

# Positively Shaping the Continuous Glucose Monitoring (CGM) Landscape

Therapeutic area

- **Diabetes**

Product

- **CarboSil® TSPCU**

Capabilities

- **Biomaterials expertise**
- **Co-development**
- **Technical support**



## Partnering for the challenge

Our partner, a pioneer within the CGM technology space, approached the Biomedical team at dsm-firmenich with a specific challenge related to their CGM device design.

To enable their sensor to function properly, they needed a material that could repeatably and predictably control the rate at which glucose reached the sensor. They also wanted the material to be coated onto the needles that housed the sensors while minimizing any inflammation due to its presence.

## Why it matters

For patients who suffer from both type 1 and type 2 diabetes, it is crucial for them to be able to accurately monitor their blood glucose levels.

Thankfully, the development of wearable CGM devices has simplified life for patients with diabetes, allowing real-time blood glucose readings over a period of time. These devices work through a sensor that is applied just under the skin, monitoring blood glucose levels and transmitting the results to another device.



## Our innovation

CarboSil® TSPCU was chosen for its ability to<sup>1</sup>:

- ✓ Combine with hydrophilic materials
- ✓ Coat the needles
- ✓ Adjust the rate at which glucose contacted the sensors
- ✓ Resist protein deposit following the deployment of the device

Our partner leveraged this unique biomaterial solution and successfully launched their CGM device in 2012.

## Our impact

Since launch, our partner has **expanded their offering with several increasingly advanced iterations**, all of which incorporate the leading technology platform from dsm-firmenich's biomedical division, ultimately contributing to the successful management of diabetes for more than 1.7 million patients across the globe every year.