed{#1}}
31 ⟨/pdata⟩
```

and now the ones for the final report

```
32 ⟨*reporting⟩
33 \define@key{prop@gen}{reportperiod}{\def\prop@gen@reportperiod{#1}}
34 \define@key{prop@gen}{key}{\@dmp{key=#1}%
35 \@ifundefined{prop@gen@keys}{\xdef\prop@gen@keys{#1}}{\xdef\prop@gen@keys{\prop@gen@keys,#1}}}
36 \define@key{prop@gen}{projpapers}{\def\prop@gen@projpapers{#1}}
37 ⟨/reporting⟩
```

and the default values, these will be used, if the author does not specify something better.

If the `propB` option is given, wwe need to redefine some of the internal counters and table of contents mechanisms to adapt to the fact that the proposal text is just Part B.

```
38 ⟨*cls⟩
```

```latex
39 \ifpartB
40 \def\thepart{\Alph{part}}
41 \setcounter{part}{2}
42 \def\thechapter{\thepart.\arabic{chapter}}
43 \def\numberline#1{\hb@xt@\@tempdima{#1\hfil} }
44 \fi
```

`\prop@sites@table`

```latex
45 \newcommand\prop@sites@table{\def\@@table{}
46 {\let\tabularnewline\relax\let\hline\relax
47 \@for\@I:=\prop@gen@sites\do{\xdef\@@table{\@@table\pdataref{site}\@I{number}}
48 \xdef\@@table{\@@table&\@nameuse{wa@institution@\@I @name}}
49 \xdef\@@table{\@@table&\@nameuse{wa@institution@\@I @acronym}}
50 \xdef\@@table{\@@table&\@nameuse{wa@institution@\@I @countryshort}\tabularnewline\hline}}}
51 \begin{tabular}{|l|p{8cm}|l|l|}\hline%|
52 \# & Participant organisation name & Short name &  Country\\\hline\hline
53 \@@table
54 \end{tabular}}
```

`prop@proposal`

```latex
55 \renewenvironment{prop@proposal}
56 {\thispagestyle{empty}\begin{center}
57   {\Large \prop@gen@instrument}\\[.2cm]
58   {\LARGE\textbf\prop@gen@callname}\\[.4cm]
59   {\Large \prop@gen@callid}\\[.4cm]
60   {\LARGE\textbf\prop@gen@title}\\[.3cm]
61   {\LARGE Acronym: {\prop@gen@acronym}}\\[.2cm]
62 \end{center}
63 {\large\prop@gen@instrument}\\
64 {\large\textbf{Date of Preparation: \today}}
65 \ifsubmit\else\\
66 {\large\textbf{Revision}:
67 \if@svninfo\svnInfoRevision\fi\if@gitinfo\gitAbbrevHash\fi
68  of
69 \if@svninfo\svnInfoDate\fi\if@gitinfo\gitAuthorDate\fi}
70 \fi\\[1em]
71 {\large}
72 \begin{large}
73  \begin{description}
74   \item[Work program topics addressed by \pn:]
75     \@ifundefined{prop@gen@topicsaddressed}
76     {\textbf{Challenge \prop@gen@challengeid}: \prop@gen@challenge,
77     \textbf{Objective \prop@gen@objectiveid}: \prop@gen@objective,
78     \textbf{target outcome \prop@gen@outcomeid}) \prop@gen@outcome.}
79     {\prop@gen@topicsaddressed}\\[1em]
80   \item[Coordinator:] \wa@ref{person}\prop@gen@coordinator{name}
81   \item[e-mail:] \wa@ref{person}\prop@gen@coordinator{email}
82   \item[tel/fax:] \wa@ref{person}\prop@gen@coordinator{worktelfax}
83   \end{description}
84 \end{large}
85 \vspace*{1em}
86 \begin{center}
87 \prop@sites@table\vfill
88 \@ifundefined{prop@gen@iconrowheight}{}
89 {\@for\@site:=\prop@gen@sites\do{\wa@institution@logo[height=\prop@gen@iconrowheight]\@site\qquad}}
90 \end{center}
91 \newpage
92 \setcounter{tocdepth}{2}\setcounter{part}{2}}
93 {\newpage\printbibliography[heading=warnpubs,maxnames=999]}}
```

```
94 \def\prop@gen@instrument{Proposal Instrument (e.g. IP)}
```

4.3 Site Descriptions

sitedescription ⁷ \begin{sitedescritpion}[⟨*opt*⟩]{\meta{site}} marks up the description for the site ⟨*site*⟩. EdN:7
It looks up the relevant metadata from the respective \WAinstitution declarations. The options
argument ⟨*opt*⟩ is a key-value list for the keys logo (add the logo from \WAinstitution to the   logo
site description), width, height (intended dimensions of the logo), ⁸.   width
                                                                                                             height
                                                                                              EdN:8

```
 95 \define@key{site@desc}{box}[true]{\def\site@desc@box{#1}%
 96 \pdata@def{sitedesc}{\@site}{box}{#1}}
 97 \define@key{site@desc}{logo}[true]{\def\site@desc@logo{#1}%
 98 \pdata@def{sitedesc}{\@site}{logo}{#1}}
 99 \define@key{site@desc}{width}{\def\site@desc@width{#1}%
100 \pdata@def{sitedesc}{\@site}{width}{#1}\@dmp{wd=#1}}
101 \define@key{site@desc}{height}{\def\site@desc@height{#1}%
102 \pdata@def{sitedesc}{\@site}{height}{#1}\@dmp{ht=#1}}
103 \newenvironment{sitedescription}[2][]%
104 {\def\@site{#2}% remember the site ID
105 \newcounter{site@#2@PM} % for the site PM
106 \def\site@desc@box{false}% not box unless requested
107 \def\site@desc@logo{false}% not logo unless requested
108 \def\site@desc@height{1.3cm}% default height
109 \def\site@desc@width{5cm}% default width
110 \setkeys{site@desc}{#1}% read the keys to overwrite the defaults
111 \ifx\@site@desc@box\@true% if we want a logo
112 \begin{wrapfigure}{r}{\site@desc@width}\vspace{-2.5ex}%
113 \begin{tabular}{|p{\site@desc@width}|}\hline\vspace{1mm}%
114 \ifx\@site@desc@logo\@true% if we want a logo
115 \wa@institution@logo[height=\site@desc@width]{#2}\\[1ex]%
116 \fi% end logo
117 \textbf{\wa@ref{institution}{#2}{type}.\hfill \wa@ref{institution}{#2}{country}}\\%
118 \small\wa@ref{institution}{#2}{streetaddress}, \wa@ref{institution}{#2}{townzip}\\\hline%
119 \end{tabular}\vspace{-2.5ex}%
120 \end{wrapfigure}%
121 \fi% end box
122 \pdata@target{site}{#2}%
123 {\subsection{\wa@ref{institution}{#2}{acronym}: % space here
124 {\textsc{\wa@ref{institution}{#2}{name}}  (\wa@ref{institution}{#2}{countryshort})}}}%
125 \small%
126 \renewcommand\paragraph{\@startsection{paragraph}{4}{\z@}%
127                                        {0.25ex \@plus1ex \@minus.2ex}%
128                                        {-1em}%
129                                        {\normalfont\normalsize\bfseries}}}
130 {\pdata@def{site}{\@site}{reqPM}{\csname thesite@\@site @PM\endcsname}}
```

participant ⁹ \begin{picv}[⟨*PM*⟩]{\meta{name}} marks up the CV and metadata about a principal inves- EdN:9
tigator of a site (it can only be use inside a sitedescription environment). The first argument
⟨*PM*⟩ specifies the involvement in person months: a fair estimation this PI will spend on this
specific project over its whole duration.

```
131 \define@key{site@part}{type}{\def\site@part@type{#1}\@dmp{type=#1}}
132 \define@key{site@part}{PM}{\def\site@part@PM{#1}\@dmp{PM=#1}}
```

⁶EDNOTE: this functionality should probably be refactored into proposal.dtx
⁷EDNOTE: document this above
⁸EDNOTE: more?
⁹EDNOTE: document this above

```
133 \define@key{site@part}{salary}{\def\site@part@salary{#1}}%\@dmp{\euro=#1}}
134 \newenvironment{participant}[2][]%
135 {\def\site@part@type{}\def\site@part@PM{}\def\site@part@salary{}%
136 \setkeys{site@part}{#1}%
137 \ifx\site@part@PM\@empty\else\addtocounter{site@\@site @PM}{\site@part@PM}\fi%
138 \paragraph*{#2 \ifx\site@part@type\@empty\else(\site@part@type)\fi}%
139 \ignorespaces}
140 {\par\medskip}
```

4.4 Work Packages, Work Areas, and Deliverables

`wp*`

```
141 \newmdenv[frametitle=Objectives]{wpobjectives}
142 \newmdenv[frametitle=Description]{wpdescription}
```

`workpackage`

```
143 \renewenvironment{workpackage}[1][]
144 {\begin{work@package}[#1]\medskip\wpheadertable%
145 \addcontentsline{toc}{subsubsection}{\wp@label\wp@num: \pdataref{wp}\wp@id{title}}}
146 {\end{work@package}}
```

`\wpheadertable` We redefine the macro that computes the default work package header table, since there are more sites in a EU proposal, we do this in a tabular form as asked for in the template. We use the internal counter `@sites@po` (sites plus one) for convenience.

```
147 \newcounter{@sitespo}\newcounter{@sitespt}
148 \renewcommand\wpheadertable{%
149 \wp@sites@efforts@lines%
150 \setcounter{@sitespo}{\thewp@sites@num}\addtocounter{@sitespo}{1}%
151 \par\noindent\begin{tabular}{|l|*{\thewp@sites@num}{c|}c|}\hline%
152 \multicolumn{\the@sitespo}{|l|}{\textbf{\wp@mk@title{\wp@num}: }%
153 \textsf{\pdata@target{wp}{\wp@id}{\pdataref{wp}\wp@id{title}}}}
154 &\textbf{Start: }\pdataref{wp}\wp@id{start}\\\hline%
155 \wp@sites@line\\\hline%
156 \wp@efforts@line\\\hline%
157 \end{tabular}\smallskip\par\noindent\ignorespaces}
```

`wpdelivs` We make the deliverables boxed, this is simple with `mdframed.sty`.

```
158 \surroundwithmdframed{wpdelivs}
```

4.5 Risks

`risk`

```
159 \newenvironment{risk}[3]
160 {\paragraph{Risk: #1}\hfill\emph{probability}: #2, \emph{gravity}: #3\par\noindent\ignorespaces}
161 {}
```

`riskcont`

```
162 \newenvironment{riskcont}[3]
163 {\begin{risk}{#1}{#2}{#3}\textbf{Contingency:} }
164 {\end{risk}}
```

4.6 Risks

In some EU proposals (e.g. FET), we need to identify risks and contingency and specify mitigation plans for them. In the `euproposal` we use two environments to mark them up.

`risk` \begin{risk}{⟨title⟩}{⟨prob⟩}{⟨grav⟩}... \end{risk} makes a paragraph no a risk ⟨title⟩

riskcont

with gravity ⟨*grav*⟩ and probability ⟨*prob*⟩, where the body of the environment contains a description of the risk. The `riskcont` is a variant, where ⟨*title*⟩ names a risk and the body is a description of the contingency plan.

4.7 Relevant Papers

\keypubs   [10]   EdN:10

```
165 \newcommand\keypubs[1]{%
166 \paragraph{Key publications relevant to the project}%
167 {\renewcommand{\baselinestretch}{.9}\prop@paperlist{#1}}}
168 ⟨/cls⟩
```

---

[10]EDNOTE: MK: the baselinestretch manipulation does not work here, since `prop@paperslist` makes its own provisions. We should provide a way of manipulating sizes here.

References

[Koh14a]   Michael Kohlhase. *Preparing Proposals in LaTeX with* `proposal.cls`. Tech. rep. 2014. URL: https://svn.kwarc.info/repos/kwarc/doc/macros/forCTAN/proposal/base/proposal.pdf.

[Koh14b]   Michael Kohlhase. `workaddress.sty`*: An Infrastructure for marking up Dublin Core Metadata in LaTeX documents*. Tech. rep. Comprehensive TeX Archive Network (CTAN), 2014. URL: http://www.ctan.org/tex-archive/macros/latex/contrib/stex/workaddress/workaddress.pdf.