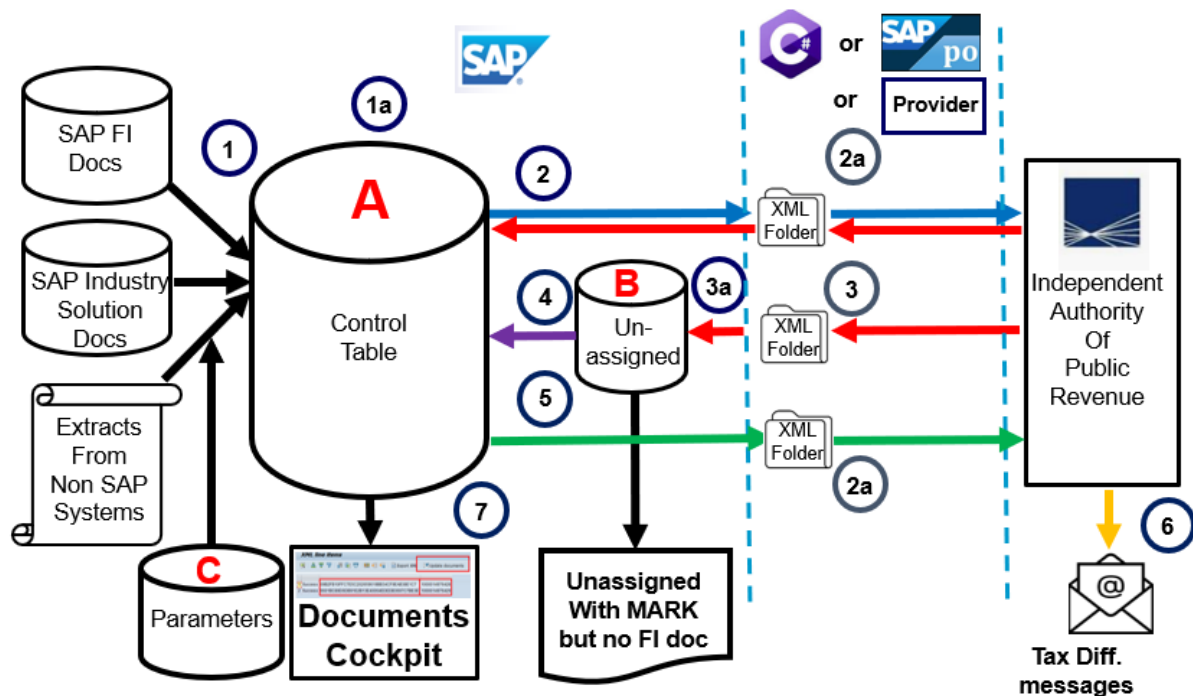


# Agile SA solution for AADE e-books Technical documentation

## Introduction

Agile SA solution for AADE e-books is based on:

- **two significant data tables (A and B)** that are used for assigning tax data between the ones posted in SAP and the ones posted in the AADE (tax authority)
- a set of **parameter tables** that map SAP data to AADE requirements and
- a set of **programs** that read the SAP data, send them to AADE and receive responses that update the control table presented in the FI documents tax cockpit.



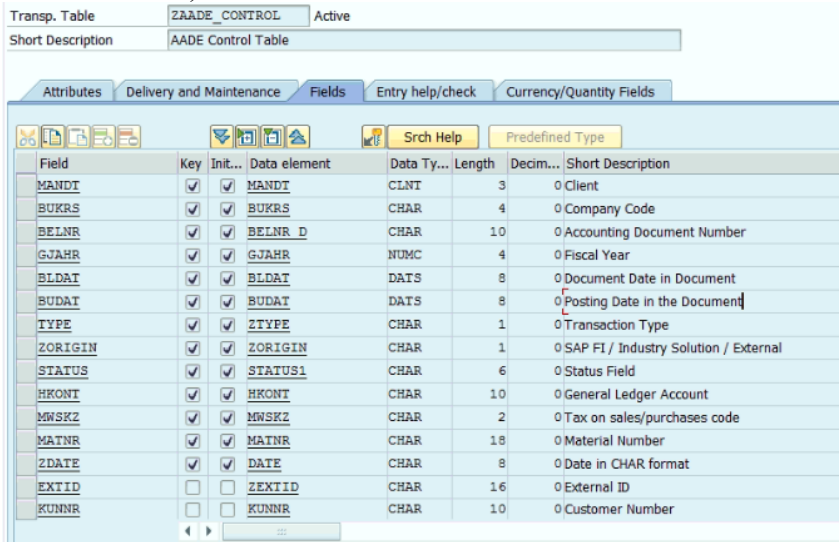
With the following main processes:

- 1) Load data (mainly from SAP FI documents) to Control Table
- 2) Send data to AADE read from control table by creating XML files
- 3) Receive domestic invoices from AADE by reading XML files
- 4) Assign domestic invoices to entries posted to control table from the relevant FI documents
- 5) Classify incoming invoices by sending XML files to AADE
- 6) Receive messages with differences between tax amounts submitted and tax amount calculated by AADE e-books and
- 7) Explain differences and monitor data posted in SAP and data posted in AADE e-books

## Tables Technical Data

The two significant **data tables** that store the data sent and received to and from AADE are:

- The “**Control Table**” (which comprises all revenue and expense items with base and and tax amounts) and
- The “**Unassigned Table**” (which initially comprises all expense items posted in AADE from our domestic vendors and finally the ones that have not yet been posted in SAP)



Field	Key	Init...	Data element	Data Ty...	Length	Decim...	Short Description
MANDT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	MANDT	CLNT	3	0	Client
BUKRS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	BUKRS	CHAR	4	0	Company Code
BELNR	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	BELNR_D	CHAR	10	0	Accounting Document Number
GJAHR	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	GJAHR	NUMC	4	0	Fiscal Year
BLDAT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	BLDAT	DATS	8	0	Document Date in Document
BUDAT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	BUDAT	DATS	8	0	Posting Date in the Document
TYPE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ZTYPE	CHAR	1	0	Transaction Type
ZORIGIN	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ZORIGIN	CHAR	1	0	SAP FI / Industry Solution / External
STATUS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	STATUS1	CHAR	6	0	Status Field
HKONT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	HKONT	CHAR	10	0	General Ledger Account
MWSKZ	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	MWSKZ	CHAR	2	0	Tax on sales/purchases code
MATNR	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	MATNR	CHAR	18	0	Material Number
ZDATE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DATE	CHAR	8	0	Date in CHAR format
EXTID	<input type="checkbox"/>	<input type="checkbox"/>	ZEXTID	CHAR	16	0	External ID
KUNNR	<input type="checkbox"/>	<input type="checkbox"/>	KUNNR	CHAR	10	0	Customer Number

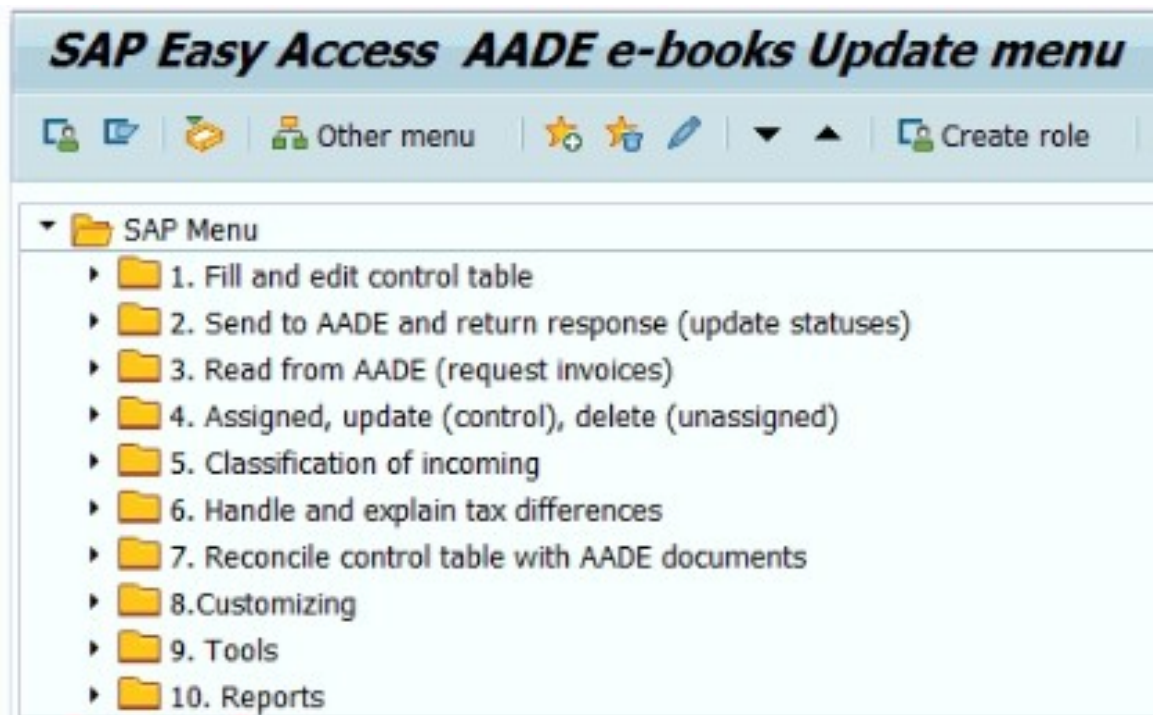
The **parameter tables** used to map SAP data to AADE tables are the following:

- Tables for assigning SAP document types to AADE document categories.
- Tables for assigning SAP tax code to AADE tax category.
- Tables for “Vat Exception” Codes and VAT Exception reason
- Tables for AADE “Withholding Tax” category determination.
- Tables for AADE “Other Taxes” category determination
- Tables for AADE “Stamp Tax” Category determination
- Tables for AADE “Fees Rate” category determination
- Tables for assigning GLaccounts to Income Classification
- Tables for assigning GLaccounts to Expense Classification
- Tables for AADE “Payment Method” code determination
- Tables for AADE “Unit of Measure” category determination
- Tables for AADE “Reason for Delivery” code determination
- Table for AADE “Remarks’ code determination

AADETaxID	Description	Tax Rate
1	Tax Rate 24%	24%
2	Tax Rate 13%	13%
3	Tax Rate 6%	6%
4	Tax Rate 17%	17%
5	Tax Rate 9%	9%
6	Tax Rate 4%	4%
7	Zero Tax Rate	0%
8	Documents with no TAX	

## Programs Technical Data

The data tables are filled with FI documents relevant data with the following programs:



1. **ABAP programs 1 that read the relevant FI document tax data and load the data needed by AADE to the control table.**

The FI document tax data posted in SAP are found in the following SAP tables:

- BKPF, "Accounting Document Header
- BSEG, "Accounting Document Segment line item
- BSET, "Tax Data Document Segment

But the data needed to be sent to AADE are found to the following additional tables:

- LFA1, "Vendor Master (General Section)
- LFB1, "Vendor Master (Company Code)
- KNA1, "Customer Master (General Section)
- KNB1, "Customer Master (Company Code)
- SKA1, "G/L Account Master (Chart of Accounts)
- SKB1, "G/L account master (company code)
- T005, "Countries
- J\_2GLPLEGDOC, "Legal printed documents
- T001 . "Company Codes

**1.a** Since the **Control table is editable**, users can make adjustments to the data loaded from the FI documents (Note this is needed since some customers have front end software that issues invoices that are posted summarized to SAP FI document)

2. **ABAP programs 2 that read the control table data and create XML files** as described in the “sendinvoices” API comprising the following data:

- A1 Invoices issued in detail line items
- A2 Sales (retail) summarized
- B1 Purchases (retail) summarized
- B2 Invoices received from non-domestic vendors

This program saves the XML file in a folder with a proper name e.g.: CCCC\_YYYYMMDD\_01 and waits 10 seconds. Every 5 sec a communication program recognizes the XML file and sends it to AADE with the proper credentials and receives the relevant response XML file that is saved in the same folder with a suffix e.g. CCCC\_YYYYMMDD\_01\_RESPONSE in less than 5 sec. This file is read from the ABAP program which updates the relevant entries of “the Control Table” as follows:

- With MARK and UID if successfully posted to AADE or
- With Error Code and error text if not posted to AADE

3. **ABAP programs 3 that trigger a communication program using “the last mark updated”** to receive from AADE an XML file with all AADE entries related to the company’s domestic vendors that have MARK greater than “the last mark updated” and after reading this file is posting the relevant entries to “The unassigned table”.

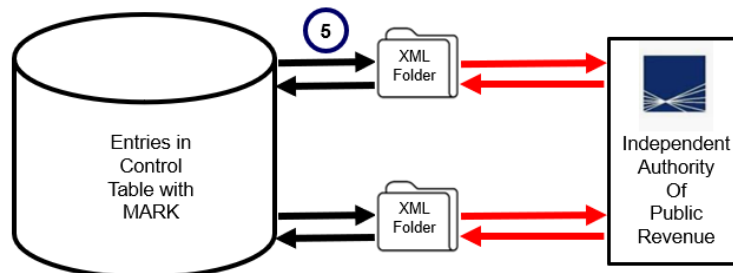
4. **ABAP programs 4 that read the entries of “The unassigned table”.and search the Control table in order to assign the SAP documents to the AADE entries,** using as criteria the vendor (determined by the VAT TAX number) the document date and the amount.

If search is successful then

- The entry in control table is updated with MARK and UID posted to AADE and the status is updated accordingly (taken into account the posting date that determines the period the tax will be paid)
- The entry in “the unassigned table” is deleted

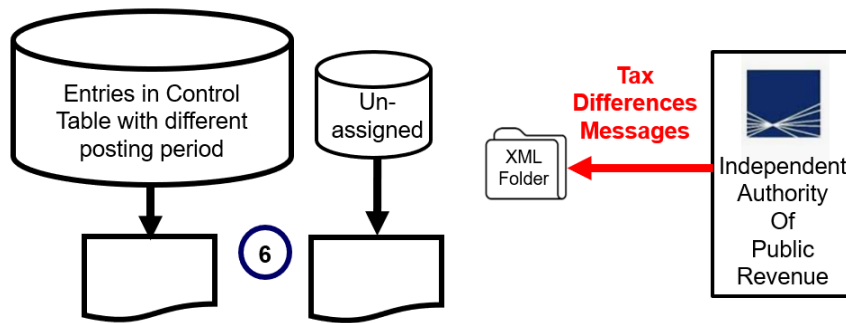
If search is not successful then the entry remains in the unassigned entries

5. **ABAP programs 5 that read the proper entries of “The Control table” with MARK** and creates XML files as described in the sendexpenseclassification API



6. **ABAP programs 6 that read the entries of “The Control table” that are posted in different period than the document date and the entries “the unassigned table”**

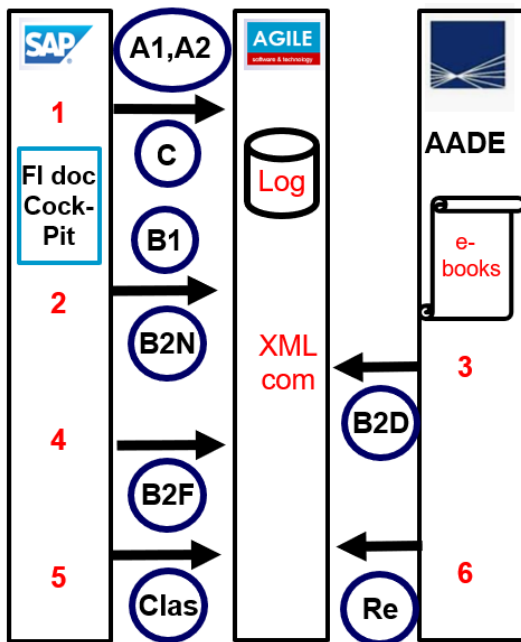
**and create a response report** to be submitted to AADE in order to answer to the automatically created messages



7. **ABAP programs 7 that present the control table entries with the proper statuses as FI documents tax cockpit**

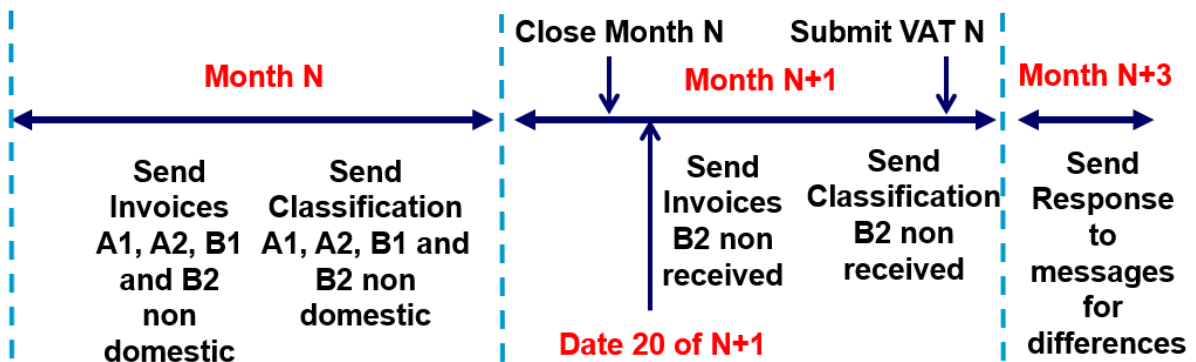
## Proposed procedures

The data exchanged with AADE should be performed with the following order:



- 1) **Invoices issued (A1 with customer B2B and B2G, A2 retail B2C)** and Accounting entries (C) for payroll and depreciation
- 2) **Invoices received B1 (B2C)** retail and **B2.N** from non-domestic vendors
- 3) **Domestic Invoices B2.D** received from IAPR (as posted to AADE from our vendors)
- 4) **Domestic Invoices B2.F** forgotten to be sent to AADE from our vendors)
- 5) **Classification of Expenses and Revenue Classification**
- 6) **Re Responses from AADE (either MARK or error)**

Thus the **Financial calendar** related to XML files to be exchanged with IAPR has **4 sub-periods**: 1) **Current month** for sending all documents issued A1, A2 and received from non-domestic Vendors. 2) **Month end** for payroll (c) 3) **After 20 next month** to send non received domestic invoices 4) **Messages after VAT**

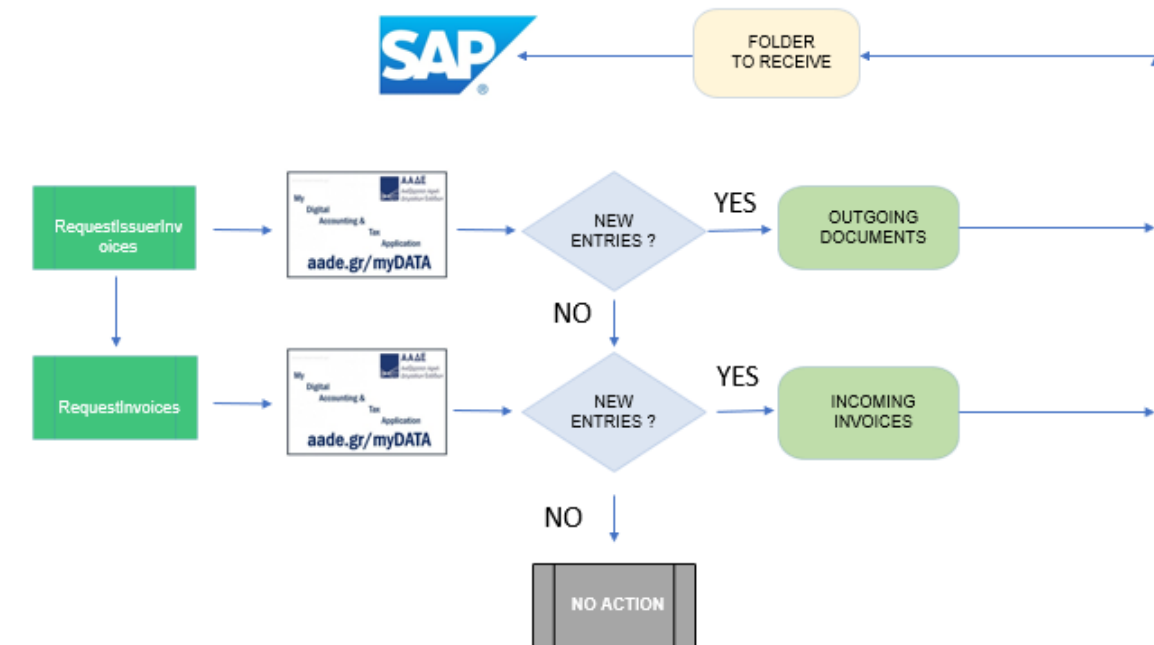
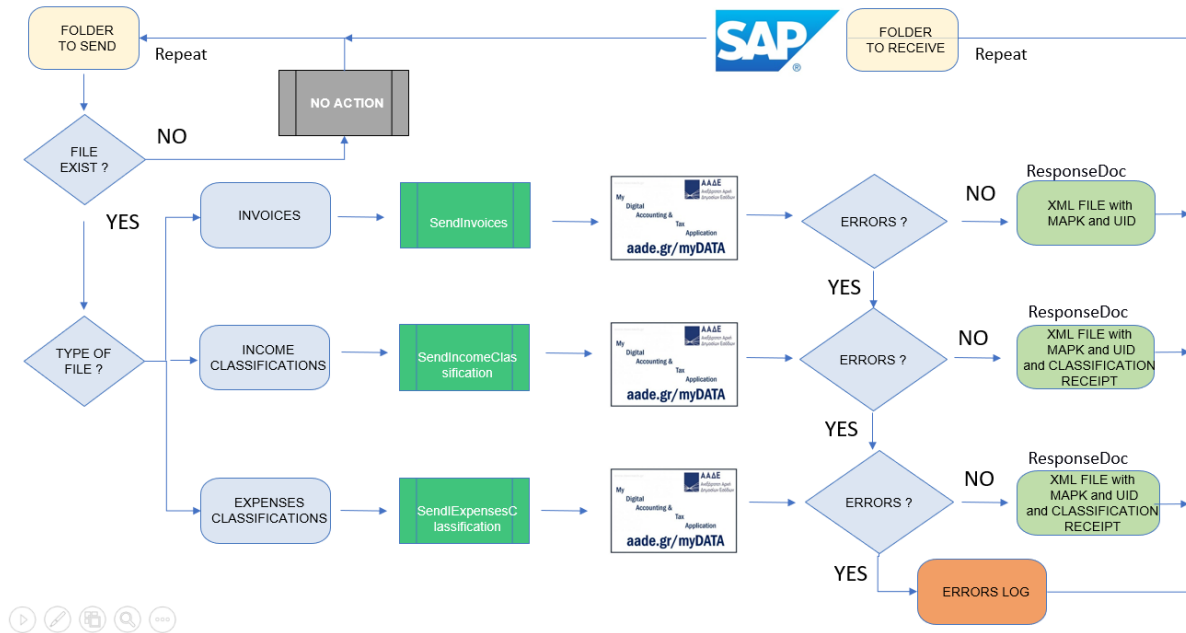


## Communication with Independent Authority of Public Revenue

Communication with Independent Authority of Public Revenue can be established either using our communication Program developed in C# or the SAP PO technique.

The C# programs we have developed are working as shown on the following diagrams

Agile send receive from to AADE Service



## Agile solutions vs Hellenization SAP solution

The following table presents a comparison between Agile solutions and Hellenization SAP solution.

	<b>AGILE solutions</b>	<b>Hellenization SAP solution</b>
<b>Μοντέλο</b>	<p>The diagram illustrates the Agile solution architecture. It shows data sources like 'SAP FI Docs' and 'SAP Industry Solution Docs' feeding into a 'Control Table'. From the Control Table, data flows to a 'Documents Cockpit' and 'Unassigned With MARK but no FI doc'. It also shows interactions with 'SAP' and 'Provider' components, leading to 'XML Folders' and 'Tax Diff messages'.</p>	<p>The diagram illustrates the Hellenization SAP solution architecture. It shows a flow starting from 'SAP ERP/ SAP S/4HANA' through 'Creates e-documents from FI documents', 'Creates Lists', 'Creates XML', 'Web Service', 'Process XML', 'Data reception', and 'Check XML'. It also includes 'SAP Cloud Platform Integration' and 'AEAT' components.</p>
<b>License maintenance costs</b>	No License or maintenance costs (except using provider)	Yes License or maintenance costs based on volumes
<b>Cost</b>	Low total cost (one off). It can be less than the annual cost of Hellenization solution.	High
<b>Flexibility</b>	Very high (since it accepts non SAP documents and provider) It also allows future changes	Very low
<b>Consultants and Developers</b>	All programs and tables have been developed by Greek programmers and consultants, that are familiar to the Greek business environment Analysis and design made by Dimitris Chatzigiannakis	Multinational developers
<b>Programs</b>	All ABAP and communication programs are delivered to customers	
<b>Accompanying services</b>	Seminars in Greek and English, webinars, questionnaires and documentation	
<b>Total Offer</b>	Very flexible low cost solutions that allow the creation and transmission to the tax authorities of the proper xml files, that allow future changes such as electronic invoices (e-invoices)	