RCAR'S HISTORY
THE STORY OF RCAR'S BIRTH AND PROGRESS
1960 - 2000
BY HANS GUSTAFSSON

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FOREWORD

The Folksam Group and its President, Klas Back, was so closely associated with the formation of RCAR that it is inevitable that this introduction contains a description of Folksam's pioneering work at the beginning of the RCAR era. In the early days also Norway, Finland, Denmark, Germany and Great Britain must be given large credit for the development of RCAR.

MOTORING DEVELOPED FASTER IN SWEDEN THAN IN OTHER EUROPEAN COUNTRIES AFTER THE SECOND WORLD WAR.

Sweden managed to avoid becoming involved in the second world war. Consequently the Swedish economy recovered faster than other European economies. Sweden's industries were intact and Sweden had no war damage to recover from.

Therefore between 1950-1970 motoring developed faster in Sweden than in other European countries. The car fleet in Sweden increased so fast during these years that the capacity of dealer workshops and independent workshops was insufficient to cope with the repairs and servicing of the increased number of vehicles. Demand for service and repair outstripped capacity which in turn increased prices. The quality of repairs was low and knowledge inadequate.

At the beginning of the 1960s Folksam established that the financial costs for service, repairs, spare parts and refinishing had increased considerably more than other products and services. Between 1955–1964 the index for car repairs rose from 100 to 232 while the general consumer price index rose to only 136. A price comparison with a number of Nordic and European countries showed that the price level in Sweden was considerably higher than in these countries.

Discussions with representatives of the repair trade organization were not successful and very little respect was given to suggestions for improvement made by Folksam. Folksam's view was that dealers and workshops were lacking in understanding of its problems at this point in time.

AUTOMOBILE INSURANCE RAN AT A LOSS

The increased cost of material damage repairs meant that automobile insurance was being run at a loss for all insurance companies in Sweden. The company management of some insurance companies considered the situation so grave that they contemplated withdrawing from the market.

FOLKSAM DEFENDED THE CONSUMERS' INTERESTS

Folksam was by tradition an insurance company that defended the policy holder's interests more than other companies. Folksam's General Manager, Mr Klas Back, believed that the company had an obligation towards car owners to organise a reduction in crash repair costs. He estimated that if the cost increases could not be halted very quickly a situation would arise where the policyholders would not be able to afford to pay for the insurance cover they needed. If such a situation occurred it would influence the development of motoring in Sweden and decrease the insurance protection for the car owners.

FOLKSAM DECIDED TO LEARN THE AUTOMOBILE REPAIR TRADE FROM THE WORKSHOP FLOOR

As the entire repair trade had shown little interest in co-operating to help solve the problems, Mr Back considered that Folksam had to learn crash repairs from the bottom up, starting at the level of the workshop floor.

Folksam decided to start Folksam Auto as an affiliated company within the Folksam Group. The action was most urgent because repair prices were increasing every month. Therefore, Folksam bought a well-established crash repair workshop, Växjö Bil & Karosseri AB. The workshop was mainly known for application of new thinking in repair techniques and rationalization. The owner, Kurt Johansson was appointed as the General Manager of the new company and worked for the company until his retirement in 1989.

During the Autumn of 1964 work started to integrate Folksam Auto with the Folksam organization. The Chief Engineer of Folksam Automobile Insurance, Hans Gustafsson, was made responsible for research and development. Research and development should concentrate on projects of value to the automobile insurers. Therefore, Hans Gustafsson was appointed a member of the management group.

USA SENATE INTERESTED IN FOLKSAM ACTIVITIES OF ADVANTAGE TO MOTORISTS

Folksam's activities aimed at reducing the motorist's costs were of such interest to the USA Senate that in 1965 Folksam was invited to testify before the Senate (Senator Hart's Committee for Antitrust and Monopoly). Representatives from Folksam were Hans Gustafsson, Dag Wedmalm and Kurt Johansson. The testimony aroused an interest in Senator Hart's Committee and within the insurance industry in the USA.

REPAIR PAINTING (REFINISHING) THE FIRST SUCCESSFUL RESEARCH PROJECT

Folksam Auto's first successful project was an investigation into car repair painting aimed at rationalization of car painting through utilization of new paint materials and methods. Car painting was chosen because painting is a general cost in crash repairs and a decrease in the paint price should influence all crash repairs. The result of the study was a new painting system using a new type of spray filler. The method resulted in a paint price list 30% lower than when using the traditional method. Folksam applied the new prices in 1966.

THE REPAIR TRADE BOYCOTTED FOLKSAM

Many paint shops boycotted Folksam's crash repairs by refusing to repair when the new price list was applied. There was a smaller number of paint shops which accepted the new method and the new price list but unfortunately these paint shops did not have the necessary capacity and this created problems. The competing insurance companies stayed on the sidelines watching the fight but continued to pay the higher price.

CHANGES ARE FORCED BY NEW NEEDS.

Necessity is the mother of invention. Mr Back invited the competitors to Folksam Auto for a demonstration of the new paint method. After the demonstration he suggested that all companies should ask for the new prices. He also suggested forming an insurance repair committee aimed at a common action in lowering the crash repair prices. He explained his willingness to communicate within the committee all new methods and possibilities that resulted from the developments at Folksam Auto. The philosophy behind this generous offer was that even if Folksam shared new possibilities with the other members of the committee, Folksam would still be ahead of them at the implementation. Another advantage was that if all companies supported the move the implementation would go faster.

SIMPLE PRINCIPLES WERE APPLIED FOR CO-OPERATION ON THE INSURANCE COMPANIES CAR REPAIR COMMITTEE.

All the members of the Repair Committee should have equal rights and duties concerning joint decisions, but everything should, as far as possible, be of their own free will. Persuasion not compulsion should be a fundamental rule.

When the competing insurance companies had thought over Mr Back's suggestion about a Repair Committee they accepted and the committee was formed 1966. The members were represented by the insurance company's general manager or the vice general manager. It was a demonstration that the insurance industry was seriously concerned with cost control. Mr. Back was appointed as chairman of the committee and he worked successfully for ten years.

The Car Repair Committee worked for Swedish automobile insurers successfully for 25 years before it was dissolved because of the Authority's interpretation of European Competition Law.

CLASSIFICATION OF CAR MODELS AIMED AT AN INSURANCE RATING SYSTEM RELATED TO CRASH REPAIR COSTS THUS MAKING THE CAR MANUFACTURERS PARTLY RESPONSIBLE FOR THE PREMIUM LEVEL OF THEIR CARS

During the Repair Committee's first year the idea of creating a rating system arose. This took into account how expensive the car was to repair and how sensitive it was to damage. The idea was aimed at a common classification system which all companies accepted and followed. The system embraced fixed parameters in premium expressed as a percentage between the different classes.

The different companies' ability to compete determined the basic premium they would like to use. The classification system resulted in great support for the Repair Committee's work. Car manufacturers and their general agents discovered that they were suddenly partly responsible for the level of the premium. The classifi- cation system gave different car manufacturers and general agents ideas about possible measures aimed at a favourable classification of their cars. The classification system gave great strength to the Repair Committee in its work.

THE NORDIC INSURANCE REPAIR COMMITTEE WAS FORMED

The success of the Swedish Repair Committee inspired the other Nordic countries to form similar committies. The different national committees formed a common Nordic Repair Committee. The Nordic Committee very soon realised that any co-operation with other European countries having research institutes should influence car manufacturers and direct their interest to crash repair prices. At this point in time, Allianz in Germany and insurance companies in the UK had started their own research institutes under the names of Allianz Zentrum für Technik and Thatcham.

RCAR WAS FORMED IN 1972

Representatives of the Repair Committees in the Nordic countries, Allianz Zentrum für Technik and Thatcham met in Stockholm for the purpose of laying down the guiding principles for a future organisation for international co-operation. The representatives agreed on the formation and to the name Research Committee for Automobile Repairs abbreviated to RCAR. (The name was changed to Research **Council** for Automobile Repairs in 1995.)

THE FORMATION OF RCAR WAS BASED ON A NUMBER OF GENUINE PRINCIPLES

The definition of genuine principles used for the formation was as follows. The principles would express a group mission that is a plain and unmistakable statement of a fundamental understanding about how the group should behave in arriving at its purpose.

The principles were intended to provide guidance after which decisions, measures and results should be decided.

A genuine principle must always have a high ethical and moral content.

THE NEWLY FORMED RCAR GROUP AGREED TO NINE GENUINE PRINCIPLES AS A BASIS FOR CO-OPERATION WITHIN THE GROUP.

Principle 1.
RCAR will be a forum for exchange of experience between insurance research institutes and national insurance repair committees working with loss prevention methods and price lowering repair methods aimed at reducing crash repair costs and consequently the motorist's insurance premium.

Principle 2.
Through co-operation RCAR will influence car manufacturers to design cars that are easier to repair and less sensitive in a crash.

Principle 3
RCAR's members will, through national R&D and co-operation, stimulate the utilisation of rationale crash repair methods and by insurance statistics act for increased car safety and car security.

Principle 4.
RCAR will be open for all qualified participants. RCAR will establish qualification criteria for membership, but when such rules are established RCAR will be open to all those who are interested and who meet the criteria.

Principle 5.
Members of RCAR will have equal rights and obligations.

Principles 6.
As far as possible any agreement will be voluntary. Persuasion not compulsion will be a fundamental rule

Principles 7
Power, functions and resources will be shared among all members. No power can be distributed to a particular member.

Principle 8.
Authority will be equally distributed within every steering unit. The steering units will contain only affected members and be constituted in such a way that they represent all the relevant and affected parties' interests. No personal profit motive or vested interest will dominate or govern decisions.

Principle 9.
The official language of RCAR, both spoken and written, will be English.

THE CONTINUATION OF RCAR'S SUCCESSFUL HISTORY

THE MEMBERS

The organization consists of a number of leaders who represent insurance research institutes and insurance companies with strong national establishments, and who also have an interest in international co-operation aimed at strengthening national efforts.

A QUESTION OF GREAT INTEREST, NOW AND IN THE FUTURE, IS "WHAT HAS CONTRIBUTED TOWARDS MAKING RCAR SUCCESSFUL?"

RCAR's genuine principles have established the foundation of an ideological platform for members' co-operation.

RCAR's members (the leaders) have shown that much has been achieved from good relations and teamwork between members of the group.

You cannot say that the leaders are the sole reason for the organization's achievements, but the leaders have, by sharing experiences and providing the right conditions, created a strong and healthy organization.

HOW IT HAS HAPPENED

By discovering and giving expression to a feeling of affinity, a future vision and a series of principles that the members wholeheartedly agree to.

By expressing their own research goals and listening to the views of others, creative capacity is unlocked. In other words, each feeds on the ideas of others. Problems and solutions are shared and in this way progress is assured.

MILESTONES IN RCAR'S DEVELOPMENT 1972 — 1990

There are many milestones along the way in RCAR's History. The following have been chosen because they have had a significant influence on insurance costs, crash repair prices, reparability, damageability, security, safety and the further development of RCAR.

THE CONSTITUTION FOR RCAR

During this period the number of members increased from six to seventeen. The period is characterized by many national activities and by the members' exchange of experiences once a year at the annual RCAR Meetings. In the early years these meetings were quite informal. The first meeting where the members distributed written information describing their progress took place in London in 1976. The meeting was hosted by Thatcham. During this period the original, provisional Constitution was in force. It had been valid from the beginning. A revised edition was presented at the annual RCAR Meeting in Finland in 1982, the result of work by a sub-committee managed by Finland. The present RCAR Constitution, which dates from 1982, has remained valid except for some minor changes.

COMMON STRATEGIC DIRECTION FOR RCAR

At the meeting in Finland in 1982 Sweden proposed that RCAR would formulate a common strategic direction with the purpose of stimulating the members to drive the development in a direction favourable to the automobile insurance industry. A sub-committee was formed consisting of Hans Gustafsson, Folksam Sweden, Danny Gibbs

from Thatcham UK, and Max Danner of Allianz Zentrum für Technik Germany . The committee's task was to formulate and present a draft of a common strategic direction at the annual meeting in Chicago in 1983.

Hans Gustafsson consulted the sub-committee and it was decided that he should prepare a draft with an international approach and ask for the other members' viewpoints. The draft was accepted by the group with a few corrections. When it was presented at the meeting in Chicago the members accepted it unanimously.

DURING THIS TIME SEVERAL NOTEWORTHY EVENTS OCCURRED AS A RESULT OF NATIONAL ACTIVITIES AND CO-OPERATION BETWEEN RCAR'S MEMBERS.

A NEW RATIONAL METHOD FOR CRASH REPAIRS

Folksam Auto in Sweden developed a method for joining car body parts in a new and more rational way. Workshops replaced body parts using the same methods as car manufacturers used when building the car, ie using the original joint. Folksam Auto considered that a crash repair should be easier and of higher quality if the operation could be restricted to the damaged area. In early research TIG-welding was used but as development work continued the partners (AGA and ESAB) reached the conclusion that MIG welding would be a better method. MIG welding was already established in other industries, but only for a thicker steel plate. An Intensive programme of work started at AGA and ESAB and the companies quickly developed MIG welding for body sheet metal.

Folksam Auto had arrived at a new and more rational method for crash repairs. The co-operation within RCAR is one contributing reason why the implementation was so succesful all over the world. Allianz Zentrum für Technik and Thatcham realized the advantages of the method and contributed strongly to the introduction. Because of the co-operation between the centres the implementation was much more successful than if Folksam had done.it alone. **This showed for the first time the real value of the co-operation within RCAR.**

INSURANCE CAR CLASSIFICATION (GROUP RATING) IN GERMANY SPEEDED UP DEVELOPMENT

During the late 1970s Germany introduced an insurance car classification system in principle similar to the Swedish system. Sweden certainly had a classification system, but Sweden is too small a country to influence the international development. The German system and its application to insurance rating had great influence with the car manufacturers concerning their interest in lowering crash repair prices.
The interest of the vehicle manaufacturers was gained when they discovered that they had been partly responsible for setting the insurance premium level of the cars they were producing and selling. This helped them to focus on the reduction of crash repair costs.

Allianz Zentrum für Technik played a leading role as did their parent insurers, Allianz Versicherung, in the development of reparability and damageability in Europe. Professor Max Danner, the Chief Executive at that time of AZT, was pivotal in this process through his engagement as chairperson of the German classification organization, Huk Verband.

AUDATEX SHOWED THE WAY OF RATIONAL ESTIMATING OF CRASH REPAIR COSTS.

A database system, Audatex, for estimating crash repair costs had been developed in Germany. The system used the repair times recommended by the car manufacturers. Audatex was the first systematic method of crash repair calculation. The system became a success in Germany and has gradually been extended to many other European countries, USA and Japan.

The UK and Sweden had a number of objections to the system, the principle being its acceptance of manufacturers' repair times. This resulted in different time levels for each make of car. If about the same hourly rate is used for all makes of car the prices will vary widely for comparable repairs and the insurance companies will not know if they are paying the correct price. This was the main reason why the system was not accepted in Sweden and the UK.

Audatex deserves credit because it showed the way for systemised and rational calculation of crash repair costs. It should be mentioned that the difference in the time level has decreased and is nowadays adjusted to the organization level in countries where the system is in use.

TIME STUDIES AND REPAIR MANUALS IN UK

In the UK Thatcham developed through time studies their own repair time lists in combination with repair manuals for the UK market. This was a pioneering work and had great influence on the development of the repair market in the UK and inspired other members of RCAR to similar achievements. Thatcham succeeded in establishing such confidence for its work within the car industry that many car manufacturers used Thatcham's knowledge and creativity at the prototype stage. The combination of time studies, the development of repair manuals and the prototype work in co-operation with the car manufacturers has been of significance in the development of car models with higher reparability and less sensitivity to damage.

PARALLEL DEVELOPMENT IN SWEDEN

Parallel with the development of repair times in the UK work was undertaken in Sweden aimed at a system for producing repair times for all car models with time levels of equal value. The project was called MYSBY, a shortening of the Swedish terms for measure straightening, surface straightening, joining and replacing. It comprised repair times for all crash repair operations and resulted in a general system for estimating repair times for all makes and models of passenger cars. Examples of car manufacturers using the MYSBY system are Ford, Volkswagen, Volvo, Saab, Toyota of Europe, etc. It means that repair times produced by these car manufacturers now have qualifications to be accepted at calculation of crash repairs. The MYSBY times produced by car manufacturers can contain one variable for the organization level of the dealer's workshop. The insurance industry is recommended to ask the car manufacturer about the influence of that variable in the respective country.

LOW SPEED BARRIER TESTS PROVIDE AN AID TO THE CLASSIFICATION OF CAR CRASH REPAIR COSTS.

In co-operation with Mercedes Benz, Allianz Zentrum für Technik developed a method for low speed barrier tests (15 km/h) of new cars. This method has been further developed in co-operation with other RCAR members and the method is documented in an RCAR document. The method was later incorporated in an RCAR Standard and is now used by the RCAR members making up barrier tests of their own or in co-operation with car manufacturers.

THE NUMBER OF RCAR MEMBERS INCREASES

By 1990 the number of RCAR members had increased to 17. During this time the following centres joined RCAR: MAPFRE Cesvimap, Spain; The Jiken Center Ltd, Japan, CESTAR, Italy; Insurance Corporation of British Columbia, Canada; Manitoba Public Insurance, Canada; KTI Kraftfahrzeugtechnisches Institute, Germany; NRMA Insurance Ltd. Australia; Tech-Cor Inc., USA; and VAT, Finland;

The new members had established their research operations in their respective countries so well that they could be given full membership from the beginning in accordance with the RCAR Constitution.

During the initial stage new members' activities concentrated on creating advantages in their own market. Their efforts were of great value as they underlined the insurance industry's drive to create advantage to the entire automobile insurance industry.

SECRETARY GENERAL

Until 1990 RCAR had no permanent Secretary General. The UK and Sweden took it in turn to discharge this responsibily during this period. After the annual meeting in Sweden in 1989 Mr Masami Yokoi, the President of the Jiken Centre in Japan, suggested the appointment of a permanent Secretary General. Mr Yokoi's arguments were that:

- RCAR was growing very fast and the members' activities were extensive.
- An increased and systematic interchange of experience and knowledge would be of great value to the members.
- A common strategic direction would demand better co-ordination to obtain international influence on development.
- RCAR had great potential to become an organization with considerable influence in the international development of cars that would be of great advantage to the insurance industry and its customers. A stronger RCAR would increase the national research institute's influence within individual countries.

THE ANNUAL RCAR MEETING IN VANCOUVER IN CANADA IN 1990 DECIDED TO EMPLOY A DEDICATED SECRETARY GENERAL OF RCAR

Hans Gustafsson, Sweden, was a candidate for the position. At the meeting he presented a draft plan for the service he was willing to take provide. He had experience of automobile insurance research and of managing automobile insurance at the Folksam Group over thirty years. He had been a RCAR delegate for Folksam since 1976.

The Meeting appointed Hans Gustafsson as Secretary General and he started his duties on 1 January 1991. The Meeting decided also that RCAR should be managed by a Steering Committee. Mr Ken Roberts, Thatcham, was appointed Chairman of the committee and still has that responsibility today after unanimous re-election every year.

HANS GUSTAFSSON EXPOUNDED HIS VISION OF THE WORK HE HAD TAKEN RESPONSIBILITY FOR.

- To supervise the creation of an active information management system for the members.

- To inspire the insurance industry via the member institutes to use research results and experience in the development of rating systems that take into account different cars' reparability, damageability and safety levels.

- To design and establish the RCAR Research Newsletter.

- To actively search out information on the subjects of reparability, damageability, auto technology, repair technology and car safety.

- To work in close co-operation with the members towards systematic rationalization of activities within RCAR in the following areas:

- Crash tests. Establish a system for standardization of crash test results and a common system for reporting and evaluating results.

- Research and development results. Establish a system for reporting R&D projects and results.

- To devise models describing the value of research and development results aiming at thought-provoking information for the insurance industry, car manufacturers and motorists.

- To follow the R&D work in the member institutes and collect for distribution results and experience of interest to other members.

- Visiting the member institutes when this promotes common interest.

- To actively participate in the planning of the RCAR Annual Meetings

THE PERIOD 1991 – 2000

Appointing a dedicated Secretary General meant increased common activities by the established systems and continuity in the exchange of information within the group.

On the whole the Secretary General's vision from 1990 have been realized through the efforts of the RCAR Steering Committee, RCAR Members and by the activities of the Secretary General.

IMPORTANT EVENTS OR SUCCESSFUL IMPLEMENTATION OF RESULTS IN MEMBER COUNTRIES 1991 – 2000.

The selection consists of activities the author estimates as being of great importance for the automobile insurance industry. I am conscious of the risk of being subjective, but I have done my best to be objective. Examples of such projects and events are:-

THE CAR SECURITY DESIGN GUIDE & EVALUATION SYSTEM aimed at inspiring the insurance industry to develop a theft rating system that takes account of different car models' security levels against theft. The guide also aimed at inspiring car manufacturers to design systems that made theft and break-in more difficult.

The project included printing and distribution of documentation to the insurance industry and to car manufacturers aiming at theft rating systems and car security. The standard was created by NRMA in Australia with assistance from other centres. The standard has been updated in line with technical developments.

THE RCAR DIRECTORY was designed and distributed to the members. The Directory comprised a presentation of the member institutes and their resources, the RCAR Common Strategic Direction and the RCAR Constitution. The Directory aimed at giving the uninitiated information about RCAR, the common strategic direction within the group and an overview of the impressive research resources within the group.

THE RCAR GUIDE "VEHICLE DESIGN FEATURES FOR OPTIMUM LOW SPEED IMPACT PERFORMANCE" was initiated by Thatcham and distributed to car manufacturers by the national institutes. The booklet described how different design solutions affected damageability and reparability. It has been much appreciated by car manufacturers and is used also for training car manufacturers' engineers.

LAUNCHING THE RCAR HOME PAGE (HTTP://WWW.RCAR.ORG) made RCAR information available to all interested parties. The RCAR web site contains all the RCAR publications for downloading together with RCAR members' details and a list of on-going projects. Usage is increasing with circa 20,000 hits per month (in year 2000). This provides an excellent marketing platform for RCAR.

REPORT ON "MANAGEMENT OF RECYCLED PARTS IN MEMBER COUNTRIES"

The report was intended to inspire the members to increase the recycling of parts and gave examples of successful systems and actions taken in different countries.

REPORT ON PLASTIC REPAIR METHODS AND SUCCESSFUL IMPLEMENTATION aimed at increased repairs of plastic parts.

THE RCAR PROJECT CATALOGUE is an annual report of all member centres' ongoing and planned projects. The report aims to inspire the members on the urgent development and exchange of information to ensure that possibilities of project co-operation are not missed.

CESVIMAP IN SPAIN established a pilot workshop open to the public. This workshop aimed to prove to the repair trade that the methods they had developed and the price of crash repairs was having an effect on the industry.

BY ESTABLISHING AN NTERNATIONAL RESEARCH ORGANIZATION, CESVIMAP IN SPAIN HAS SHOWN that research in automobile insurance can be a valuable and strategic component when establishing insurance business in other countries. Actively lowering the cost of claims is a way of reducing the risks to the insurers in a new market. The creation of CESVIs in Argentina, Brasil, Colombia, France and Mexico has led to a major increase in the Latin American area and has been driven by Antonio Estrada of MAPFRE.

LOW SPEED BARRIER TESTS BECAME MORE AND MORE COMMON among RCAR members.

GROUP RATING INTRODUCED IN THE UK. Partially built on crash test experiences and reparability and damageability analysis, the system is an acknowledgement of the value of studies in these areas.

THATCHAM TIME SYSTEM (TTS). TTS was developed and implemented by Thatcham. The system has the same structure as the MYSBY system and produces approximately the same repair times. The advantage over the MYSBY system is that it is fully controlled by an insurance research institute. Thatcham has made the system available for other members and this has been very valuable in the development of repair time systems in many other member countries.

POSITION PAPER ON CAR SECURITY. The paper was distributed to all car manufacturers and had a significant influence on the development of car security all over the world. Powerful action by NRMA in Australia, Allianz in Germany and Thatcham in the UK, resulted in most new cars being equipped with immobilizers within one year. In the USA the Insurance Institute for Highway Safety, IIHS, had a parallel action of a similar kind which had a comparable effect on the frequency of thefts. This development has decreased the theft rate significantly, but unfortunately as new cars are now so difficult to steal the thieves have changed their methods to robbery of the car keys from the driver in garages or parking spaces.

THE INSURANCE INSTITUTE FOR HIGHWAY SAFETY (IIHS) AND STATE FARM RESEARCH IN THE USA WERE ELECTED AS MEMBERS OF RCAR. IIHS has long experience of low speed tests and excellent resources for high speed tests. Thus the Institute was valuable in expanding RCAR's total research resources. IIHS's well-known and highly respected research results as well as consumer actions are good examples of the influence a research institute can have in a country.

State Farm, the largest auto insurer in the world, also joined RCAR. With its interest in material damage and vehicle safety, and its comprehensive database of some 34 million auto policy holders, it too has added a great deal to the research base of RCAR.

THE METHOD OF HEAD RESTRAINT RATING has been developed by the Insurance Corporation of British Columbia (ICBC) in Canada, in co-operation with IIHS. The rating method was then further developed and implemented in USA.

ALUMINIUM BODY REPAIR has been researched by KTI in Germany, Thatcham in the UK and the Jiken Center in Japan. General repair methods and repair technique results are available for RCAR members and car manufacturers. This is an important development as the repair of aluminium calls for new repair techniques.

POSITION PAPER ON AFTERMARKET SPARE PARTS, aimed at a declaration of RCAR's demands of quality and safety, was circulated. The paper points out the insurance industries' irremissable demands for safety and quality.

POSITION PAPER ON CRASH INITIATED RESTRAINT SYSTEMS (AIRBAGS AND SEAT BELT PRETENSIONERS. The paper contains guidelines regarded by the insurance industry as important to take into account when designing airbag and seatbelt systems.

REPORT ON QUALITY PLASTIC REPAIR METHODS in use and successful implementation. Investigations have shown that repairs of plastic parts are not being taken full advantage of by insurers. The report, aimed at inspiring research centres and insurers to use qualified methods, was developed by a number of RCAR members.

MODEL FOR ESTIMATING THE VALUE OF RESEARCH AND DEVELOPMENT FOR THE AUTOMOBILE INSURANCE INDUSTRY. A model was developed to strengthen the economic arguments for increased insurance repair research.

MANY A LITTLE MAKES A MICKLE*

RCAR had 24 members in 17 countries at the end of year 2000. The RCAR Project Catalogue for the year 2000 covered 152 projects, planned or in progress. The activity level is thus high within the group. The dominating areas in year 2000 were:

Reparability 19 projects; Damageability 12 projects; Refinishing 7 projects; Crash testing 10 projects; Time schedules 8 projects; Calculation 7 projects; Vehicle/Occupant Safety 12 projects; Security/theft 6 projects; Training 11 projects.

***An old English proverb meaning many small things added together make something which is great.**

THE TOTAL RESEARCH BUDGET FOR ALL RCAR MEMBERS IS APPROXIMATELY USD 70 MILLION PER YEAR.

The concentration on projects of value to the automobile insurance industry means lower crash repair prices, lower insurance premiums, higher quality of repairs and increased safety and security. These efforts are made by a few farseeing insurance companies and common insurance organizations to the benefit of the entire insurance industry and motorists.

FUTURE CONDITION FOR RCAR

Since the past can never be more than preliminary and the present never more than a starting point for the future, RCAR has dedicated its thinking and energy to making a success to date.

The rapid development of new technology calls for creativity and foresight.

Experience has shown that RCAR Members are sufficiently far-sighted to live up to these demands.

Stockholm 2001-07-05

Former Secretary General of RCAR