

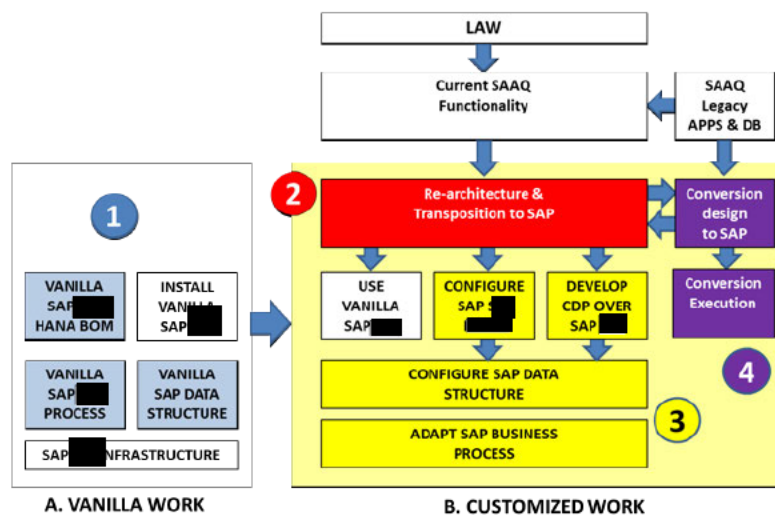
2nd ITR – SAAQ Opportunity Preparation Check List

2. Work activity coordination vs risks

I tried to represent in a diagram the areas for which I will have risk related and dependency related questions. The main idea, here, is how will we do to bring the unique SAAQ business functionality into the specific SAP framework, the most efficiently and effectively possible?

Here is the diagram:

SAAQ ITR - WORK ACTIVITY CATEGORIZATION



Area "A" represents the work activities to implement VANILLA SAP.

Area "B" represents the customized work activities needed to take the unique SAAQ business functionality, based upon the LAW, in order to transpose into SAP

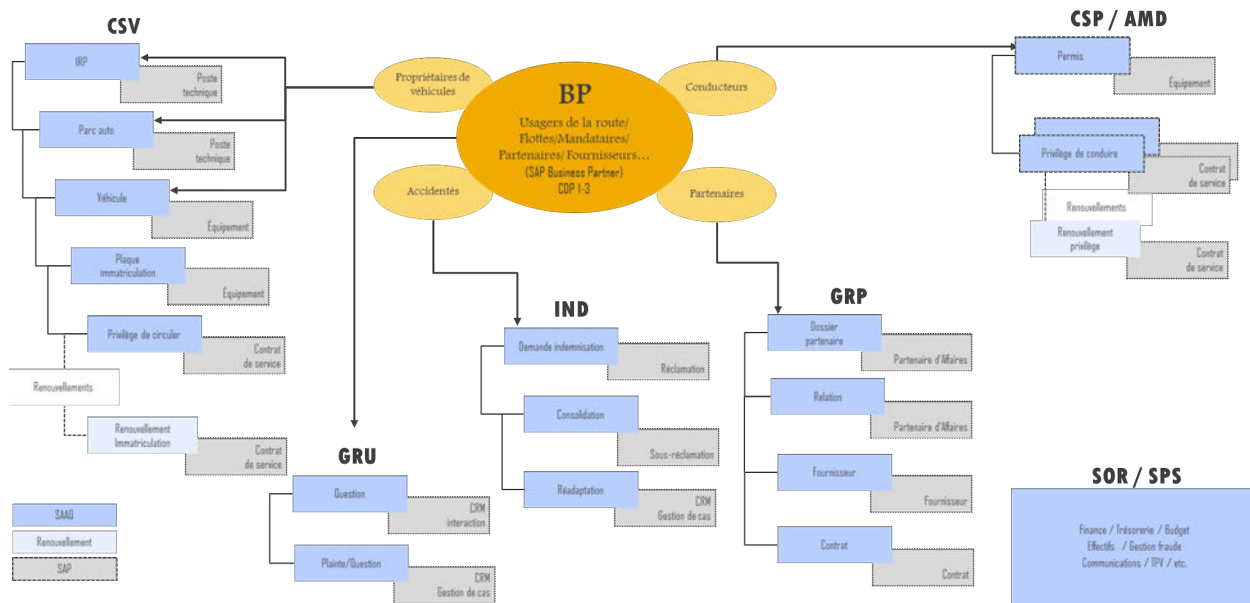
Q1. My first question is what percentage of the project efforts go to each area?

Delivery	LoE (hours)		Vanilla		Customized		
	LeO	% Project	%	LoE	%	LoE	
0 – Project Prep, Global Blue print, CoE Design	73 418	6%	100%	73 418	0%	0	No customized work. Project setup activities and global design of the hole solution
1 – Finance (+)	322 198	27%	80%	257 758	20%	64 440	Custom work around by integration of the Legacy BI and a few custom interfaces
2 – Permits and Plates	544 143	46%	50%	272 072	50%	272 072	CDP integration + custom work
IR – Insurance	232 318	20%	80%	185 854	20%	46 464	CDP integration
Total	1 172 077			789 102		382 975	

The area that is subject to Law Changes is in delivery 2. Over the years the law changes affect the following areas:

- Sanctions and infractions management with demerit points (CDP)
- Permits and Plates rate calculation (mostly configurable items in SAP)

Even if there is a lot of customisation done in L2, permits and plates core data are built around SAP standard objects (Equipment, Service Contract and Business Partner). The following diagram shows the mapping between SAP standard objects and SAAQ business object. A functional demonstration of the feasibility of those assumption was made in July 2016 (with success).



The customisation made during L2 for Permits and Plates, are mostly around:

- External systemic interfaces with partners (data exchange)
- End users interfaces () and ()
- Custom management process (permit acquisition, renewal, plates acquisition and renewal)

Q2. As the SAAQ business functionality is based upon the "Loi sur l'Assurance Automobile du Québec" and is currently embedded into over 300 legacy applications, how will we do to extract, understand, distillate and transpose these functionalities into SAP? (Box #2 in red).

The outcome of this re-architecture can be a) it fits into a vanilla SAP offer; b) it can be configured over vanilla SAP component or c) it requires a CDP development.

Who will make the call? How will that call be made? Based upon what criteria?

Context

300 Legacy applications: This number needs to be put in perspective. Those application are divided into 2 groups

- SAAQ Core application (around 80 – See Figure 5 in Original RFP): Those are all the main application we will concentrate to replicate in SAP.



Adobe Acrobat
Document

- DEMU – User development in MS-Access (220 small applications – See “Inventaire-DEMUS-Processus cibles” updated by SAAQ during the competitive dialogue): Except for a few specific ones (ex: Asset management), those are mostly use to build custom reports/mini BI in the different departments of SAAQ. Each DEMU are used by a limited number of user (from 1 to 160)

Core Functionalities are divided into different groups

- Finances, Procurement, (different languages with [REDACTED] database) : To be replace
- Permits and Plates (mostly in Central Cobol with IDMS database) : To be replace
- Insurance (.Net application, converted from Cobol with [REDACTED] database) : To be replace
- Peripheric solutions (Ex: Global Payment, [REDACTED] ...): To connect to
- Legacy BI (CEDO/CIG): Large [REDACTED] BI database exploited with Microsoft SSRS/SSIS

For the RFP SAAQ provided an extensive documentation detailing:

- Business Process (which they are currently revising to optimise them)
 - o toward the new solution vanilla behavior
 - o toward task simplification by conducting Kaizen/Lean approach with a team of season SAP resources
- Data documentation and mapping between process/legacy application/

All this material and much more already available will be leverage to insure transposition of the business process into the new solution.

Another fact not to be neglected is that the LGS team has been supporting those applications for many years in the past and we still have many resources that are actually (LGS badge resources + Freelance contractor that have been working with us at SAAQ for many years.

The outcome of this re-architecture can be a) it fits into a vanilla SAP offer; b) it can be configured over vanilla SAP component or c) it requires a CDP development.

Who will make the call? How will that call be made? Based upon what criteria?

A very detailed requirement analysis as already been made in collaboration with the SAP team back in winter 2016. Ket Muller from our SAP practice has participated in that phase with the SAP Team.

At that time 6 potential CDP were initially identified. After closer examination, only 3 were kept

- Sanctions
- Infractions (Demerit Points)
- Medical File

Those 3 are associated with the business Partner in [REDACTED] and will be built as MasterData.

Our estimation team, led at the time by Jonathan Pye, agreed to that assessment after reviewing every single business requirements one by one. In every case, a way was found to configure the solution and/or a WRICEF was identified to complete the solution.

During the delivery, we will work with the SAP team to keep the CDP contained to those 3 areas.

As to “who will make the call”, this is an Agile Project, the call will be made by the delivering team, including SAAQ’s resources, SAP resources and our resources. In case on divergent opinion, the project as an escalation process in place to react and decide fast (they committed, by writing, to make every critical decision within 48 hours during the transformation program)

vanilla there could be an impact on the SAP data model.

However, meanwhile, the SAAQ team will be converting the data (Mauve boxes #4). How will be made the coordination between the data model changes and the data migration mapping happening in parallel? What part of these design activities (boxes #2, #3 and #4) will be within the Livrable 0 "waterfall" approach and what part will be under the "Agile" approach.

The SAP CDP development team will interact intimately with the IBM team, right from Day 1. Actual decision made:

- The CDP team will work in agile mode, like the delivery team
- Even if L0 is more a blue print phase, it will be done in Agile like Mode (iterative sprints)
- SAP CDP Team will not be allowed to organise Design session without our presence (The design leadership team of the delivery 2 – Permits and Plates and our Insurance SME (for the integration of the medical file
- The realization phase of the CDP will be done directly in our physical environment, in the N+1 landscape
- All the Data modeling for the CDP will be done in our environment and we'll continuously monitor the CDP evolution
- The Data migration team will be divided into multiple streams
 - o Financial Data
 - Master Data
 - Transaction Data
 - o Permits and Plates
 - Core master Data
 - CDP data (all considered Master Data by SAP)
 - Transaction Data
- Planning : As shown in the plan,
 - o CDP blue print (and Data modeling of it) is done in parallel of the global solution blue print (Lot 2 - An 1, T2)
 - o Realization of the CDP in an iterative mode (Agile) is done along the finalization of the solution blue print of delivery 2 (Lot 8 - An 1, T3-T4)
 - o CDP integration (by us) and stabilisation (by SAP) will be done during the lot 9 (An2, T1 & T2). Data Migration to populate the CDP should start at that point

[illegible]

The CDP development and integration strategy was informally discuss with SAP's representative, Adam Novek to agree on a common delivery strategy. (Both in the initial proposal and in the revised proposal).

Payment terms of the CDP will help us to keep SAP in line with the delivery target as we are the one driving the delivery calendar and they will depend on us to The following expected payment slice were documented by SAAQ in a recent addendum and the target date are derived from our delivery calendar.

Expected Payment Slice	Target date
20% à la date de signature du contrat;	2017-04
20% à la date d'acceptation du backlog /spécifications;	2017-10
20% à la date de fin du sprint correspondant qui correspond à un degré d'avancement de 50% ;	2018-01
20% à la date de fin du sprint final ;	2018-04
20% aux essais d'acceptation.	2019-11 (to be negotiated...)

Q4. What would be the contribution of SAAQ into the box #2 re-architecture of their own business functionalities?

The replacement of Business functionalities (applications et progiciels actuels) potentially, partially or totally covered by the solution are under our responsibility.

For external components to integrate (progiciels spécialisés à intégrer), we are expected to provide the means (software or services) to insure they are still working (Ex: Global Payment) or provision for an alternate solution (Ex: netScaler for load balancing).

All modifications to existing business functionalities (**applications du patrimoine**) are under SAAQ responsibility.

All modification to "Business Process" are under SAAQ's responsibility. In the original RFP, we had an exhaustive documentation of the existing Business process to support by the new solution (Annexe D). We also had access to a detail mapping between Legacy functionalities to replace and those Business process and Data structure. For the original proposal, all that information was translated and communicated to the estimation team members

During the competitive Dialogue they share with us extensive information and material showing:

- The revision work undergoing of all they're business process (optimisation, clarification, Kaizen)

Extrait de l'appel d'offres de la SAAQ:

Page 28 : 2.3.3.2 Description des applications actuelles

Les applications et les progiciels sur le diagramme ont été regroupés à l'aide d'un encadré ou regroupés sous un titre selon les six (6) catégories suivantes:

1. *Applications et progiciels actuels pris en charge par la solution;*
 2. *Applications et progiciels actuels conservés dont certaines des fonctions sont prises en charge par la solution;*
 3. *Applications et progiciels actuels potentiellement pris en charge par la solution;*
 4. *Progiciels spécialisés à intégrer;*
 5. ***Applications du patrimoine à intégrer;***
 6. *Applications du patrimoine à conserver.*
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2.10.12.1 Orientations

2.10.12.2.1 Orientations spécifiques au développement

- **La Société est responsable de la réalisation des développements hors solution, soit hors de la suite de progiciels de gestion intégrés.**

2.10.12.2.2 Orientations spécifiques de la conversion

- L'alliance demeure responsable du processus de conversion, des résultats et de la qualité des données intégrées à la solution PGI (**voir Tableau 21 Partage de responsabilité pour les services de conversion, d'amélioration et d'acquisition de données**);
- Le processus de conversion est automatisé le plus possible. La Société ne possède pas d'outil permettant cette automatisation;
- **Seules les données nécessaires aux nouveaux processus sont converties vers la suite PGI;**
- Toutes les règles de conversion sont élaborées lors de l'élaboration des processus d'affaires.

Q5. What would be the IBM contribution into the data conversion (mauve boxes #4)?

Extraction form SAAQ RFP documents shows Expected responsibility sharing between SAAQ and IBM (Tableau 20 on the next page)

- We support them for Extraction, Analysis and Cleansing
- We are responsible for Acquisition (transformation) and Integration

Our staffing is built accordingly

Extraction form SAAQ RFP documents shows that they expect us (SAP & IBM) to provide tools in all area of data migration work (Tableau 15 on the next page).

- We are following SAP recommendation in that matter which is to make use of Data Services and Information Steward

We inquired about a secondary tool discuss by SAP (Attunity):

- It cost 350 000 \$ + services and HW (intel servers) to implement
- **Decision to integrate: Pending**

During the competitive dialogue, SAAQ informed us of the work they did in the past few months to be ready (and what they are continuing to do)

- They are reviewing all existing data and taking the following actions:
 - Documenting all undocumented field or table
 - Validating all contain of every single field in every table again the applicable business rules and dividing exceptions into 2 categories
 - Items that can be solved mechanically at 100%
 - Items that cannot be solved mechanically (not enough volume or to complex and exceptional situation to mechanise)
 - Building algorithm for the first category
 - Mapping all Master Data element down to list of sources and sequences of priority among the different sources
- In October 2016, they at 40% of their actual Data load (4000 entities) to analyse for which they had
 - 600 algorithm already developed to correct data during the transformation phase
 - 20 case identified were manual intervention would be required
- If I remember right, they have 8 ETC dedicated to that work

Extrait de l'appel d'offres de la SAAQ:

Tableau 20 Partage de responsabilité pour les services de conversion, d'amélioration et d'acquisition de données

(Responsibility sharing for conversion work)

Étapes de la conversion	Rôle de l'alliance	Rôle de la Société
Data Migration Step	IBM role	SAAQ Rôle
Extraction des données : ● système maison (IDMS) ● système maison (BD relationnelle) ● progiciel DBS ● DEMU	Accompagnement (Support)	Responsable (Responsable)
Analyse qualité	Accompagnement (Support)	Responsable (Responsable)
Nettoyage	Accompagnement (Support)	Responsable (Responsable)
Acquisition des données	Responsable (Responsable)	Accompagnement (Support)
Intégration des données au PGI	Responsable (Responsable)	Accompagnement (Support)

Tableau 15 Synthèse des besoins d'outils de conversion des données

Étapes de conversion	Outils
Extraction des données :	
● Système maison avec SGBD [REDACTED]	Non requis
● Système maison avec SGBD relationnel	Nécessaire
● Progiciel DBS	Nécessaire
● DEMU (MS-Access)	Nécessaire
Analyse de la qualité des données	Essentiel
Définition des règles d'intégrité des données	Essentiel
Nettoyage des données	Essentiel
Acquisition des données	Nécessaire
Transformation des données	Essentiel
Chargement des données dans la solution	Essentiel