

# EUREKA EUROSTARS PROJECT 8510 FRO-ST



## SMARTER, SAFER ADDICTION TREATMENT

**Opioid substitutes are an important tool in helping people overcome a heroin addiction but can be dangerous if misused and are often sold on to the illegal drugs market. Partners in the FRO-ST project are developing a device that could provide safer, more secure treatment while freeing up healthcare worker's time – all from the patient's fingerprint.**

One of the greatest challenges for people overcoming a heroin addiction is dealing with intense cravings for the drug. Opioid substitutes – such as methadone or buprenorphine – limit these cravings but there are risks. Patients can be tempted to take too much of the substitutes or combine them with other illegal drugs, which can be fatal. They often also fall into the wrong hands, either in the patient's home or on the illegal market.

This treatment could now become safer and more secure, thanks to a device being developed by UK-based Intelligent Fingerprinting Ltd, Addoz Oy in Finland and the University of Eastern Finland. Building on existing technologies from the two companies, it is a drug dispenser that uses a fingerprint lock to open the device at set times while testing that the patient has taken their previous dose of the substitute and no incompatible illegal drugs.

### Unmet need

The concept was developed by the companies with Professor Ulrich Tacke from the University of Eastern Finland, who was already involved in programmes to treat heroin addiction. "It meets an unmet need," says Addoz CEO Antti Törmänen. Lots of addicts are waiting for treatment. With this system, patients can get a safe supply of medication for a week from a clinic and have a more normal life than if they have to obtain it every day."

Health care providers are also interested in the device for its potential to reduce costs, he explains. "Personnel can spend less time dispensing and instead focus on treating the underlying causes of the addiction." He adds that it has potential for other treatment where dosing must be tightly controlled, such as pain medication.

### Ground-breaking technology

"Nobody had done anything like this before," says Intelligent Fingerprinting CEO Jerry Walker. "Fingerprint technology had been used to control drug dispensing but not in portable dispensers for personal use, using fingerprints for drug testing was entirely new, and linking these is completely novel." Technology developed in the project is now patented, he says.

A version of the device that combines timed dispensing technology from Addoz and a fingerprint-activated lock from Intelligent Fingerprinting was finalised in the project.

This will shortly be marketed in Europe and the US, says Walker. It is expected to increase revenue for both companies in the project, and create jobs in Finland, where it will be manufactured. The University of Eastern Finland will also receive royalties on every sale.

The device with automatic drug testing is in the final stages of development, he adds.



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Further investment is under discussion to complete the prototype and scale it up for manufacturing. Meanwhile Intelligent Fingerprinting is building up clinical data on the testing technology to market it to justice departments as a reliable, non-invasive, dignified drug testing solution.

The Eurostars grant helped attract US investment in the project, he says. "The two were synergistic – and without Eurostars support two companies and an excellent researcher would not have been brought together to develop ground-breaking, patentable technology."

This project has received funding from the Eurostars-2 pilot programme with co-funding from the European Union Horizon 2020 research and innovation programme



### MAIN PARTNER

Intelligent Fingerprinting Ltd, UK  
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### OTHER PARTNERS

Addoz Oy, Finland  
University of Eastern Finland, Finland  
Kuopio University Hospital/addiction Psychiatry Unit, Finland

### TOTAL R&D INVESTMENT

€ 910 000

### DURATION

February 2014 to May 2016

### COUNTRIES AND NATIONAL FUNDING BODIES INVOLVED



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Finland

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