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VELaSSCo collaborates with major
European HPC projects such as:

NuMexas



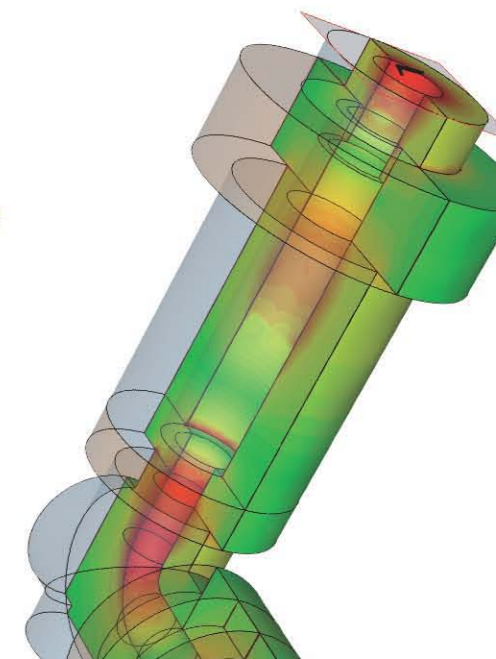
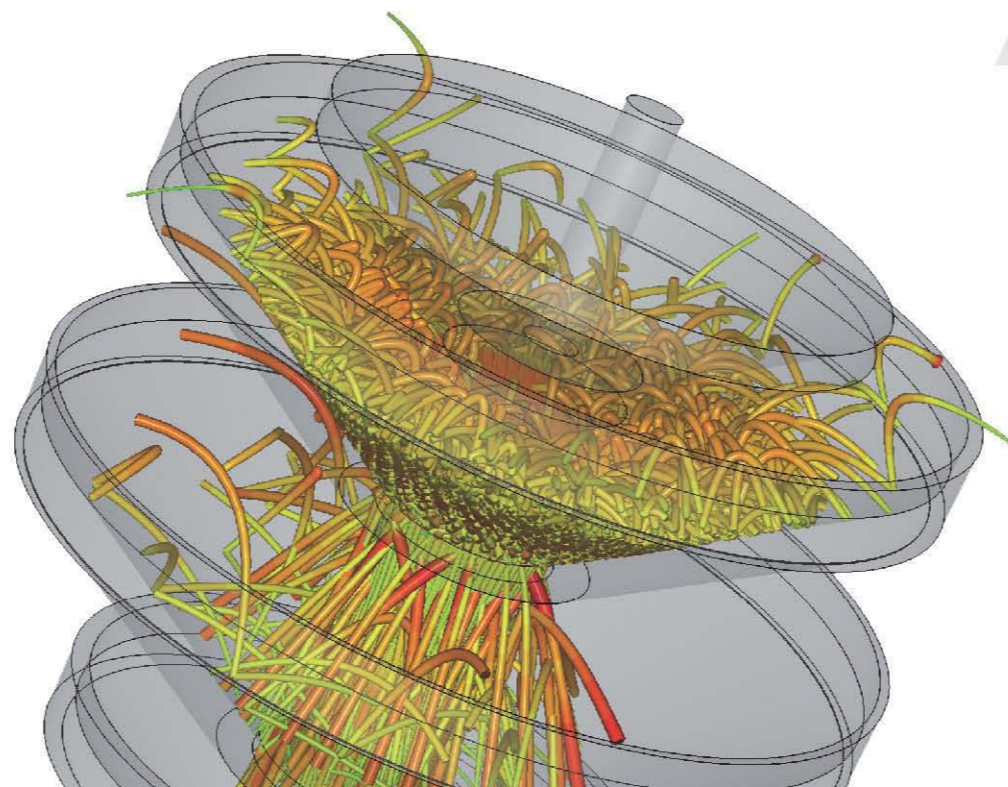
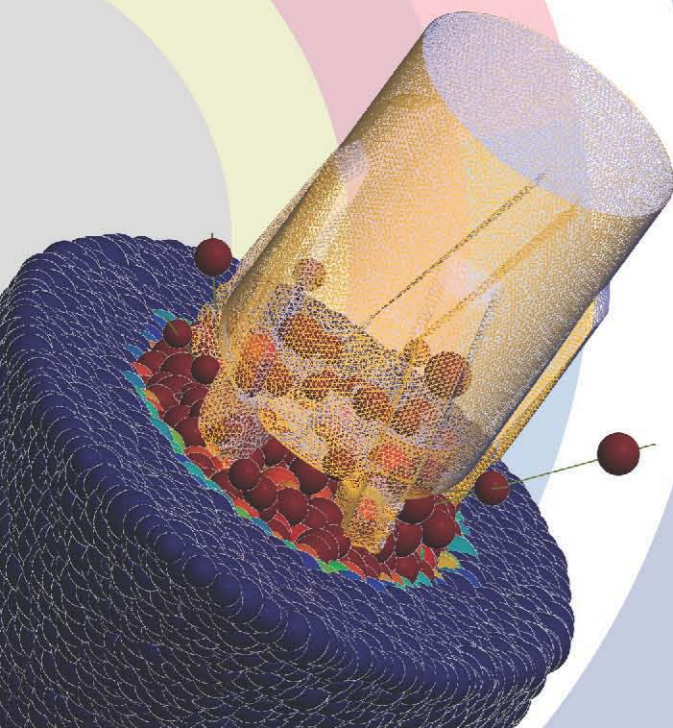
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VELaSSCo

**Visual Analysis
for Extremely Large-Scale
Scientific Computing**

www.velassco.eu

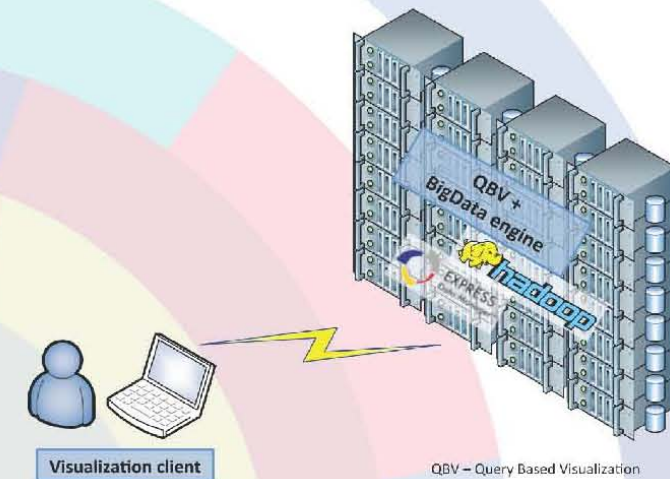


How “big” are large-scale simulation data sets?

- » weather & climate: 400 petabyte/year
- » nuclear & fusion energy: 200 PB/time step, by 2020

In the near future, simulation data will be:

- » distributed across multiple servers
- » impossible to store in a single server or machine
- » not manageable with current visualization tools

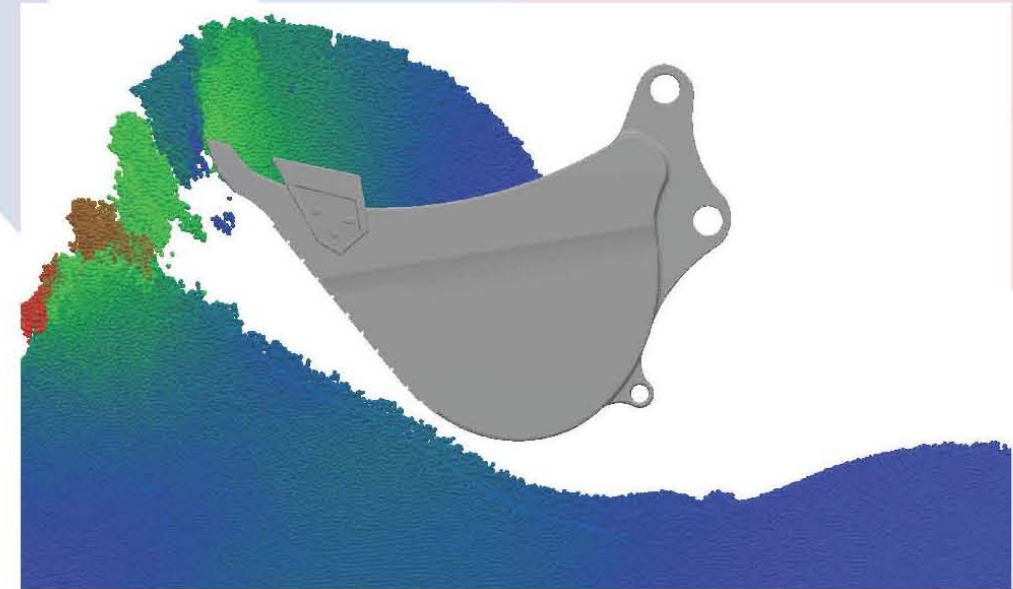


The Vision of VELaSSCo is to provide new approaches for visual analysis of large-scale simulations for the Exabyte era. It does this by building on vv tools and architectures for the engineering and scientific community and by adopting new ways of in-situ processing for data analytics and hardware accelerated interactive visualization.

To better manipulate the data from simulations with **billions of records** it is **crucial** that the **engineering and scientific community embracing big data technology**.

By 2017, VELaSSCo will provide a **simulation data analysis platform** consisting of:

1. A **database engine**, based on widely used technologies such as Hadoop-HBase and ISO 10303 STEP, that can organise and store a **diverse range of large-scale simulation data sets** for collaborative use.
2. An **innovative approach**, adopting big data best practices, to handle large scale simulation data sets that have to be stored on multiple servers.
3. A framework equipped with **advanced in-situ processing** tools to analyse the output of **parallel distributed simulation solvers**.
4. An **analysis platform** to analyse and visualize large-scale data sets interactively. This builds on leading edge graphics hardware.



Participate!

We would like to invite you to join a panel of end users to define the user requirements, test the tools being developed by the VELaSSCo project and benefit from the outcomes.

Please sign up to the User Panel at:

<http://eepurl.com/J5V2X>

Start date: 1 January 2014

Duration: 36 months

Total budget: 4,437,285 €

Funding from the EC: 3,294,000 €

