

WG A3.06 Reliability of HV equipment- IT population

Preliminary Results from Present CIGRE Survey

Instruments Transformer

Population cards 2004

Failure cards 2004 and 2005 (partly)

WG A3-06 Tutorial

June 2006

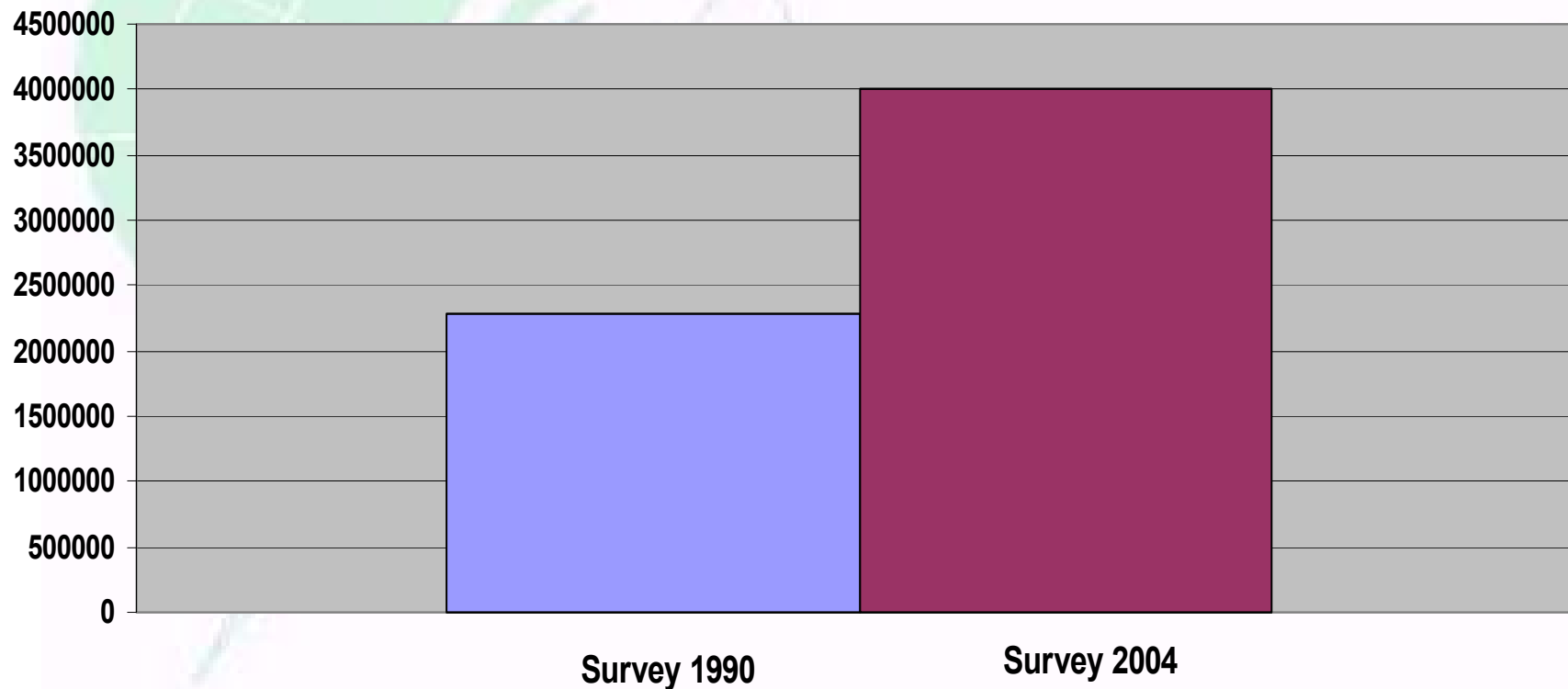
Rio de Janeiro

TF Instruments Transformer

A. Giboulet, P-A Hellman, F. Waite

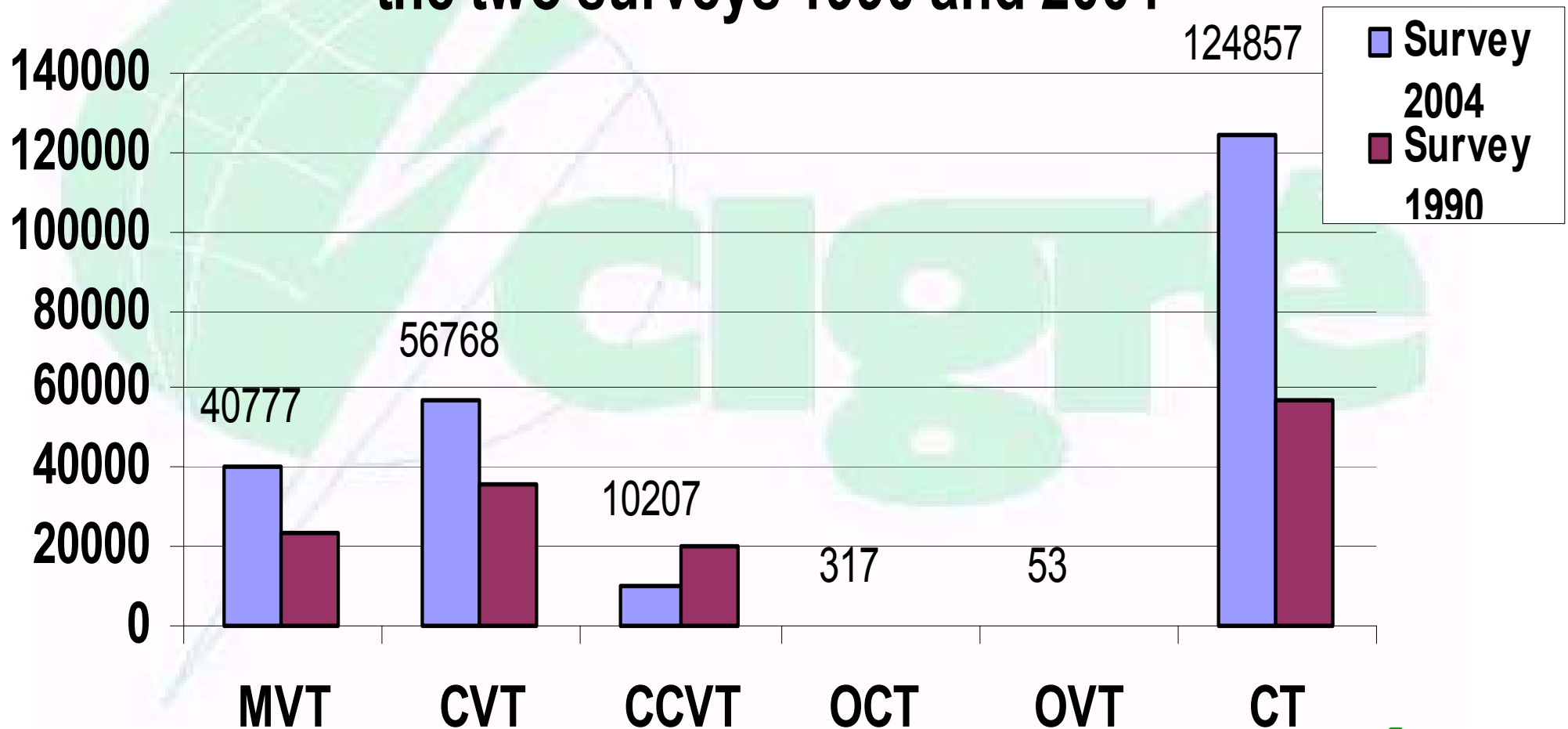
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Comparison of (IT's X years) between the two surveys 1990 and 2004



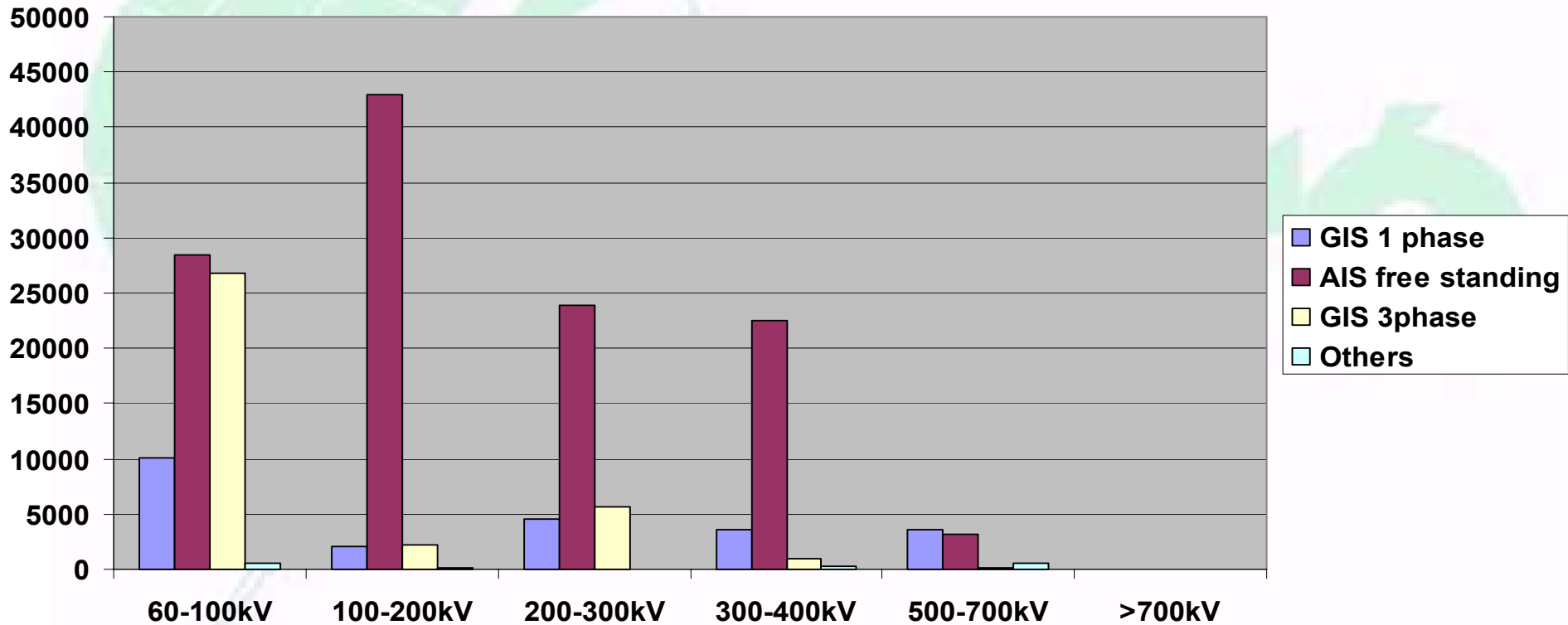
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Comparison of IT number by IT's kind between the two surveys 1990 and 2004



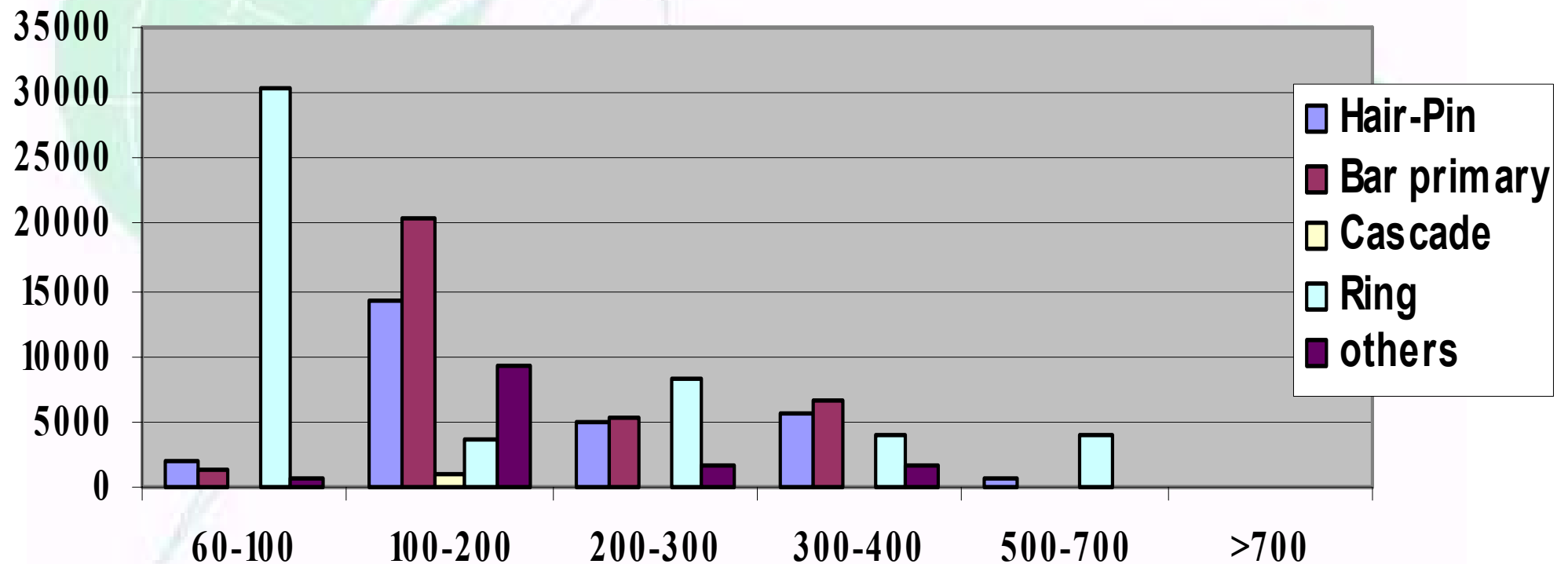
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TYPE OF APPLICATION OF IT ACCORDING TO THE VOLTAGE CLASS



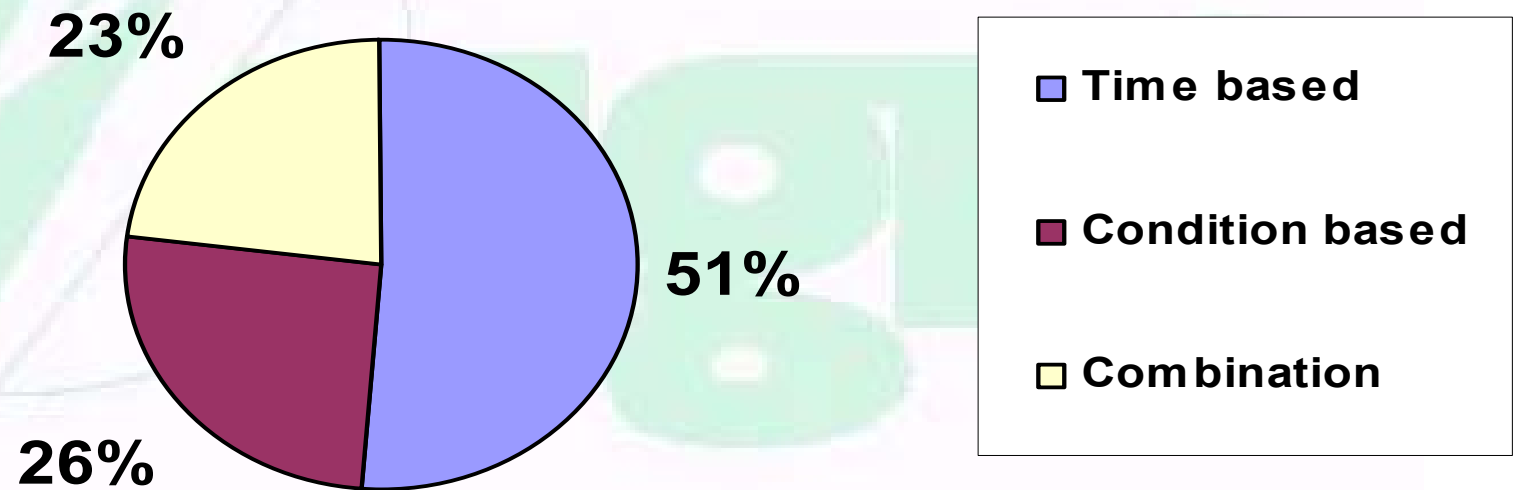
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CT Primary Arrangement distribution by voltage class



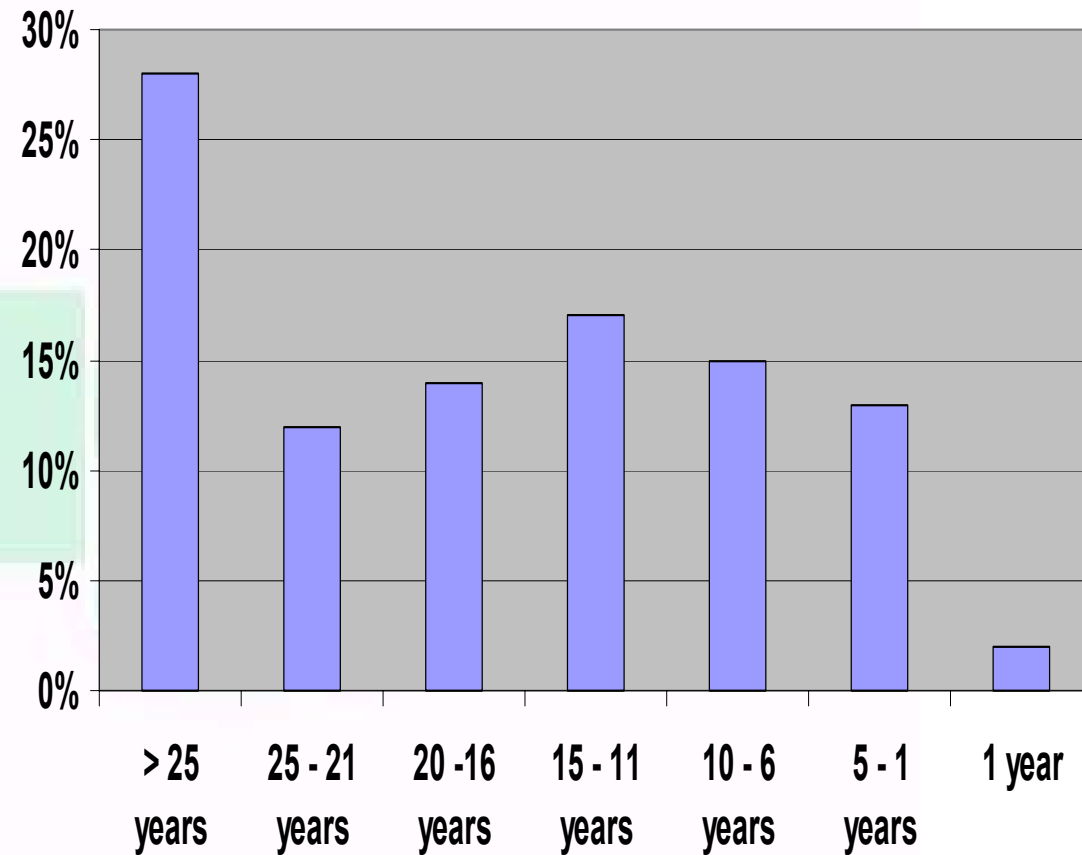
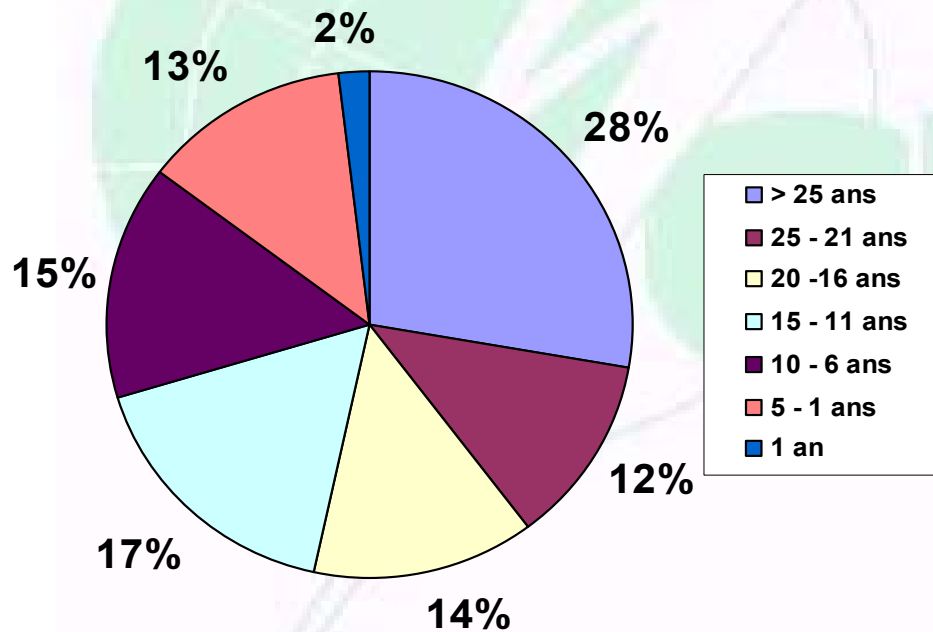
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IT Maintenance Practice



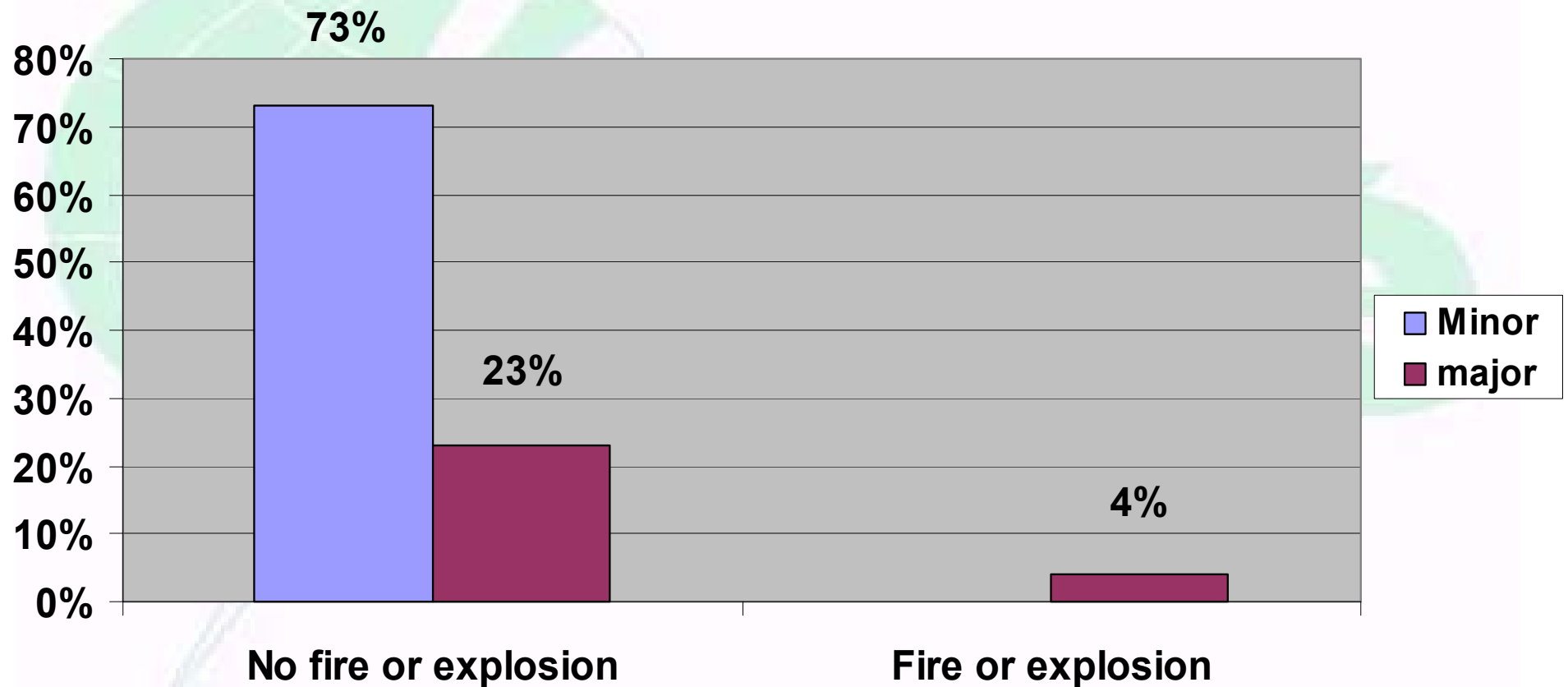
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IT age distribution in %



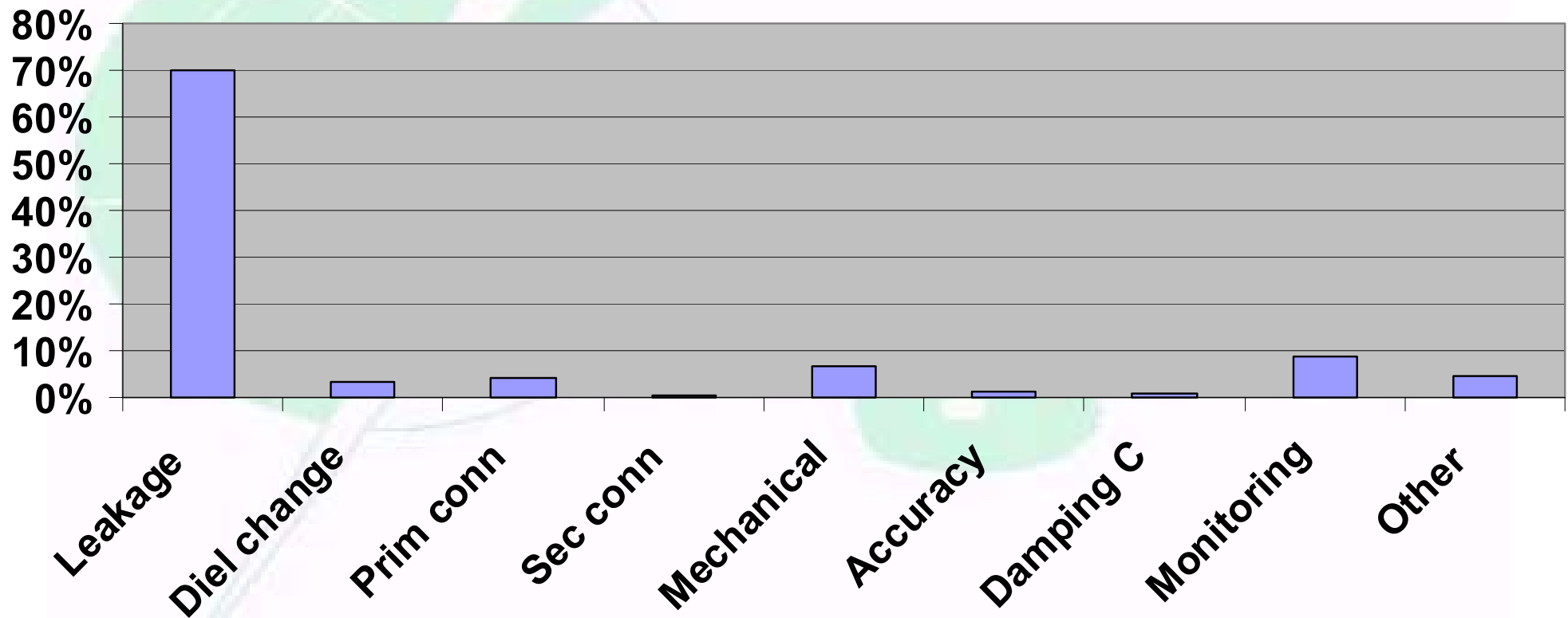
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IT FAILURE TYPES



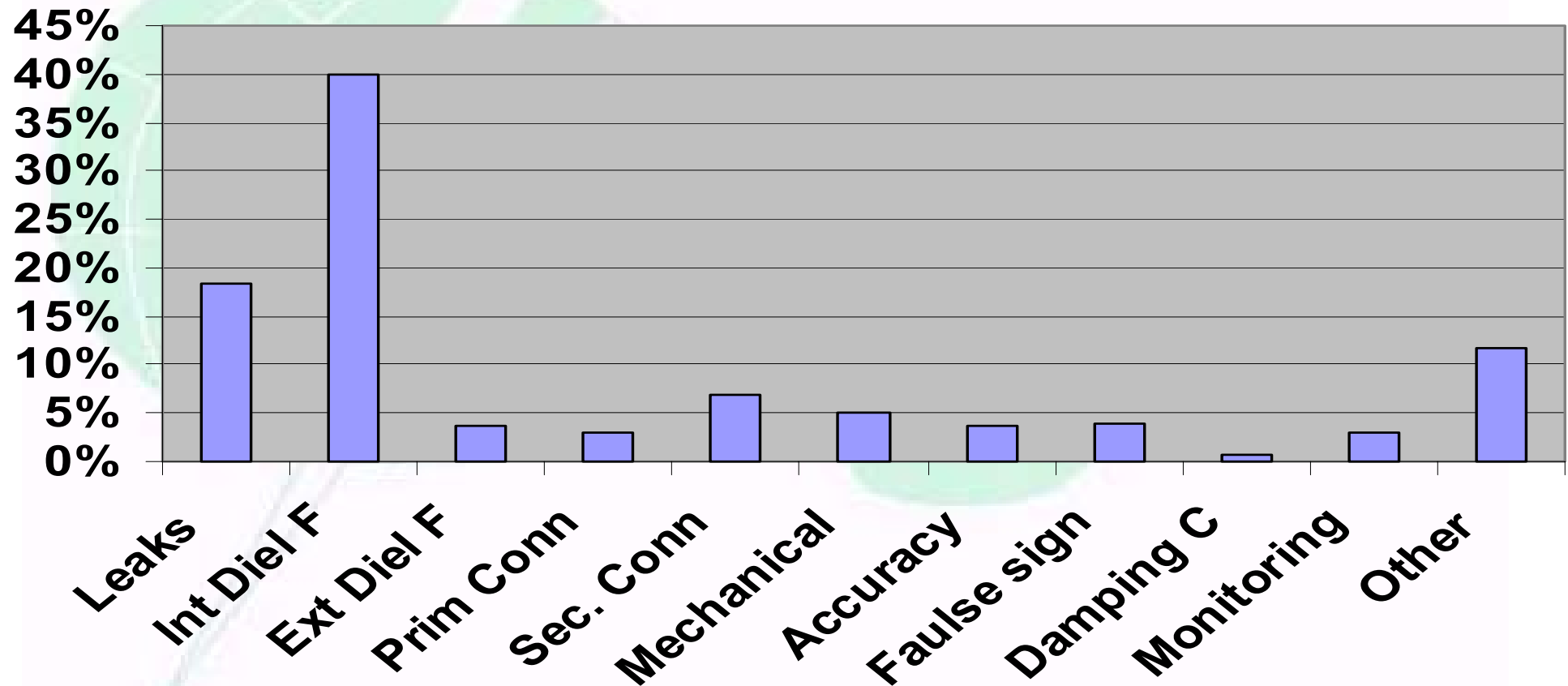
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IT MINOR FAILURE MODES



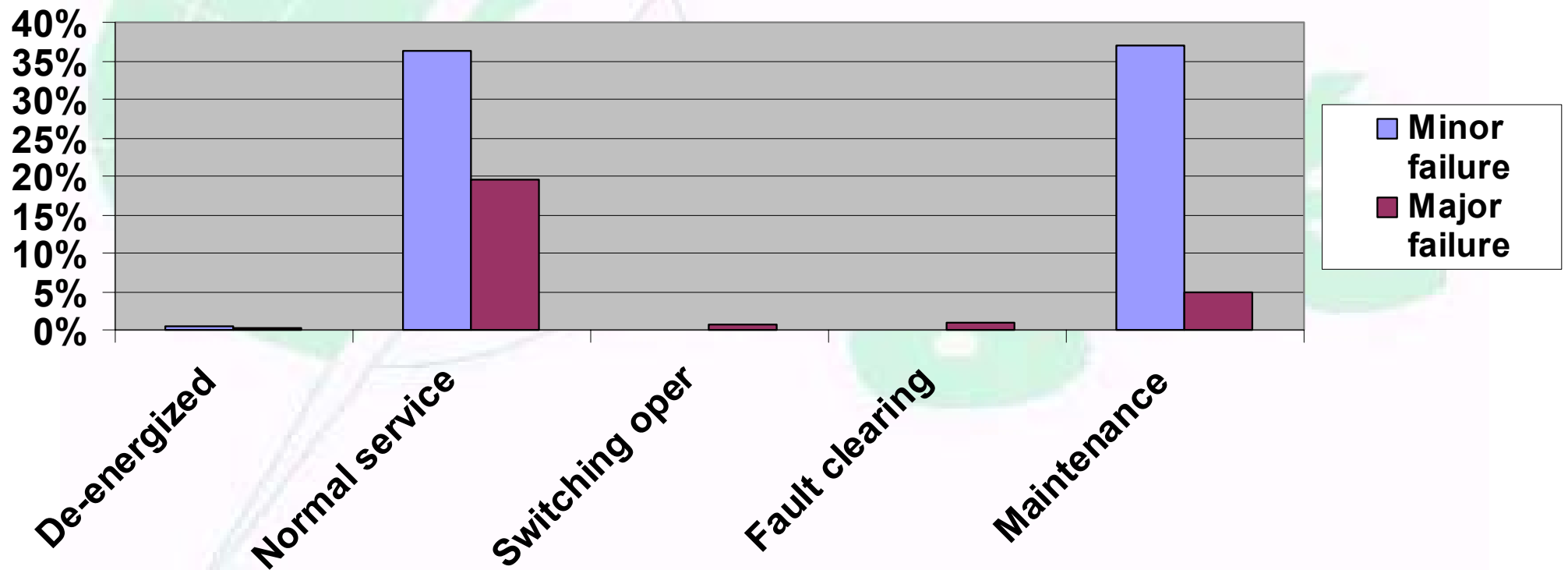
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IT MAJOR FAILURE MODES



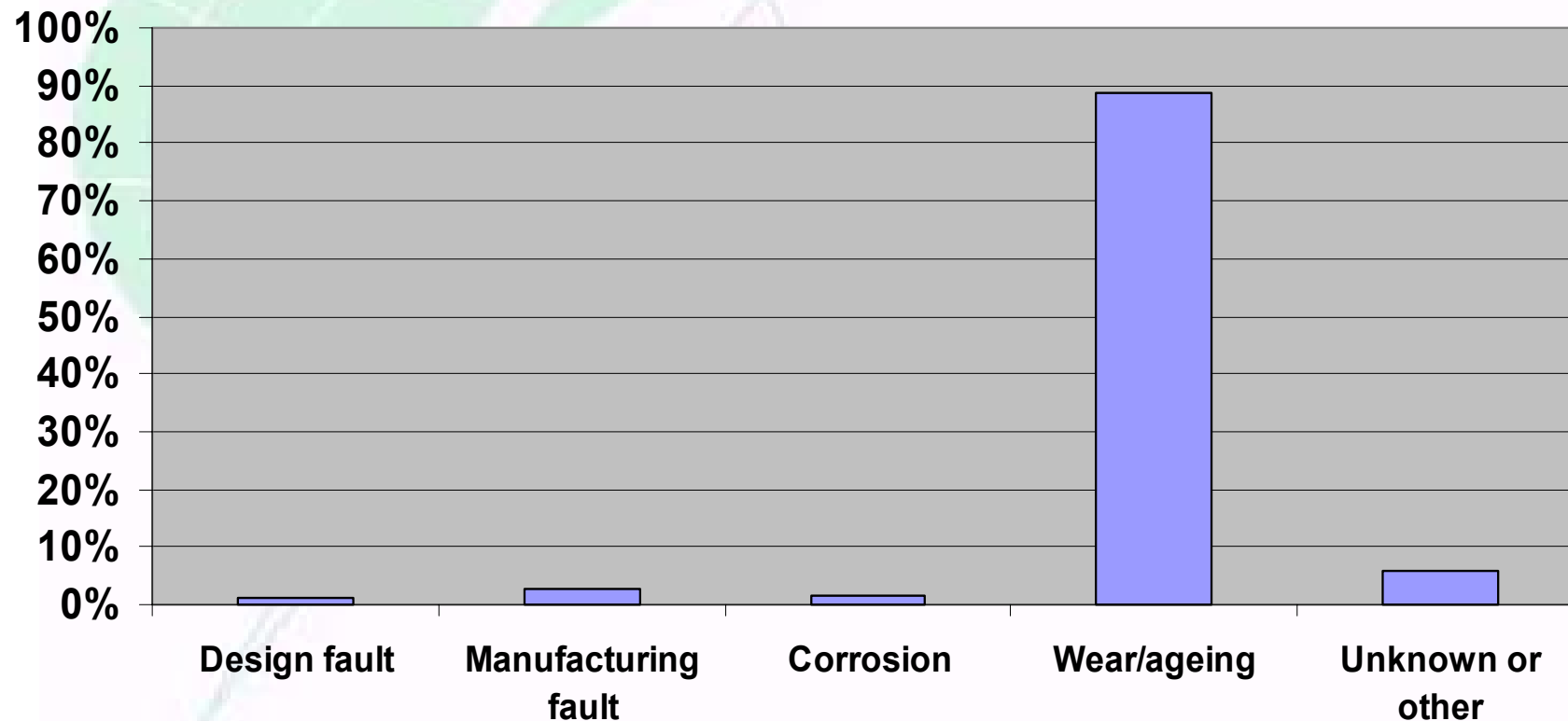
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FAULT DISCOVERY SERVICE CONDITION



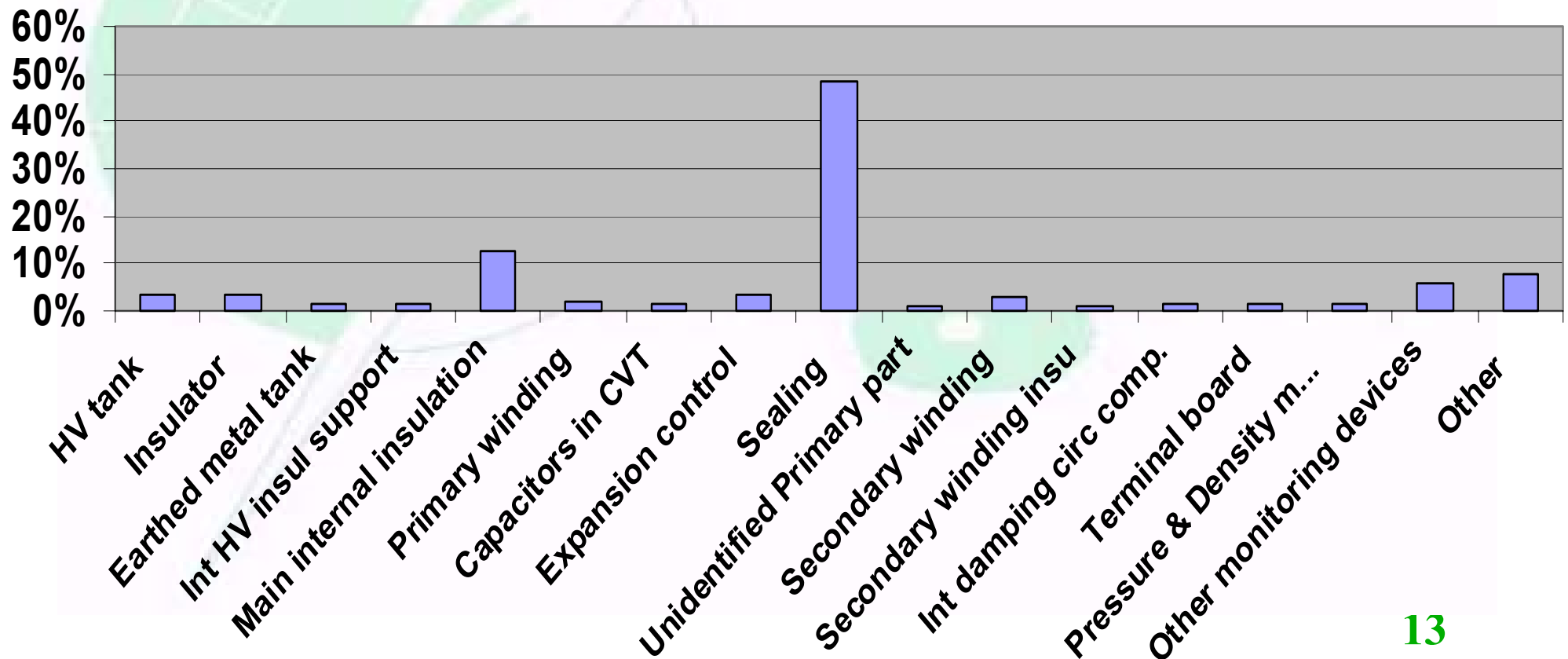
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CAUSES FOR INSULATING MEDIUM LEAKS (Leaks contribute to 57% of all reported faults)



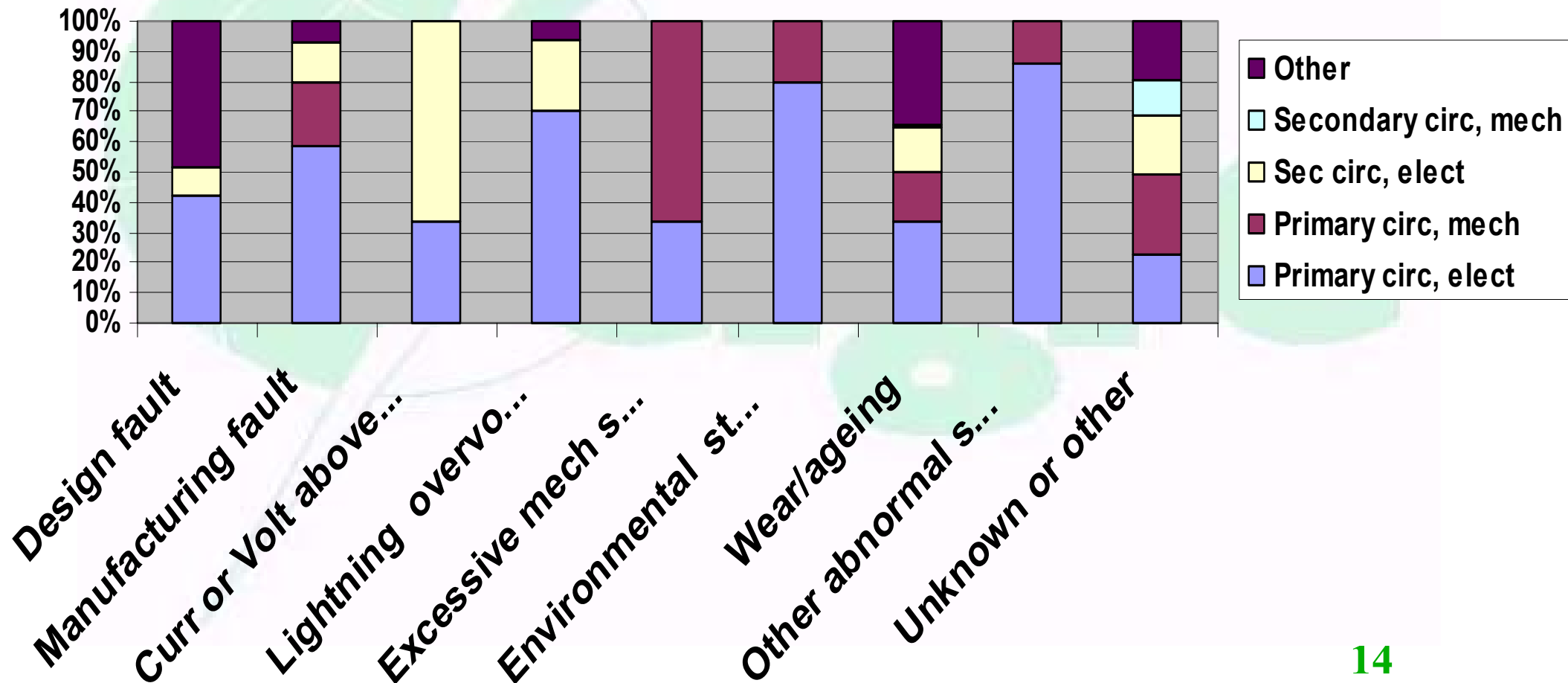
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COMPONENTS RESPONSIBLE FOR FAILURE



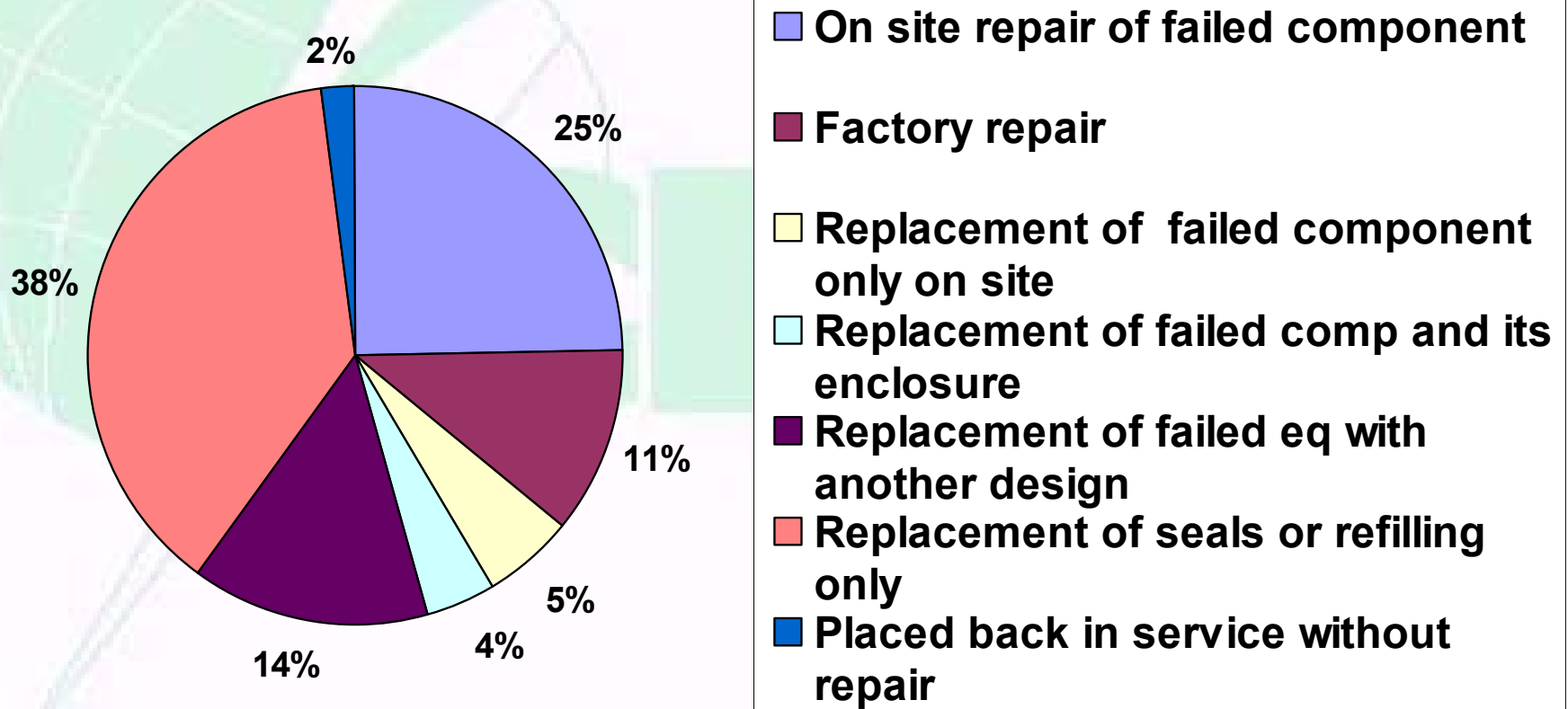
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CAUSES OF FAILURES OTHER THAN LEAKS



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TYPE OF REPAIR



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Thank you for your attention