

EVALUATION OF THE DESIGN AND FABRICATION SERVICES (DFS) BRANCH

●●● NRC-EVALUATION



DFS' Budget (2013-14 to 2018-19)

Total Expenditures: \$ 46.5 million

Total Revenues: \$ 4.5 million



DFS Resources (as of March 31, 2019)

Staff: 99 employees

13 workshops co-located in NRC research centres (with the exception of an Ottawa headquarters)

DFS supports NRC research centres with their design and fabrication needs. Services include design, advanced technologies, fabrication, mechanical engineering, stress analysis, inspection and quality control, prototyping, additive manufacturing, mechanical support during testing, and facility set-up.



RESULTS

The evaluation found that DFS is an important internal service upon which several of the NRC's 14 research centres rely, despite mixed levels of understanding and use of the service across the NRC. Research centres benefit the most from DFS' diverse and well-respected expertise when they can iterate and collaborate closely on projects requiring high precision and high quality outputs. In particular, through its work with NRC research centres, DFS supports the NRC in the following ways:



Repair, design and build of NRC facilities & scientific equipment



Continued scientific & technological advances



Innovation with industry



Support to government

This support provides NRC researchers with a unique edge that helps them and the NRC stand out globally.

OPPORTUNITIES TO MAXIMIZE DFS' CONTRIBUTION TO THE NRC

- **Cost, price and value:** DFS offers a service of value to the NRC that would be difficult, if not impossible, to replicate with external service providers. However, appropriate use of DFS is hindered by the variability in how research centres understand DFS services, and in how they reflect the cost of DFS in their project management and pricing practices. With assistance from relevant internal stakeholder groups, DFS would benefit from clarifying its costing model and disentangling it from research centre pricing practices.
- **Collaboration and communication:** By operating under a centralized model that supports up to 14 different research centres, their multiple areas of technology, and co-located shops, DFS must manage rich and complex relationships with NRC research centres. Despite the challenges posed by this complexity, the model is appropriate and should be maintained. Through intentional collaboration, barriers to access (e.g., misinformation, misaligned timelines) and tensions (e.g. around roles, accountability, and responsibilities) can be reduced. This engagement should be led by DFS and actively sustained by the research centres to ensure common understanding and achievement of goals.

METHODOLOGY

The evaluation assessed DFS' relevance, efficiency, and performance for the period of 2012-13 to 2018-19. It was carried out by the NRC's Evaluation team and drew on the following methods: cross-NRC poll, data review, document review, key stakeholder interviews (DFS management and NRC's 14 research centres), and an international comparative study of similar functions in other research and technology organizations.

The full evaluation report, including the management response and action plan, is available on the NRC's website: <https://nrc.canada.ca/en/corporate/planning-reporting/evaluation>