

The Grid, as a cyber-infrastructure, provides an effective and efficient platform for the empowerment of specific communities of researchers to innovate and eventually revolutionize what they do, how they do it, and who participates. It is envisioned that “thousands of overlapping field and project specific collaboratories or grid communities, customized at the application layer but extensively sharing common infrastructure” will be created in the foreseeable near future.

Generic names for cyber-infrastructure-enabled environments include collaboratory, colaboratory, grid community or network, virtual science community, and e-science community. These new projects are building out in terms of broader scientific applications and building up in terms of function and performance.

[Source: Revolutionizing Science & Engineering Through Cyber-infrastructure – Report of the NSF Blue Ribbon Advisory Panel on Cyber-infrastructure, February 2003]

In the context of the National Grid in Singapore, the term “virtual grid community” (VGC) is used for such a cyber-infrastructure-enabled group of users.

The objective of each VGC is to guide and help formulate a blueprint for the infrastructure (including hardware, software, security, manpower, education and training) required for specific VGC.

Hitherto, VGCs on Life Sciences, Physical Sciences, Digital Media and Manufacturing are formed. More VGCs (such as education, finance and entertainment) may be formed at a later date.

VGC	Leader
Digital Media	A/Prof. Seah Hock Soon
Life Sciences	Dr. Patrick Tan
Manufacturing	Prof. Robert Gay
Physical Sciences	Dr. Terence Hung