



Three-wheeled vehicle

Human simulation



Graduation Ceremony

By Charles Bonnaissieux

# Talent for Tomorrow's Economy

At the heart of the transnational region of Sarre Lorraine Luxembourg, the Ecole Nationale d'Ingenieurs de Metz (National Engineering School of Metz, or ENIM) does not intend to be caught off guard by globalization. The school actively prepares its students through comprehensive international activities and relationships and innovative teaching methods, thanks to PLM.

With a program offering that focuses on PLM Solutions: CATIA, DELMIA, SIMULIA and ENOVIA, ENIM enjoys a special partnership with Dassault Systèmes. The school enables companies to hire engineers

highly qualified in the use of these software solutions and provides it with an opportunity to teach its students the most advanced work methodologies.

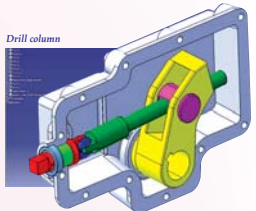
Only a year after adopting CATIA, students are already benefiting from its rich range of functionalities. One group developed its own "Le Mans" car using the software's design, kinematics, analysis and optimization applications and even knowledgeware where race regulations, modeled in CATIA, ensured the conformity of design choices. This multidiscipline approach is now being applied to eco-mobility: the Mechanical Computer-Aided-Design - Mechanical Sports option takes bio-fuels and particle filters very seriously in student projects. Enthusiasm abounds: teachers have observed that providing only 16 hours of training on CATIA was enough to prompt a group of students to invest 500 hours on their own.

## EXEMPLARY INTERNATIONAL COOPERATION

ENIM has strengthened all of its partnerships with the support of Dassault Systèmes and other National Engineering Schools by creating a new international cooperation called the "Cartagena Network". This network is composed of academic, institutional and industrial actors in the fields of mechanical and industrial engineering as well as industrial automation. One of this network's first projects was to set up a number of PLM teaching platforms in Colombia.

## PLM AT THE HEART OF A TEACHING TRANSFORMATION

ENIM and its partners quickly understood that PLM has a profound effect on teaching



Drill column

## Dassault Systèmes' PLM tools improve teaching by providing a technological platform for higher education.

methods and their organization. Being multidisciplinary in nature, PLM facilitates the cooperation of various teaching specializations, a transformation issue that, all in all, is very similar to what the industry faces. Companies that do not invest lose their competitiveness. Training establishments are not immune to this rule. This is why ENIM innovates to stay at the forefront of technology and performance. Investment in PLM enhances all of the teaching methods used by the construction department, which is piloting its implementation. The Head of the Department, Pascal Vieville, explains: "In the long term, we will train all students in this way, which will mean a complete review of our teaching methods. With PLM everything is designed digitally in a collaborative fashion. Information is shared from beginning to end, from design to completion. Prototypes are no longer needed; the time and money

savings are considerable." Pierre Chevrier, Deputy Head of Department, states: "For students, applying PLM means that after two years of predominantly basic training, their syllabus will be focused almost exclusively on collaborative projects and teaching will be completely decompartmentalized in an all-encompassing curriculum."

A true revolution, it will benefit students who will be the first to be fully trained in this way in France. The school has already invested a million euros in the project . ]

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## A nerve center of cooperation with the Spanish-speaking world

At ENIM, while the "aeronautics" option might finish in Argentina and the "international project management" option might pass through Madrid or Valencia, it is in Metz that we come across the greatest number of nationalities. Walking through ENIM's corridors, one can bump into Mexican teachers or the dean of a Spanish-speaking university in Florida, who has come to explore new training ideas, and even groups of Colombians attending lectures on transatlantic collaborative engineering.



## Questions for Pierre Padilla, Director of ENIM

### Contact Mag: How do you see the future of PLM teaching?

Pierre Padilla: Continuing and intensifying PLM training is a strategic focus. PLM helps to share data, to apply common processes and to capitalize on company information for product development, from design to recycling, and in all segments of the extended enterprise. This fundamental training approach enables our future engineers to gain a good overall understanding of the company.

### Contact Mag: How does Dassault Systèmes' software meet these expectations?

Pierre Padilla: Taking into account new technologies and the growing importance of the business of knowledge requires engineering training to focus on finding answers: promote collaboration, face risks together, create social networks to benefit from mutual experiences, etc. In this framework, Dassault Systèmes' PLM tools improve teaching by providing a technological platform for higher education that focuses on knowledge management, coordination and performance indicators.