

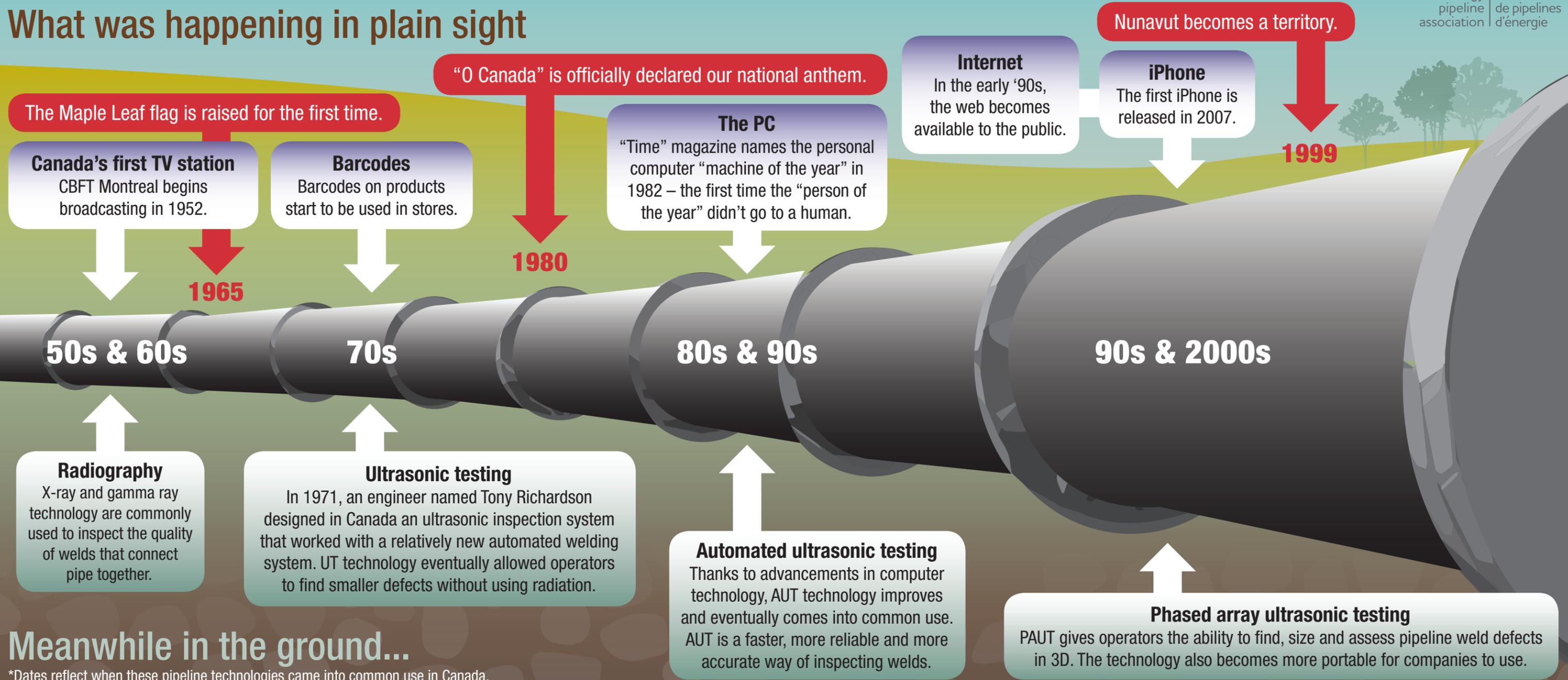
# THE EVOLUTION OF CANADIAN PIPELINE WELD TESTING



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Since the 1950s, when Canada's pipeline network started to grow, the pipeline industry has used technology to test the welds that hold their pipelines together. As Canada changed and advanced, so did this technology. Here's how pipeline testing has constantly improved to better detect problems in the line.

## What was happening in plain sight



## Meanwhile in the ground...

\*Dates reflect when these pipeline technologies came into common use in Canada.

### HOW IT WORKS?

- X-ray and gamma ray images show if there are cracks in a weld.
- Ultrasonic testing shows the clear passage of sound through the weld and back.
- **Medical connection:** You probably noticed that radiology and ultrasounds are also used in health care. PAUT, for example, is used to noninvasively examine the heart.
- **Pipeline smart pigs** travel inside a pipeline and also use ultrasonic technology to measure pipe thickness and determine metal loss.