

Docket: 2012-4645(IT)G

BETWEEN:

AC SIS EHR (ELECTRONIC HEALTH RECORD) INC.,

Appellant,

and

HER MAJESTY THE QUEEN,

Respondent.

---

Appeals heard on April 8, 9, and 10, 2015, at Halifax, Nova Scotia

Before: The Honourable Justice Diane Campbell

Appearances:

Counsel for the Appellant: Bruce S. Russell, Q.C.  
Counsel for the Respondent: Dominique Gallant  
Andrea MacNevin (student-at-law)

---

**JUDGMENT**

The appeals from the assessments made under the *Income Tax Act* for the 2005 and 2006 taxation years are allowed, with costs, and the assessments are referred back to the Minister of National Revenue for reconsideration and reassessment in accordance with the attached Reasons for Judgment.

Signed at Ottawa, Canada, this 27th day of October 2015.

“Diane Campbell”

---

Campbell J.

Citation: 2015 TCC 263  
Date: 20151027  
Docket: 2012-4645(IT)G

BETWEEN:

ACSIS EHR (ELECTRONIC HEALTH RECORD) INC.,

Appellant,

and

HER MAJESTY THE QUEEN,

Respondent.

### **REASONS FOR JUDGMENT**

Campbell J.

#### Introduction

[1] The Appellant claimed Scientific Research and Experimental Development (“SR&ED”) expenditures of \$278,104 and \$269,690 in respect to the 2005 and 2006 taxation years, respectively and corresponding refundable Investment Tax Credits (“ITCs”) of \$125,858 and \$113,573. These amounts were claimed in relation to a project conducted in Belize that resulted in the establishment of the world’s first nation-wide health information system (“HIS”).

[2] The Appellant is a company based in Fredericton, New Brunswick. Its business activities focus on the development of health information systems, resource management software and process improvement consulting. This includes the creation of software applications for the centralized management of national, regional and local healthcare sectors.

[3] In 2004, Belize sought the assistance of the Appellant in implementing a national healthcare system in that country. The parties executed a contract on October 28, 2004. After commencing the project, the Appellant encountered a number of challenges in Belize, including poor telecommunication infrastructure. As a result of these challenges, the Appellant was unable to utilize its Electronic Health Record (“EHR”) solution to address the project’s goals, primarily because

of the inability of the limited infrastructure in Belize to support this EHR technology. Consequently, the Appellant was unable to link the various health institutions, including health care centres, rural clinics, labs and pharmacies for the comprehensive exchange of data, as required pursuant to the terms of the project contract.

[4] According to the Appellant, it engaged in organized experimental and developmental activities to establish a new technology, the Accesstec Capacity Strengthening Information System, in order to adapt its existing EHR technology in an attempt to overcome the infrastructure challenges. The Appellant contends that this new technology represents a significant advancement for which it claims that it incurred SR&ED expenditures, consisting primarily of wages.

[5] The Minister of National Revenue (the “Minister”) denied the Appellant’s claims for both taxation years because the work performed did not meet the definition of “SR&ED” pursuant to subsection 248(1) of the *Income Tax Act* (the “Act”) as the activities did not resolve any scientific or technical uncertainties.

#### The Issue

[6] The issue is whether the Appellant is entitled to the SR&ED ITCs for its 2005 and 2006 taxation years.

#### The Evidence

[7] Four witnesses testified on behalf of the Appellant: John Nicholas Rutter, President and Chief Technology Officer, Colin Kilburn, the software developer in charge of the Belize project, Jeffrey James Bearisto, an engineer who acted as project manager and Timothy Warren MacLean Ellis, a SR&ED advisor working for Grant Thornton. The Respondent relied on the testimony of Thomas Edward Hayman, a research and technology advisor for the Canada Revenue Agency (the “CRA”). I did not qualify the Appellant’s proposed expert, John Michael Dedourek.

[8] Mr. Rutter testified that, shortly after the contract was signed, the Appellant discovered that severe connectivity issues existed throughout Belize. In addition, Belize had limited funding for this project because of economic conditions in the country. The Appellant had no prior knowledge of these limiting conditions but they placed such significant restrictions on the project that the Appellant had to

make a decision as to whether to proceed with or to abandon its contract with Belize.

[9] The contract called for the integration of the various health care modules within Belize, including prescriptions, drug supplies, clinical orders and accounting, into one nation-wide system. In deciding to proceed with the contract, Mr. Rutter testified that the Appellant had no specific expectation of success in resolving these limitations because new knowledge had to be acquired in order to support an integrated system due to the severity of the connectivity issues. According to Mr. Rutter, the Appellant needed to be sensitive to the fact that “mission-critical integrity” was of paramount importance in transmitting data in a health care system as lives were at stake. Mr. Rutter testified that the technological challenges were not reasonably predictable of resolution using standard procedures or routine engineering. The Appellant searched unsuccessfully for an existing “off-the-shelf” replication software system. It formulated a plan to develop a multi-write database where each ‘node’ (of which Belize had more than fifty) could write to the main file. The replication systems that were available were intended for different purposes and were not appropriate to achieving the Belize project goals. Those existing replication systems did not account for the nature of the severe underlying network problems. Due to the unprecedented technological problems, the Appellant “... undertook experimental development to attempt to create technology that could mimic the availability of stable communications infrastructure in a hostile network environment where nodes must optimize the utilization of the minimal network resources.” (Exhibit A-1, Tab 4, page 2 of 12).

[10] Mr. Rutter testified that the Appellant’s approach was to conduct planned testing and trials, in accordance with its goals and objectives, which consisted of creating a robust replication system capable of handling the infrastructure challenges in Belize. This would allow critical medical data to be moved successfully between nodes. Because Belize presented a hostile network environment, the challenge was to find the best approach to successfully moving critical data located at multiple locations. This included changes that were made to medical records, as well as ensuring that those records could be preserved without loss of critical medical data, despite frequent interruptions in connectivity. Maintaining integrity of the data was critical because the system had to work each and every time as lives depended on it.

[11] Mr. Rutter stated that the focus was on the requirements of a replication system that would support an integrated health information system. He described the levels of trials that were conducted but testified that it was not a process of trial

and error. The initial investigative trials revealed that algorithms were vulnerable to lost data due to poor connectivity. Measurement occurred at the design stage and, according to the testimony of both Mr. Rutter and Mr. Kilburn, preliminary testing occurred at the pseudo-code stage prior to using actual code. At the pseudo-code stage, vulnerabilities were reviewed and solutions looked at to make these aspects more reliable.

[12] Mr. Kilburn testified that he kept notes, whiteboard photos and computer script notes, which were completed contemporaneously with the planned testing being conducted. In conducting test cases, some of them were embedded in the software through unit tests, while others were developed through “idea development” from initial brainstorming to prototyping design of the various aspects of the health information system that had to be integrated within an environment of unreliable network connectivity. Unit tests and staging tests led to algorithms that could be refined and installed to try to simulate and validate theories based on available connectivity. Mr. Kilburn testified that logs, or notebooks of the software, tracked events and if there were errors or connectivity issues, an analysis of the logs was conducted. The code was modified to address the problems so that eventually, based on the anticipated environment, the code would behave as expected at every facility in Belize. In addition to constructing algorithms that would synchronize data across a multi-write network and ensure that mission-critical patient data had complete availability and absolute correctness, Mr. Kilburn stated that he kept journal notes and whiteboard photos regarding the thought processes and planning that went into devising a workable system over a two-year period. When he commenced work on this project and was confronted with these technological uncertainties, he had no reasonable expectation that the health information system for Belize could be successfully developed through normal procedures.

[13] Mr. Bearisto testified that his duties included framing a problem, establishing the parameters that could be adjusted and setting up experiments to test the potential outcomes. However, on cross-examination, he stated that although he kept notebooks throughout the Project, he did not know their present whereabouts. He and his colleagues would devise experiments in a controlled manner to create many different conflicts so that they would be detected and addressed. For example, where a hospital and laboratory in Belize are quite close together geographically, a patient could be referred to the laboratory and could walk there faster than that patient’s data moved from the hospital to the laboratory.

[14] Since it was a fixed-price contract, Mr. Bearisto testified that they avoided a haphazard approach to finding a solution and that they were required to think very carefully about their approach in trying to reach a workable solution due to monetary constraints. He was careful to apply a systematic approach to overcome technological uncertainties because they “bet everything on” the Belize project (Transcript, April 9, 2015, page 109). Mr. Bearisto testified that the technological uncertainties that were overcome for this project were not addressed through trial and error or through de-bugging an existing system but, instead, were resolved by following a systematic investigation and through experimental development.

[15] Mr. Ellis provided testimony respecting the approach that he adopted in assisting the Appellant in identifying the monetary amounts of the SR&ED claim based on the work of those individuals who were involved with the Belize project.

[16] The Respondent’s witness, Mr. Hayman, reviewed the general process that he followed in assessing the Appellant’s claim and authoring the technological review report.

#### Applicable Law and Analysis

[17] The term “SR&ED” is defined in subsection 248(1) of the *Act* in the following manner:

“*scientific research and experimental development*” - “scientific research and experimental development” means systematic investigation or search that is carried out in a field of science or technology by means of experiment or analysis and that is

(a) basic research, namely, work undertaken for the advancement of scientific knowledge without a specific practical application in view,

(b) applied research, namely, work undertaken for the advancement of scientific knowledge with a specific practical application in view, or

(c) experimental development, namely, work undertaken for the purpose of achieving technological advancement for the purpose of creating new, or improving existing, materials, devices, products or processes, including incremental improvements thereto,

and, in applying this definition in respect of a taxpayer, includes

(d) work undertaken by or on behalf of the taxpayer with respect to engineering, design, operations research, mathematical analysis, computer programming, data collection, testing or psychological research, where the work is commensurate with the needs, and directly in support, of work

described in paragraph (a), (b) or (c) that is undertaken in Canada by or on behalf of the taxpayer,

but does not include work with respect to

(e) market research or sales promotion,

(f) quality control or routine testing of materials, devices, products or processes,

(g) research in the social sciences or the humanities,

(h) prospecting, exploring or drilling for, or producing, minerals, petroleum or natural gas,

(i) the commercial production of a new or improved material, device or product or the commercial use of a new or improved process,

(j) style changes, or

(k) routine data collection;

The relevant portion of this definition for the purposes of these appeals is contained in paragraph 248(1)(c).

[18] Justice Hogan, in *1726437 Ontario Inc. o/a Airmax Technologies v The Queen*, 2012 TCC 376, 2013 DTC 1008, at paragraph 13, described the definition in the following manner:

[13] SR&ED is defined in subsection 248(1) of the ITA as follows:

[...]

The definition is based on a “catch and release” concept. The definition first includes a broad category of development activities under paragraphs (a) to (c), then items otherwise included are excluded under paragraphs (e) to (k).

[19] To be successful, the Appellant must show that it incurred qualified expenditures as part of its SR&ED activities in order to obtain the investment tax credits as outlined in subsection 127(9) of the *Act*. A “qualified expenditure” is defined in subsection 127(9).

[20] As noted by Justice Little in *Zeuter Development Corporation v The Queen*, 2006 TCC 597, 2007 DTC 41, at paragraph 20:

[20] The provisions of the *Act* essentially create a two-part test. First, it must be determined whether the project as a whole meets the requirements set out in subsection 248(1). If it does not, that is the end of the matter. However, if the

project as a whole is eligible, then the specific expenditures and activities must be vetted against the objectives of the project. ...

[21] The landmark case remains *Northwest Hydraulic Consultants Ltd. v The Queen*, 98 DTC 1839, where Justice Bowman, as he was then, outlined, at paragraph 16, five criteria that will assist a court in determining whether a taxpayer's particular activities constitute SR&ED:

[...]

1. Is there a technical risk or uncertainty?

[...]

2. Did the person claiming to be doing SRED formulate hypotheses specifically aimed at reducing or eliminating that technological uncertainty? ...

[...]

3. Did the procedures adopted accord with established and objective principles of scientific method, characterized by trained and systematic observation, measurement and experiment, and the formulation, testing and modification of hypotheses?

[...]

4. Did the process result in a technological advance, that is to say an advancement in the general understanding?

[...]

5. Although the *Income Tax Act* and the Regulations do not say so explicitly, it seems self-evident that a detailed record of the hypotheses, tests and results be kept, and that it be kept as the work progresses.

[...]

[22] These criteria were approved by the Federal Court of Appeal in *RIS-Christie Ltd. v Canada*, 99 DTC 5087, and also in *C.W. Agencies Inc. v Canada*, 2001 FCA 393, 2002 DTC 6740.

[23] Justice Bowman, at the same paragraph of his decision in *Northwest Hydraulic*, explained what is meant by the terms “technological risk or uncertainty”:

[...]

1. Is there a technical risk or uncertainty?

(a) Implicit in the term “technical risk or uncertainty” in this context is the requirement that it be a type of uncertainty that cannot be removed by routine engineering or standard procedures. I am not talking about the fact that whenever a problem is identified there may be some doubt concerning the way in which it will be solved. If the resolution of the problem is reasonably predictable using standard procedure or routine engineering there is no technological uncertainty as used in this context.

(b) What is “routine engineering”? It is this question, (as well as that relating to technological advancement) that appears to have divided the experts more than any other. Briefly it describes techniques, procedures and data that are generally accessible to competent professionals in the field.

[...]

[24] In *Zeuter Development*, Justice Little, as he was then, made the following comment, concerning software development, at paragraph 22:

[22] Software development can certainly be eligible as SR&ED on the basis that its goal is to advance computer science or information technology. ...

[25] However, Justice Bowman also noted in *Northwest Hydraulic*, at paragraph 82, that technological uncertainty is something that exists in the mind of the specialist “... who identifies and articulates it and applies its methods to remove that uncertainty.”

[26] The onus is on the Appellant in these appeals to show that, on a balance of probabilities, the expenditures it incurred in the 2005 and 2006 taxation years related to SR&ED within the meaning of subsection 248(1) of the *Act*.

[27] Based on the facts before me, I am satisfied that the Appellant’s activities constituted SR&ED within the meaning of subsection 248(1) of the *Act*, that expenditures were properly incurred and claimed in the 2005 and 2006 taxation years and that corresponding refundable ITCs were properly claimed in respect of the Belize project.

[28] When the Appellant decided to proceed with the Belize project, rather than abandon it, the project necessitated consistent and dependable service despite the persistent and irregular connectivity issues encountered in Belize. Despite the

constant interruptions in network service, each individual node had to function autonomously while maintaining the integrity of each patient's medical data in the absence of replicated data. In addition, the Appellant had to focus on protecting critical data where potential conflicts could arise when data from another node had been significantly delayed. The technology that the Appellant was required to develop was meant to support and accommodate the applications that would preserve, transmit and store critical medical data with certainty and predictability in an unstable network environment.

[29] The replication solutions that were available in the field at the time did not suit the required objectives of the Appellant for this project. The most commonly-used replication solution was a system of master/slave replication. This solution permitted changes on the master database only while replicating or mirroring those changes to the slave databases. However, the Belize project required replication technology that would support changes to any database with those changes being exchanged asynchronously because of the connectivity issues. As Mr. Rutter explained:

The master doesn't know that the node has connection. And the node doesn't know if the master has a connection. So, they've got to act independently or asynchronously – asynchronously to move the data.

(Transcript, April 8, 2015, page 86)

Existing solutions for relational databases were designed to operate in an environment of "... strong connectivity infrastructure and powerful hardware ...". (Exhibit A-1, Tab 4, page 2 of 12). The Appellant required a "write everywhere" replication system and "... undertook experimental development to attempt to create technology that could mimic the availability of stable communications infrastructure in a hostile network environment where nodes must optimize the utilization of the minimal network resources." (Exhibit A-1, Tab 4, page 2 of 12). In any event, as Justice Woods noted in *Logitek Technology Ltd. v The Queen*, 2008 TCC 145, 2008 DTC 2989, at paragraph 29, where SR&ED activities are undertaken in order to solve a technological problem, those activities should qualify, even if they were not necessary because a solution already existed in the marketplace that the taxpayer may not have been aware of:

[29] ... I think the wording of the definition of SR&ED in the statute supports this view, and I quote from the relevant definition in the statute: "work undertaken for the purpose of achieving technological advance." The emphasis in the statute on the purpose of the work suggests that the SR&ED activity should

qualify based on what the taxpayer was trying to achieve, and the means that the taxpayer used to do so. It should not be disqualified merely because there was a solution available in the marketplace if the taxpayer was unaware of it.

[30] The technological uncertainties were summarized at Exhibit A-1, Tab 4 and consisted of fourteen in number. However, in light of the necessity of preserving the integrity of the database, the primary uncertainties included:

1. Database replication in an unreliable network environment had to be explored as available tools were inadequate and research was scarce;
2. Approaches had to be formulated to transport data, merge changes to database records from multiple databases, preserve and merge changes to records at multiple locations without loss of critical data while overcoming frequent network interruptions;
3. The unknown implications that multi-site, asynchronous data manipulation would have for the real world applications that it would need to support;
4. Even if uncertainties could be overcome, it was unknown if their developed hypothesis would be sufficient to enable the nation-wide, mission-critical data applications;
5. Recovery from data integrity problems when nodes were offline for any extended period of time; and
6. After extended periods of dis-connectivity and large amounts of changes queued up, how to exchange those changes to other nodes in an environment of infrequent connectivity.

[31] Although the Respondent argued that some of the uncertainties were not technological and that possible available solutions were restricted by budgetary constraints and licensing considerations, the evidence of the Appellant's witnesses, which was not challenged on cross-examination, demonstrated that it was impossible to resolve the uncertainties, encountered by the Appellant, through routine engineering or standard procedures. The Appellant had no reasonable expectation of success with the Belize project unless new knowledge could be obtained. According to the evidence, the Appellant developed a new approach by creating a multi-write database replication system. There is no doubt that this

system was innovative, as evidenced by the accolades given to the Appellant's comprehensive HIS in the Vital Wave Consulting report of May, 2009 (Exhibit A-1, Tab 18, *Health Information Systems in Developing Countries*). This report, commissioned by the Bill & Melinda Gates Foundation, completed a landscape analysis of the health information systems in developing countries and concluded that Belize's innovative HIS system is perhaps the most comprehensive system in the world. However, the "result achieved" for SR&ED purposes is not a measure of a technological uncertainty. As noted in *Northwest Hydraulic*, the inability to achieve an objective invalidates neither the hypotheses formulated nor the methods used. I am satisfied, based on the evidence, that the project problems and uncertainties could not be reasonably resolved using routine engineering or standard procedures, as the Respondent suggested. The first criterion of technological risk or uncertainty, as enunciated in *Northwest Hydraulic*, has been satisfied.

[32] I am also satisfied, in respect to the second criterion, that the Appellant formulated and tested hypotheses to address the technological uncertainties it encountered in the Belize project. Mr. Rutter testified that the approach adopted by the Appellant was in accordance with planned testing that included several levels of trials or tests being conducted. Trials that were conducted were distinguished from a trial and error approach. Mr. Kilburn testified that his journal notes, whiteboard photos and computer script notes corroborate his testimony that he and his colleagues engaged in planned testing. On cross-examination, Mr. Rutter stated that the Appellant did not "measure these connectivity issues", except through observation and experience, because the Appellant had no control over the private company in Belize that was in charge of connectivity in that country. When asked how the Appellant measured effectiveness, Mr. Rutter testified that this measurement related more to the integrity of the data and the accuracy with which it reached its destination despite connectivity challenges:

... the record had to be what was sent. It had to be the same. So what was sent is what was received.

The test was, is it the same information? So, did – what was it – at the node, is that what ended up on the master?

(Transcript, April 8, 2015, page 106)

[33] Mr. Bearisto testified that his approach as manager of the Belize project was scientific "... rather than just throwing things against the wall and seeing what sticks ..." (Transcript, April 9, 2015, page 106). He testified that experiments were

devised in a controlled manner to re-create environments in order to reproduce the problems which generally led to code changes and further testing. Because of the fiscal and time constraints:

... we didn't have nearly enough time to approach this in a haphazard way ... on this endeavour. And we didn't have the time to fool around with just trying stuff. We had to think very carefully about what is it that's in our way here.

(Transcript, April 9, 2015, page 109).

... [W]e were burning money if we waste any time trying things, rather than experimenting.

(Transcript, April 9, 2015, page 110).

[34] Mr. Kilburn explained that the Appellant's approach to even the simplest component of detecting when connectivity existed had to change because "... this was a different level of replication than ... the Internet's not always on. It's on sometimes." (Transcript, April 9, 2015, page 38). The challenge was one of providing equal access to predictable data integrity where connectivity issues ran far deeper than would be encountered in a stable and secure environment such as Canada.

... There was [*sic*] health outposts in Belize that you need a four by four to get to, they don't have power all day, maybe not every day. They do not have phone lines. They do not have satellite Internet. Nor do they ever anticipate getting it.

(Transcript, April 9, 2015, page 38).

Mr. Kilburn also explained how conducting unit tests eventually led to staging tests where algorithms were tested and refined in simulated environments. In summing up what the Appellant was doing, he stated:

A. We would attack things, you know, our methods didn't change. We formulate some assumptions. You develop your solution based on this and then you test the theories and see if it solves your problems.

(Transcript, April 9, 2015, page 51)

[35] When conducting tests and formulating its hypotheses, the Appellant focussed on the following objectives:

1. Design and develop a system that would preserve, manage, transmit and store mission-critical data;
2. Achieve superior data security, stability and reliability within a hostile and volatile communications environment;
3. Achieve superior data confidentiality and protection;
4. Achieve system functionality on technologically-limited hardware;
5. Facilitate user self-reliability in order to achieve the solution user-adoption goals of system efficiency and data security;
6. Achieve perpetual and secure software updates in a volatile communications environment;
7. Ensure any source code released to users does not compromise the Appellant's ability to self-protect against intellectual property infringement;
8. Maintain failsafe conditions in an unpredictable environment;
9. Achieve solution functionality despite a low cost target; and
10. Advance the project's objectives while maintaining data integrity.

(Summarized from Objectives listed at Exhibit A-1, Tab 11, pages 4 and 5)

[36] Based on the evidence, which was not contradicted, I am satisfied that the Appellant conducted systematic investigations with respect to the Belize project. The technological uncertainties and problems were clearly outlined and defined. Initially, the Appellant attempted to duplicate the target environment conditions of Belize in the laboratory, focussing on the correct operation of replication algorithms, without the burden of network problems, in order to isolate potential defects in the algorithms. Transitioning of the replication algorithms to the conditions of the target environment required the algorithms to be more fault-tolerant in an attempt for the system to seize the advantage of connectivity when it was available. Specific objectives and hypotheses were formulated that could potentially address the uncertainties inherent in a project that became the

Appellant's focal point during this period. Brainstorming sessions occurred, theories evolved and testing was completed with respect to different hypotheses.

[37] Mr. Kilburn explained how refinements to ideas for prototypes occurred and how "implementation notes" were kept for the various components contained in the documents (Transcript, April 9, 2015, page 39). He referred to the content of these notes, which list "rough algorithms" for network behaviour, the three stages of full synchronization using the mobile connector, the operative requirements of the node manager in order for it to manage sequences and subscriptions, and node and master behaviour (Exhibit A-1, Volume 2, Tab 22). This exhibit contained copies of handwritten notes respecting such items as whiteboard sessions and online replication ideas in February, 2005, thoughts on conflict detection in June, 2005, potential concepts on how to implement automatic software updates in July, 2005, staging tests and data integrity completed in August, 2005, accounting data bootstrapping in September and October, 2005 and file transfer and file splitting. Attached to those notes was a SR&ED activity sample that elaborated on the systematic investigative process that occurred with respect to a particular task, of observing and analyzing replication functionality over dial-up, which was part of the larger project. This was meant to serve as an example of one experiment of many project elements that took place over a three-week period in early 2006. The document outlined the objectives, procedures, observations conducted and investigative techniques that were pursued and utilized in respect to this one element. These various documents showed how the project evolved in respect to developing hypotheses, conducting various testing of theories, installing and refining algorithms and evaluating the outcome.

[38] Mr. Kilburn testified that the "scientific method", when applied to computer programming, does not have the same structure that would be employed in a science such as chemistry, where measurement is used in a different context. When asked on cross-examination if he tracked the number of tests that he ran, he stated that the tests conducted take many forms, average in the hundreds and "... there's a tests [*sic*] that's written once and is executed a thousand times." (Transcript, April 9, 2015, page 70).

[39] Although the documentation was not as detailed as I would like to see, particularly with respect to the types of tests performed and the results achieved, I am satisfied with the oral testimony of the Appellant's witnesses. For the most part, their evidence was not challenged on cross-examination and Mr. Rutter, Mr. Kilburn and Mr. Bearisto provided credible explanations respecting the scientific investigation and method they adopted in order to develop the HIS. In

fact, Respondent counsel acknowledged that credibility was not in issue (Transcript, April 10, 2015, page 31). While it will always be preferable that an appellant maintain contemporaneous documents to support its systematic investigative procedures and methods, as noted by Justice D'Auray in *6379249 Canada Inc. v The Queen*, 2015 TCC 77, [2015] TCJ No. 62, at paragraphs 71, 72 and 92, the *Act* contains no legislative requirement to file those documents in order to qualify for the deduction of expenditures. Justice Jorré in *Les Abeilles Service de Conditionnement Inc. v The Queen*, 2014 CCI 313, 2014 DTC 1219, made a similar observation and Justice Archambault in *116736 Canada Inc. v The Queen*, 98 DTC 1816, at paragraph 41, stated:

[41] However, the Act and the Regulations do not require that such written reports be produced in order for a taxpayer to qualify for the deduction of such expenditures: it is possible to adduce evidence by way of oral testimony. Whether the Minister or a judge could conclude that the activities purported to have been carried out by the taxpayer were actually carried out then becomes a question of credibility.

[40] The documentary evidence, that I do have, coupled with the oral testimonies of these three individuals, support my finding that the Appellant engaged in systematic investigation and undertook tests to resolve the technological uncertainties. This is not to say that taxpayers should ignore detailed record keeping. Such documentary evidence is always to be preferred and each case will vary in respect to how the evidence will be viewed. Taxpayers who come to court without proper documentation will always remain in the unenviable position of persuading a court that systematic investigation did occur. My conclusion respecting the testing also arises from my finding that the Appellant's research efforts, in resolving numerous technological uncertainties by creating a multi-write database, led to a technological advancement.

[41] The solution to the technological uncertainties that existed with the Belize project resulted in the creation of a multi-write database replication system. This approach was not only innovative but leading-edge in that it produced an integrated health information system that resulted in the successful establishment in Belize of the first nationwide health information system of its kind. The evidence suggested that the available open source replication solutions were inappropriate as they were meant for very different purposes within the field, designed to work with strong connectivity infrastructure. Since an appropriate replication solution was not available, the Appellant undertook experimental development work to create technology that could mimic a stable communications infrastructure in the hostile environment that existed in Belize.

[42] Finally, in respect to the records that were retained as the testing progressed, as already discussed in my reasons, I am satisfied that the Appellant maintained records that, together with the oral testimony, sufficiently demonstrate that it had identified the problems with the project, developed its objectives, formulated hypotheses and testing scenarios and modified or re-developed its approach in response to the results it was obtaining. Although records were not available for every test conducted, the evidence of the three witnesses, together with those records that I do have, support a conclusion that testing occurred in the manner outlined in the oral testimony. Although the Appellant may not have kept detailed records, as a scientist may have done, its approach is similar to the scientific method in that uncertainties and objectives were identified and hypotheses, trials and testing were formulated. It is important that we do not lose sight of the fact that this was a small company operating out of Fredericton, New Brunswick, engaged in an international project that necessitated almost total engagement of its employees on the project. It was a contract that could make or break the Appellant as a viable business. In circumstances such as these, I am of the view that the proper approach should be a global overview of the project and the associated activities rather than a minute dissecting of each elemental component. I am also satisfied that the evidence of Mr. Ellis established the proper financial amounts of the Appellant's claim.

[43] In summary, the Appellant has established that its activities met the definition of SR&ED contained in subsection 248(1) of the *Act*. As a result, the Appellant's expenditures were incurred for SR&ED and the Appellant will be entitled to the ITCs. The appeals are allowed, with costs.

Signed at Ottawa, Canada, this 27th day of October 2015.

“Diane Campbell”

---

Campbell J.

CITATION: 2015 TCC 263

COURT FILE NO.: 2012-4645(IT)G

STYLE OF CAUSE: ACSIS EHR (Electronic Health Record)  
INC. and HER MAJESTY THE QUEEN

PLACE OF HEARING: Halifax, Nova Scotia

DATE OF HEARING: April 8, 9 and 10, 2015

REASONS FOR JUDGMENT BY: The Honourable Justice Diane Campbell

DATE OF JUDGMENT: October 27, 2015

APPEARANCES:

Counsel for the Appellant: Bruce S. Russell, Q.C.  
Counsel for the Respondent: Dominique Gallant  
Andrea MacNevin (student-at-law)

COUNSEL OF RECORD:

For the Appellant:

Name: Bruce S. Russell, Q.C.

Firm: McInnes Cooper

For the Respondent:

William F. Pentney  
Deputy Attorney General of Canada  
Ottawa, Canada