# One Password 4 All!

As we all know identification management is currently a mess. On the one hand, people are forced to have an unacceptable large number of accounts with accompanying passwords. This is a severe security risk because people tend to reuse passwords over and over again and/or use passwords that are not strong enough. On the other hand, you can read in the news about sites that have been cracked, passwords that have been stolen, and sites that lack appropriate security mechanisms almost every day. These are just the known cases, and most probably just the top of the ice berg. Can you imagine the real scale of the problem?

This project is about an extension to existing authentication systems that allows for simpler passwords and yet provides higher security. In fact, a single and simple password is sufficient to safely log you in to all the accounts you have! While it gives the user full control over the number and complexity of the passwords to remember, it guarantees maximum security of the passwords that are actually used during authentication. The extension can be integrated smoothly and easily in existing (web-based) authentication processes. In fact, no changes to existing sites are needed at all.

Does this sound too good to be true to you? Then I need you! Because I want you to analyze and challenge the security properties of the system and infrastructure and, ultimately, to disprove one or more of its key security properties in a well-founded way.

The project will be carried out in the software group of Segula Technologies, a high-tech engineering company located at the High Tech Campus in Eindhoven. Expect a challenging project with a lot of learnings, in a very promising application area.

If you're interested please contact merijn.de.jonge@segula.nl