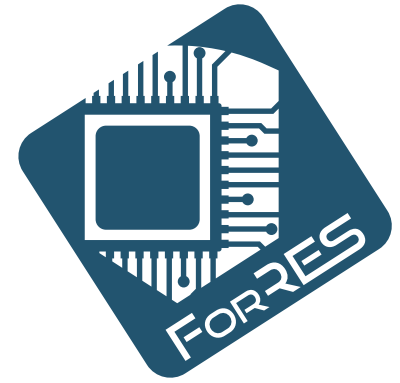
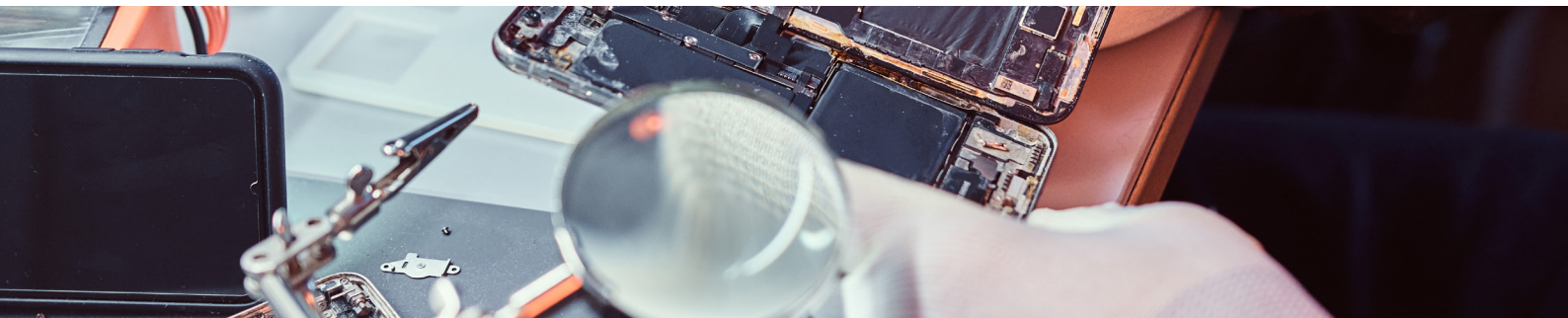


# ForRES: Forensic Reverse Engineering of Silicon chips



**Advanced digital investigation to tackle cybercrime of electronic devices**

July 2023



ForRES is a two-year ISF project, 90% funded by European Union. This 2.3 million euro project started on July 2023. ForRES partners come from five European nations (Germany, Netherlands, Austria, Spain and Norway) and include three LEAs, one private company and a public research institution.

As strong encryption is used in most modern electronic devices, extracting evidence from such devices is getting increasingly difficult. Fully invasive attacks on hardware, which involve manipulating the internal nano-scale structure of silicon devices, can mitigate this problem. While there are approaches where such fully invasive attacks can be used to extract protected data from chips, they have to be further developed to include the small geometries and high complexity of modern semiconductor processes.

ForRES aims to develop software, techniques and methods to extract, reverse engineer, analyze and implement invasive attacks on state-of-the-art, sub 28 nm FinFET semiconductors, which are almost exclusively used in modern electronic devices. The project will expand on existing knowledge to produce a practical workflow that is usable in the law enforcement context and which will ensure the future effectiveness of European law enforcement agencies (LEAs).

Both the development and the practical use of these methods require a lot of resources and manpower. This has long been recognized by the partners within this

proposal who have been cooperating closely on these topics since 2010. However, due to the absence of a structured common platform, the results of these efforts proved difficult to share and reuse among the collaborating partners.

ForRES aims to structure the joint efforts and form a basis on which the partners will be able to collaborate closely, enabling more seamless sharing of methods and results. The project will result in a set of tools that may help other European LEAs to participate in the future in an effort to build an EU-wide platform which will further enhance the expertise and capability of the digital forensics experts in the field of smartphones, IoT devices and other encrypted storage devices.

For more information about the ForRES project, visit our website or contact the project coordination team:

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Funded by the European Union under grant agreement no. 101102622. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.