



UiT The Arctic University of Norway

DART

Digital ARctic Twins

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*2nd AIOTI Annual Workshop on
Semantic Interoperability for Digital Twins*

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Digital **AR**ctic Twins

DART is a research-facing activity that contributes to the UArctic Climate Justice Thematic Network. DART will bring together an **interdisciplinary** team (Computer Science, Biology, Environment, Law, Health, and Economics) to design **Digital Twins** that model how **the Arctic will respond to changing environmental, legal, cultural and economic conditions**. These digital twins will, ultimately, inform the creation of the bilateral agreements between states that form the major market-based tool to drive just transitions to net zero, under the guidelines of the Paris Agreement.

Objectives

- A cross-disciplinary circumpolar network (Denmark, Norway, Sweden, UK, USA) for **future grant applications**
- **Digital twins of arctic systems** (environmental, legislative, economic, health) for data- collection optimization, simulation
- **Uncertainty quantification** (Monte Carlo & symbolic-execution-based simulations with Bayesian perspective)
- Assessment of how **Arctic digital twins** can help implement Paris Agreement

Partners

- University of Oslo (project lead)
- UiT The Arctic University of Norway
- University of Aberdeen, UK
- Glasgow Caledonian University, UK
- Aarhus University, Denmark
- Luleå Technological University, Sweden
- Durham University, UK
- University of Washington, USA
- IT University, Denmark (non-UArctic partner)



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UiT Norges
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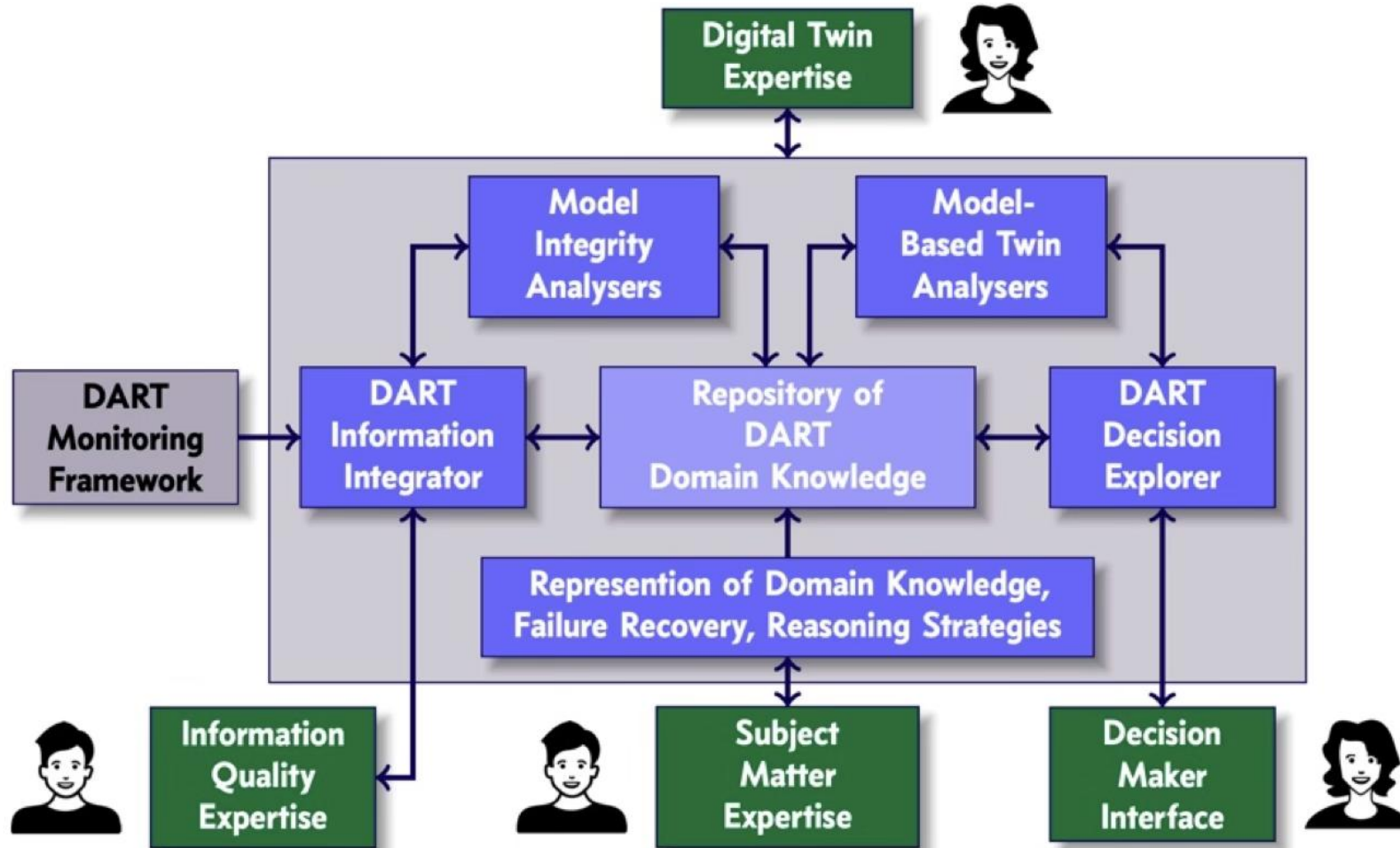


UNIVERSITY of WASHINGTON



Durham
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The overall process through which DART participants co-create and design an Arctic digital twin infrastructure



More information / DART home page



<https://ebjohnsen.org/project/dart/>