



## What is CERN's Science Gateway?

- CERN's flagship education and outreach facility
- Exhibitions (age 8+), Labs (age 5+), and Events
- Currently in design phase
- Officially launched in April 2019
- Objective: encourage young people to aim for careers in science, technology, engineering and mathematics (STEM).

## Why Dedicated Computing Exhibits?

- Existing CERN Computing outreach activities (largely driven by volunteers) experience high demand and interest
  - E.g. by the Women in Technology Community, CERN Micro-club, Expanding your Horizons
- Concern over future applicant pool for computing roles; both technical relevancy and diversity
- Computing literacy increasingly required for all scientific domains



Could data be modeled like water? Flowing from one point to another, variable flow rates, need to avoid bottlenecks (!)...

Create a binary representation of a live image, let people see how data looks to a machine...

X.509 Certificates have been essential for grid computing, why not let the visitors generate their own certificate?

## Exhibit Idea Generation

- Workshop in March 2019
- 14 CERN participants with backgrounds in Computer Science and Outreach
- Session moderated by external experts
- 3 categories
  1. What is data?
  2. How is data stored and accessed?
  3. CERN Technologies
- Objective: explore initial concepts for hands-on computing exhibits for the Science Gateway

## Exhibit Development

- Analyse real process, identify main points & messages
- Translate into draft scenario
- Test with public
  - do they understand what to do?
  - do they get the main message?
- Refine, if needed repeat previous step
- Develop exhibit
- Test again
- Finalise exhibit

