

# Method for the optimized arrangement of pressure sensors



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## Invention



In recent decades, biomedical tools are becoming more and more successful with new innovative technologies that make devices more and more performing. Even in the field of wearable aids this process is happening with a certain speed. These are also often used for preventive monitoring in order to promptly diagnose any problem. Even in walking, this is now possible with sensorized shoes capable of returning information on walking such as weight distribution and much more.

The patent protects the method (and the device associated with it) to optimize the positioning of pressure sensors within an engineered insole to return the center of pressure and plantar pressure. The patent was born as part of an EU project with the aim of being used to give information to exoskeletons for walking assistance, but the widest variation that the device could have is that of monitoring the walk and / or the posture of the user.

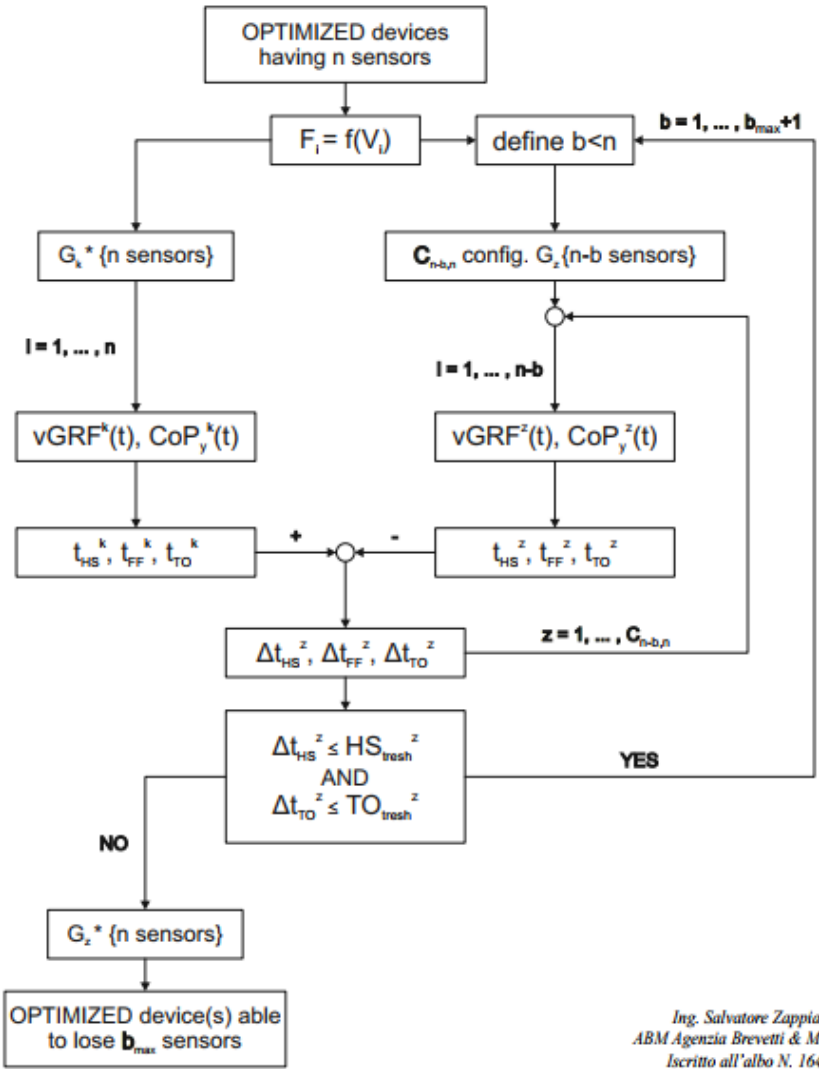
Main advantages are:

- Optimization of the number of sensors used
- Optimization of production costs
- Performance optimization required by the device.

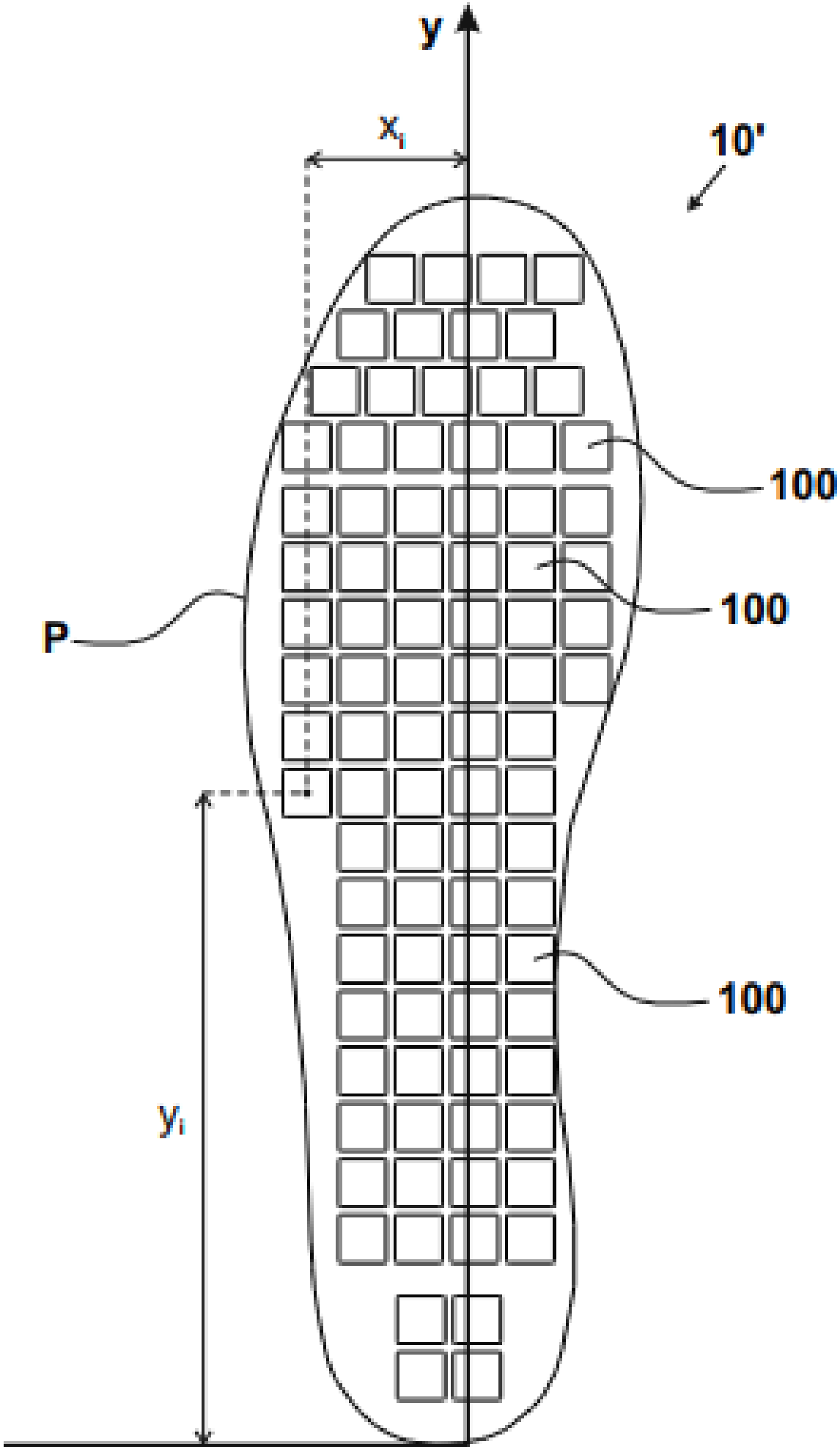
Drawings  
& pictures



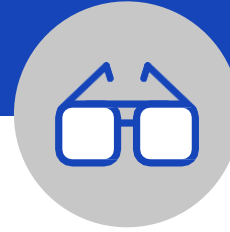
**Fig. 4**



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# Industrial applications



The main applications are:

- Wearable robotics
- Sensorized shoes for posture monitoring
- Sensorized shoes for walking monitoring

## Possible developments



The technology underlying the patent is in a development phase that is not yet fully mature for the market with the respective products.

The TRL is still to be considered low (eg: 2/3) suitable for experimental validation prototypes but has a great potential to enable the technology.

Still numerous other insights are needed by the research team to make the technology effectively applicable to a product.

For more information:



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