



Standaarden voor flexibele arbeid

Webinar SETU 2.0

Klaar voor de toekomst

3 februari 2025

Voorstellen



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Agenda

**1. Welkom | SETU
bestuur**

**2. Totstandkoming van
SETU 2.0**

3. SETU 2.0 in detail

**4. Aan de slag met
SETU 2.0**



**STEL JE VRAAG
IN DE CHAT**



**VRAGEN NA IEDER
BLOK EN AAN HET EIND**



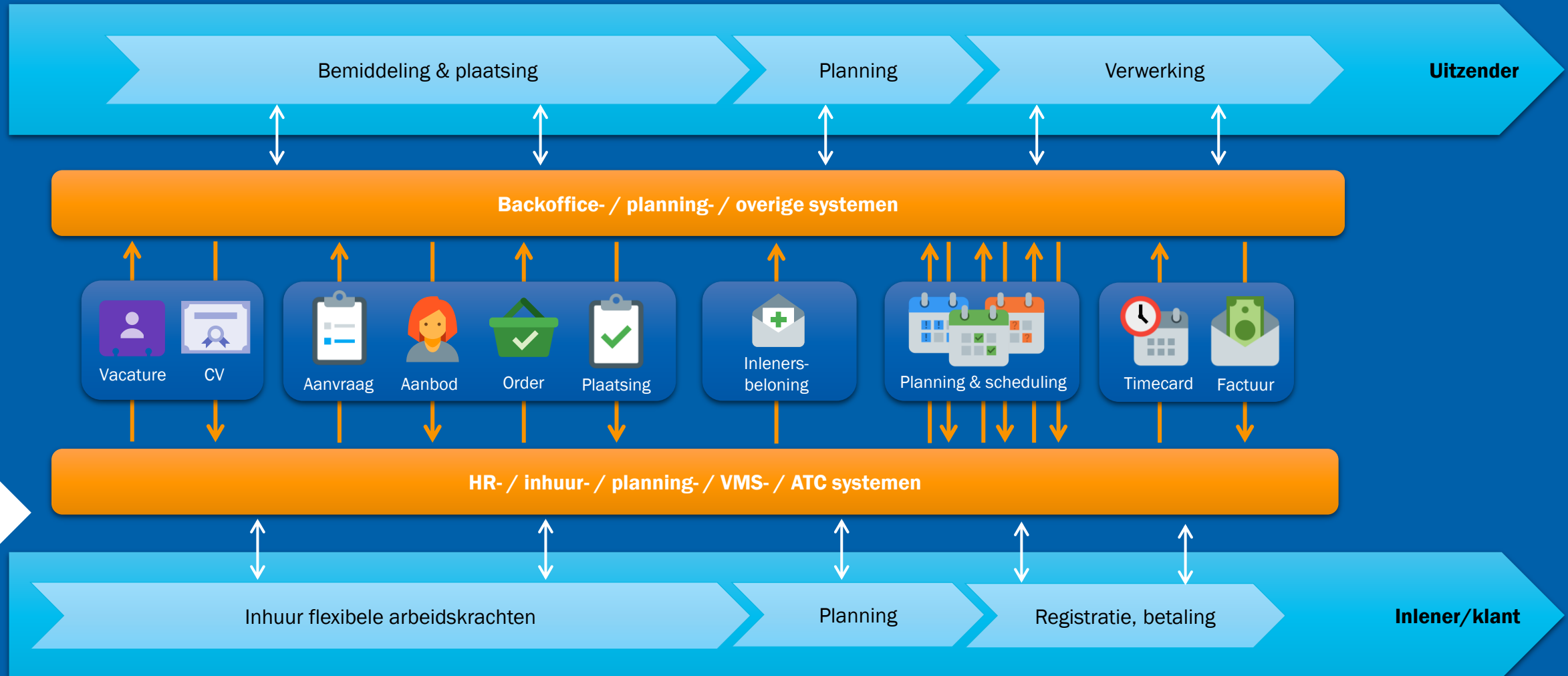
**WEBINAR WORDT
OPGENOMEN**

2. Totstandkoming SETU 2.0

3. SETU 2.0 in detail

4. Aan de slag met SETU 2.0

SETU landschap



Scope



**Reporting Time
and Expenses**



Assignment



**StaffingOrder (RFQ/Order)
&
HumanResource**



Vacancies



Buiten scope: Invoice en CV

Aantal stellingen middels **poll**

Meerdere antwoorden mogelijk

- A. Mijn organisatie heeft (één van) de laatst ondersteunde versies, v1.3 en/of v1.4, van de 'Purchase to Pay' standaarden geïmplementeerd.
- B. Mijn organisatie maakt gebruik van één van de eerdere versies (v1.0-v1.2) van de standaarden.
- C. Mijn organisatie maakt nog geen gebruik van deze SETU standaarden, maar wij overwegen ze wel te gebruiken in de nabije toekomst.
- D. Mijn organisatie is van plan om de nieuwe SETU 2.0 standaarden te implementeren.

Waarom?

- Meegaan met nieuwe technologische ontwikkelingen, zoals JSON en API's
- Stilstand is achteruitgang
- Aansluiten op nieuwste versie internationale HR Open standaard
- Biedt mogelijkheden voor sneller en beter ontwikkelen nieuwe koppelvlakken

Uitgangspunten

- Aparte werkgroep SETU 2.0
- Totale herziening, maar met dezelfde inhoud als in SETU 1.x berichten
- Versimpelen waar mogelijk. Dit is het moment om kritisch te kijken!
- Besluiten en ontwerpkeuzes in lijn met SETU planningsberichten
- Aansluiten op huidige versie HR Open standaard

HR Open

- Hergebruik van HR Open modellen en definities
- Baseren op stabiele versie: HR Open versie 4.3
- Omgevormd tot HR Open ontologie vanwege
 - Syntax-onafhankelijkheid
 - Hergebruik van bouwblokken

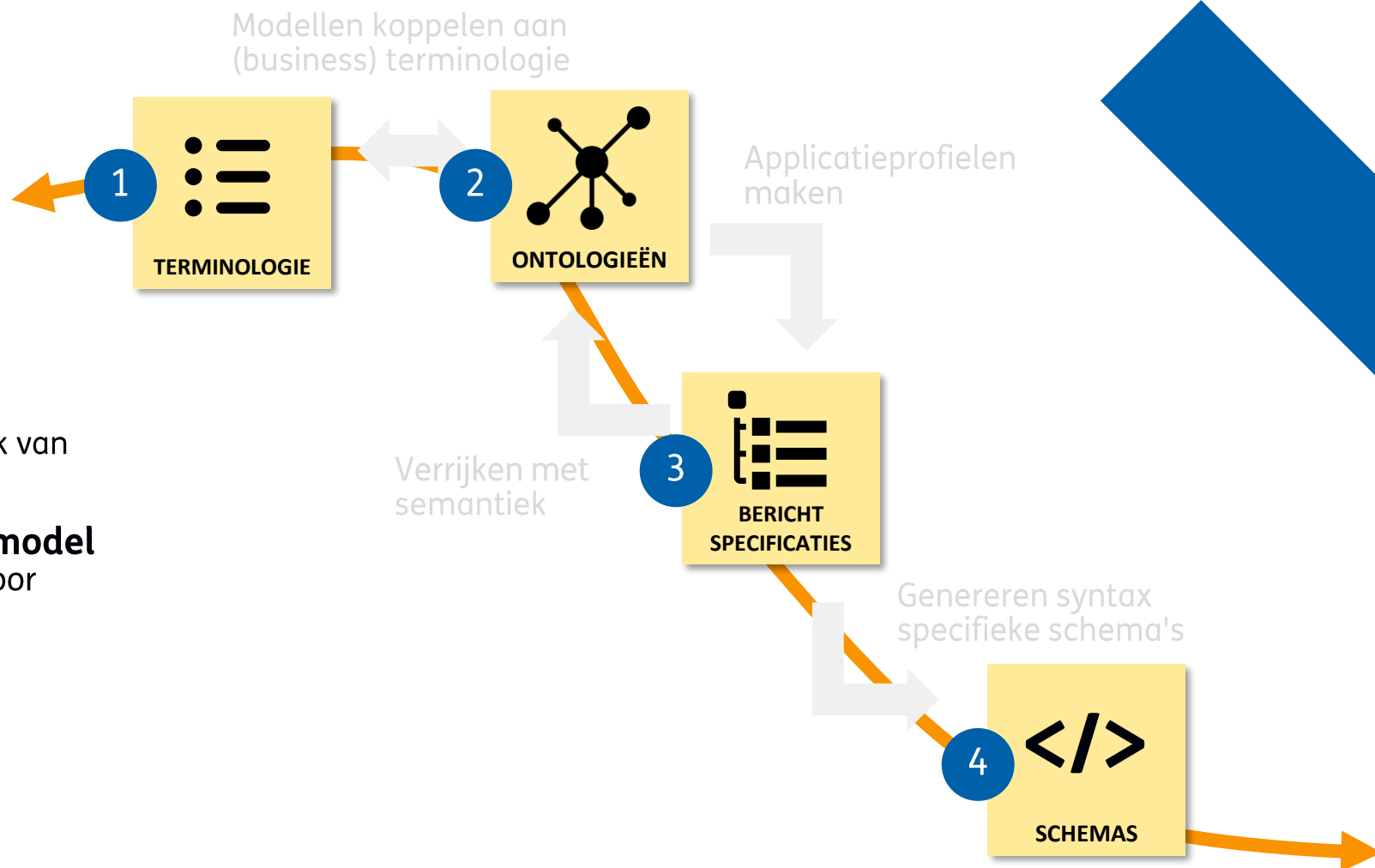


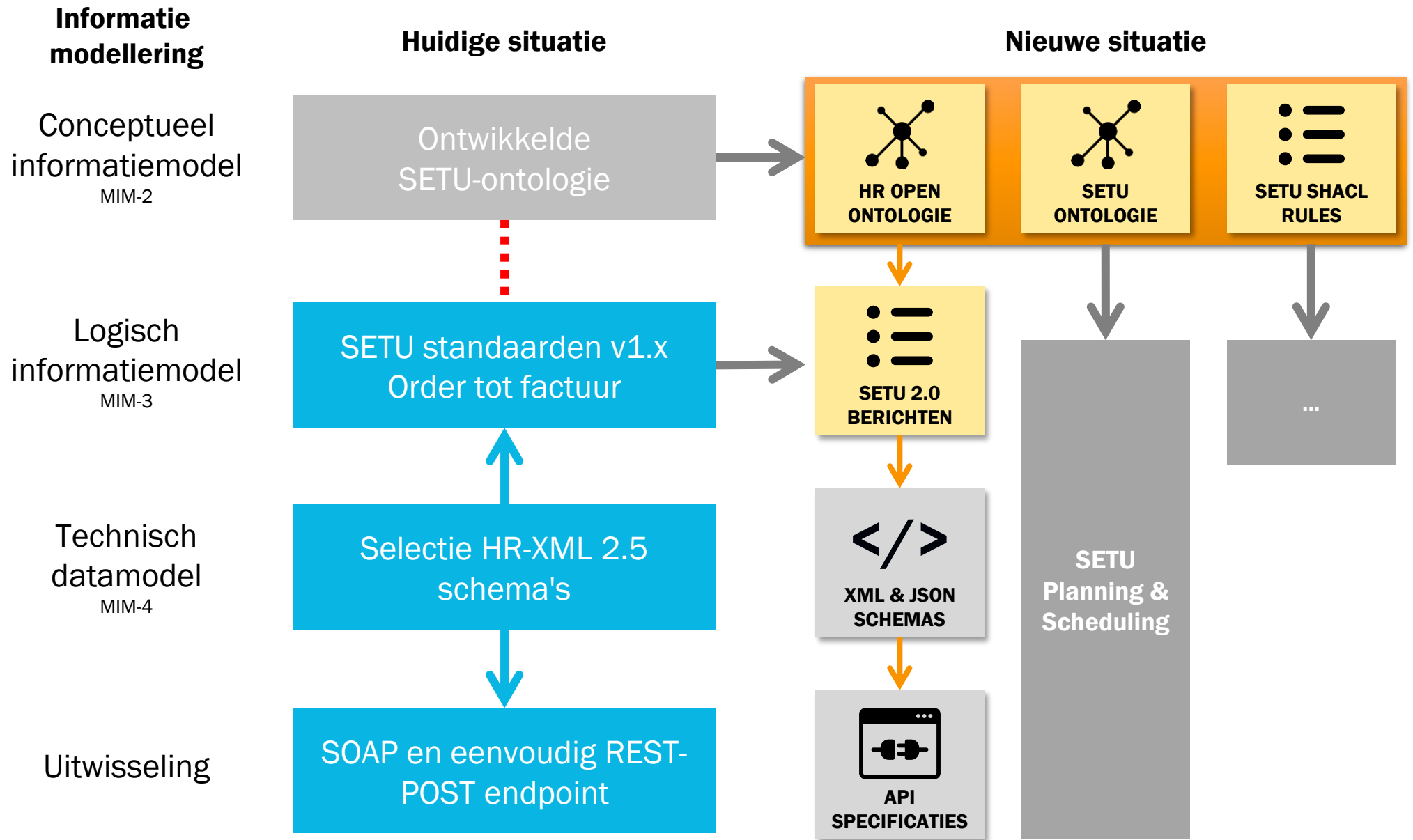
Assessments	base	LegalDocumentType.xsd
Benefits	codelist	PersonBaseType.xsd
Common	communication	PersonLegalInclusion.xsd
Compensation	competency	PersonLegalType.xsd
Interviewing	evaluation	PersonNameType.xsd
Payroll	messages	PersonNameTypeArray.xsd
Recruiting	organization	PersonPhysicalInclusion.xsd
Screening	pay	PersonPhysicalType.xsd
Timecard	person	PersonReferenceType.xsd
Wellness	process	PersonType.xsd
LICENSE.md	profile	ResponsibleInclusion.xsd
	search	ResponsibleType.xsd
	work	SpecifiedPersonType.xsd

Niveaus

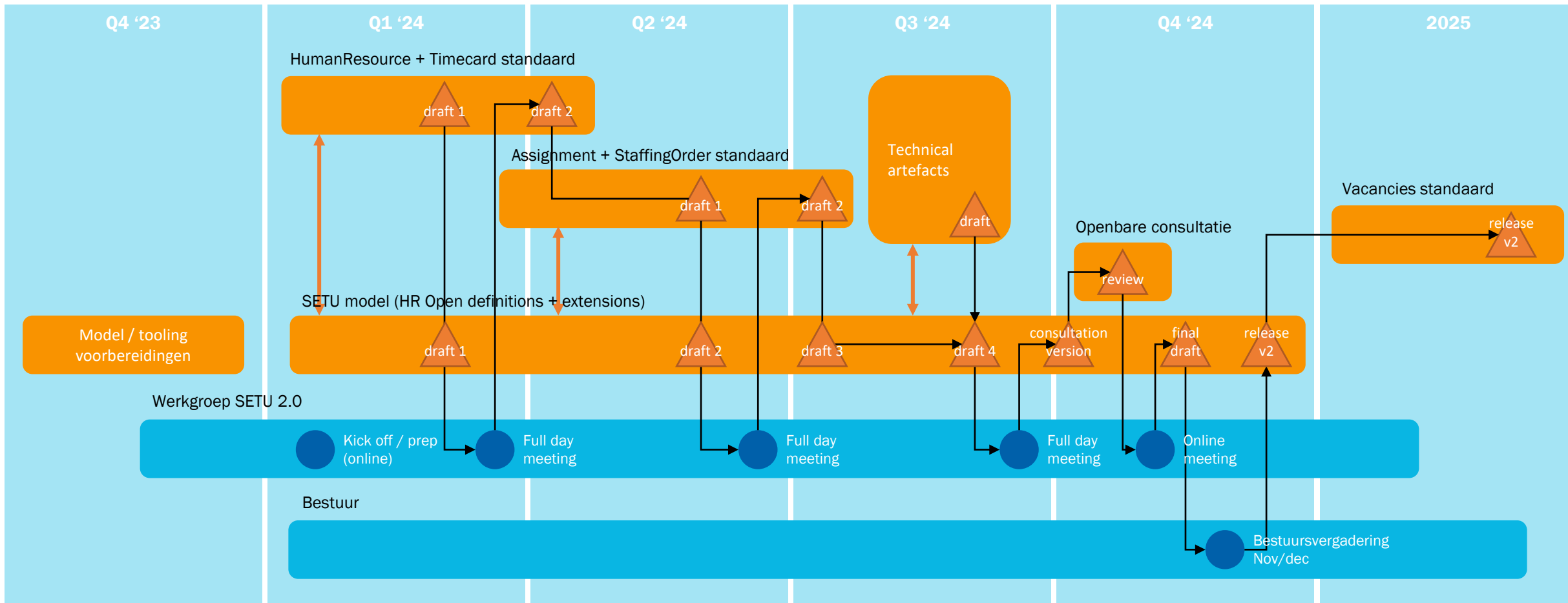
MIM beschouwingsniveaus:

- 1. Model van begrippen**
Denk aan woordenboek, terminologie, taxonomie of SKOS.
- 2. Conceptueel informatiemodel**
Domeinmodel, ontologie, onafhankelijk van koppelvlak of keten.
- 3. Logisch informatie- of gegevensmodel**
Implementatie-onafhankelijk model voor uitwisseling.
- 4. Fysiek of technisch gegevens- of datamodel**
Technisch datamodel afhankelijk van gekozen techniek of tooling, b.v. XML schema's, JSON schema's, SHACL.





Planning en tijdslijnen



2. Totstandkoming van SETU 2.0

3. SETU 2.0 in detail

4. Aan de slag met SETU 2.0

Niet vanaf 0...

2.3 Processes

The following sections provide the processes that are supported by using the mess Ordering and Selection and the Standard for Assignment. Section 2.3.1 describes the first subsection depicts the regular staffing process of ordering, selection and assign third subsections describe the processes when using a procurement system, respectively use of an Assignment. All messages used for these processes are defined in section and exceptions are possible in all of the phases of these processes, section 2.3.3 describes additional messages that can be used in a more comprehensive staffing and/or process defined in section 2.3.4.

2.3.1 Regular processes

2.3.1.1 Regular staffing process

This section describes the regular staffing process as shown in Figure 2.

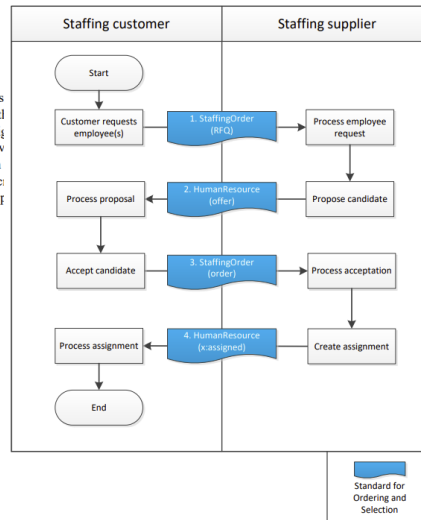
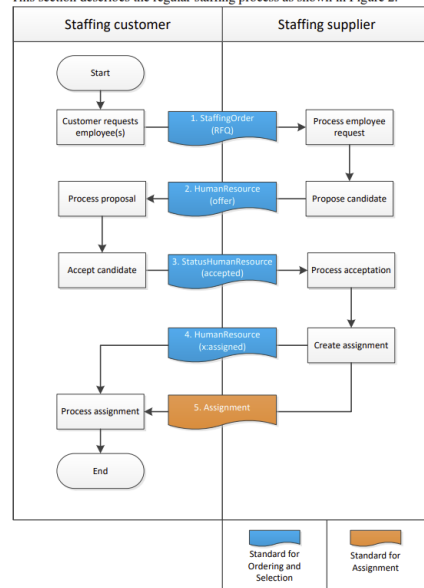
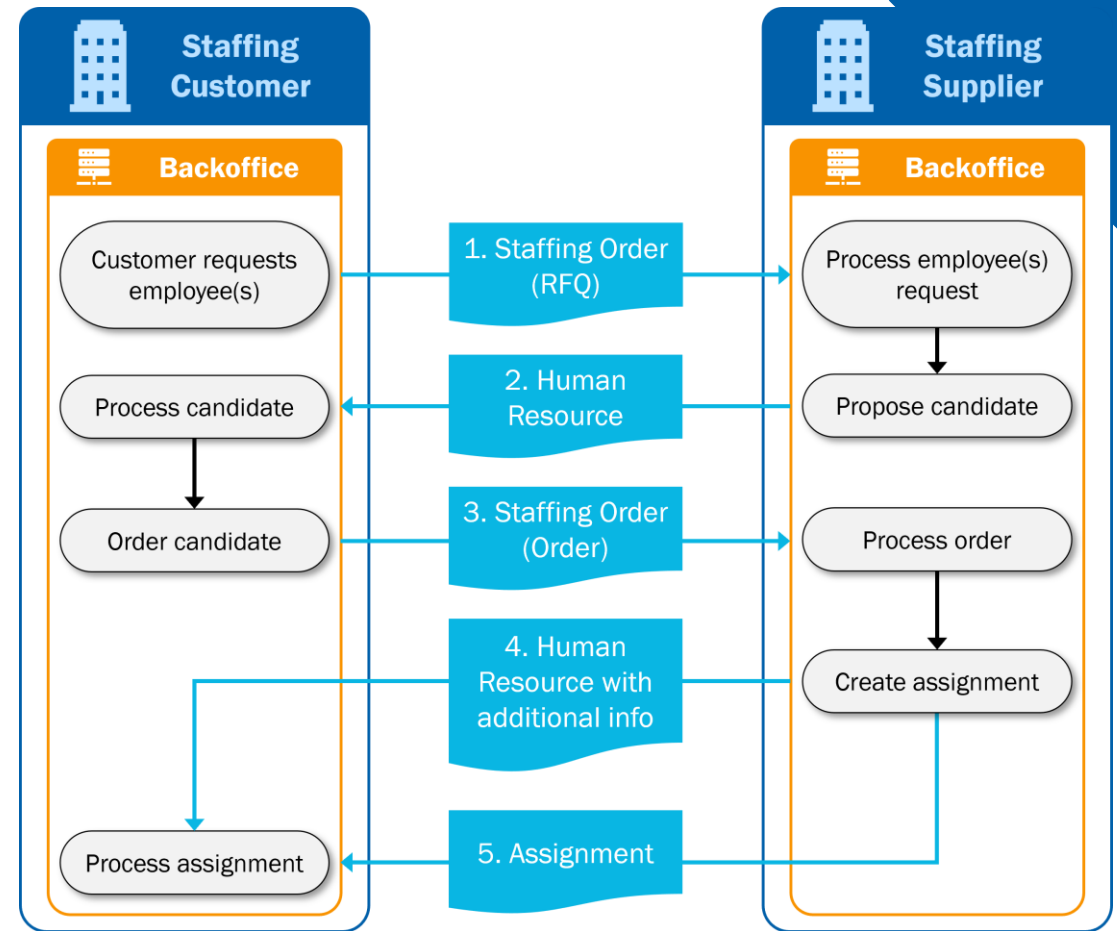
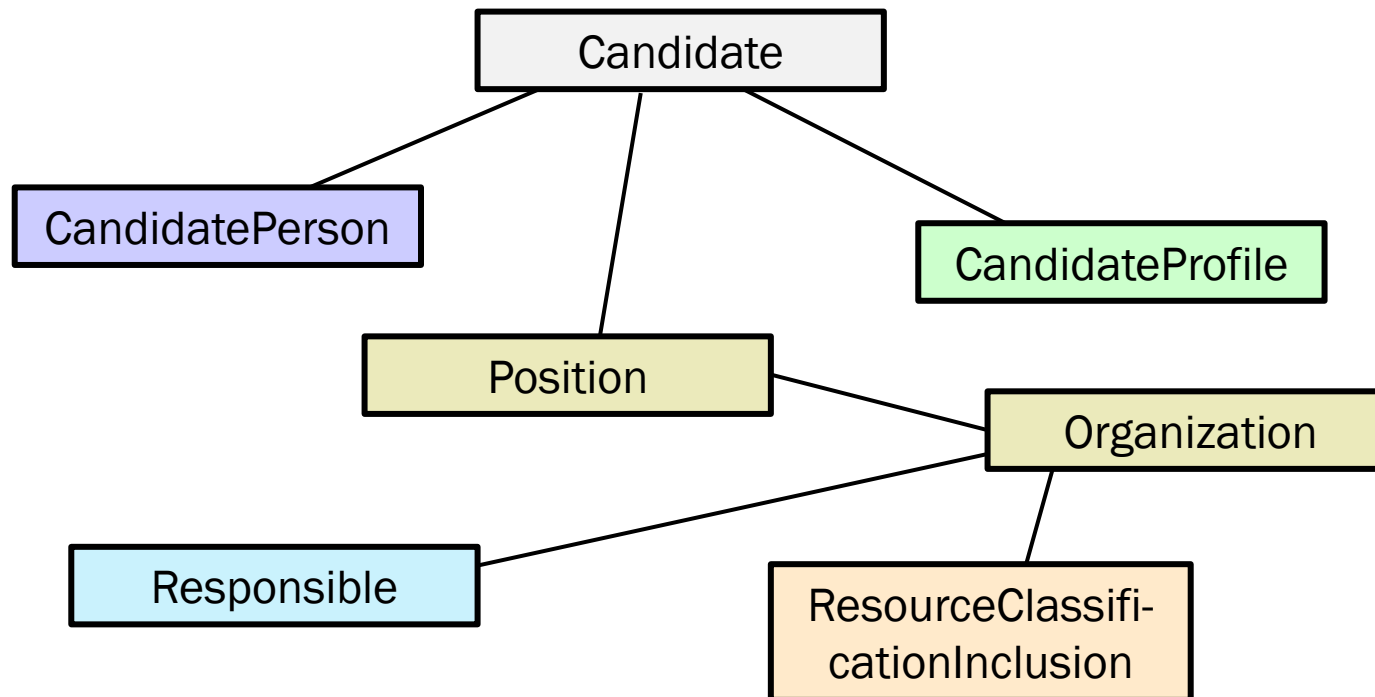


Figure 3: Procurement system process without assignment

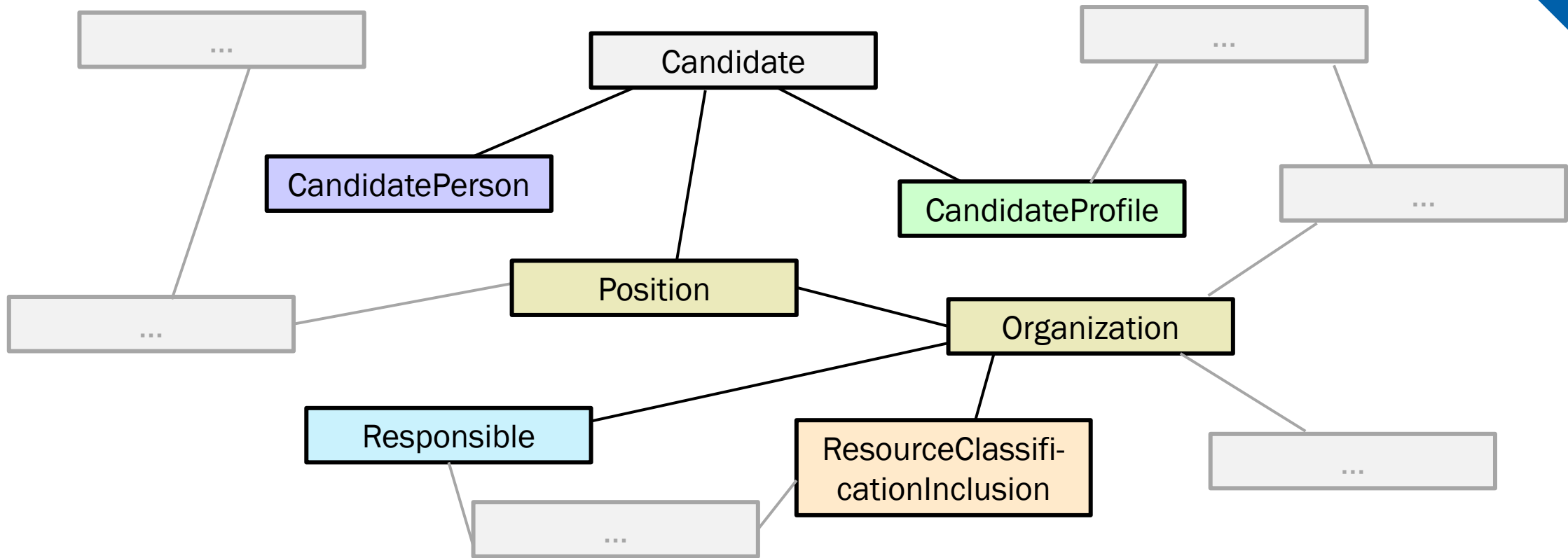
1. The lifecycle of a procurement system process **without** an Assignment starts with the creation of the Request for Quotation at the staffing customer. The staffing customer sends the RFQ using the StaffingOrder (RFQ) message to the staffing supplier.
2. The staffing supplier searches its databases for matching human resources. If the staffing supplier has a matching human resource he sends an offer using the HumanResource (offer) message to the staffing customer.
3. The staffing customer accepts the offer and sends a procurement order using the StaffingOrder (order) message to the staffing supplier.
4. The staffing supplier assigns the human resource and can send additional information about the human resource using the HumanResource (x:assigned) message.



Voorbeeld HR Open ontologie/model



Voorbeeld HR Open ontologie/model



Voorbeeld HR Open ontologie/model

Candidate

A person who is requesting consideration or is being considered for a current or future position at a company.

person - alternateIds - uri

CandidatePerson

A collection of demographic and personal data about a candidate - a person being considered for, or who has otherwise been associated with, a position opening or resource requirement.

passportId - birthdate - gender - fatherName - age - name

ResourceClassificationInclusion

Holds customer specific properties of an entity.

managerName - departmentName

CandidateProfile

Contains structured information about a candidate, including information about their past experiences (Work History, Education History, etc.). This information can be used for evaluation or submission of candidacy for a position opening or resource requirement.

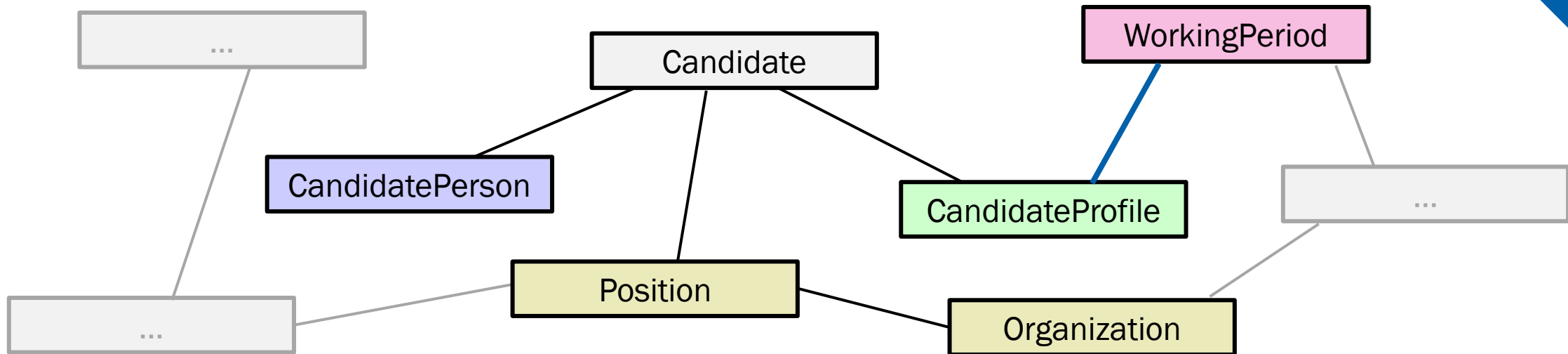
personAvailability - languageCode - education - licences

Responsible

A collection of information about the person who is the submitter/approver of the associated document.

person - datetime - code - comment

Voorbeeld HR Open ontologie/model



WorkingPeriod

Describes the working periods of the position.
descriptions - workDuration - baseDuration - [effectiveTimePeriod](#)

Van v1.4 naar v2.0

256	0..1	-- -- OfferId	Container for the unique identifier of the offer	WG1: fung 1..1	document id
257					1..1 -- value
258					1..1 -- scheme agency id
259	0..1	-- -- StaffingShift	The number of hours per week the human resource is offered		0..n -- working periods
260	1..1	-- -- shiftPeriod	Period to which the number of hours apply		1..1 -- base duration ref
261					1..1 -- value
262	1..1	-- -- id	Not used in SETU, but mandatory in HR-XML		1..1 -- unit code ref
263					1..1 -- value
264	0..1	-- -- Hours	The number of hours		1..1 -- work duration ref
265	0..1	-- -- DaysPerWeek	The number of days per week the human resource is offered		1..1 -- value
266					1..1 -- unit code ref
267					1..1 -- value
268	0..1	-- -- ReasonOfChange	The reason of the change in the (status of the) offer		0..1 -- reason of change
269	0..1	-- -- BirthDate	The birth date of the human resource		order person
270	0..1	-- -- Sex	The gender of the human resource		order person
271	0..1	-- -- CustomerReportingRequirements	Container for (reporting) related information concerning the offer	0..1	-- resource classification inclusion
272	0..1	-- -- ManagerName	Reference to the manager at the staffing customer that is hiring the human res	WG4: verv 1..1	
273				WG2: Mar 0..n	supplier/personContacts
274	0..1	-- -- ContactName	The name of the contactperson at the staffing supplier	0..1	Zie supplier/personContacts
275	0..1	-- -- PurchaseOrderNumber	Reference to the OrderId of the associated procurement order (=StaffingOrder)	WG1: zow 0..1	-- purchase order number
276				0..1	-- department ref
277	0..1	-- -- DepartmentCode	The code of the department at the customer the human resource is going to w	0..1	-- name
278	0..1	-- -- DepartmentName	The name of the department at the customer the human resource is going to w	WG1: cod 1..1	-- code
279				0..1	-- cost center ref
280	0..1	-- -- CostCenterCode	The code of the cost center of the staffing customer for the staffing position	WG1: cod 1..1	-- code
281	0..1	-- -- CostCenterName	The name of the cost center of the staffing customer for the staffing position	0..1	-- name
282				0..1	-- project ref
283	0..1	-- -- ProjectCode	The project code of the project at the staffing customer	WG1: cod 1..1	-- code
284				WG1: toeg 0..1	-- name
285	0..1	-- -- CustomerReferenceNumber	A reference number for the staffing position	0..1	-- reference number
286	0..n	-- -- AdditionalRequirement	Any other customer specific reporting requirement needed	0..1	customerSpecificRequirements
287		-- -- requirementTitle	The name of the additional reporting requirement		
288	0..1	-- -- IdentificationDocument	Information about the identification document of the human resource		order Person
289	0..1	-- -- Format	The format of the identification document		order Person
290	0..1	-- -- Id	The number of the identification document		order Person
291	0..1	-- -- EffectiveDate	The validity period of the identification document		
292	0..1	-- -- ValidFrom	The date from which the document is valid		order Person
293	0..1	-- -- ValidTo	The date to which the document is valid		order Person
294	0..1	-- -- SupplierContactInfo	Contact information at the staffing supplier		order supplier
295	1..1	-- -- EntityName	The name of the contact person at the staffing supplier		order supplier
296	1..1	-- -- ContactMethod	Container for information on contacting the supplier		
297	0..1	-- -- Telephone	Container for specifying the telephone number		order supplier
298	1..1	-- -- FormattedNumber	Contains a fully formatted telephone number (as an xml string type)		order supplier
299	0..1	-- -- Mobile	Container for specifying the mobile number		order supplier
300	1..1	-- -- FormattedNumber	Contains a fully formatted mobile number (as an xml string type)		order supplier
301	0..1	-- -- Fax	Container for specifying the fax number		order supplier

Candidate

CandidatePerson

ResourceClassificationInclusion

CandidateProfile

Responsible

Nieuwe 2.0 versies SETU standaarden

SETU HumanResource 2.0

CTRL+K Q

- 1...1 HumanResource
 - ▷ 1...1 document id
 - ▷ 1...1 supplier
 - ▷ 1...1 customer
 - ▷ 1...1 person
 - ▷ 0...1 profiles
 - ▽ 0...n pay rates
 - ▷ 0...1 id
 - 1...1 rate type
 - 1...1 code
 - ▷ 1...1 amount
 - ▽ 1...1 interval code
 - 1...1 value
 - ▷ 1...1 period
 - 0..1 multiplier**
 - 1...1 to be billed
 - 1...1 to be paid
 - ▷ 0...1 resource classification inclusion
 - ▷ 0...1 staffing ids
 - 0...1 reason of change
 - 0...1 customer specific requirements

multiplier
setu:HumanResource > setu:payRates > setu:multiplier

Definition
The multiplier that should be applied to the pay rate in order to determine the real amount that has to be paid or billed (depending on toBeBilled and toBePaid). The 'standard multiplier' for a pay rate without mark-up is 100% (fill in value '100'). A different value can be used in situations where a mark-up is provided on top of the standard rate. The mark-up should be added to the 'base percentage' of 100%, so a mark-up of 50% (1.5 times the standard rate) makes a multiplier of 150%.

Type
decimal (decimal)
<http://www.w3.org/2001/XMLSchema#decimal>

Business rules
298
The multiplier is mandatory for pay rates with the rate type 'TimeInterval' and optional when rate type is 'Allowance/Expense', because there can be fixed allowances/expenses in which case a multiplier does not make sense.

Usage notes
Consult [this SETU Documentation page](#) for more explanation about using pay rates and multipliers, including examples.

GDPR flagged
The contents of this element are assessed as personal data. Due to the GDPR (in Dutch: AVG) special attention is needed when exchanging personal data. Make sure to agree on the purpose and lawful basis before using this element in the exchange of SETU messages with your partners. More information about SETU and the GDPR can be found in [Privacy guide for SETU standards](#)

Overzicht wijzigingen

- Naamgeving elementen
- Simpelere berichtstructuur
- Berichtstructuur hetzelfde over berichten heen
- TimeInterval en payRates minder complex
- Gesneden in HR-info
- Onderscheiden verblijfsadres en postadres
- Vernieuwde uurtype en toeslagen codelijsten

SETU Reporting Time and Expenses 1.4.2

CTRL+K Q

- 1...1 TimeCard
 - ▶ 1...1 Id
 - ▶ 1...1 ReportedResource
 - ▶ 1...1 ReportedTime
 - ▶ 0...1 SubmitterInfo
 - ▶ 0...n ApprovalInfo
 - ▼ 0...1 AdditionalData
 - ▼ 1...1 StaffingAdditionalData
 - ▼ 0...1 CustomerReportingRequirements
 - 0...1 ManagerName
 - 0...1 ContactName
 - 0...1 PurchaseOrderNumber
 - 0...1 DepartmentCode
 - 0...1 DepartmentName
 - 0...1 CostCenterCode
 - 0...1 CostCenterName
 - 0...1 ProjectCode
 - 0...1 CustomerReferenceNumber
 - ▶ 0...n AdditionalRequirement
 - 0...1 PurchaseOrderLineItem
 - ▼ 0...1 ReferenceInformation
 - ▶ 0...n StaffingSupplierId
 - ▶ 0...n StaffingCustomerId
 - ▶ 0...n AssignmentId
 - ▼ 0...n StaffingSupplierOrgUnitId
 - 1...1 idOwner
 - 1...1 IdValue
 - ▶ 0...n StaffingCustomerOrgUnitId

SETU Reporting Time and Expenses 2.0

CTRL+K Q

- 1...1 Timecard
 - ▶ 1...1 document id
 - ▼ 0...1 supplier
 - ▶ 0...2 id
 - ▶ 0...1 legal id
 - ▶ 0...1 tax id
 - ▶ 0...1 establishment
 - ▶ 0...1 customer
 - ▶ 0...1 department
 - ▶ 0...1 cost center
 - ▶ 0...1 project
 - 0...1 reference number
 - 0...1 purchase order number
 - ▶ 1...1 person
 - ▶ 1...1 period
 - ▶ 0...1 staffing ids
 - ▶ 0...n time interval
 - ▶ 0...n allowance
 - 0...1 customer specific requirements

Overzicht wijzigingen

- Naamgeving elementen
- Simpelere berichtstructuur
- **Berichtstructuur hetzelfde over berichten heen**
- TimeInterval en payRates minder complex
- Gesneden in HR-info
- Onderscheiden verblijfsadres en postadres
- Vernieuwde uurtype en toeslagen codelijsten

SETU Reporting Time and Expenses

2.0

CTRL+K Q



- 1...1 Timecard
 - 1...1 document id
 - 1...1 value
 - 1...1 scheme agency id
 - 0...1 supplier
 - 0...2 id
 - 1...1 value
 - 1...1 scheme agency id
 - 0...1 legal id
 - 0...1 tax id
 - 0...1 establishment
 - 1...1 responsibility code
 - 1...1 value
 - 0...2 id
 - 1...1 value
 - 1...1 scheme agency id
 - 0...1 legal id
 - 0...1 customer
 - 0...1 department
 - 0...1 cost center
 - 0...1 project
 - 0...1 reference number
 - 0...1 purchase order number
 - 1...1 person
 - 1...1 period
 - 0...1 staffing ids
 - 0...n time interval
 - 0...n allowance
 - 0...1 customer specific requirements

SETU Reporting Time and Expenses 1.4.2

CTRL+K Q



- 1...1 TimeCard
 - 1...1 Id
 - 1...1 ReportedResource
 - 1...1 ReportedTime
 - 0...1 SubmitterInfo
 - 0...n ApprovalInfo
 - 0...1 AdditionalData
 - 1...1 StaffingAdditionalData
 - 0...1 CustomerReportingRequirements
 - 0...1 ReferenceInformation
 - 0...n StaffingSupplierId
 - 0...n StaffingCustomerId
 - 0...n AssignmentId
 - 0...n StaffingSupplierOrgUnitId
 - 1...1 idOwner @
 - 1...1 IdValue
 - 0...n StaffingCustomerOrgUnitId

Overzicht wijzigingen

- Naamgeving elementen
- Simpelere berichtstructuur
- Berichtstructuur hetzelfde over berichten heen
- **TimeInterval en payRates minder complex**
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- Onderscheiden verblijfsadres en postadres
- Vernieuwde uurtype en toeslagen codelijsten

<- setu -> Documentation SETU website SETU standards portal

Introduction

Purchase to Pay v2.0

Ordering & Selection and Assignment

Reporting Time and Expenses (Timecard)

Sequence diagrams

Usage notes

Overview of identifiers and references

Pay rates and time intervals

Planning and Scheduling

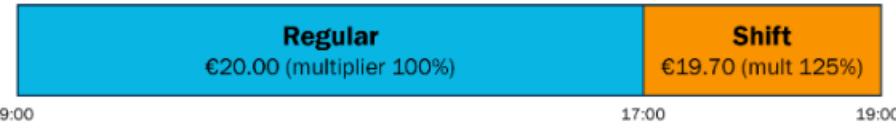
API documentation

HourlyConsolidated and HourlySplit

Besides the `amount`, `multiplier`, `toBeBilled` and `toBePaid` elements, the `payRates` element also contains the `intervalCode/value` element. This element is used to express the interval period to which the amount applies. Typically, the pay rate amount is specified per hour. Then two different values are allowed:

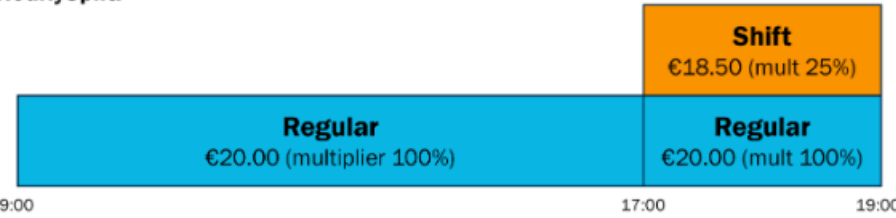
- `HourlyConsolidated`, the default. In this case the `amount` specifies the hourly rate as the only rate for the time frame and may be a consolidation of multiple separate rates.
- `HourlySplit`. In this case the `amount` specifies an hourly rate as one of multiple rates that apply. The total rate for the specific time frame is calculated as a sum of individual time intervals.

HourlyConsolidated:



9:00	Regular €20.00 (multiplier 100%)	Shift €19.70 (mult 125%)	17:00	19:00
------	--	------------------------------------	-------	-------

HourlySplit:



9:00	Regular €20.00 (multiplier 100%)	Shift €18.50 (mult 25%)	17:00	19:00
		Regular €20.00 (mult 100%)		

INFO

With a correct implementation of the Timecard version 2.0, you support both scenarios.

Overzicht wijzigingen

- Naamgeving elementen
- Simpelere berichtstructuur
- Berichtstructuur hetzelfde over berichten heen
- TimeInterval en payRates minder complex
- **Gesneden in HR-info**
- Onderscheiden verblijfsadres en postadres
- Vernieuwde uurtype en toeslagen codelijsten

SETU HumanResource 2.0

CTRL+K Q

- 1...1 HumanResource
 - ▶ 1...1 document id
 - ▶ 1...1 supplier
 - ▶ 1...1 customer
 - ▶ 1...1 person
 - ▼ 0...1 profiles
 - ▶ 0...n certifications
 - ▶ 0...n qualifications
 - ▶ 0...n attachments
 - ▶ 0...1 person availability
 - ▶ 0...n working periods
 - ▶ 0...n pay rates
 - ▶ 0...1 resource classification inclusion
 - ▶ 0...1 staffing ids
 - 0...1 reason of change
 - 0...1 customer specific requirements

SETU HumanResource 1.4.1

CTRL+K Q

- 1...1 HumanResource
 - ▶ 1...2 HumanResourceId
 - ▶ 1...1 HumanResourceStatus
 - ▶ 1...1 ReferenceInformation
 - ▶ 1...1 ResourceInformation
 - ▶ 0...n Rates
 - ▼ 1...1 Profile
 - ▼ 1...1 Resume
 - ▶ 0...1 EmploymentHistory
 - ▶ 0...1 EducationHistory
 - ▶ 0...1 LicensesAndCertifications
 - ▶ 0...n SupportingMaterials
 - ▶ 0...1 Qualifications
 - 1...1 Preferences
 - 0...1 HumanResourceComments
 - ▶ 1...1 HumanResourceAdditionalNL

Overzicht wijzigingen

- Naamgeving elementen
- Simpelere berichtstructuur
- Berichtstructuur hetzelfde over berichten heen
- TimeInterval en payRates minder complex
- Gesneden in HR-info
- **Onderscheiden verblijfsadres en postadres**
- Vernieuwde uurtype en toeslagen codelijsten

SETU HumanResource 2.0

CTRL+K Q

- 1...1 HumanResource
 - 1...1 document id
 - 1...1 supplier
 - 1...1 customer
 - 1...1 person
 - 0...1 legal id
 - 0...1 birth date
 - 0...1 gender
 - 1...2 id
 - 1...1 name
 - 1...1 communication
 - 0...1 address
 - 0...1 country code
 - 0...1 city
 - 0...1 postal code
 - 0...1 street name
 - 0...1 house number
 - 0...1 house number addition
 - 0...1 building addition
 - 0...n phone
 - 0...n email
 - 0...1 primary language
 - 0...1 birth place
 - 0...n nationality
 - 0...n legal documents
 - 0...1 residence address
 - 0...1 country code
 - 0...1 city
 - 0...1 postal code
 - 0...1 street name
 - 0...1 house number
 - 0...1 house number addition
 - 0...1 building addition
 - 0...1 profiles
 - 0...n pay rates
 - 0...1 resource classification inclusion
 - 0...1 staffing ids

address

setu:HumanResource > setu:person > setu:communication > setu:address

Definition Container for specifying the (postal) address of the human resource.

Type AddressTypeArray
<https://hropenstandards.org/schema/xml/AddressTypeArray>

Usage notes If the postal and residence address are not the same: use this container for the postal address and define the residence address in the residenceAddress container. If only the postal address is specified, this is also the residence address.

Element mapping hr-xml:HumanResource > ResourceInformation > PostalAddress

Issues No issues

+ Create new

Review comments No review comments

+ Create new

residence address

setu:HumanResource > setu:person > setu:residenceAddress

Definition Container for specifying the residence address. Only use this container if the residence address differs from the postal address.

Type AddressTypeArray
<https://hropenstandards.org/schema/xml/AddressTypeArray>

Issues No issues

+ Create new

Review comments No review comments

+ Create new

Overzicht wijzigingen

- Naamgeving elementen
- Simpelere berichtstructuur
- Berichtstructuur hetzelfde over berichten heen
- TimeInterval en payRates minder complex
- Gesneden in HR-info
- Onderscheiden verblijfsadres en postadres
- **Vernieuwde uurtype en toeslagen codelijsten**

Expense/Allowance types 2.x

Maintained by: SETU

To indicate that the allowance is taxed, the code may be followed

Values

Code ↑ _⊞	Description ↑↓
EA100	Expenses (in Dutch: Kostenvergoeding)
EA101	Transportation (in Dutch: Vervoerskosten)
EA102	Travel expenses (in Dutch: Reiskosten)

Expense/Allowance types

Maintained by: SETU

To indicate that the allowance is taxed, the code may be

Values

Code ↑ _⊞	Description ↑↓
100	Expenses (in Dutch: Kostenvergoeding)
101	Transportation (in Dutch: Vervoerskosten)
102	Travel expenses (in Dutch: Reiskosten)

Hour types 2.x

Maintained by: SETU

Values

Code ↑ _⊞	Description ↑↓
HT100	Regular (In Dutch: Normale/standaard uren)
HT101	Regular canceled (In Dutch: Normale/standaard uren die zijn afgezegd. Deze uren stonden ingepland maar zijn voor aanvang afgezegd. Gebruik deze urencode ook bij het verschuiven van uren voor de uren die uiteindelijk niet gewerkt worden. (aanleiding is de WAB).)
HT102	Regular complemented (In Dutch: Normale/standaard uren die zijn aangevuld. Deze uren worden gebruikt wanneer een flexkracht minder dan drie uur heeft gewerkt, maar het totaal aantal uren wel tot drie uur moet worden aangevuld en uitbetaald (aanleiding is de WAB).)
HT200	Overtime (In Dutch: Overuren)

Hour types

Maintained by: SETU

Values

Code ↑ _⊞	Description ↑↓
Additional	In Dutch: Onregelmatigh
Additional canceled	In Dutch: Onregelmatigh ingepland maar zijn voor bij het verschuiven van u worden. (aanleiding is de

Documentatie



<https://standard.setu.nl/docs/>

The screenshot shows the SETU documentation website. The navigation menu includes: Introduction, Purchase to Pay v2.0, Ordering & Selection and Assignment (selected), Reporting Time and Expenses (Timecard), Sequence diagrams, Usage notes, Planning and Scheduling, and API documentation. The main content area is titled 'Ordering & Selection and Assignment' and contains a 'DOCUMENTATION' section with the following text:

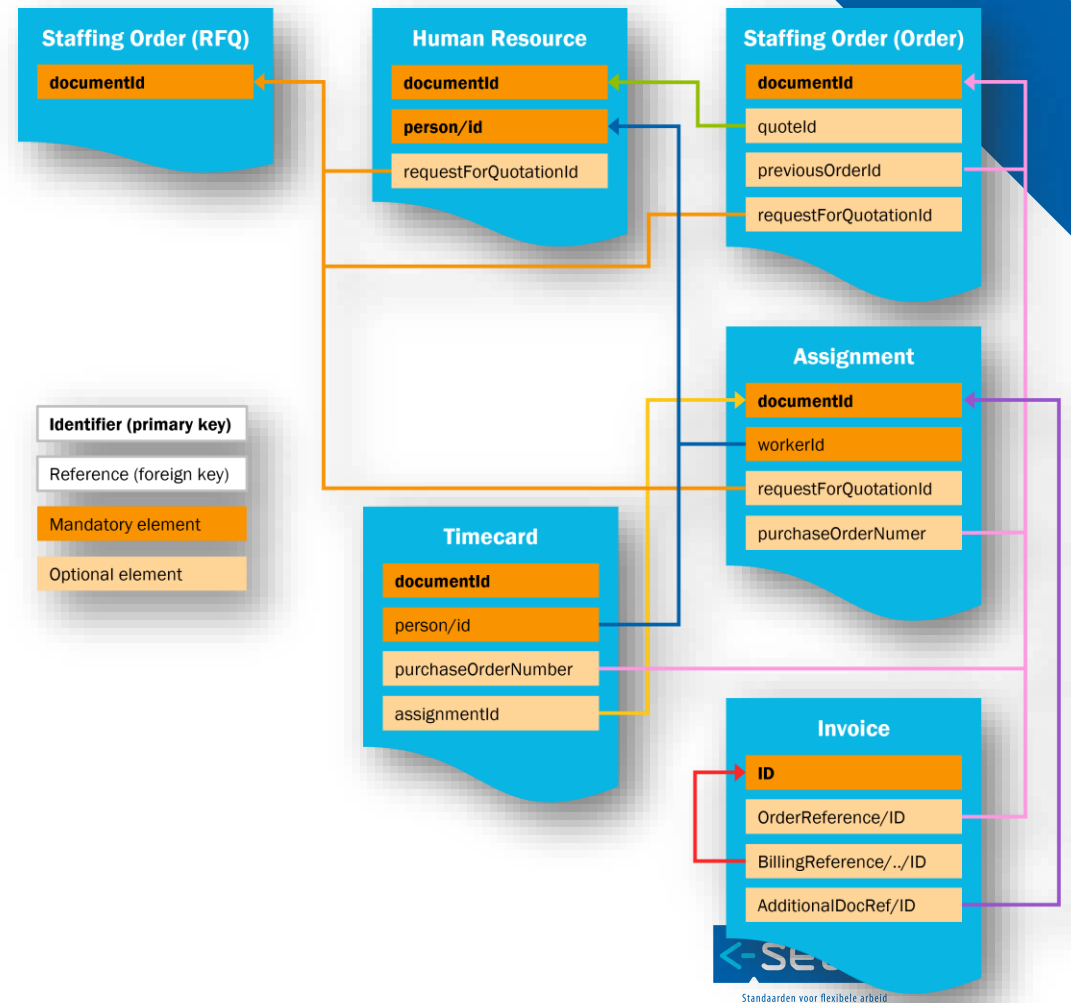
The message models can be found in [Semantic Treehouse](#). There you can also find example messages and validation artifacts in both XML and JSON.

The REST API specifications can be found here: [Purchase to Pay API specifications](#)

The **SETU Standard for Ordering & Selection** consists of two message specifications:

- **Staffing Order** is used by a staffing customer to request and order (an) employee(s) for an open position.
- **Human Resource** is used by the staffing supplier to match a human resource to an open position.

The **SETU Standard for Assignment** is used by a staffing supplier for confirming the placement of a worker on a position at the staffing customer.



Technische artefacten in XML én JSON

XML Schema (XSD)

SCHEMA'S

Expand Copy

```
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:sth="https://ns.semantic-treehouse.nl/message#" elementFormDefault="qualified">
  <!--==== Root element definition =====>
  <xs:element name="Timecard">
    <xs:annotation>
      <xs:documentation>
        <sth:definition>The Timecard message is used by the staffing customer to report time recording and expenses.
      </xs:documentation>
    </xs:annotation>
    <xs:complexType>
      <xs:sequence>
```

```
    <sth:reportingTimeAndExpenses version="1.0" (RELEASE) ...
    "description": "Generated by Semantic Treehouse on 2025-01-30T14:28:47+01:00",
    "required": [
      "documentId",
      "person",
      "period"
    ],
    "additionalProperties": false,
    "properties": {
      "documentId": {
        "required": [
          "value",
          "schemeAgencyId"
```

Example

EXAMPLES

Expand Copy

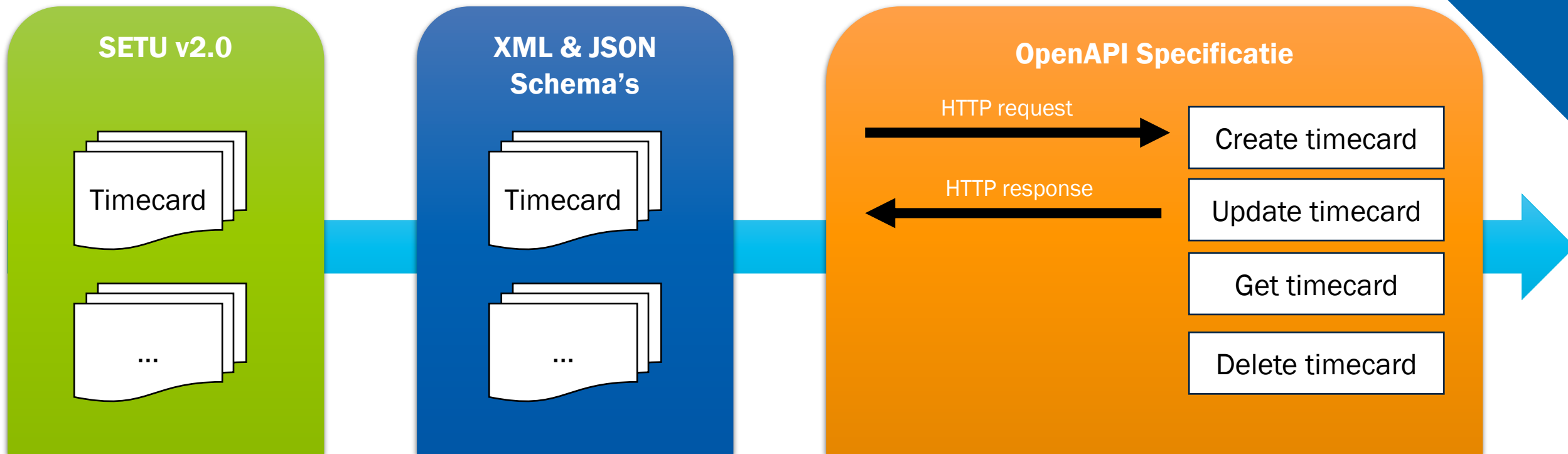
```
<?xml version="1.0" encoding="UTF-8"?>
<Timecard xmlns="https://ontology.setu.nl/#" xmlns:xs="http://www.w3.org/2001/XMLSchema#" xmlns:hropen="https://hropenstandards.org/schema/xml/">
  <documentId>
    <value>b352a0 b6bf2</value>
    <schemeAgencyId>Customer</schemeAgencyId>
  </documentId>
  <supplier>
    <id>
      <value>acb601 2e794</value>
      <schemeAgencyId>Customer</schemeAgencyId>
    </id>
```

```
    "documentId": {
      "value": "cb8017 d90f4",
      "schemeAgencyId": "Customer"
    },
    "supplier": {
      "id": [
        {
          "value": "4d5f06 0b73a",
          "schemeAgencyId": "Customer"
        }
      ]
    }
  }
}
```

BUSINESS RULE VALIDATION

```
<?xml version="1.0" encoding="UTF-8"?>
<sch:schema xmlns:sch="http://purl.oclc.org/dsdl/schematron" xmlns:xs="http://www.w3.org/2001/XMLSchema" />
<sch:ns prefix="xs" uri="http://www.w3.org/2001/XMLSchema" />
<sch:ns prefix="hropen" uri="https://hropenstandards.org/schema/xml/" />
<sch:ns prefix="setu" uri="https://ontology.setu.nl/#" /><!--====
Rules for category: default =====>
<sch:pattern id="BusinessRule_f196343f-27e3-44c7-841d-ec7a5be9ef3b">
  <sch:title>The Timecard must contain at least one timeInterval or allowance element.</sch:title>
  <sch:rule id="BusinessRule_f196343f-27e3-44c7-841d-ec7a5be9ef3b" fpi="299">
    <context="setu:Timecard">
      <sch:assert fpi="299-1" test="setu:allowance or setu:timeInterval" flag="error">
        see="#/Business_32_rule/BusinessRule_f196343f-27e3-44c7-841d-ec7a5be9ef3b">The
        Timecard must contain at least one timeInterval or allowance element.</sch:assert>
      </sch:rule>
    </context>
  </sch:pattern>
```

Van SETU v2 naar API Specs



API's

Search...

Staffing Order (RFQ) ▾

- POST** Submit a new staffing order (RFQ)
- GET** Retrieve information about an existing staffing order (RFQ)
- PUT** Update an existing staffing order (RFQ)
- DEL** Delete an existing staffing order (RFQ)

Human Resource >

Staffing Order (Order) >

Assignment >

Timecard >

Invoice >

Staffing supplier's backoffice APIs >

Staffing customer's backoffice APIs >

Attachment >

API docs by Redocly

Submit a new staffing order (RFQ)

PATH PARAMETERS

- id** string (required)

HEADER PARAMETERS

- setuVersionId** string (required)
Example: 2.0
Specification of the SETU standard version that is used as body message.
- Content-Type** string (required)
Enum: "application/json" "application/xml"
Example: application/json

REQUEST BODY SCHEMA: application/json ▾

Complete staffing order message as specified by SETU. A message may have multiple versions that can differ. This message contains the order type 'RFQ'.

- documentId** object (required)
- supplier** object
- customer** object (required)
- orderType** string (required)
Enum: "Order" "RFQ"
- positionProfile** object (required)
- payRates** Array of objects
- requestForQuotationDetails** object

Request samples

POST /purchase-to-pay/staffing-order

Content type: application/json

Copy Expand all Collapse

```

{
  "documentId": {
    "value": "string",
    "schemeAgencyId": "Customer"
  },
  "supplier": {
    "id": [ - ],
    "legalId": { - },
    "taxId": { - },
    "establishment": { - }
  },
  "customer": {
    "id": [ - ],
    "legalId": { - },
    "taxId": { - },
    "personContacts": [ - ]
  },
  "orderType": "Order",
  "positionProfile": {
    "positionId": { - },
    "positionTitle": "string",
    "positionTask": { - },
    "positionLocation": { - },
    "requestedWorker": { - },
    "positionOpenQuantity": 0,
    "positionOfferingTypes": { - },
    "positionQualifications": { - },
    "positionPeriod": { - }
  }
}

```

setu Documentation

- Introduction
- Purchase to Pay v2.0 ▾
- Ordering & Selection and Assignment
- Reporting Time and Expenses (Timecard)
- Sequence diagrams
- Usage notes >
- Planning and Scheduling >
- API documentation >

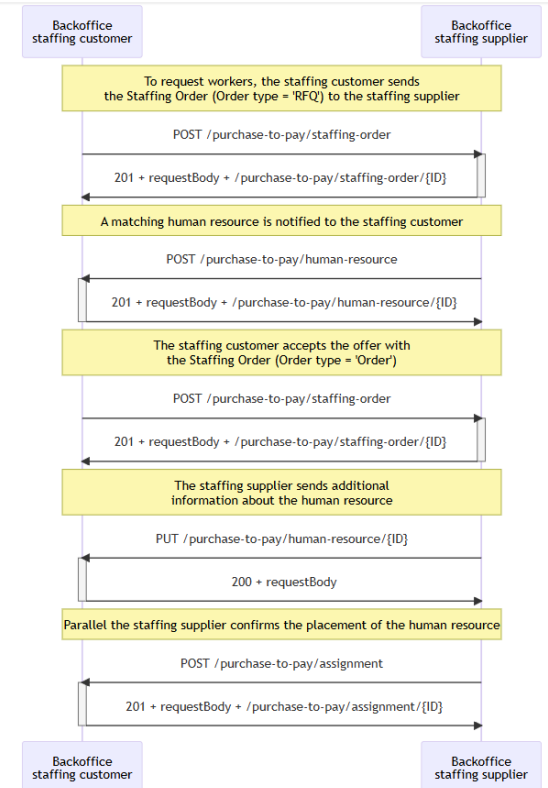
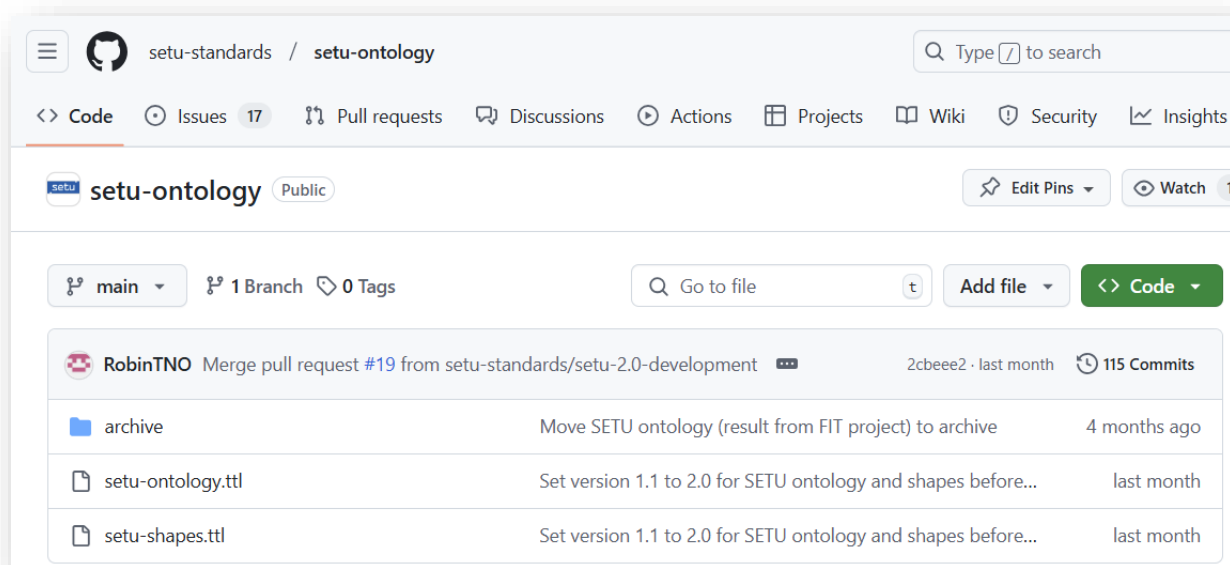


Diagram 1 - Procurement process between the staffing customer and the staffing supplier.

- Ordering & Selection and Assignment
- Variation on the regular process
- Timecard
- Changes & deletions

Update SETU taal



The screenshot shows the GitHub repository page for 'setu-ontology' under the 'setu-standards' organization. The page includes navigation tabs for Code, Issues (17), Pull requests, Discussions, Actions, Projects, Wiki, Security, and Insights. Below the repository name, there are options for 'main' branch, '1 Branch', and '0 Tags'. A search bar and 'Add file' button are visible. The commit history shows a merge pull request #19 by RobinTNO and three recent commits: 'archive' (4 months ago), 'setu-ontology.ttl' (last month), and 'setu-shapes.ttl' (last month).



<https://github.com/setu-standards/setu-ontology>

```
253 hropen:PositionQualification
254   rdf:type sh:NodeShape ;
255   sh:property [
256     rdf:type sh:PropertyShape ;
257     sh:path hropen:certificationsRef ;
258     sh:datatype hropen:Certification ;
259     sh:description "Any certifications the person carries for the related position."@en ;
260   ] ;
261 .
262 hropen:Timecard
263   rdf:type sh:NodeShape ;
264   sh:property [
265     rdf:type sh:PropertyShape ;
266     sh:path setu:allowance ;
267     sh:order 30 ;
268   ] ;
269   sh:property [
270     rdf:type sh:PropertyShape ;
271     sh:path setu:customer ;
272     sh:description "The customer of the worker."@en ;
273     sh:maxCount 1 ;
274     sh:order 3 ;
275   ] ;
276   sh:property [
277     rdf:type sh:PropertyShape ;
278     sh:path setu:supplier ;
279     sh:description "The supplier of the worker."@en ;
280     sh:maxCount 1 ;
281     sh:order 2 ;
282   ] ;
283   sh:property [
284     rdf:type sh:PropertyShape ;
285     sh:path setu:customerSpecificRequirements ;
286     sh:order 35 ;
287   ] ;
288 .
```

Mappings beschikbaar

The screenshot displays the SETU Reporting Time and Expenses interface. On the left is a navigation menu with the SETU logo and the tagline 'Standaarden voor flexibele arbeid'. The main content area is divided into three panels:

- Left Panel:** A tree view of the XML schema. The 'time total' element is selected and highlighted in blue.
- Middle Panel:** The definition of the 'time total' element. It includes:
 - Definition:** The total number of hours worked within the reported time interval, expressed as decimal. Half hours should be noted as 0.5.
 - Type:** DurationDatatype (anySimpleType) with a reference to <https://hropenstandards.org/schema/xml/DurationDatatype>.
 - Example values:** 4.00
 - Business rules:** 303 (Mandatory when no end datetime is provided), 304 (Mandatory when both end datetime and timeTotal are provided), and 55 (Do not use negative durations for correction purposes).
 - GDPR flagged:** The contents of this element are assessed as personal data. Due to the GDPR (in Dutch: AVG) special attention is needed when exchanging personal data. Make sure to agree on the purpose and lawful basis before using this element in the exchange of SETU messages with your partners. More information about SETU and the GDPR can be found in [Privacy guide for SETU standards](#).
- Right Panel:** A list of mappings for the 'time total' element. The 'Duration' mapping is highlighted in grey.

Add specification

Mappings

SETU Reporting Time and Expenses v1.4.2

A mouse cursor is pointing at the 'Mappings' section of the dialog box.

2. Totstandkoming van SETU 2.0

3. SETU 2.0 in detail

4. Aan de slag met SETU 2.0

Impact op implementaties

Huidige implementaties



- Omzetten mag
- Support blijft (voorlopig) voor v1.4

Nieuwe implementaties



- Gebruik v2.0 (consensus inlener/uitzender)
- Vooral mappingsvraagstuk
- Leidt niet tot (grote) wijzigingen back-office systemen

Hoe kan ik beginnen?

The image shows two screenshots side-by-side. The left screenshot is a screenshot of the SETU HumanResource schema in a web browser. The left sidebar shows a tree view of the schema elements, with 'multiplier' selected under 'pay rates'. The main content area shows the details for the 'multiplier' element, including its definition, type (decimal), business rules (298), usage notes, and GDPR flagged status. The right screenshot is a screenshot of the SETU documentation website. The page title is 'Ordering & Selection and Assignment'. The page content includes an introduction, a 'DOCUMENTATION' section with a blue background, and a list of specifications for 'Staffing Order' and 'Human Resource'. The 'DOCUMENTATION' section states: 'The message models can be found in Semantic Treehouse. There you can also find example messages and validation artifacts in both XML and JSON.' The 'Staffing Order' specification states: 'The SETU Standard for Ordering & Selection consists of two message specifications: • Staffing Order is used by a staffing customer to request and order (an) employee(s) for an open position. • Human Resource is used by the staffing supplier to match a human resource to an open position.' The 'Human Resource' specification states: 'The SETU Standard for Assignment is used by a staffing supplier for confirming the placement of a worker on a position at the staffing customer.'

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Vragen

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- Maak kennis met SETU
- Het gebruik van API's
- SETU in de praktijk
- De toekomst van data delen
- Uitwisselen via Peppol-netwerk
- Deep Dive Planning

Terug te kijken via YouTube



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