



### Standardization

The FIDES working group has proposed the FIDES methodology for international standardization in the IEC referential. Therefore FIDES has been submitted to the IEC as a NWIP (New Work Item Proposal) called "Components reliability engineering in electronics - A global methodology for reliability prediction of electronic Components". The concerned National Committees will now have to vote to accept the document in the next steps of the standardization process. **If you want to support and improve a new international methodology of reliability prediction, please contact your national committee** (working group TC56, dependability) to promote a favorable vote of your country. You can find all useful information to locate your national committee on the IEC web site: [http://www.iec.ch/dyn/www/f?p=103:29:0:::FSP\\_ORG\\_ID,FSP\\_LANG\\_ID:1270,25..](http://www.iec.ch/dyn/www/f?p=103:29:0:::FSP_ORG_ID,FSP_LANG_ID:1270,25..) A copy of the NWIP document is available on the FIDES web site <http://www.fides-reliability.org>.

The dead line for the votes is July 26<sup>th</sup>, 2013. Thank you for your help!



### Conference

FIDES at Lambda-Mu 18 Conference.

Many members of the FIDES Working Group attended the Lambda Mu conference (the 18th edition held in Tours, France, in October 2012), the main Reliability, Maintainability and Dependability conference organized by IMdR (the French Risk Management Institute).

During this conference, the FIDES methodology was highlighted in:

- a dedicated workshop conducted by the Working Group members. This workshop allowed fruitful exchanges, deeper explanations and a preliminary show of the upcoming FIDES ExperTool software, which is currently undergoing extended developments.
- four independent communications.

The next Lambda-Mu conference, where further developments on FIDES methodology and tool are expected to be presented, will take place in Dijon, France, in October 2014. The call for papers will be released before summer 2013. This Conference is a three days event happening every two years (even years) and gathering almost 500 experts on risk management issues, 20 booth exhibitors also involved in these issues and 150-200 communications.



### European Defense Agency

PRECISE: a "Prediction of Reliability for Electronics Components: Implementation in Standards in Europe"

This project is proposed by Germany and France.

PRECISE is a new European Proposal of Reliability Study for the EDA. The PRECISE proposal aims at improving standards in Europe for the prediction of the reliability of electronics components & boards in use in very harsh environment applications. This is determined by the three challenges we are faced with, i.e., DSM challenge, power components challenge and reliability test challenge. The consortium has highlighted these challenges, because these are fields where existing reliability prediction tools exhibit limitations or lack of models. Hence the project will include the following axes of R&D:

- 1) Develop the understanding of the behavior of Deep Sub Micron technologies (the aim is 28 nm) and supply the relevant information to designers (models, guidelines...),

- 2) Analyze, improve and / or develop prediction models and guidelines for standard power components,
- 3) Analyze, improve and / or develop prediction models and guidelines for GaN / GaAs RF power components,
- 4) Analyze, define and demonstrate the best practices in reliability improvement test, namely accelerated and aggravated tests,
- 5) Analyze the previous results and develop methods, tools and policies to counteract the reduced life expectation of electronic components. This includes methods of preservation of material (e.g. long term storage of weapon systems, line replaceable units (LRU) or printed circuit boards),
- 6) Propose an update of the existing FIDES guide with the previous results to be submitted to IMdR FIDES GTR

We shall know this year, if this proposal is held.



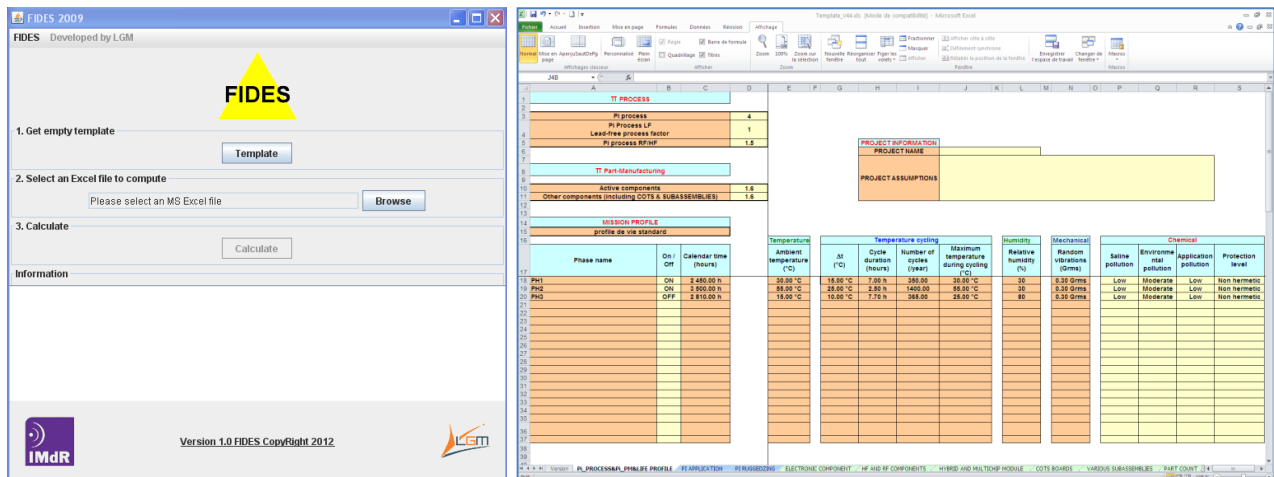
### FIDES ExperTool

In order to support your experiment with the FIDES 2009 methodology, IMdR FIDES Workgroup is proud to propose you a new free experimental tool. It is called "Fides ExperTool" and will be released by the end of September 2013.

A sum up in few words: free of charge, available French and English, user friendly interface, runs without administrator privileges, user manual, support on FIDES Website.

Hope to see you on the forum for sharing your experiments with the tool.

Watch for the release on <http://fides-reliability.org/> - Some preview screenshots.



Phase name	On / Off	Calendar time (hours)	Temperature				Humidity		Mechanical		Chemical		
			Ambient temperature (°C)	ΔT (°C)	Cycle duration (hours)	Number of cycles (year)	Maximum temperature during cycling (°C)	Relative Humidity (%)	Random vibration (grms)	Salt pollution	Environment pollution	Application pollution	Protection level
PH1	ON	2 000.00 h	20.00 °C	15.00 °C	7.00 h	200.00	20.00 °C	20	0.50 grms	Low	Moderate	Low	Non hermetic
PH2	ON	2 000.00 h	55.00 °C	20.00 °C	2.00 h	1400.00	55.00 °C	30	0.50 grms	Low	Moderate	Low	Non hermetic
PH3	OFF	2 010.00 h	15.00 °C	15.00 °C	7.70 h	200.00	20.00 °C	20	0.50 grms	Low	Moderate	Low	Non hermetic