

CRO

CONTRACT RESEARCH ORGANIZATIONS IN QUÉBEC

A powerhouse of socio-economic development for the province

An initiative of
BIOQUÉBEC

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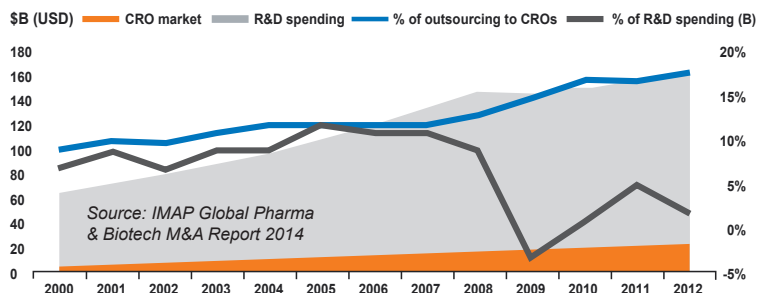
What is a CRO?

A CRO is an organization specialized in the research and development of healthcare products, services or technology.

Globally, contracting out R&D to specialists such as contract research organization (CROs) is becoming increasingly common.

In Québec, CROs deal mainly with pharmaceutical companies (representing 66% of their revenues), biotechs (34%), and public entities (7%). According to KPMG Secor's Daniel Denis, CROs constitute nearly 20% of the life sciences industry.

Evolution of R&D and of the CRO market



“CROs are the backbone of our industry’s innovation chain!”

– Yves Roy, Corealis Pharma

What, exactly, do CROs do?

Human resource management (ex. clinical research associates)

Sub-contracted manufacturing

Other professional services (legal, financial, market access, etc.)

In vitro and in vivo (on animals) research

Pre-clinical research

Clinical research

Medical device research

Clinical research site management

Central/(bio)analytical/imaging lab

Formulation and manufacturing of lots for clinical trials

Medicinal or synthesis chemistry

Discovery (including drug screening)

Quality and standards control

IT services

Ethics review and evaluation

Regulatory submissions

Services offered by R&D CROs

Only organizations offering for-profit services for those activities detailed in the blue area were considered in this study

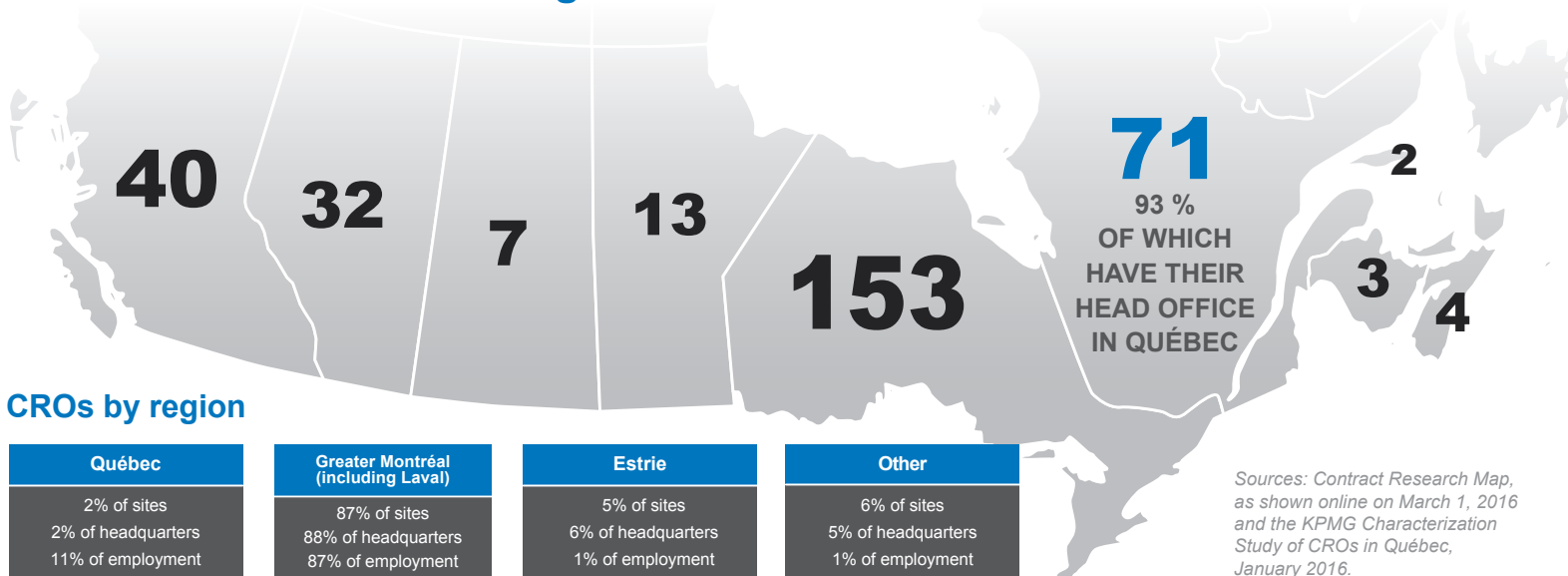
Included Activities

Excluded Activities

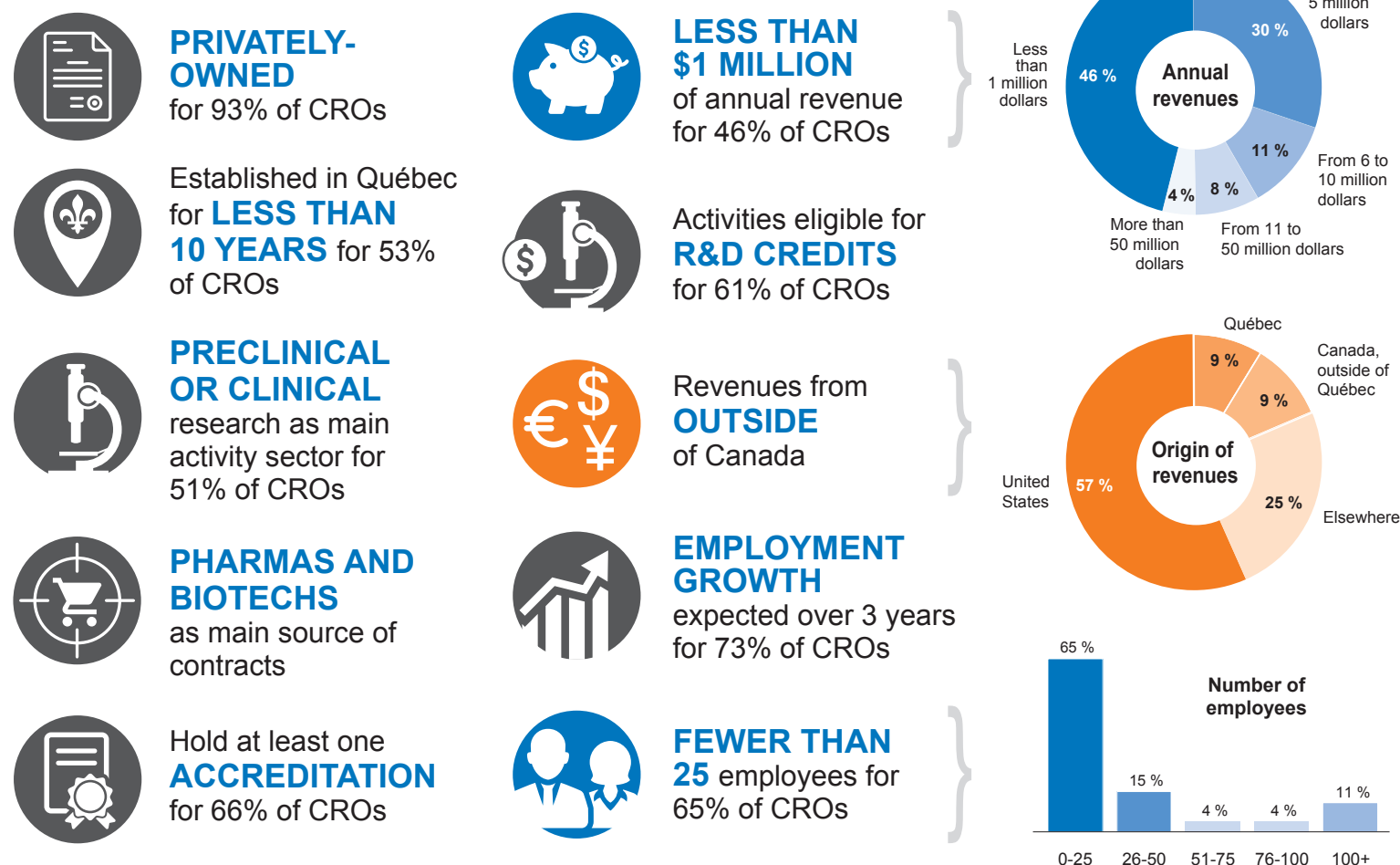
Their concentration, the nature of their involvement in research, and their economic power confirm that Québec’s CROs are a key element in the life sciences innovation chain.

OVERVIEW OF CONTRACT RESEARCH ORGANIZATIONS IN QUÉBEC

Québec is an area with a high concentration of CROs



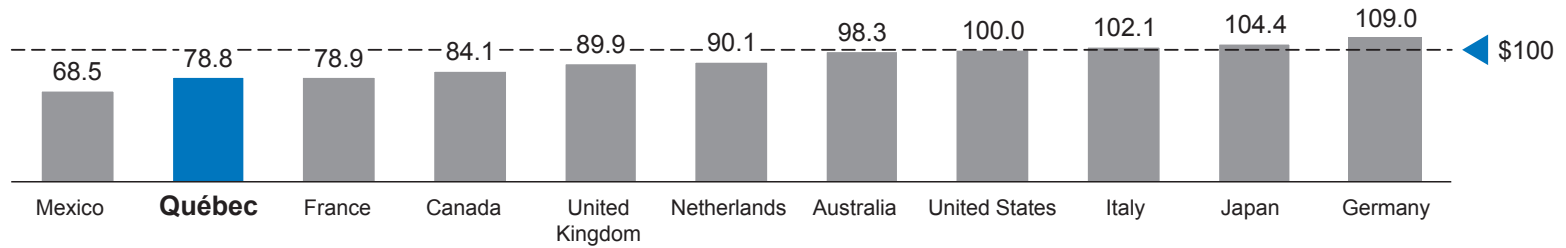
Typical Contract Research Organization



THE COMBINED EXPERTISE OF QUÉBEC'S CROS IS ACCESSIBLE AND COMPLEMENTARY

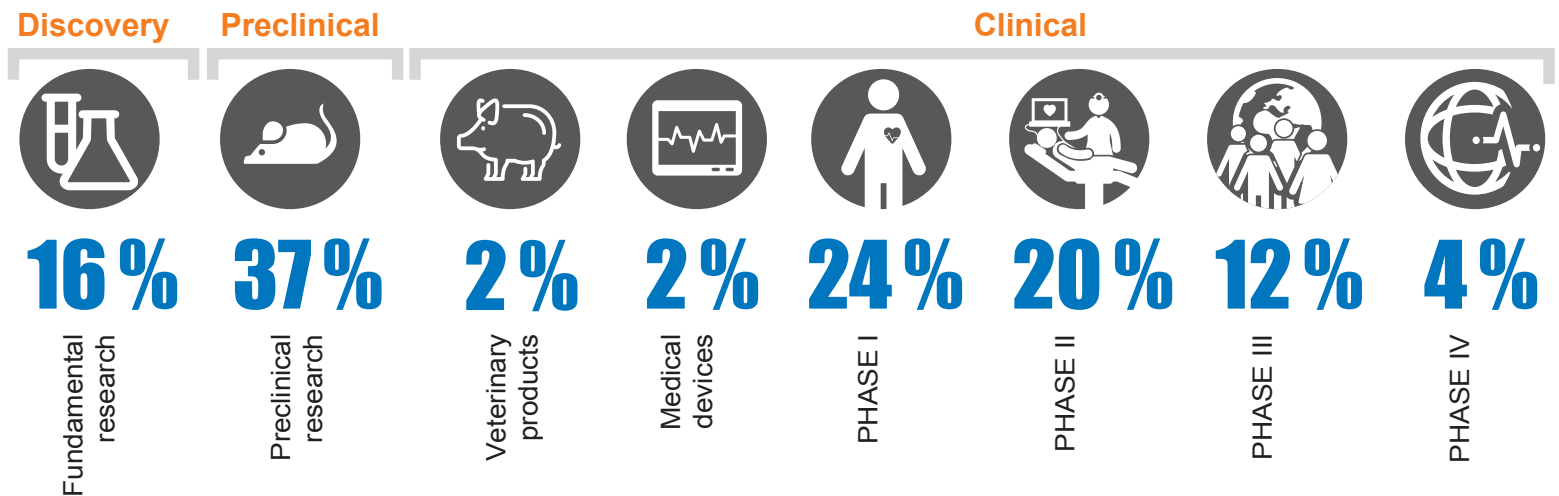
Québec stands out because of its competitive prices and high quality standards

Clinical research operating costs in Québec are lower than the national average.



From discovery to Phase IV clinical research: CROs encompass all stages

Their expertise is globally recognized in pharmaceutical and biotechnology research as it applies to human and animal health.



"Performing contract research here allows our researchers to import and consolidate knowledge and expertise from around the world."

— Nathalie Gagnon, AccelLab

"Since the outsourcing of clinical research services for multinational pharmaceutical companies began, CROs have been able to employ many skilled individuals and retain Québec's scientific talent."

— Pierre Grignon, JSS Medical Research

BOTH QUÉBEC'S ECONOMY AND CANADA'S ECONOMY BENEFIT FROM THE INFLUX OF FOREIGN MONEY

MORE THAN
550
MILLION
DOLLARS

Those are the
revenues from CROs
in Québec,

82 %
of which come from
foreign sources.

76 %
of CROs have seen
their revenues
increase over the
last three years.

Due in part to R&D credits, CROs create and retain more than 4 300 direct, quality jobs, which represent nearly 8% of the biopharmaceutical industry workforce.

Jobs in the biopharmaceutical industry represent:

75 %

more value added
per direct job

2x

more income taxes
than all other sectors of
economic activity in Québec

\$224
MILLION

is the total annual
payroll estimated for
CROs in Québec.

The pool of qualified personnel, university-affiliated hospitals, and scientific research and experimental development tax credits are only some of the assets which have allowed our organizations to lay the foundation for this rapidly growing industry.

Source : LES AFFAIRES, « Les sciences de la vie, une composante essentielle de l'économie du savoir »

“Did you know that animal health technicians can work in pre-clinical research? It is not widely known that CROs like ours offer non-traditional career paths.”

– Glenn Washer, Charles River Laboratories

12 %

of Animal Health Technology graduates work in scientific research and development services.

Source: Service Canada, Employment Statistics, Animal Health Technology

CROs create wealth in Québec: their activities inject new money into the economy and sustain quality jobs. Supporting a tax system adapted to its challenges, namely by increasing access to SR&ED credits, would allow them to be even more competitive, gain access to new markets, and have a faster, more positive impact on Québec's economy.

REDUCING HEALTHCARE COSTS IN QUÉBEC: CROS ARE DOING THEIR PART

\$1

spent for
a new drug



\$7

saved on fees for
other health
expenses

Source : INNOVATIVE MEDICINES CANADA, "Report to Canadians", p.6

Here are three examples of treatments to which CROs significantly contributed



Boston Scientific's Lotus Valve

Replaces the valve located between the heart and the aorta when it functions improperly



Saves lives because of its precise placement and effective sealing

Québec CRO involved



AccelLab performed preclinical studies to assess safety and the effectiveness of the valves.



Canadian influenza vaccine

Protects Canadians each autumn from the strains of the influenza virus.



Reduces the number of infections and their impact on the North American population.

Québec CRO involved



Diex Research conducted the Phase III clinical study which served, before the regulation was changed, to obtain permission to provide the main vaccine used in the country.



ActiSight™ Needle Guidance System

Guides a needle to a specific location in the body for the performance of a procedure.



Reduces procedure time and costs while increasing patient safety due to improved accuracy.

Québec CRO involved



Vantage Biotrials performed 2 Phase 4 clinical studies which resulted in this technology being approved for use in North America.