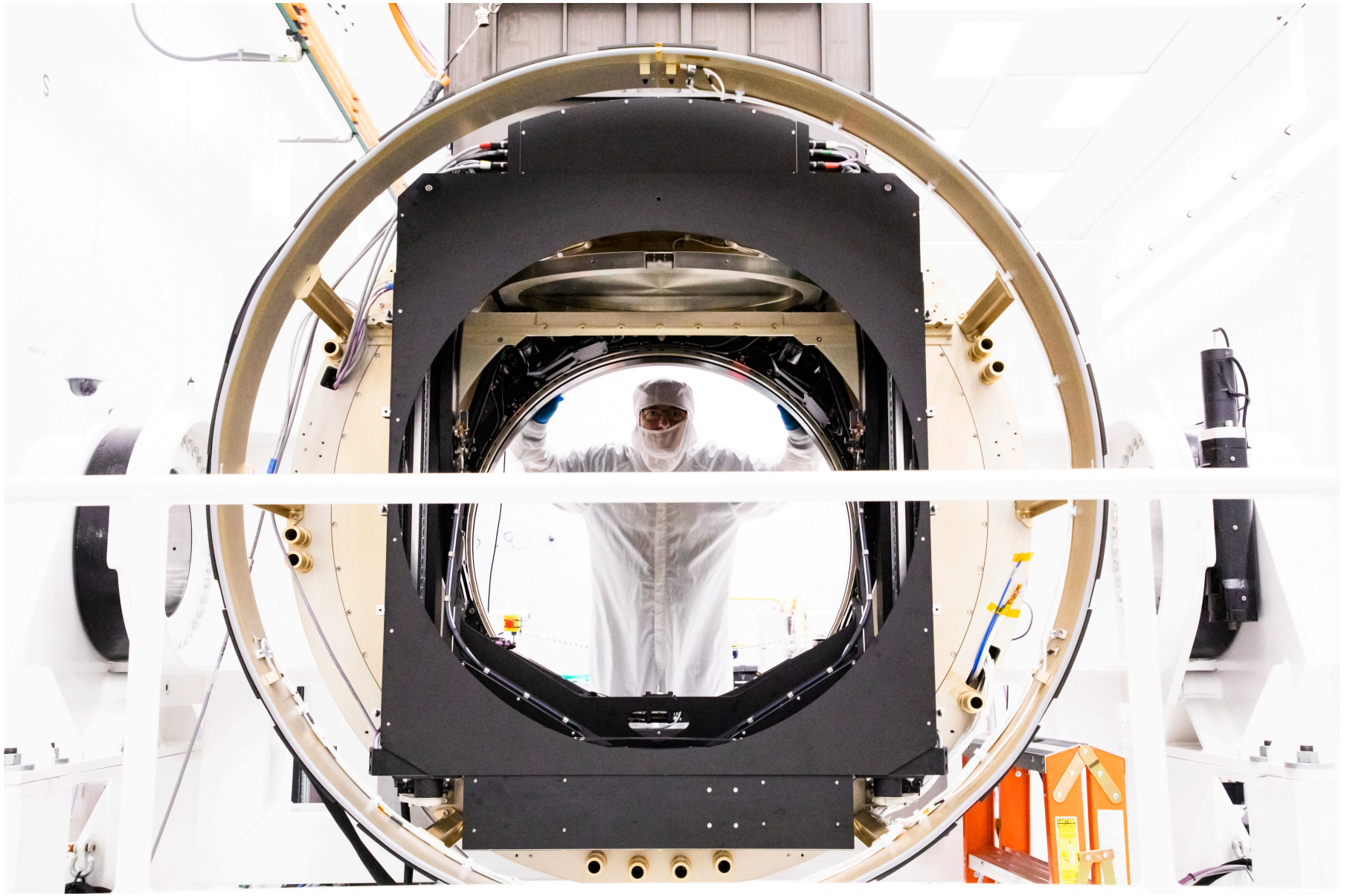


Communication

Meeting LSST France @IJCLab – February 2020

Outline

1. Latest achievements
2. Priority work axis
3. Long term projects

Filter Exchange System

Goal: Promote the construction of the FES

Method: Tell its story through images and interviews

How?

- Work in close interaction with the dedicated teams
- Make interviews, take pictures, and do movies:

  https://atrium.in2p3.fr/d241a931-9d73-4460-9f97-1a036a8c303a
  https://atrium.in2p3.fr/42bf4db6-78e2-463c-ad81-852088125e68

⇒ **Have contents to promote**
⇒ Know how to advertise the work of the teams

- Work in collaboration with IN2P3 and labs communication officers

⇒ Develop the communication channels
⇒ Help to promote the work within the labs

Filter Exchange System

Outcomes:

- Thread on the @LSST_France twitter account

  https://twitter.com/LSST_France/status/1174256317277626368?s=20
  https://twitter.com/LSST_France/status/1174392892074418177?s=20

Advantages

- Topic-targeted audience
- Relayed by the VRubin, CNRS, SLAC, IN2P3 labs twitter accounts
- Convenient format:
  - Images and short texts
  - More dynamic than a website
- Content aggregation on a specific subject with a thread

Limitations

- 280 characters
- Cleaving

Filter Exchange System

Other outcomes:

- CNRS Images documentary for Le journal du CNRS  (soon )
  https://lejournal.cnrs.fr/videos/une-camera-dexception-pour-filmer-lunivers

- Several publications in the IN2P3 Newsletter

Spoiler alert:

An illustrated article on a week at SLAC will be published tomorrow

- Increase the project visibility in the IN2P3 labs

New communication support

- New booklet edited for the visit of CNRS US office members at SLAC
    - On the French contribution in the project
    - Only 50 copies

Waiting for final decisions about the project naming to

=> correct and print new copies

=> send to the labs communication officers

<u>Reminder</u>

- The gender – balanced version of the comics has already been sent to the labs
- Telescope mock-up available for Science Fair

Outline

1. Latest achievements
2. Priority work axis
3. Long term projects

And now?

Goals:

- Continue to promote the French contributions
- Identify other communities and working groups activities to highlight

How?

Keep the successful approach used for the FES

- Storytelling
- Format: images and interviews directly in the labs

  $\Rightarrow$ What scope, milestones, highlights?
- Diffusion: twitter, IN2P3 newsletter, collaboration with IN2P3 labs communication officers

Improve what can be

- Internal communication within the French collaboration
- Leverage and feed the website

LSST France Website

Work in progress 🚧

- Update contents
- Increase the frequency of the news feed

Attention: the website is NOT an internal communication media

🚦 **Target: general public** 🚦

Do we need a section dedicated to the collaboration and if so, how?

- Intranet
- Links to related websites (e.g., confluence)
- 'For scientists' tab in the menu

=> Set up a working group on this topic

=> Propositions and contributions welcomed

Impact of the renaming

Waiting for final decisions to update all the communication materials

Tools/material to update:

- Name of the French collaboration
- Logo
- LSST France website
- Twitter account
- Mailing lists…

Printed documents will likely be handled later

Outline

1. Latest achievements
2. Priority work axis
3. Mid/long term projects

Outreach

Missions of EPO:

"To offer accessible and engaging online experiences that provide non-specialists access to, and context for, LSST data so anyone can explore the Universe and be part of the discovery process."

Targets: Educators at the advanced middle school through college levels.

Two sessions at the 9th Project and Community Workshop

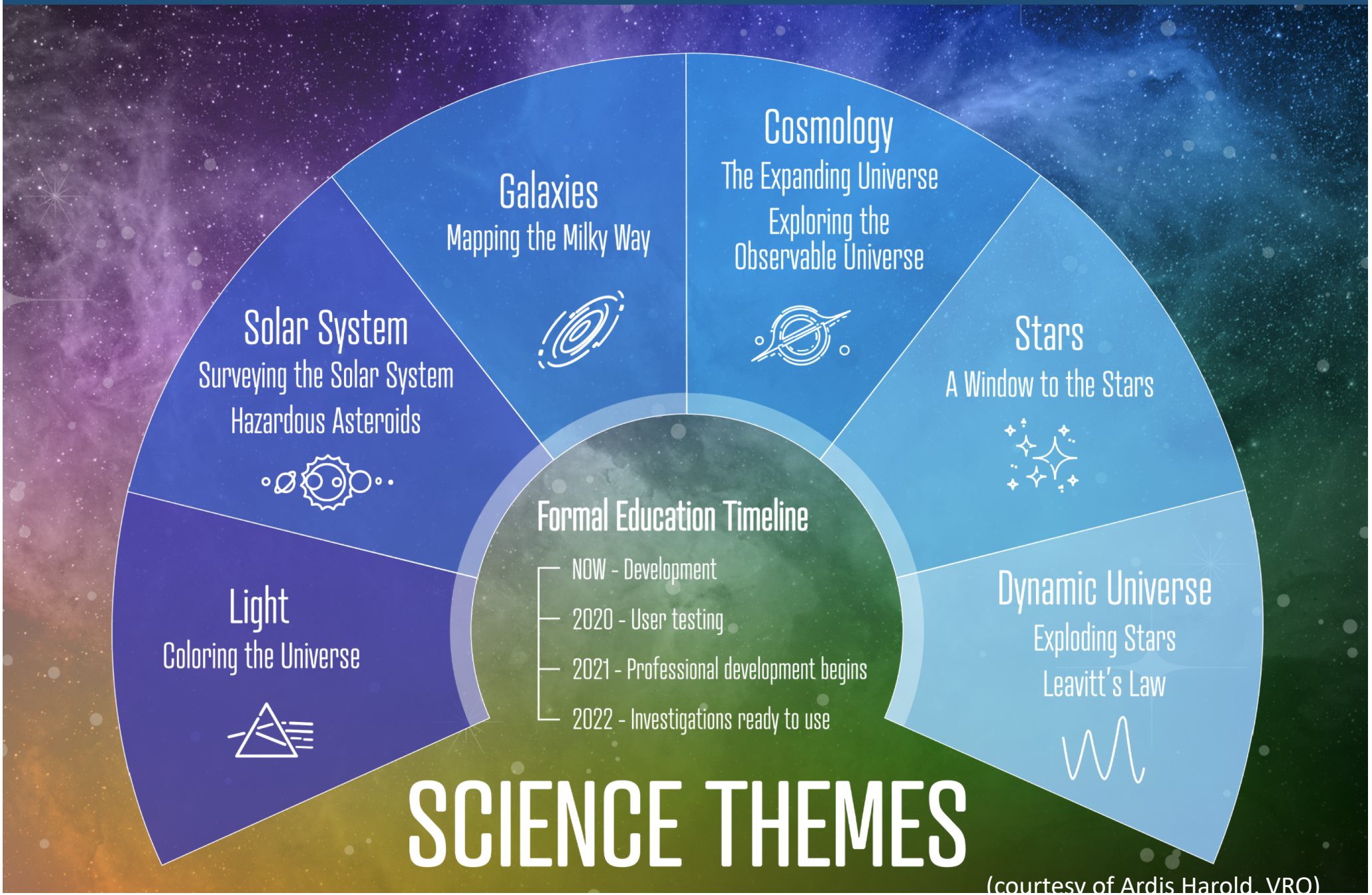
- **Teen Astronomy Cafés: Bringing Big Data to High School Students**

  https://project.lsst.org/meetings/lsst2019/content/teen-astronomy-cafés-bringing-big-data-high-school-students

- **Engaging Students with LSST Data**

  https://project.lsst.org/meetings/lsst2019/content/engaging-students-lsst-data

Outreach



(courtesy of Ardis Harold, VRO)

Outreach

Education Investigation Title	Summary
Coloring the Universe	Students construct a color image from LSST's filters and gain intuition for wavelength-dependent properties of a variety of astronomical objects.
A Window to the Stars	Students compare properties of the Sun and other stars using H-R Diagrams.
Mapping the Milky Way	Students explore density maps to determine what type of galaxy the Milky Way is, and where we are located within it.
Expanding Universe	Students construct Hubble plots to evaluate the expansion and acceleration of the Universe over time.
Exploding Stars	Students use light curves to determine the type of supernova, the progenitor star, and to calculate the distance to a galaxy.
Surveying the Solar System	Students make observations of newly-discovered solar system objects using an orbit visualizer to determine the object type.
Variable Stars	Students analyze Cepheid variable light curves to learn about how they vary with time (temperature, size, luminosity), and use the information to calculate distances to galaxies.
Hazardous Asteroids	Students evaluate the potential threat of an Earth impact by making repeated observations of a newly-discovered Near-Earth Object.
Exploring the Observable Universe	Students explore large-scale structure using photometric redshifts and galaxy density maps.

(courtesy of Ardis Harold, VRO)

Outreach

Education Investigation Title	(pre-LSST) Data Needs
Coloring the Universe	DONE!
A Window to the Stars	Need help in identifying the white dwarfs in our star cluster data and in calculating the luminosities/temperatures to place them on the HR diagram.
Mapping the Milky Way	DONE!
Expanding Universe	data of Type Ia SNe and host galaxies – need distance measurements and redshifts/velocities for large sample to construct Hubble diagram
Exploding Stars	Time series of images of Type Ia and Type IIp SNe with corresponding light curve photometry, including near peak
Surveying the Solar System	Comet orbital information is reported in ways differing from the asteroids. Need help/advice in calculating orbits as a function in time in Cartesian (x,y,z) space, including starting positions.
Variable Stars	Time series of images of Type I (classical) Cepheid variables with corresponding light curve photometry, including near peak
Hazardous Asteroids	Need uncertainties in the orbital parameters (not in MPC – in MOPS?)
Exploring the Observable Universe	Need redshifts from large, deep survey. Need a way to visualize the cube of (RA,Dec,z)

ASK: need scientists to assist with gathering data listed above from existing datasets

(courtesy of Ardis Harold, VRO)

Outreach in France?

Goals:

- Develop a real outreach policy in France using LSST data
- Promote the specifics of LSST research in France to a larger audience

=> Bring LSST into the classroom

=> Inspire the next generation of physicists ☺

How?

- Give feedback to animations developers
  - beta testers needed
- Develop our own animations on IN2P3 science topics?
- Leverage and extend the network of physics teachers
- Organize our own ‘teen astronomy cafés’ (or similar events)

Actions:

- Set up a working group
- Identify some funding opportunities
  - Budget, human resources
  - Collaboration with Europe/US

Exhibition

Goal:

- Present LSST to a large audience through a national scale exhibit

When?

- When first light will be taken

How?

- Complete and extend the existing panels
- Leverage our network to find the most impacting venue

Who?

- Set up a working group

Conclusion

Main goals for 2020:

- Identify other communities and working groups activities to highlight
- Update and improve the website

Other work directions:

- Contribute to the EPO effort
- Bootstrap a 2022 national exhibit

Questions / Comments