

While the FLINTSTONE2020 project is drawing close to its end, a workshop was organised in Lund to demonstrate and disseminate the results within the project. Main achievement of FLINTSTONE2020 is the development of novel materials and processes that will enable the industry to replace tungsten and cobalt for metal and rock cutting tools. This is important as these elements are becoming scarce while they are used to make many tools, which on their turn make most of the products for our everyday use. Without these tools and products, we would be thrown back in time, to the age of Flintstones.



At the workshop about 50 people from academia and industry gathered to share research methods, results and outlook. The research methods that were discussed gave insight into the possibilities of Lund's Nano Lab and MAX IV facilities, and more in-depth knowledge on to the capabilities of more specialized method such as environmental transmission electron microscopy methods, X-ray characterization methods, infrared based temperature methods for tool temperature

measurement and how to use Multiphysics coupling for solving mechanical and thermal problems in manufacturing.

In the afternoon, results from the FLINTSTONE2020 project and other ongoing research efforts were presented, showing that materials without tungsten and cobalt can outperform the current standards in certain application areas. In some of these, they are already cost-competitive, but with the expected rise in price for the soon-to-be scarce tungsten and cobalt, there will be more application areas opening up in the near future.



Industry and academia in Europe are getting ready for that moment, with EU-funded projects like FLINTSTONE2020 and industry-lead projects that focus on specific applications and markets.

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