

## A NEW VISION FOR SUPPORT ENGINEERING



## EDITO

Spring is here and ideas are budding!

Since the launch of the "eLSA" project in 2015, our Logistic Support Analysis solution has already come a long way but the best is yet to come.

A first version of the tool launched in 2018 and already two customers in licence mode, and three others as part of LGM contracted workpackage.

In 2019, our teams continue to work on the many evolutions that will benefit eLSA in the coming months to meet your most specific needs.

Check out the eLSA Roadmap 2019 in this edition and feel free to contact us to learn more!

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### THEY TRUST US

- LGM, eLSA first user  
(Interview of Charles Bacciochini, Technical Coordinator at LGM)



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# ROADMAP ELSA 2019

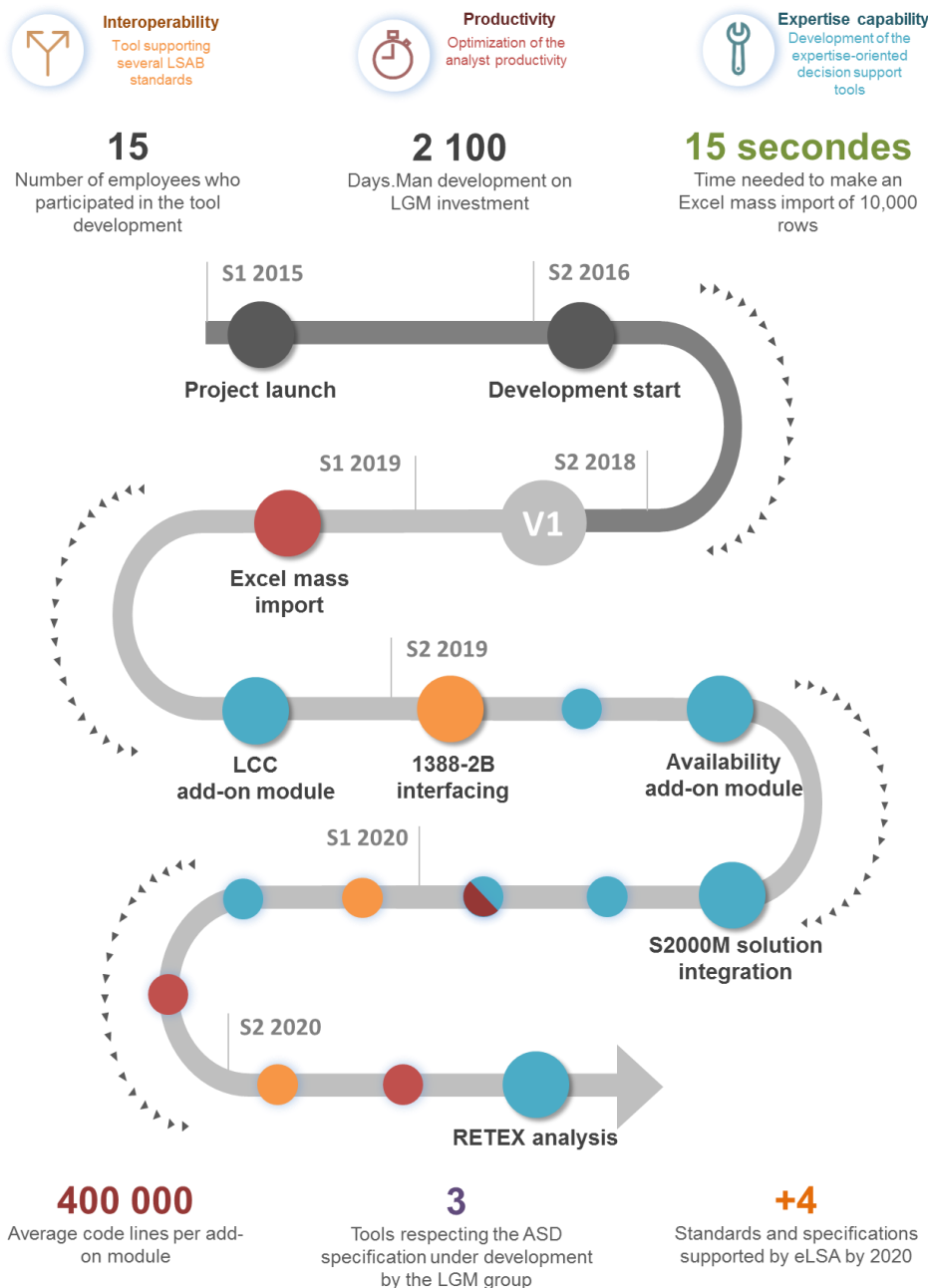
Based on 3 main development areas, our eLSA 2019 roadmap was unveiled some time ago. Here is an excerpt :

First of all a great interoperability with standards, what they are ASL or generally related to the field of support systems.

Then, an axis to further improve the productivity of users, for example with the ability to bulk import data from Excel, feature available for a few weeks! This is just one example, many other features are in preparation.

Finally, the business capabilities of the solution and its potential as a repository of support data will be significantly increased in the coming months by the appearance of several new modules, including one to calculate the total cost of ownership for each alternative of your support system (LCC) and another in the second semester for analysis and optimization of availability.

A year 2019 full of novelties!



NEWS



TECHNICAL FOCUS



EVENTS



THEY TRUST US

# LSA CANDIDATE SELECTION

**The meaning of LSA studies is to perform some analysis to optimize the support system associate to a complex system. The goal of LSA studies is reached when you can ensure that you will have the right resources at the right moment, the right place for all the kind of use of your system...**

All of this studies have a cost, however, you have some tools to help to find the best ratio between the time that you will spend in your studies and the gain that you will have on your supports performances. Some kind of optimisation on the optimisation....

One of this tool is the LSA Candidate.

From a point of view, LSA Candidate is a snatch of the system, a function, a part or anything that could have some importance for your studies, that will carry some Key Performance Indicator, like MTBF, MTTR, MDT, Shop processing Time... or a Task.

In an other hand, you can use the LSA Candidate as a tool to select the cost drivers, availability drivers or security drivers for your studies.

This point is really important for LGM and we have decided to help all the user of e-lsa to use this full potential of this opportunity.

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**In e-LSA, you will be able to follow a flowchart, that will help you to find the most important point of your system. It's possible to define 3 types of LSA Candidate characterising as follow :**

- Full Candidate : A fault on this element will have some major consequence, from availability, cost or security point of view, on the system. It's a support driver for the product.
- Partial Candidate : Reliability of this element is such as it couldn't have a critical fault on it. But it will be handling regularly to access to another component, and so some analyzes have to be performed in the order to avoid an additional unavailability.
- Family : They correspond to an opportunity to create groups of elements with the same characteristics (harnesses, connectors, non specific wirings...) making it possible to optimize the analyzes to be produced.

Of course, it is not a restricted list, you can add some types of LSA Candidate following your need.

The point of this functionality is the capacity to create the Candidate Item List (CIL). This list include all the Lsa Candidate and the set of analysis that will be performed on each candidate.

**As you can see the real meaning of LSA Candidates selection process is to find the most cost-effective point of your system and you will be able to use it on it's best way thanks to eLSA.**



# BREAKDOWN

In the LSA process, breakdowns building is one of the first and more important step. When you have to analyse a complex system, such as a vehicle, radar station or a railway, you must take in account that each trade could have a different approach of the system.

Some needs a physical approach like procurement, or support, where other need a more functional approach like RAMST or Training, and some other will need an hybrid approach like functional and physic. e-LSA will allow you to create, follow and use more than one breakdown.

How ?

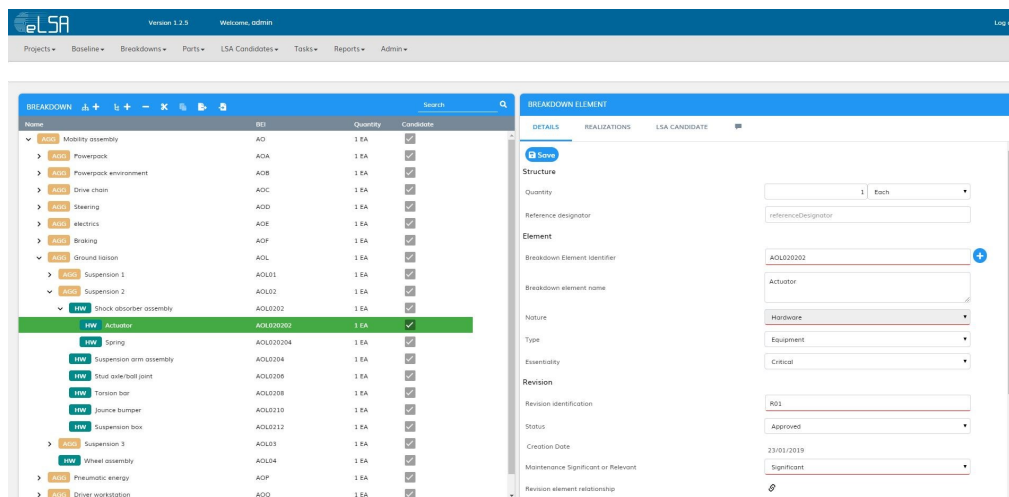
By the capacity of re-use the breakdown element...

The process used to create a breakdown is define in three step.

- The first step is the definition of the breakdown, you will be able to create different kind of breakdown, functional, physic, zonale, geographic or hybrid, wich is a combination of two or more types of breakdown.
- Then you will define the structure of your breakdown. In that step you will define each nodes of your breakdown with a parent/child relation. The type of your breakdown wil define what is carried by the node, a function, a part, an area...
- For the last step you will have to link some breakdown Element at each node of your breakdown. To link a breakdown element, you have two possibility, the first one is to create an element from scratch, when you use this function, you will have to define all the characteristics of your element. The second one is to reuse an element already create, if you had already define some characteristics for this element, type of element, definition, KPI, part linked or task, you will recall all of this element...

The meaning of this point is that you will have only one object to defne, no multiplication of data in case of update or modification of the system.

Of course, it's possible to follow the evolution of each element... with the process of revision, but we will speak about it later....

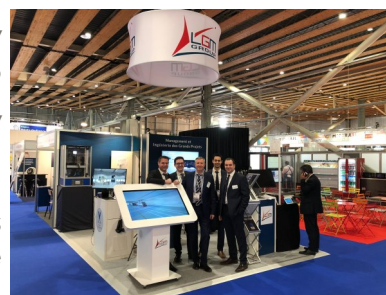


# INTERNATIONAL EXHIBITION OF RAILWAY TECHNOLOGY

The 11th International Exhibition of Railway Technology (SIFER) took place from the 26th to the 28th march 2019 with more than 450 international exhibitors from the railway sector.

This event was an opportunity to present all of the LGM Group's business lines and in particular our offers dedicated to the optimization of rail performance: PERFO and SPRING\*.

(\*): Beyond eLSA, LGM realizes many other solutions to answer the business problems of our customers ... do not hesitate to ask us to come and discover them..



# INTERNATIONAL PARIS AIR SHOW PARIS-LE BOURGET



53<sup>e</sup> INTERNATIONAL PARIS AIR SHOW LE BOURGET | 17-23 JUIN 2019

53<sup>e</sup> SALON INTERNATIONAL DE L'AERONAUTIQUE & DE L'ESPACE PARIS - LE BOURGET | 17-23 JUIN 2019

The LGM Group will be present at the International Paris Air Show, from June 17 to 23 in Paris-Le Bourget.

Throughout the week, in addition to our offers to discover or rediscover on our stand, we will organize various workshops, conferences around maintenance and support.

**Our Logistics Support Analysis solution: eLSA will of course have its place here, so come discover the new features !!**

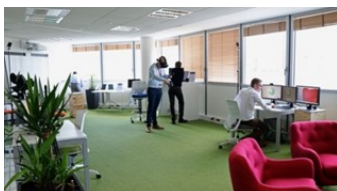
<https://www.siae.fr/en/>

# NEW SPACES AT THE LGM GROUP



On February 19th, the LGM group inaugurated its « LAB », a modular, open and polyvalent space (located in our Velizy office) composed of:

**The Showroom** : To discover the LGM group skills and the synergy of our innovative offers. Our eLSA tool is waiting for you for an immersive and personalized



**The Training Factory** : to concretize educational innovation. Offer our customers a complete experience, from the prototyping of a training project to its provision.



**The Creativity Room** : to design in design thinking approach. Open to LGM employees and our customers for collaborative reflection sessions.

## INTERVIEW

### Charles Bacciochini Technical Coordinator At LGM



**T**hanks to the expertise in **Integrated Logistics Support and Logistics Support Analysis studies**, LGM developed eLSA to meet its own need.

In order to know the opinion of LSA architects, meeting with Charles Bacciochini, technical coordinator for the Engineering and Systems Performance pole in the Defense sector. Charles manages an ILS engineer's team as part of a telecommunication renovation project, for which the eLSA tool has been deployed.

**LGM, eLSA FIRST USER**

**eLSA Team : What is the using context of eLSA?**

Charles : The project we are working on must meet the ASD S3000L specifications (process and data). The use of eLSA is obvious. Besides, the stakeholders are many and varied: industrial, administration, subcontractors ... The presented informations must be clear and accessible to everyone easily. Through its interface, the application allows a quick start, a better understanding of information and a reading on several levels.

**eLSA Team : In your opinion, what are the strengths and the weaknesses of the application?**

Charles : The obvious eLSA strength is the instant-in-hand experience for architects and analysts, whatever is their expertise level. The users gain autonomy on the tool very quickly and are guided throughout the process thanks to graphic interfaces and the diverse menus.

The specification is available and translated by the interface which eases the appropriation of the process by beginner profiles. However, this flexibility of access to the data shouldn't allow LSA analyst to by-pass the business process and not master at all times the ins and outs of his analyzes. eLSA could go even further on business rules ....

*As Charles rightly points out, eLSA has been developed to make the specification accessible to all. However, it is important to maintain control of the process to ensure consistent application. LGM therefore offers a three-day training to understand the entire process S3000L.*

**For more information, contact**

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Continuation of the interview  
on next page...

# INTERVIEW (after)

Charles : On the production side, the collaborative mode is a real plus. Several persons work simultaneously on the project and come to implement data. It is even possible to go further by giving visualization or validation access to the different stakeholders. The information exchange is faster in case all of the stakeholders have an S3000 tool.

It is especially true thanks to the very visual data. For example, displaying a dynamic tree allows any user to understand the concept of father/son elements. Unlike old LSA referentials, the data is understandable without special training for data user people.

*Two variants of the eLSA tool are currently accessible: visualization or production variant. In addition, in the same project, users may have different access and modification rights.*

*This makes possible to give each stakeholder the right level of information, depending on their role in the project, and to limit access to relevant information.*

*For example: LSA architects will complete the entire LSA process; FMEA engineers will implement the results of their analyses; customers will comment and validate the results as the project progresses.*

Charles : The only complaint about the eLSA tool is that it does not have the same flexibility as Excel. Old habits die

hard but for example, we would like to be able to use right-click or copy/paste. Coupled with multi windows management, these evolutions will greatly enhance the user experience.

*The user experience is at the heart of our priorities. We keep on developing new ergonomic features, such as right-clicking, adapting screens to different resolutions, or implementing keyboard shortcuts.*

*Feedbacks from our various customers allow us to refine the improvement choices for future releases.*

## **Team eLSA : How will you conclude on the eLSA tool?**

Charles : I mainly want to highlight the ease of understanding information for every eLSA interlocutors, which streamlines exchanges and simplifies communication within the project.

In addition, the instant-in-hand experience is guaranteed by the transparency of the data model. The ergonomics of the tool can also serve as guidance in business processes.