PHOENIGS: from the SINGS `ashes’

Project for Herschel On an Extragalactic Normal Infrared Galaxies Survey

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Broad Science Objectives:
• Trace and characterize the flow of energy through the ISM in galaxies;
• Link heaters-emitters: use Herschel spatial resolution to enable definitive modeling of radiative transfer of dust and gas cooling in galaxies;
• Probe the nature/origin of extended cold dust envelopes; link warm-cold dust emission;
• Improve dust and spectral diagnostics of star formation and ISM properties.

Approach:
• An objectively selected sample of nearby galaxies (SINGS-inspired), optimized to cover a broad and representative range of properties, and broad range of local physical environments;
• Exploit angular resolution for resolving infrared components and dust heating populations.
• Leverage existing and new ancillary data: from UV to radio
• Data and high-level data products would be delivered quickly to the broad community.