

# Preparing FP7 EU Proposals and Reports in L<sup>A</sup>T<sub>E</sub>X with `euproposal.cls`

Michael Kohlhase  
Computer Science, Jacobs University Bremen  
<http://kwarc.info/kohlhase>

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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.

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# 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 L<sup>A</sup>T<sub>E</sub>X 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 [Koh15a] 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 [Koh15a] 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.<sup>1</sup>

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<sup>2</sup>.

EdN:2

The `euproposal` and `eureporting` classes and the `eupdata` package are distributed under the terms of the L<sup>A</sup>T<sub>E</sub>X 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).<sup>3</sup>

EdN:3

### 2.1 Package Options

As usual in L<sup>A</sup>T<sub>E</sub>X, the package is loaded by `\documentclass[<options>]{euproposal}`, where [*<options>*] is optional and gives a comma separated list of options specified in [Koh15a]. 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 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.

proposal

- `callname` specifies the call the proposal addresses. It is usually a string of the form `ICT Call 1`, `callid` is the corresponding identifier, usually a string of the form `FP7-???-200?-?`. 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 proposal addresses. These are specified in the “call fiche” that can be obtained from the URL above. All of these have an identifier, which can be specified via the `challengeid`,

callname

callid

challenge

objective

outcome

challengeid

<sup>1</sup>EdNOTE: say something about the proposers guide.

<sup>2</sup>EdNOTE: say something about reporting

<sup>3</sup>EdNOTE: MK@MK do that and talk about reporting as well.

objectiveid outcomeid • objectiveid, and outcomeid keys.<sup>4</sup>  
 EdN:4 • topicsaddressed allows to enter free-form text instead of specifying the challenge\*,  
 topicsaddressed objective\*, and outcome\* keys.  
 coordinator • The coordinator key gives the identifier of the proposal coordinator. The euproposal  
 package uses the workaddress package for representation of personal metadata, see [Koh15b]  
 for details.  
 coordinatorsite • The coordinatorsite key gives the identifier of the coordinating site (for the table).  
 iconrowheight • 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.

## 2.3 Work Packages and Work Areas

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.

## 2.4 Milestones and Deliverables

verif euproposal.cls adds the verif key to for specifying a means of verification that the milestone  
 \milestone has been successful.

With this, we can generate the milestone table that is required in many EU proposals. This  
 \milestonetable can simply be done via the \milestonetable macro. It takes a keyword argument with the keys  
 caption caption for specifying a different caption, and the widths wname, wdeliv, and wverif that can  
 wname be used to specify different widths for the name/deliverables/verification columns in the milestone  
 wdeliv table.  
 wverif

## 2.5 Risks

EdN:5  
 BNP:6

## 2.6 Reporting Infrastructure

report 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  
 key 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.

# 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.

<sup>4</sup>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.

<sup>5</sup>EdNOTE: MK: document the infrastructure, make examples

<sup>6</sup>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}
```

we want to change the numbering of figures and tables

```
15 \RequirePackage{chngcntr}
16 \counterwithin{figure}{subsection}
17 \counterwithin{table}{subsection}
18 \*cls|reporting
```

### 4.2 Proposal Metadata and Title Page

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

```
19 \*pdata
20 \define@key{prop@gen}{coordinator}{\def\prop@gen@coordinator{#1}\pdata@def{prop}{gen}{coordinator}{#1}}
21 \define@key{prop@gen}{coordinatorsite}{\def\prop@gen@coordinatorsite{#1}\pdata@def{prop}{gen}{coordinator}{#1}}
22 \def\prop@gen@challenge{??}\def\prop@gen@challengeid{??}
23 \define@key{prop@gen}{challenge}{\def\prop@gen@challenge{#1}\pdata@def{prop}{gen}{challenge}{#1}}
24 \define@key{prop@gen}{challengeid}{\def\prop@gen@challengeid{#1}\pdata@def{prop}{gen}{challengeid}{#1}}
25 \def\prop@gen@objective{??}\def\prop@gen@objectiveid{??}
26 \define@key{prop@gen}{objective}{\def\prop@gen@objective{#1}\pdata@def{prop}{gen}{objective}{#1}}
27 \define@key{prop@gen}{objectiveid}{\def\prop@gen@objectiveid{#1}\pdata@def{prop}{gen}{objectiveid}{#1}}
28 \def\prop@gen@outcome{??}\def\prop@gen@outcomeid{??}
29 \define@key{prop@gen}{outcome}{\def\prop@gen@outcome{#1}\pdata@def{prop}{gen}{outcome}{#1}}
30 \define@key{prop@gen}{outcomeid}{\def\prop@gen@outcomeid{#1}\pdata@def{prop}{gen}{outcomeid}{#1}}
31 \define@key{prop@gen}{callname}{\def\prop@gen@call{#1}\pdata@def{prop}{gen}{callname}{#1}}
32 \define@key{prop@gen}{callid}{\def\prop@gen@call{#1}\pdata@def{prop}{gen}{callid}{#1}}
33 \define@key{prop@gen}{iconrowheight}{\def\prop@gen@iconrowheight{#1}}
34 \define@key{prop@gen}{topicsaddressed}{\def\prop@gen@topicsaddressed{#1}}
35 \*pdata
```

and now the ones for the final report

```
36 \*reporting
37 \define@key{prop@gen}{reportperiod}{\def\prop@gen@reportperiod{#1}}
38 \define@key{prop@gen}{key}{\@dmp{key=#1}}%
39 \@ifundefined{prop@gen@keys}{\xdef\prop@gen@keys{#1}}{\xdef\prop@gen@keys{\prop@gen@keys,#1}}
40 \define@key{prop@gen}{projpapers}{\def\prop@gen@projpapers{#1}}
41 \*reporting
```

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

If the `propB` option is given, we 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.

```
42 (*cls)
43 \ifpartB
44 \def\thepart{\Alph{part}}
45 \setcounter{part}{2}
46 \def\thechapter{\thepart.\arabic{chapter}}
47 \def\numberline#1{\hb@xt@{\tempdima{#1\hfil} }
48 \fi
```

`\prop@sites@table`

```
49 \newcommand\prop@sites@table{\def\@table{}
50 {\let\tabularnewline\relax\let\hline\relax
51 \@for\@I:=\prop@gen@sites\do{\xdef\@table{\@table\pdataref{site}\@I{number}}
52 \xdef\@table{\@table&\@nameuse{wa@institution@\@I @name}
53 \ifx\@I\prop@gen@coordinatorsite (coordinator)\fi}
54 \xdef\@table{\@table&\@nameuse{wa@institution@\@I @acronym}}
55 \xdef\@table{\@table&\@nameuse{wa@institution@\@I @countryshort}\tabularnewline\hline}}
56 \begin{tabular}{|l|p{8cm}|l|l|}\hline|
57 \# & Participant organisation name & Short name & Country\\\hline\hline
58 \@table
59 \end{tabular}}
```

`prop@proposal`

```
60 \renewenvironment{prop@proposal}
61 {\ifgrantagreement\else
62 \thispagestyle{empty}\begin{center}
63 {\Large \prop@gen@instrument}\\\ [.2cm]
64 {\Large \textbf{\prop@gen@callname}\\\ [.4cm]
65 {\LARGE \prop@gen@callid}\\\ [.8cm]
66 {\huge \textbf{\prop@gen@title}\\\ [.4cm]
67 {\LARGE Acronym: {\prop@gen@acronym}}\\\ [2cm]
68 \end{center}
69 %{\large \prop@gen@instrument}\\\
70 {\large \textbf{Date of Preparation: \today}}
71 % \ifsubmit\else\if@svninfo\if@gitinfo\\
72 % {\large \textbf{Revision}:
73 % \if@svninfo\svnInfoRevision\fi\if@gitinfo\gitAbbrevHash\fi
74 % of
75 % \if@svninfo\svnInfoDate\fi\if@gitinfo\gitAuthorDate\fi}
76 % \fi\fi\fi
77 \\[1em]
78 \begin{large}
79 \begin{description}
80 % \item[Work program topics addressed by \pn:]
81 % \@ifundefined{prop@gen@topicsaddressed}
82 % {\textbf{Challenge \prop@gen@challengeid}: \prop@gen@challenge,
83 % \textbf{Objective \prop@gen@objectiveid}: \prop@gen@objective,
84 % \textbf{target outcome \prop@gen@outcomeid}} \prop@gen@outcome.
85 % {\prop@gen@topicsaddressed}\\\ [1em]
86 \item[Coordinator:] \wa@ref{person}\prop@gen@coordinator{name}
87 \item[e-mail:] \wa@ref{person}\prop@gen@coordinator{email}
88 \item[tel/fax:] \wa@ref{person}\prop@gen@coordinator{worktelfax}
89 \@ifundefined{prop@gen@keywords}{\item[Keywords:] \prop@gen@keywords}
90 \end{description}
91 \end{large}
92 \vspace*{1em}
```

```

93 \begin{center}
94 \prop@sites@table\vfill
95 \@ifundefined{prop@gen@iconrowheight}{}
96 {\@for\@site:=\prop@gen@sites\do{\wa@institution@logo[height=\prop@gen@iconrowheight]\@site\quad}}
97 \end{center}
98 \newpage
99 \fi% ifgrantagreement
100 \setcounter{tocdepth}{2}\setcounter{part}{2}
101 {\newpage\printbibliography[heading=warnpubs,maxnames=999]}

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

```

### 4.3 Site Descriptions

7

EdN:7

sitedescription

<sup>8</sup> \begin{sitedescriptipn}[\langle opt \rangle]{\meta{site}} marks up the description for the site \langle site \rangle. It looks up the relevant metadata from the respective \WAinstitution declarations. The options argument \langle opt \rangle is a key-value list for the keys logo (add the logo from \WAinstitution to the site description), width, height (intended dimensions of the logo), <sup>9</sup>.

EdN:8

logo  
width  
height

EdN:9

```

103 \define@key{site@desc}{box}[true]{\def\site@desc@box{#1}%
104 \pdata@def{sitedesc}{\@site}{box}{#1}}
105 \define@key{site@desc}{logo}[true]{\def\site@desc@logo{#1}%
106 \pdata@def{sitedesc}{\@site}{logo}{#1}}
107 \define@key{site@desc}{width}{\def\site@desc@width{#1}%
108 \pdata@def{sitedesc}{\@site}{width}{#1}\@dmp{wd=#1}}
109 \define@key{site@desc}{height}{\def\site@desc@height{#1}%
110 \pdata@def{sitedesc}{\@site}{height}{#1}\@dmp{ht=#1}}
111 \newenvironment{sitedescription}[2] []%
112 {\def\c@site{#2}% remember the site ID
113 \newcounter{site@#2@PM} % for the site PM
114 \def\site@desc@box{false}% not box unless requested
115 \def\site@desc@logo{false}% not logo unless requested
116 \def\site@desc@height{1.3cm}% default height
117 \def\site@desc@width{5cm}% default width
118 \setkeys{site@desc}{#1}% read the keys to overwrite the defaults
119 \ifx\@site@desc@box\@true% if we want a logo
120 \begin{wrapfigure}{r}{\site@desc@width}\vspace{-2.5ex}%
121 \begin{tabular}{|p{\site@desc@width}|}\hline\vspace{1mm}%
122 \ifx\@site@desc@logo\@true% if we want a logo
123 \wa@institution@logo[height=\site@desc@width]{#2}\|[1ex]%
124 \fi% end logo
125 \textbf{\wa@ref{institution}{#2}{type}.\hfill \wa@ref{institution}{#2}{country}}\\%
126 \small\wa@ref{institution}{#2}{streetaddress}, \wa@ref{institution}{#2}{townzip}\\ \hline%
127 \end{tabular}\vspace{-2.5ex}%
128 \end{wrapfigure}%
129 \fi% end box
130 \pdata@target{site}{#2}%
131 {\subsubsection{\wa@ref{institution}{#2}{acronym}: % space here
132 {\textsc{\wa@ref{institution}{#2}{name}} (\wa@ref{institution}{#2}{countryshort})}}}%
133 \small%
134 \renewcommand\paragraph{\@startsection{paragraph}{4}{\z@}%
135 {0.25ex \@plus1ex \@minus.2ex}%
136 {-1em}%
137 {\normalfont\normalsize\bfseries}}

```

<sup>7</sup>EDNOTE: this functionality should probably be refactored into proposal.dtx

<sup>8</sup>EDNOTE: document this above

<sup>9</sup>EDNOTE: more?

```
138 {\pdata@def{site}{\c@site}{reqPM}{\csname thesite@\c@site @PM\endcsname}}
```

**Participant** <sup>10</sup> `\begin{picv}[\langle PM \rangle]{\meta{name}}` marks up the CV and metadata about a principal investigator of a site (it can only be use inside a `sitedescription` environment). The first argument  $\langle PM \rangle$  specifies the involvement in person months: a fair estimation this PI will spend on this specific project over its whole duration.

```
139 \define@key{site@part}{type}{\def\site@part@type{#1}\@dmp{type=#1}}
140 \define@key{site@part}{PM}{\def\site@part@PM{#1}\@dmp{PM=#1}}
141 \define@key{site@part}{salary}{\def\site@part@salary{#1}}\@dmp{\euro=#1}}
142 \define@key{site@part}{gender}{\def\site@part@gender{#1}}\@dmp{\euro=#1}}
143 \newenvironment{participant}[2] []%
144 {\def\site@part@type{\def\site@part@PM{\def\site@part@salary{\def\site@part@gender{}}%
145 \setkeys{site@part}{#1}%
146 \ifx\site@part@PM@empty\else\addtocounter{site@\c@site @PM}{\site@part@PM}\fi%
147 \paragraph*{#2} %
148 (\ifx\site@part@type@empty\else\site@part@type\fi%
149 \ifx\site@part@gender@empty\else, \site@part@gender\fi%
150 \ifx\site@part@PM@empty\else, \site@part@PM~PM\fi%
151 )}%
152 \ignorespaces}
153 {\par\medskip}
```

## 4.4 Work Packages, Work Areas, and Deliverables

**wp\***

```
154 \newmdenv[frametitle=Objectives]{wpobjectives}
155 \newmdenv[frametitle=Description]{wpdescription}
```

**workpackage**

```
156 \renewenvironment{workpackage}[1] []
157 {\begin{work@package}[#1]\medskip\wpheadertable%
158 \addcontentsline{toc}{subsubsection}{\wp@label\wp@num: \pdataref{wp}\wp{id}{title}}}
159 {\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.

```
160 \newcounter{@sites@po}\newcounter{@sites@pt}
161 \renewcommand\wpheadertable{%
162 \wp@sites@efforts@lines%
163 \setcounter{@sites@po}{\thewp@sites@num}\addtocounter{@sites@po}{1}%
164 \par\noindent\begin{tabular}{|l|*{\thewp@sites@num}{c|}c|}\hline%
165 \multicolumn{\thewp@sites@po}{|l|}{\textbf{\wp@mk@title{\wp@num}: }}%
166 \textsf{\pdata@target{wp}{\wp{id}}{\pdataref{wp}\wp{id}{title}}}%
167 &\textbf{Start: }\pdataref{wp}\wp{id}{start}\\ \hline%
168 \wp@sites@line\\ \hline%
169 \wp@efforts@line\\ \hline%
170 \end{tabular}\smallskip\par\noindent\ignorespaces}
```

## 4.5 Milestones and Deliverables

**wpdelivs** We make the deliverables boxed in EU proposals, this is simple with `mdframed.sty`.

```
171 \surroundwithmdframed{wpdelivs}
```

---

<sup>10</sup>EDNOTE: document this above

## 4.6 Risks

risk

```
172 \newenvironment{risk}[3]
173 {\paragraph{Risk: #1}\hfill\emph{probability}: #2, \emph{gravity}: #3\par\noindent\ignorespaces}
174 {}}
```

riskcont

```
175 \newenvironment{riskcont}[3]
176 {\begin{risk}{#1}{#2}{#3}\textbf{Contingency:} }
177 {\end{risk}}}
```

## 4.7 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.

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

risk

riskcont

## 4.8 Relevant Papers

\keypubs

<sup>11</sup>

EdN:11

```
178 \newcommand\keypubs[1]{%
179 \paragraph{Key publications relevant to the project}%
180 {\renewcommand{\baselinestretch}{.9}\prop@paperlist{#1}}}
181 \</cls>
```

---

<sup>11</sup>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

- [Koh15a] Michael Kohlhase. *Preparing Proposals in L<sup>A</sup>T<sub>E</sub>X with proposal.cls*. Tech. rep. 2015. URL: <https://svn.kwarc.info/repos/kwarc/doc/macros/forCTAN/proposal/base/proposal.pdf>.
- [Koh15b] Michael Kohlhase. *workaddress.sty: An Infrastructure for marking up Dublin Core Metadata in L<sup>A</sup>T<sub>E</sub>X documents*. Tech. rep. Comprehensive T<sub>E</sub>X Archive Network (CTAN), 2015. URL: <http://www.ctan.org/tex-archive/macros/latex/contrib/stex/workaddress/workaddress.pdf>.