

**3DEXPERIENCE®**

# OPEN THE POWER OF VIRTUAL UNIVERSES

TERATEC 2022

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**DS** DASSAULT  
SYSTEMES | The **3DEXPERIENCE®** Company



# OUR BELIEF



Virtual worlds **extend**  
and **improve** the  
Real world

# PLATFORM POWERING VIRTUAL TWIN EXPERIENCES

## MOD | SIM

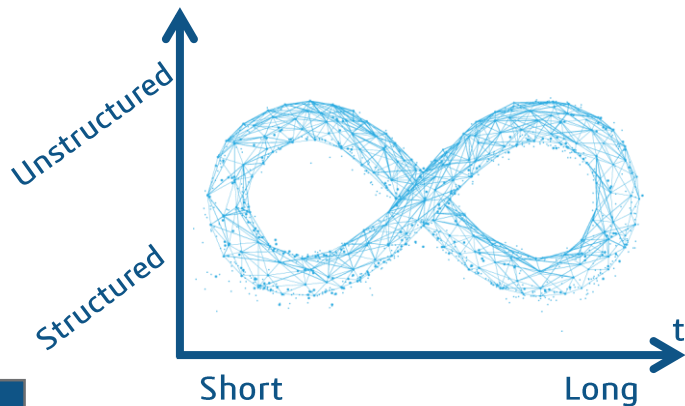
Enterprise & Value Network



Processes



Products



COLLABORATION

REAL WORLD EVIDENCE



Virtual Twin Experiences

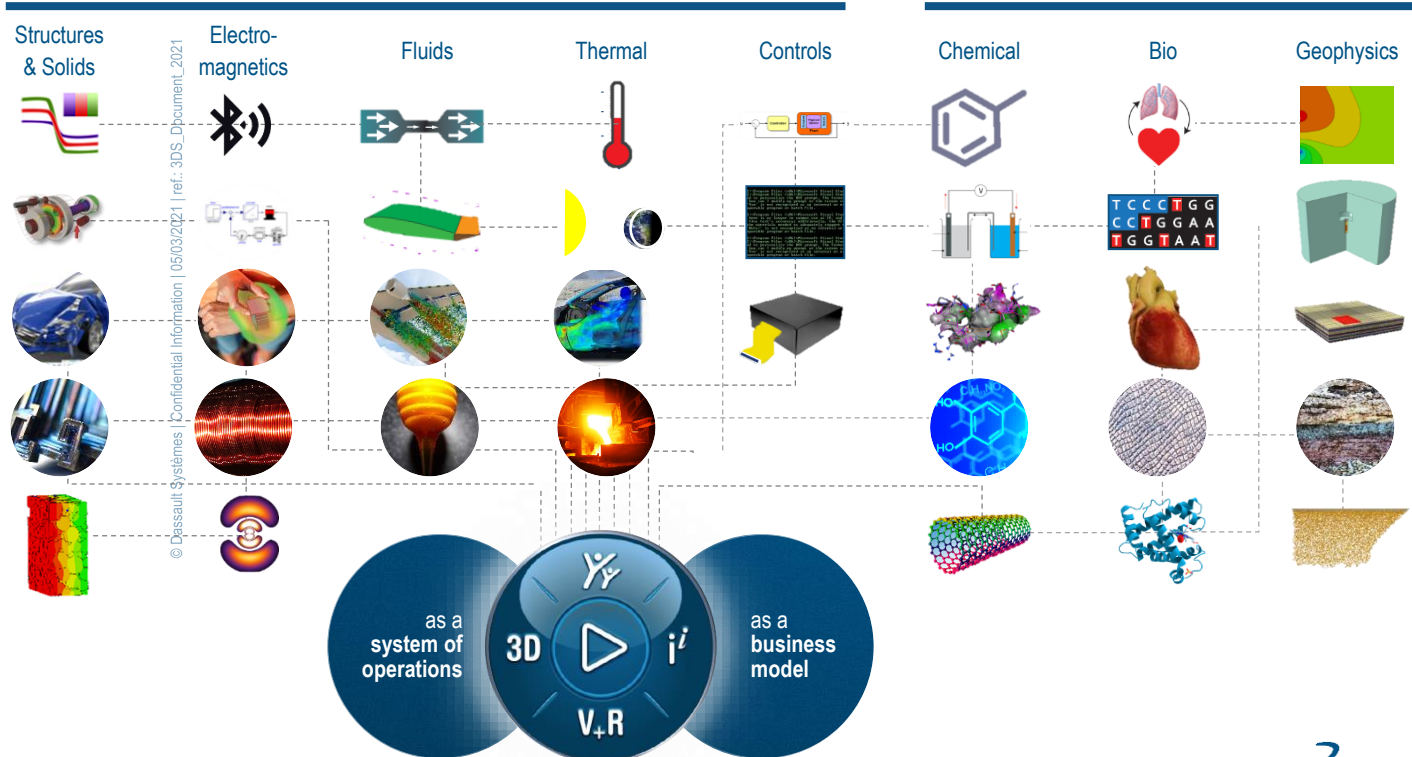
# A PLATFORM FOR KNOWLEDGE AND KNOW-HOW

## ALL PHYSICS

## ALL DOMAINS

ALL SCALES

Functional  
 Logical  
 Physical  
 Macroscale  
 Continuum  
 Material  
 Sciences  
 Physical  
 Microscale  
 Non-Continuum



3DEXPERIENCE®



# VIRTUAL TWIN EXPERIENCE FOR HEALTH



## Living Brain for Targeted Epilepsy Surgery

Improving Epilepsy Surgery Management and Prognosis using Virtual Brain Technology

Cortical shape from MRI T1 scans



Tractography from MRI Diffusion scans



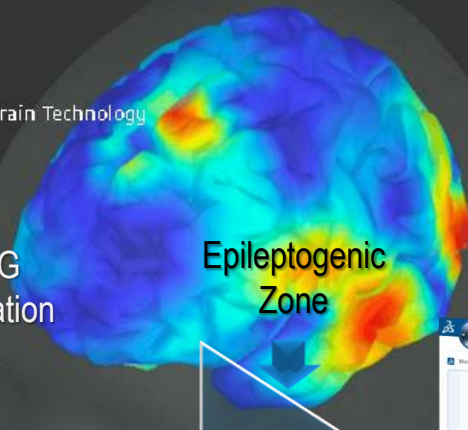
Anatomical Brain atlas



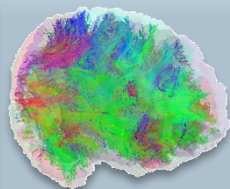
S-EEG implantation



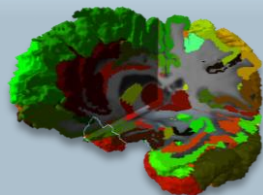
Epileptogenic Zone



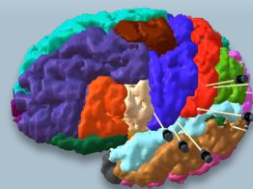
Segmentation



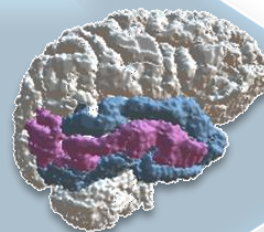
Fiber tracking



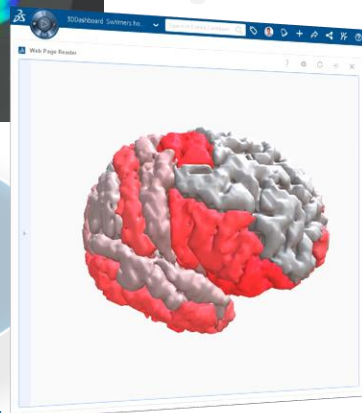
Parcellation



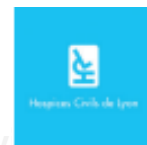
Electrode coregistration



Electrophysiological data fitting



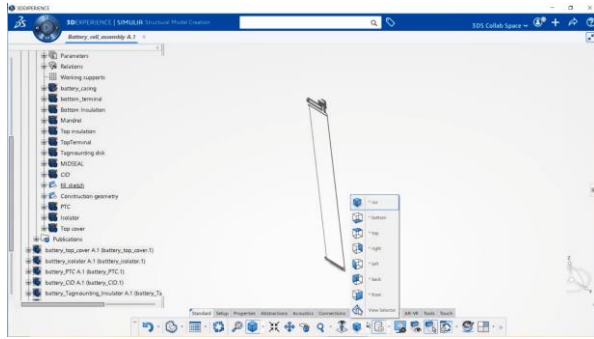
Neurodynamics



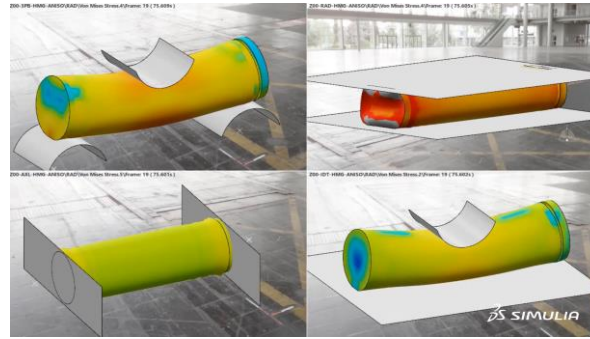


# VIRTUAL TWIN EXPERIENCE FOR BATTERIES

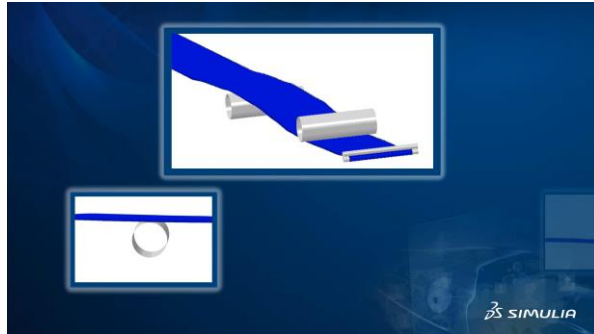
Powering the new Battery Industry with End-to-End MOD-SIM Platform



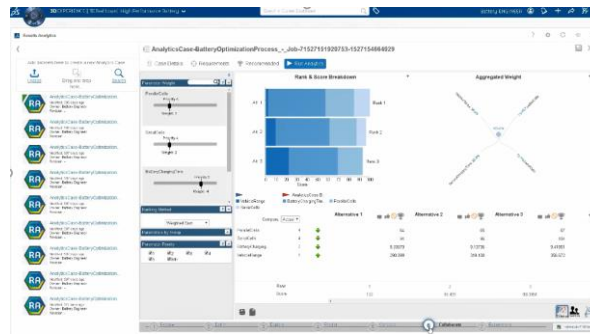
Cell Design



Cell Simulation



Manufacturing



System Integration

# VIRTUAL TWIN EXPERIENCE FOR THE FUTURE OF MOBILITY

## Generate Model-Based World Situations for Validation & Certification

The screenshot displays the 3DEXPERIENCE 3DDashboard interface for a project named 'scaner'. The top navigation bar includes 'Task Planning', 'My Designs', 'My Simulations', 'Simpack', 'Body Structure', and 'AVS SCANeR'. The main content area is divided into four panels:

- Top Left:** A lifecycle flowchart showing stages: Private (purple), In Work (blue), Frozen (green), Released (grey), and Obsolete (white). Transitions include 'Release', 'Freeze', and 'Make private'. A 'Lifecycle Collaboration' section is visible below.
- Top Right:** A table titled 'My Collaborative Spaces' with columns 'Title' and 'Modified'.

Title	Modified
[Icon]	Sep 29, 2021
[Icon]	Sep 29, 2021
mySCANERsimulation	Aug 30, 2021
- Bottom Left:** A simulation review window for 'SIMULIA - Physics Simulation Review - Simulation\_SCANeR\_LakeCity'. It shows a 3D street scene with a 'Frame - 19 9667 s' dropdown and a 'Simulation Tools' toolbar.
- Bottom Right:** A simulation review window for 'SIMULIA - Physics Simulation Review - Simulation\_SCANeR\_Riviera'. It shows a 3D street scene with a 'Frame - 19 9667 s' dropdown and a 'Simulation Tools' toolbar.

The bottom status bar shows 'ENOVIA - Collaborative Tasks - Private'.

# OUR PURPOSE

“  
**Dassault Systèmes** provides business  
& people with **3DEXPERIENCE®** universes  
to imagine sustainable innovations capable  
of **harmonizing product, nature and life.**  
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