



**3DEXPERIENCE®**

# Computational Neurology

# EPINOV : WHAT & WHY

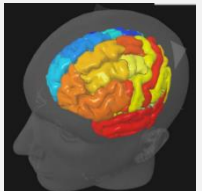
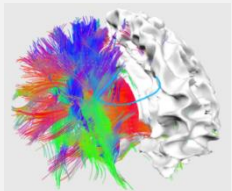
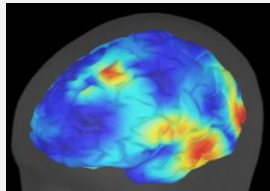
## Transforming Medical Staff Meeting Practice with Brain Virtualization

© Dassault Systèmes | Confidential Information | 10/13/2020 | ref.: 3DS\_Document\_2019

**Classical Data**

<p><b>Natural History</b></p> <p>TABLE 1. Summary of epileptic seizure semiology*</p> <p><b>Preictal cortex</b></p> <ul style="list-style-type: none"> <li>1. "Affective mood" - A high-frequency, irregular oscillation in the 10-20 Hz range of the body and leading to another region, reflecting the changing orientation of the epileptic discharge.</li> </ul> <p><b>Seizal cortex</b></p> <ul style="list-style-type: none"> <li>1. "High space" or "high space"</li> <li>2. "Low space"</li> </ul> <p><b>Postictal cortex</b></p> <ul style="list-style-type: none"> <li>1. Auditory space: auditory hallucinations such as conversations</li> <li>2. Gustatory space: gustatory sensations such as metallic taste</li> <li>3. Olfactory space: olfactory sensations such as burning, burning, burning</li> <li>4. Tactile space: tactile sensations such as tingling, tingling, tingling</li> <li>5. Visual space: visual sensations such as flashes, flashes, flashes</li> <li>6. Auditory space: auditory sensations such as ringing, ringing, ringing</li> <li>7. Gustatory space: gustatory sensations such as metallic taste</li> <li>8. Olfactory space: olfactory sensations such as burning, burning, burning</li> <li>9. Tactile space: tactile sensations such as tingling, tingling, tingling</li> <li>10. Visual space: visual sensations such as flashes, flashes, flashes</li> </ul> <p><b>Final notes</b></p> <ul style="list-style-type: none"> <li>* Final data to be revised on case 2019</li> <li>** Final data to be revised on case 2019</li> <li>*** Final data to be revised on case 2019</li> </ul>	<p><b>Semiology</b></p> 	<p><b>Imaging</b></p> 	<p><b>SEEG during Seizure</b></p> 
--	---	---	---

**Virtual Brain Insights**

<p><b>Functional Brain Atlas</b></p> 	<p><b>Structural Virtual Brain</b></p> 	<p><b>Epileptogenicity Heatmap</b></p> 
--	--	--

**Neurology Board Meeting**



**Make Better-Informed Therapeutic Decision**

- Special Diet
- Start/Modify/Stop Pharmacological treatment
- Neurostimulation
- Neurosurgery

**Added Value**

- More Confident Decision Making for Neurologists and neurosurgeons.
- Improved Quality of Life for Severely Impaired Patients
- Lower Economic Burden for Society
- Increase Standardization of Practice



# EPINOV



De gauche à droite: Maxime GUYE, Charlie BARLA, Olivier BLIN, Denis BERTIN, Fabrice BARTOLOMEÏ, Viktor JIRSA, Sylvain RHEIMS, Christian-Georges BÉNAR, William SAURIN et Dominique NOBILE.

5 partnering organizations

5 years RHU project

11 medical centers involved

400 patients involved

