

Vehicle repair research centres and the insurance industry

Ignacio Juárez
CESVIMAP, S. A.

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At the present time there are 19 automobile repair research centres around the world (see table) which are either wholly or partly owned by insurance companies involved in motor insurance. This is no coincidence, the reason being that the repair of damage produced as a consequence of accident represents a very high percentage of the money which insurance companies pay in claims.

MEMBERS OF R.C.A.R.	
Country	Centre
Germany	AZT
Germany	KTI
Argentina	CESVI Argentina
Australia	NRMA
Brazil	CESVI Brasil
Canada	Manitoba Public Insurance Corp.
Canada	Insurance Corp. of British Columbia
Korea	Kidi-Kart
Spain	Centro Zaragoza
Spain	CESVIMAP
United States	I.I.H.S.
United States	State Farm State Farm Insurance
United States	Tech-Cor Inc.
Finland	VAT
Italy	Cestar
Japan	The Jiken Center
Norway	Biłskadekomiteen
United Kingdom	Thatcham
Sweden	Folksam Auto

Figure 1

These centres, which are based in 14 countries, are brought together within the **Research Council for Automobile Repairs (R. C. A. R.)**, whose principal objective is to: "increase the level of safety, of quality, of awareness of vehicle repair methods in order to reduce costs to the insurance sector and to automobile users". The implementation of this idea in each centre and in each country is influenced by the peculiarities of each market and the types of losses affecting that market (theft will be more important in some markets, material damage in others and bodily injury in others, etc.), but the principal objective must always be borne in mind.

The research and experimental results are later passed on to the insurance industry which uses them in its technical departments, either to make strategic decisions (rating, risk selection) or for damage compensation.

The study of property damage affecting vehicles, and of vehicle repair, receives special attention, given that these elements take a relatively important place within loss experience, and that the results of this research can immediately be put into practice. Some examples of the use which can be made of this information are: training of the experts or adjusters who have to assess the cost of repairs, the production of instruments which facilitate this work (e.g. scales of replacement or repair times for parts, paint times and materials, etc.) or the setting up of information systems for immediate and permanent consultation.

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stant and firm support of the management of the insurance companies, the result should be a reduction in claims costs; if this were not the case then the existence of these centres, their growth, and the appearance of new centres would be difficult to understand.

MAPFRE'S EXPERIENCE: CESVIMAP

MAPFRE MUTUALIDAD set up its centre for road safety and research (CESVIMAP) in 1983. What started off as being an exciting adventure in which eight people worked, is today a company with more than 180 employees and three different centres (çvíila, Majadahonda and Alcalá de Henares). The work which is carried out by these centres, in permanent and continued co-ordination with the property damage division of MAPFRE MUTUALIDAD, has shown, and is continuing to show, positive results in this area.

One of CESVIMAP's main objectives is research and experimentation into vehicle repair, and the later distribution of the results obtained to whichever people, companies and organisations may need them. It is for this reason, and to promote the training of persons with or without experience in the field of automobile damage repair and adjustment, that CESVIMAP has created a number of courses with the aim of responding to the needs of those parties involved in these matters.

The CESVIMAP courses are eminently practical, and are supported by more than 15 years of experience in the area of automobile repair. The many courses which are given, orientated towards the technical specialisation of the attendees, may have a closed syllabus or may vary according to the needs of specific groups whose necessities have been previously assessed. In order to carry out this process, CESVIMAP has at its disposal the most modern audiovisual and computer equipment, a team of highly qualified trainers, and documentation developed by CESVIMAP from its research into automobile repair.

In addition to the computer-equipped classroom, which has one computer per student, and in which the newest legislation and regulations are studied, there are also acoustically insulated workshop-classrooms for each course. These classrooms are used exclusively for giving practical classes, guaranteeing the highest levels of safety, comfort and effectiveness.

TRAINING IN CESVIMAP

The training which is given by CESVIMAP stems from the fields of research in which it concentrates its work: bodywork, paintwork, electro-mechanics, motorcycles, industrial vehicles, adjustment, workshop organisation and reconstruction of road accidents.

With regard to bodywork, the course entitled Automobile Bodywork Repairs includes the most pertinent information in order to gain an in-depth understanding of soldering equipment and the repair and replacement of different components.

Training is also given in workbenches and straightening, so that, when confronted with a structural deformation, the correct torsion movements are used in order to bring the vehicle back into shape. The newest and most representative workbenches are used in this.

The course in soldering and assembly methods offers wide-ranging information on the various types of methods which exist: rivet welding, MIG/MAG welding and soft tin/lead welding, in addition to information on structural adhesives used in the repair of bodywork.

Also within the area of bodywork, the Course for ITV Station Engineers gives training in the verification of the structure and tracking of the steering, when dealing with the repair of structural elements of the chassis of a vehicle.

In the area of paintwork, an assessment is made of the various painting processes, together with the most up-to-date equipment and tools which are used in order to carry out high quality work. The Practi-

cal Course in Painting for Operators studies all the possible products and methods used in vehicle painting, with special emphasis on quality control.

One very important area in this field is the Repair, Painting and Finishing of Plastics, which is studied in order to repair-when replacement is not necessary-the plastic elements which are present in vehicles. This knowledge is broadened in the Advanced Course in the Repair of Plastic Elements, which, being aimed at experienced professionals, will train them in the latest innovations in methods, products, tools and working techniques which improve the quality of repair of plastic elements.

All the courses include individualised practical sessions in the various methods used.

The field of electro-mechanics, given that electronic components are increasingly numerous in automobiles, offers training in ABS braking systems, together with an Introduction to Automobile Electro-mechanics, forming a key guide to the handling of these components.

The motorcycle courses give the knowledge necessary in order to adjust and assess claims in this type of vehicle and in order to repair the parts which prove to be most fragile in accidents.

CESVIMAP is also greatly concerned with industrial vehicles, and the training given encompasses all aspects from the adjustment of property damage in this type of vehicle to painting and final finishing.

In the field of loss adjusting, a course is given entitled An Introductory Course for Motor Insurance Loss Adjusters, this course is aimed at people who do not have loss adjusting experience in vehicles, and gives training in the most up-to-date equipment and diagnosis and repair methods. The Refresher Course for Motor Insurance Loss Adjusters is directed at persons with experience, in order to give them training in new loss assessment technologies.

The course in Bodywork and Paintwork Workshop Organisation

offers the necessary training for a descriptive analysis and improvement in the functioning of the workshop in order to raise quality of service and operating profitability. Suggestions are made concerning space distribution, work sequences and flows, workshop areas and the equipment and operators which are necessary.

Lastly, the course in Reconstruction of Road Accidents provides a complete methodology for the re-

construction of an accident, including the collection of information and the key points in determining how and why the accident occurred. Different levels of the course are given depending on the experience and knowledge of the recipients.

The process of training closes the circle which is opened by research, given that its aim is to satisfy the need for knowledge which exists in the motor insurance loss adjusting and repair professions.

CESVIMAP PROGRAMME OF COURSES 1998
<ul style="list-style-type: none"> • Bodywork: <ul style="list-style-type: none"> - Automobile bodywork repair. - Workbenches and straightening. - Soldering and assembly methods. - Course for ITV station technicians.
<ul style="list-style-type: none"> • Paintwork: <ul style="list-style-type: none"> - Practical course in paintwork for operators. - profitability in paintwork. - Repair, painting and finishing of plastics. - Advanced course in the repair of plastic materials.
<ul style="list-style-type: none"> • Electromechanics: <ul style="list-style-type: none"> - ABS.braking systems - Introduction to automobile electro-mechanics.
<ul style="list-style-type: none"> • Motorcycles: <ul style="list-style-type: none"> - Motorcycle loss adjusting and repair.
<ul style="list-style-type: none"> • Industrial vehicles: <ul style="list-style-type: none"> - Industrial vehicle paintwork. - Loss adjusting in industrial vehicles.
<ul style="list-style-type: none"> • Loss adjusting: <ul style="list-style-type: none"> - Refresher course for motor insurance loss adjusters. - Introductory course for motor insurance loss adjusters.
<ul style="list-style-type: none"> • Organisation: <ul style="list-style-type: none"> - Bodywork and paintwork workshop organisation.
<ul style="list-style-type: none"> • Road accident reconstruction: <ul style="list-style-type: none"> - Collection of information in road accident reconstructions. - Road accident reconstruction. - Advanced course in road accident reconstruction.

Figure 2