

31st January 2024

FUTTEC had a successful year 2023

- **Several thousand potholes repaired on Czech roads with unique microwave technology**
- **New fleet of FT3+ "microwave patchers"**
- **European patent from the European Patent Office for 17 EU countries**
- **The only Czech finalist in the prestigious WIPO Global Awards 2023 competition**

FUTTEC company, which developed a microwave system for fast, non-invasive and durable pothole repair on asphalt roads, has had a successful year. It has overcome several important milestones that have helped it establish itself more strongly in the relatively conservative road industry. Of particular note is the official recognition of the unique patented FUTTEC® technology by the Ministry of Transport of the Czech Republic, the development and production of a brand-new fleet of FT3+ "microwave patchers" and FF-9 microwave furnaces, the establishment of even closer cooperation with organizations such as TSK Prague, ŘSD or with a number of cities in the entire Czech Republic. From the end of 2023, the company is the owner of a European patent from the European Patent Office, which has a newly unified effect for 17 countries of the European Union. In addition, FUTTEC is currently conducting patent proceedings in several non-European countries, including the USA and Japan. In the near future, its goal is to expand to foreign markets or develop an overall ecosystem of asphalt road repairs using the microwave method, which would also include the necessary prevention, i.e. early detection of potholes. For this, the company wants to widely use, among other things, Big Data and artificial intelligence.

"We started developing an innovative microwave system for preventive non-invasive maintenance of asphalt roads in 2011 together with experts from the Academy of Sciences of the Czech Republic and the VUT Brno. We started the transformation from a small start-up to a modern company about five years ago, when we received a subsidy of several million from the European Union. It was also thanks to it that we were able to produce the prototype of the FT3 "microwave road patcher" in 2020 and thus obtain the first really tangible proof that microwaves work very effectively even in road maintenance," comments Jiří Rušikvas, founder and owner of [FUTTEC](#), and continues: *"We are very glad that last year we managed to capitalize on our long-term efforts to develop a revolutionary technology that would contribute to the improvement of the Czech and global road and highway network and at the same time not burden the environment. Thanks to the fleet of our new FT3+ "microwave patchers", which already repaired thousands of potholes on domestic roads last year, not only Czech experts from TSK, ŘSD or regional SÚS, but also experts from abroad can now convince themselves of the unique benefits of our technology. And besides them, of course, the drivers themselves. A durable, non-invasive, fast and seamless repair restores the parameters of the original road to the repaired site, thus contributing to greater smoothness and safety of traffic."*



FT3 pilot machine from 2020

FUTTEC company milestones in 2023

Last year's first milestone for FUTTEC was the issuance of the so-called Technical Regulation, by which the Ministry of Transport of the Czech Republic recognized microwave technology as an official procedure for the repair of asphalt roads. In June, the company presented a new fleet of its machines - FF-9 microwave furnaces and especially FT3+ "microwave patchers", with which it secured (along with the FT3 pilot machine) large orders for TSK Prague or ŘSD: it repaired, for example, potholes on the Barrandov bridge and participated for winter maintenance



FT3+ microwave patcher

and repairs on Prague's main roads. At the same time, the company is intensively working on the development of the new generation FT5 machine. FUTTEC ended a successful year by winning a European unitary patent from the European Patent Office. Overcoming this milestone is a basic prerequisite for faster development of its business activities and expansion on foreign markets.

"In addition, last year we took part in prestigious industry events, including, for example, the World Road Congress, organized by the World Road Organization PIARC in Prague. We are also pleased with recognition in international competitions: for example, we became the only Czech finalist of the WIPO Global Awards 2023, which evaluates companies according to their innovative approach and the potential for commercial use of their intellectual property. Of course, our journey does not end there. Our next goal is the production of a new asphalt mixture that will optimize the use of microwave technology. We are also working intensively on the entire repair ecosystem, thanks to which it will be possible not only to repair potholes on the roads with high quality, but also to detect or even predict them. And last but not least, we have before us the production of a prototype of a new generation machine using Big Data and artificial intelligence, the development of which we are now just before the test mode," adds Ondřej Rušíkvas, partner of FUTTEC.

Why FUTTEC microwave technology?

The patented FUTTEC® technology is used for preventive non-invasive maintenance of asphalt roads. This system can repair a hole on an asphalt surface without creating a joint, changing the original parameters of the road (the repaired area is essentially returned to its original state) and requiring long-term closures associated with detours and traffic queues. Year-round repairs are carried out with the help of unique construction machines: a fleet of "microwave patchers" FT3+ (for complete seamless repairs of potholes up to 60 x 80 cm in size) or separate microwave furnaces for temporary filling of larger potholes using gently and evenly heated packed asphalt mixture. Their use is quick and economical, but they do not allow heating of the repair site, and therefore this solution is less durable than the filling of the hole with the "microwave patchers"

FT3 and FT3+.



Microwave furnace FF-9

About FUTTEC and its patented microwave technology:

The company FUTTEC a.s. was founded in 2011 with the aim of developing a unique system for repairing potholes on roads. The technology, which is the result of many years of research and improvement, was created in cooperation with the Institute of Chemical Processes of the Academy of Sciences of the Czech Republic and VUT Brno. FUTTEC won the Visionaries 2019 award for it in the competition of the same name by the CzechInno association. In addition, it managed to obtain a subsidy of 1.8 million euros from the European Commission under the EU Horizon 2020 program for the commercialization of this innovative technology. FUTTEC is now seeking another EU grant under the EIC Accelerator program.

The patented FUTTEC® technology is intended for the permanent repair of potholes on asphalt surfaces on roads, cycle paths and other asphalt surfaces. It works on the principle of heating asphalt mixtures using microwave technology, which ensures deep heating of the repaired area without degradation of the asphalt mixture. The result is high strength and a long service life of the repaired site. Thanks to this principle, road repair can be carried out all year round, i.e. even in winter. Other advantages of FUTTEC microwave technology include speed, flexibility, efficiency and cost savings as well as human resources, environmental friendliness, health safety and transparency (a protocol is created during the repair, which is a warranty certificate for the repair).

More information:

Crest Communications

Marie Cimplová, phone 731 613 602, marie.cimplova@crestcom.cz
Kamila Čadková, phone: 731 613 609, kamila.cadkova@crestcom.cz
www.crestcom.cz

FUTTEC

Ondřej Rušíkvas, phone 602 363 204, ondrej.rusikvas@futtec.cz
www.futtec.cz