



Standaarden voor flexibele arbeid

# Webinar Deep Dive Planning

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16 november 2023

# Voorstellen



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# Agenda

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**1. Welkom | SETU  
bestuur**

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**2. Plannings-berichten  
en ondersteunde  
processen**

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**3. Planningsberichten  
in detail**

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**4. Kijkje in de  
keuken**

## Vorige webinars

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

Terug te kijken via Youtube





**STEL JE VRAAG  
IN DE Q&A**



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



**WEBINAR WORDT  
OPGENOMEN**

# **1. Welkom**

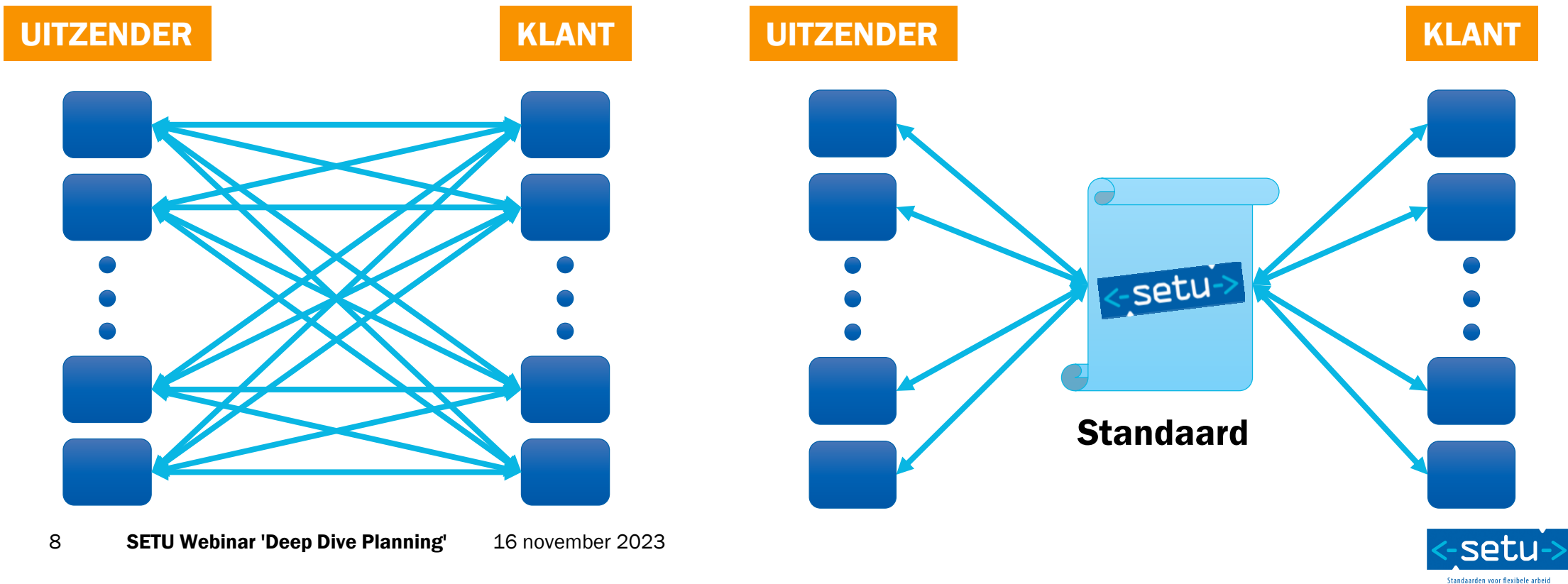
**2. Planningsberichten en ondersteunde processen**

**3. Planningsberichten in detail**

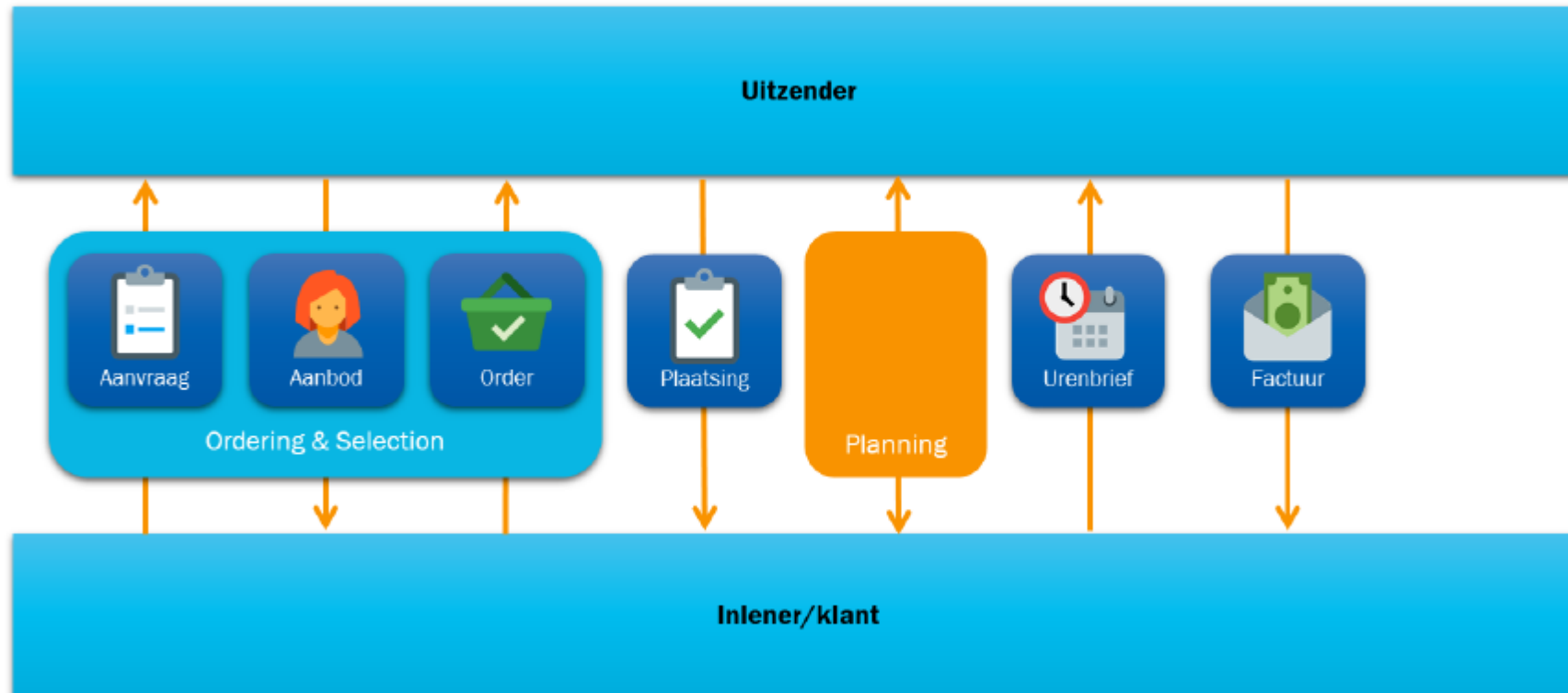
**4. Kijkje in de keuken**

# De noodzaak van een standaard

- Huidige Probleem: Geen standaard specificatie voor planningsgegevensuitwisseling.



# SETU standaarden



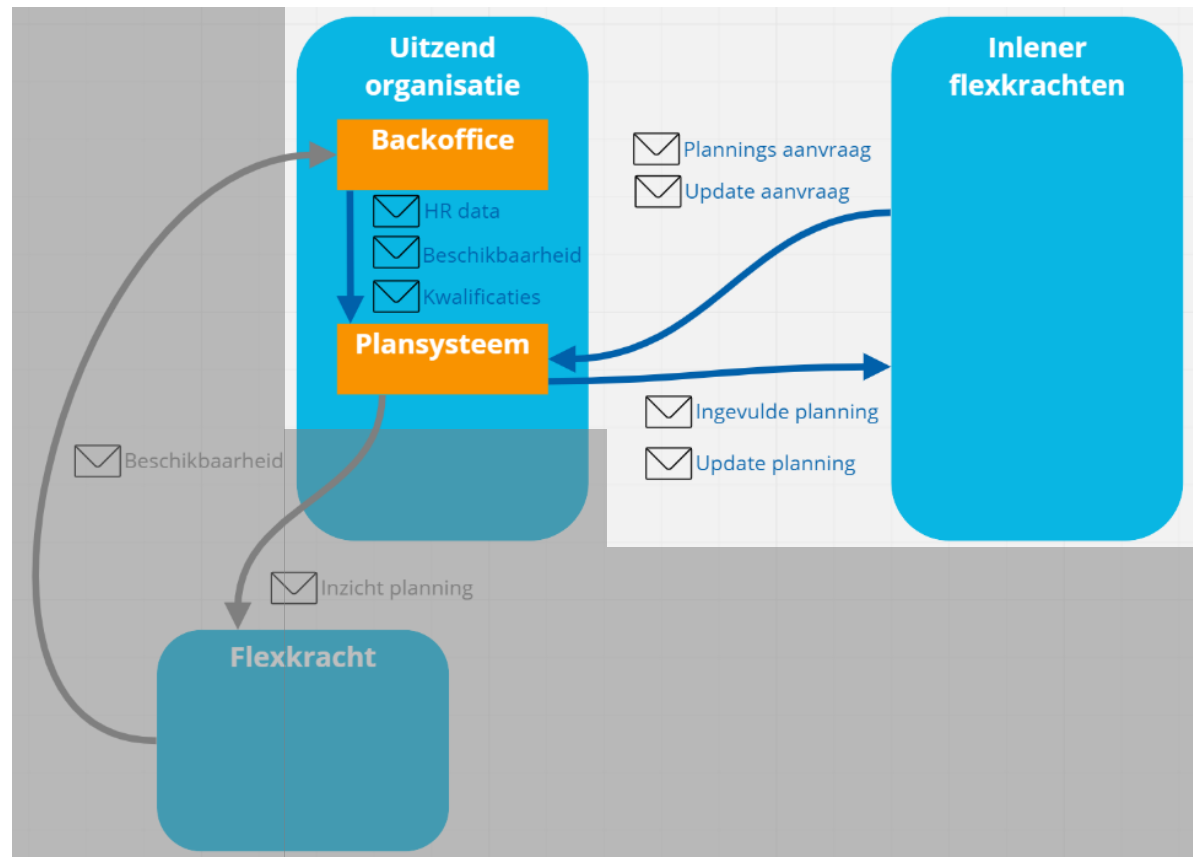
# Planning Scenario's

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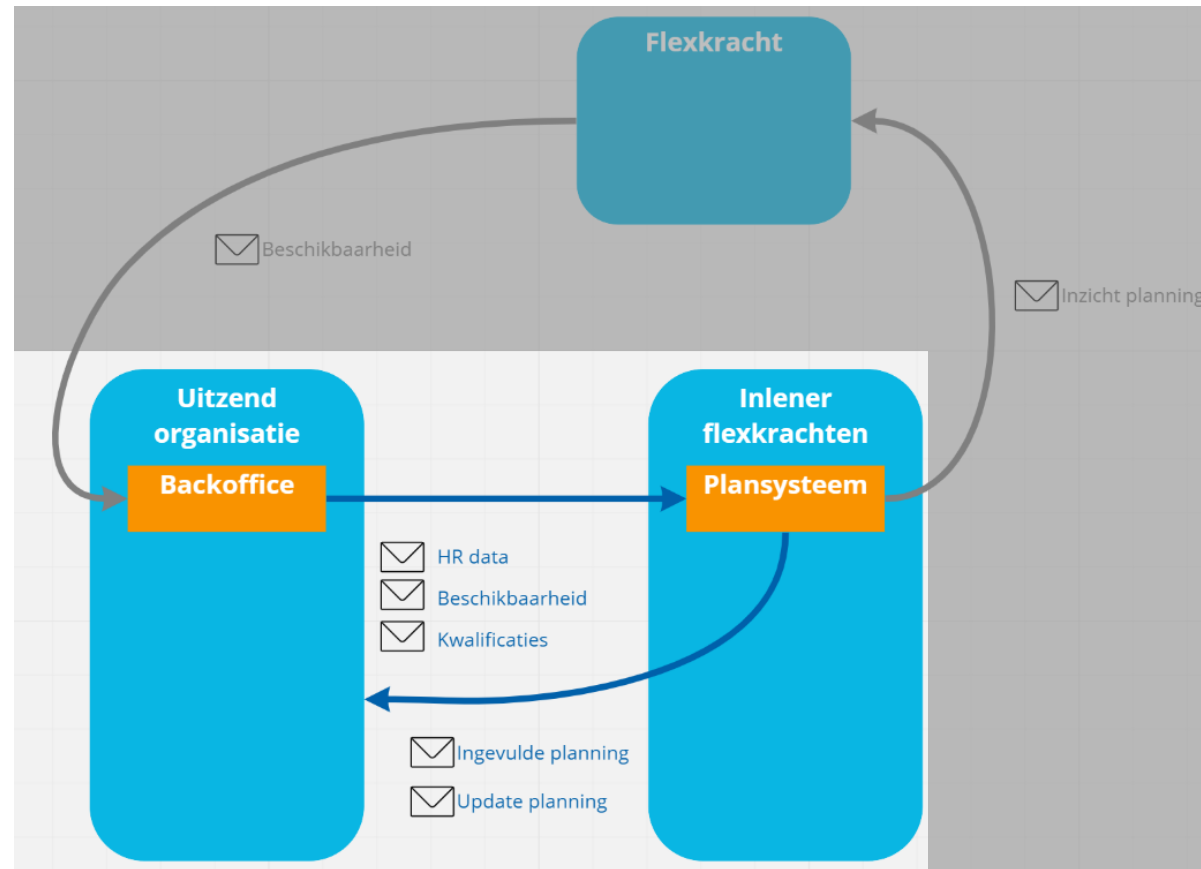
- **Scenario 1:** Planning in systeem van uitzendorganisatie
  - Uitzendorganisatie plant zowel eigen flexkrachten als eventueel vaste medewerkers van de inlener.
  - Eén leidend plansysteem; andere systemen dienen als aanvraag- of wijzigingsverzoek.
- **Scenario 2:** Planning in systeem van inlener
  - Inlener beheert volledige planning.
- **Scenario 3:** Planning deels in systeem van inlener en deels in systeem van uitzender
  - complexe situatie waarin planners van uitzender en inlener gezamenlijk werken in meerdere systemen
  - Buiten scope



# Scenario 1: Uitzendorganisatie verantwoordelijk voor de planning



# Scenario 2: Inlener verantwoordelijk voor de planning



# Drie planningsberichten!

SETU / Planning and scheduling



Planning Constraints

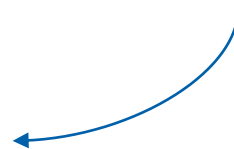


Planning Request

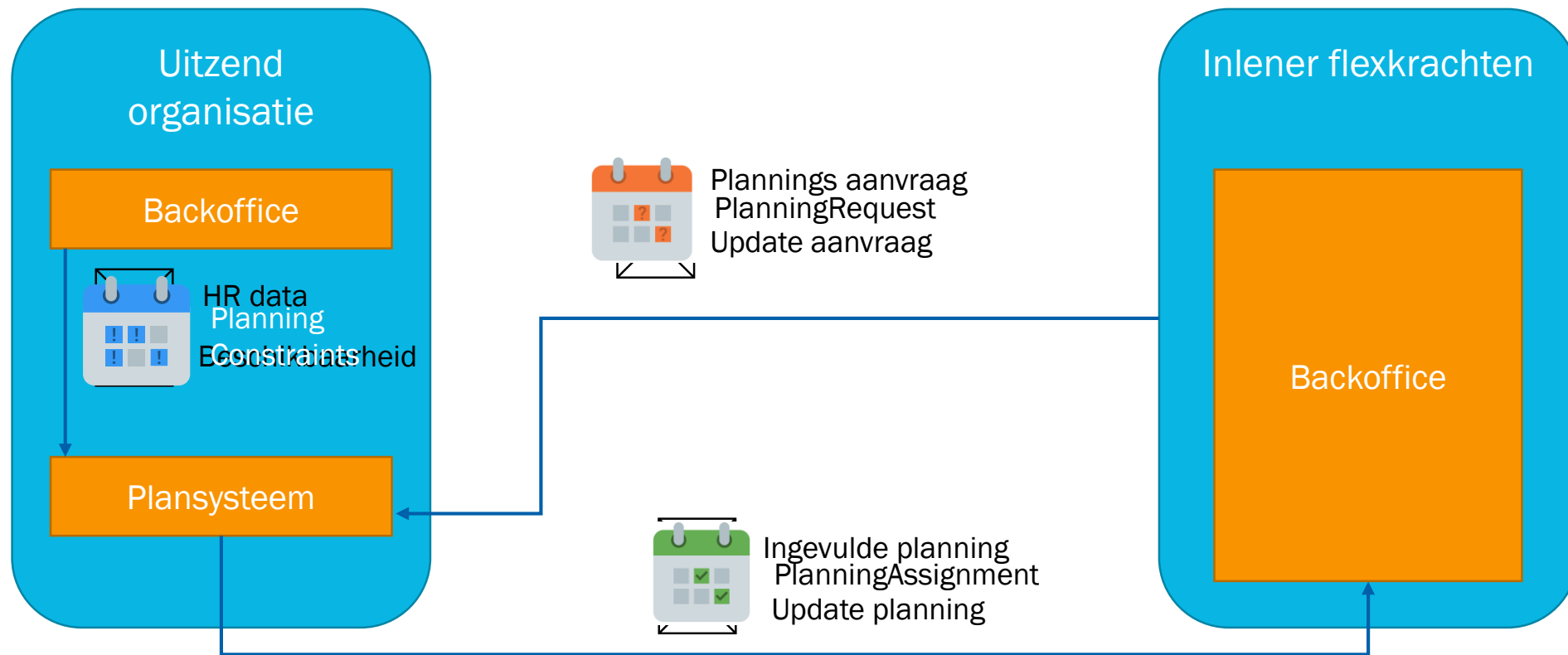


Planning Assignment

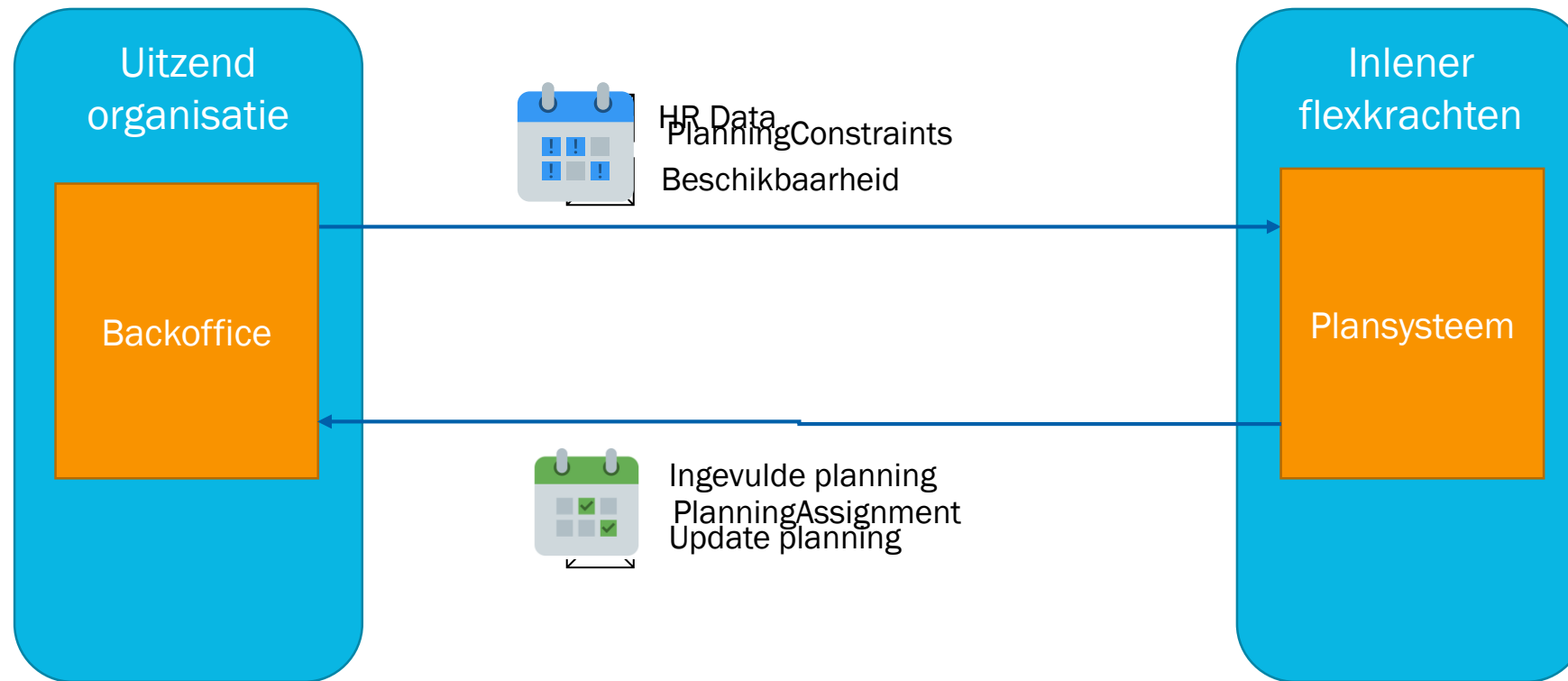
[SETU: Planning and Scheduling](#)



# Scenario 1: Uitzendorganisatie verantwoordelijk voor de planning



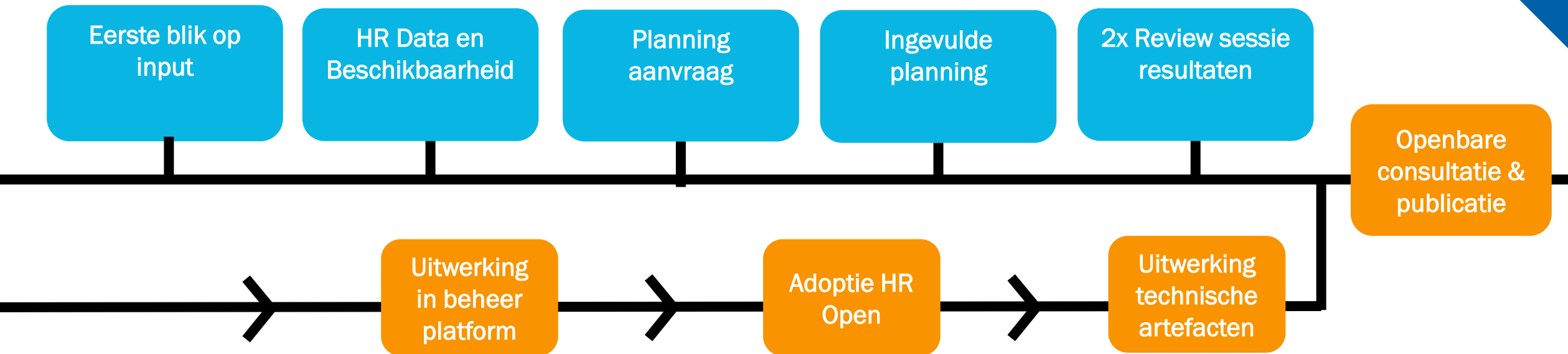
# Scenario 2



# **2. Ontwikkelproces van begin tot eind**

3. Q&A

# Tijdslijn



# Waar bestaat het resultaat uit?



standaard.setu.nl



VOORBEELDBERICHTEN

TIMECARDEXAMPLE\_V1.4.XML

```
10 <TimeCard xmlns="http://ns.hr-xml.org/2007-04-15" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
11   <Id idOwner="StaffingCustomer">
12     <IdValue>TC00123456</IdValue>
13   </Id>
14   <ReportedResource>
15     <Person>
16       <Id idOwner="StaffingCustomer">
17         <IdValue>23456</IdValue>
18       </Id>
19       <PersonName>
20         <FormattedName>Piet van der Berg</FormattedName>
21         <LegalName>Pieter Arend van der Berg</LegalName>
22         <GivenName>Pieter</GivenName>
23       </PersonName>
24     </Person>
25   </ReportedResource>
26 </TimeCard>
```



EVALIDATOR

**BERICHTEN**

SETU Reporting Time and Expenses v1.4

Duration v1.4

DEFINITION  
The duration of the time interval that is reported in hours

PATH  
TimeCard/ReportedTime/TimeInterval/Duration

NAMESPACE  
http://ns.hr-xml.org/2007-04-15-timecard

BUSINESS RULES

- 38: This element is mandatory when no end datetime of the time interval is provided.
- 51: If both an end datetime and a duration are provided, then the duration must be equal to or smaller than the difference between start and end datetime and interpreted as the number of hours worked. This allows for a difference in actual working hours and hours present (e.g. due to a lunchhour).
- 55: Do not use negative durations for correction purposes.

GDPR FLAG  
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

USAGE NOTE  
Decimal x.y (6.5 equals 6,5 hours, not 6 hours and 50 minutes)

Documentatie

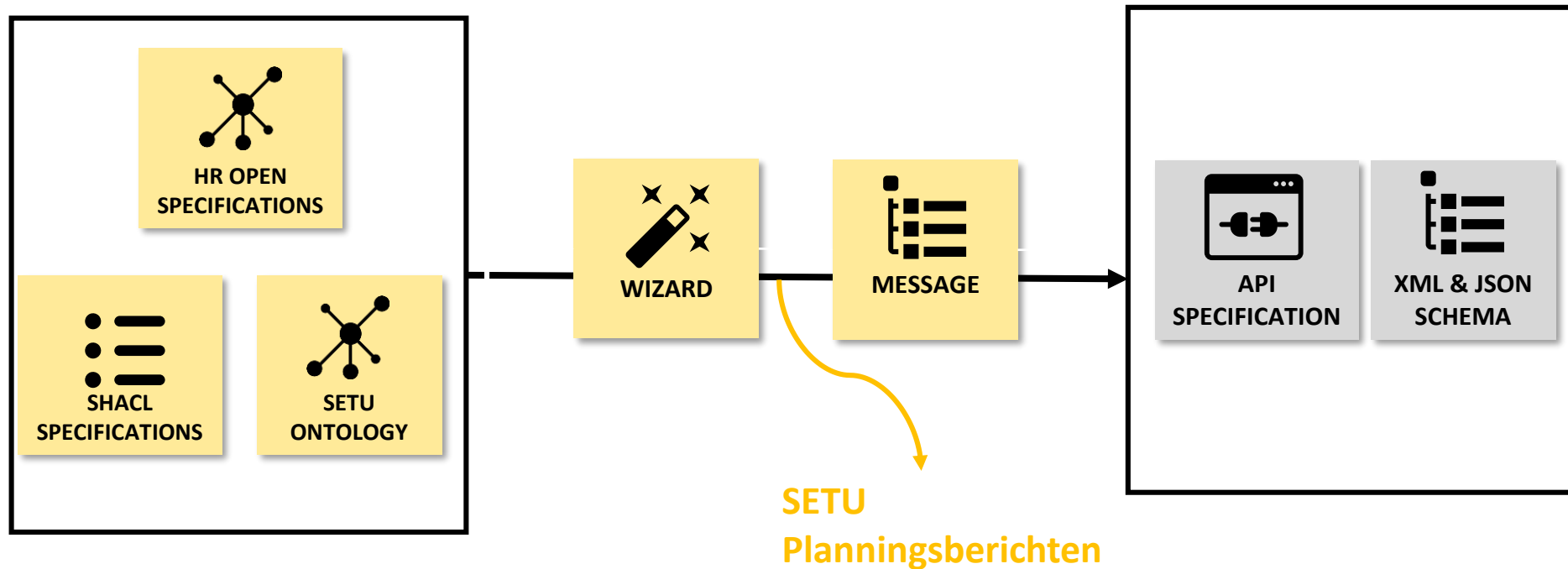
SETU API for Planning and Scheduling

Download OpenAPI specification: [Download](#)

API Specificaties





# Ontwerpproces






# PlanningConstraints



- HR Data van een individuele werknemer
- Informatie over beschikbaarheid en andere relevante vereisten of voorkeuren.
- Het bericht wordt verzonden vanuit het back officesysteem van de leverancier naar het planningsysteem bij de klant of leverancier.

Planning Constraints v1.0  

Search by name    



**[1..1] PlanningConstraints**




- ▶ [1..1] document id ref  
[0..1] action code
- ▶ [1..1] supplier
- ▶ [1..1] customer
- ▶ [1..1] worker
- ▼ **[0..1] position profile**
  - ▶ [0..1] position period ref
  - ▶ **[0..1] working periods ref**
- ▼ **[0..n] periodic availability line**
  - ▶ [1..1] line id  
[0..1] action code  
[1..1] availability status  
[1..1] availability period  
[0..1] start time  
[0..1] end time  
[0..1] hours
  - ▶ [0..n] related worker  
[0..1] availability comment
- ▶ [0..n] single availability line  
[0..1] maximum travel distance

# PlanningRequest



- Het Planning Request-bericht wordt door de inlener gebruikt om de planning voor een bepaalde positie aan te vragen.
- Het bericht bevat informatie over de positie en de exacte momenten waarop werknemers worden aangevraagd.
- Het bericht wordt van de inlener naar het planningsysteem bij de leverancier verzonden.

Planning Request v1.0  

Search by name    



**[1..1] PlanningRequest**





- ▶ [1..1] document id ref
- [0..1] action code
- ▶ [0..1] supplier
- ▶ [1..1] customer
- ▼ **[1..1] position profile**
  - ▶ [0..1] position id ref
  - [0..1] position title
  - ▶ [0..1] position task
  - [0..1] stand by indicator
  - ▶ [1..1] position location ref
  - ▶ [0..n] requested worker
  - ▶ [0..1] position organizations ref
  - ▶ [0..1] position qualifications ref
  - ▶ [0..1] position period ref
  - ▶ [0..1] working periods ref
  - [0..1] shift description
  - ▶ [0..1] cost allocation ref
  - [0..n] request comments
  - ▶ [0..n] requested periodic planning line
  - ▶ [0..n] requested single planning line

# PlanningAssignment



- Het Planning Assignment-bericht wordt gebruikt om de planning van een werknemer op een bepaalde positie uit te wisselen.
- Het bericht bevat informatie over de positie en de exacte momenten waarop de werknemer is gepland.
- Het bericht wordt verzonden vanuit het planningsysteem van de leverancier of de klant naar de andere partij.

Planning Assignment v1.0  

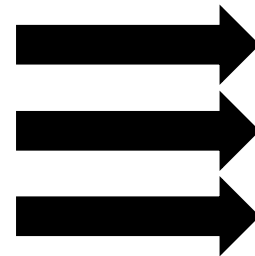
Search by name     

**[1..1] PlanningAssignment**

- ▶ [1..1] document id ref
- ▶ [0..1] action code
- ▶ [0..1] supplier
- ▶ [1..1] customer
- ▼ [0..1] planning request reference
  - ▶ [1..1] document id ref
- ▼ **[1..1] assigned worker**
  - [1..1] assigned status
  - ▶ [0..1] worker id ref
  - ▶ [0..1] person ref
  - ▶ [0..1] work assignments ref
- ▶ [1..1] position profile
- ▶ [0..n] assigned periodic planning line
- ▶ [0..n] assigned single planning line

# Transport van Planningsgegevens

- XML en JSON berichten
  - Formaten voor het uitwisselen van gegevens
- Communicatie: SOAP en REST API's
  - POST
  - GET
  - DELETE
  - PUT



Planning constraints		Everything about providing HR availability	^
POST	/planning/constraints	Submit new availability of a human resource	∨
GET	/planning/constraints/{id}	Get information about the existing availability of the human resource	∨
DELETE	/planning/constraints/{id}	Remove the existing availability of the human resource	∨
POST	/planning/constraints/{id}/lines	Add a new line to the existing availability of the human resource	∨
GET	/planning/constraints/{id}/lines{lineId}	Get information about an existing availability line of the human resource	∨
PUT	/planning/constraints/{id}/lines{lineId}	Update an existing availability line of the human resource	∨
DELETE	/planning/constraints/{id}/lines{lineId}	Remove an availability line of the human resource	∨

Code	Description	SETU usage note
200	OK	Standard response for successful request.
201	Created	Successful request, resource is created. In case of a POST request, the 201 response indicates that the request is successfully received and the resource is created, i.e. <b>synchronous process</b> .
204	No Content	Response for a successful DELETE operation.
400	Bad request	The request is invalid. E.g.: <ul style="list-style-type: none"> <li>Malformed XML syntax;</li> <li>Missing mandatory parameter;</li> <li>Invalid request body;</li> <li>Unsupported version of request body: e.g. a SETU Invoice 2.0 is sent, while the API only supports version 1.3 and v1.4. Or an older/deprecated version of the message is sent, which the API doesn't support anymore.</li> </ul>
401	Unauthorized	The request lacks valid authentication credentials for the resource.
403	Forbidden	The request was valid, but the server is refusing action. The user might not be authorized for the resource.
404	Resource not found	The resource is not known. E.g.: <ul style="list-style-type: none"> <li>The Assignment (identifier) of the UPDATE request is not known</li> <li>The combination of method (POST) and path (/rfq) is not implemented. Alternatively, return 405 – Method not allowed.</li> <li>The API path is not recognized at all</li> </ul>
500	Internal Server Error	<i>Self-describing</i>
503	Service Unavailable	<i>Self-describing</i>

## Planning constraints Everything about providing HR availability

- POST** /planning/constraints Submit new availability of a human resource
- GET** /planning/constraints/{id} Get information about the existing availability of the human resource
- DELETE** /planning/constraints/{id} Remove the existing availability of the human resource
- POST** /planning/constraints/{id}/lines Add a new line to the existing availability of the human resource
- GET** /planning/constraints/{id}/lines{lineId} Get information about an existing availability line of human resource
- PUT** /planning/constraints/{id}/lines{lineId} Update an existing availability line of the human resource
- DELETE** /planning/constraints/{id}/lines{lineId} Remove an availability line of the human resource

## Planning assignment Everything about planning assignment / fulfillment

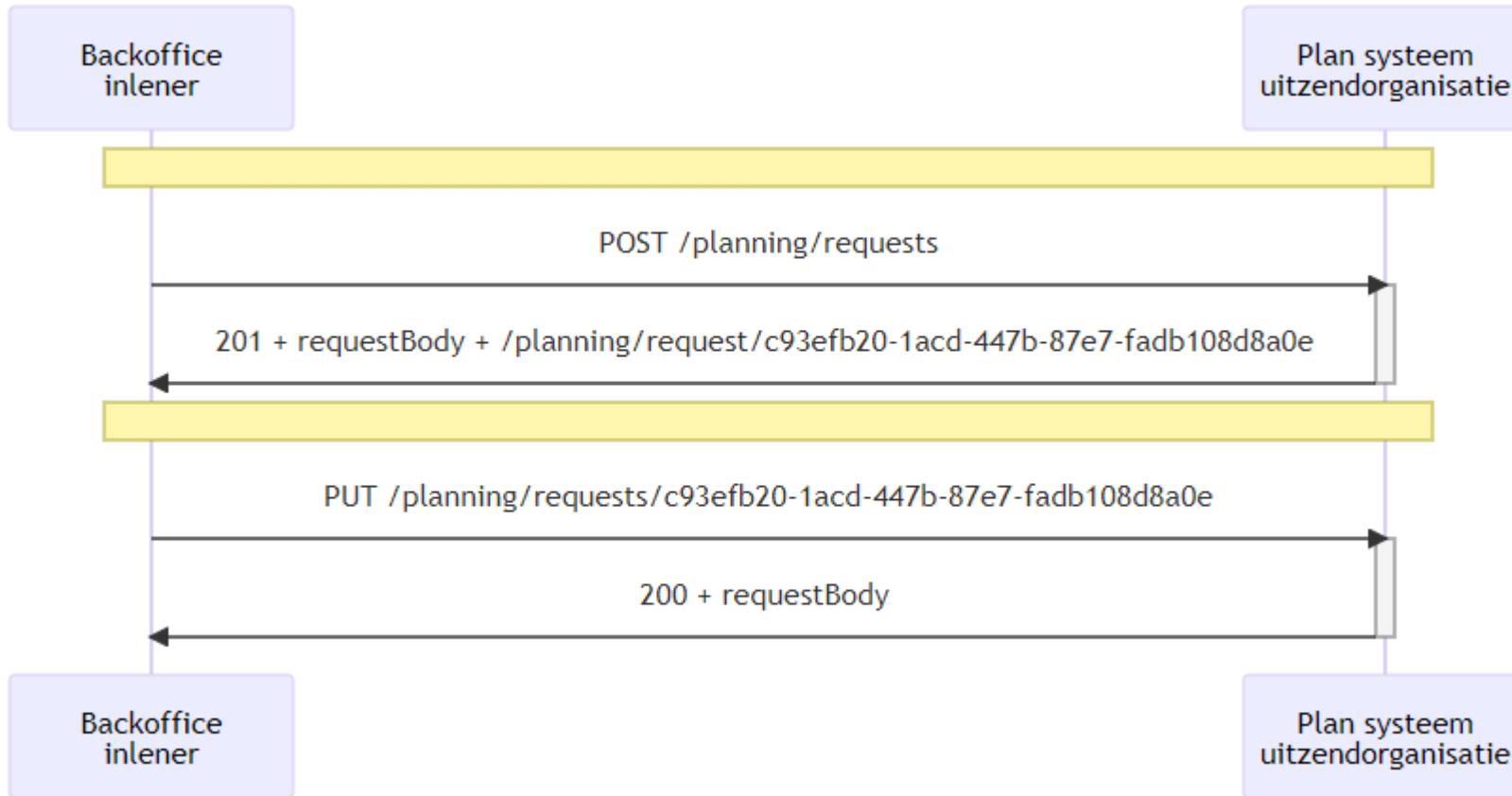
- POST** /planning/assignment Submit a new planning assignment
- GET** /planning/assignment/{id} Get information of an existing planning assignment
- DELETE** /planning/assignment/{id} Remove an existing planning assignment
- POST** /planning/assignment/{id}/lines Add a new line to an existing planning assignment
- GET** /planning/assignment/{id}/lines{lineId} Get information about an existing planning assignment line
- PUT** /planning/assignment/{id}/lines{lineId} Update an existing planning assignment line

# Open API Specifications

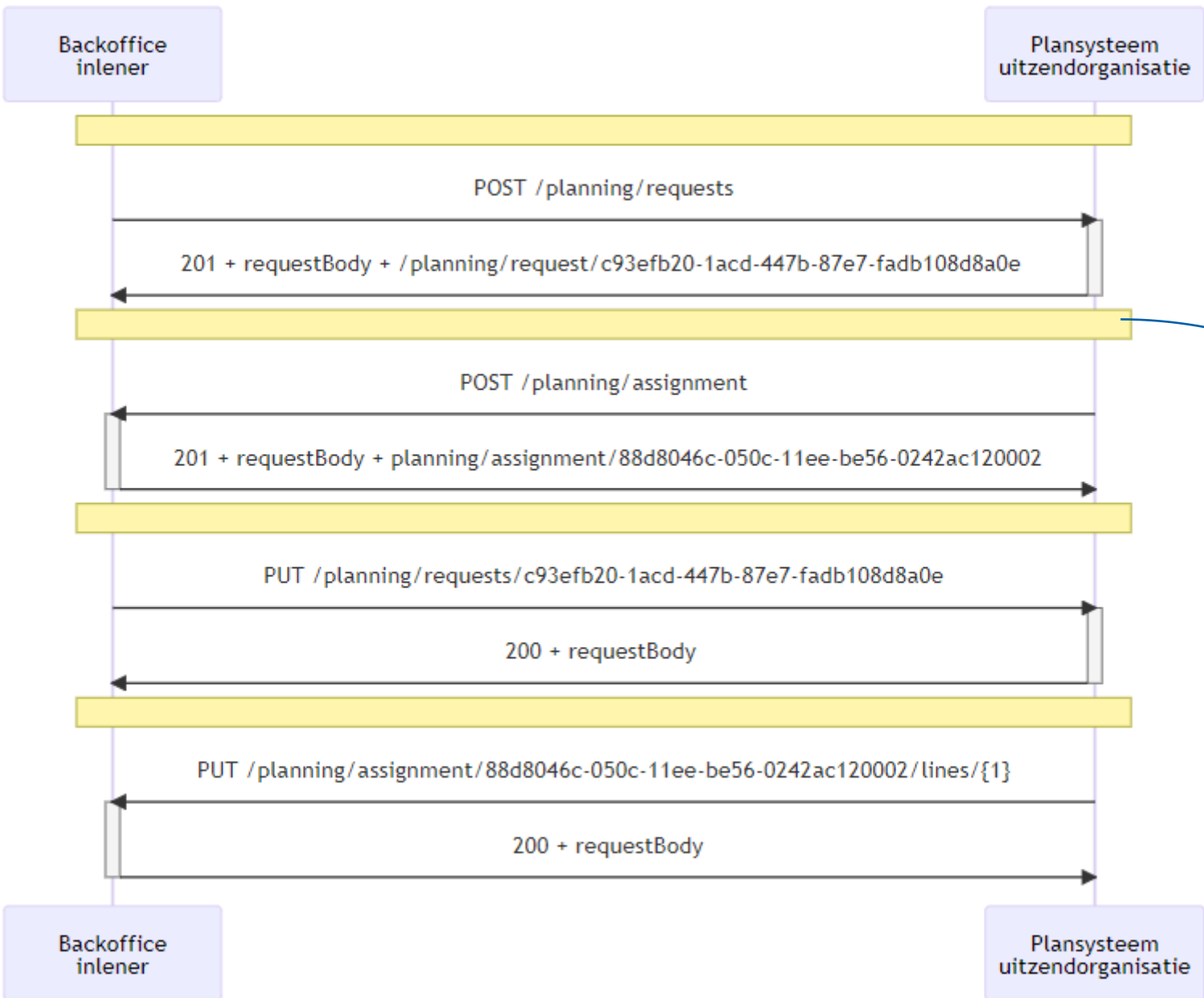
## Planning request Everything about planning request

- POST** /planning/request Submit a new planning request
- GET** /planning/request/{id} Get the information about a existing planning-request
- DELETE** /planning/request/{id} Remove an existing planning-request
- POST** /planning/request/{id}/lines Add a new line to an existing planning request
- GET** /planning/request/{id}/lines/{lineId} Get the information about an existing planning-request line
- PUT** /planning/request/{id}/lines/{lineId} Update an existing planning-request line
- DELETE** /planning/request/{id}/lines/{lineId} Remove an existing planning-request line

# Voorbeeld: Het updaten van een planningsaanvraag in Scenario 1







Planning Assignment v1.0

Search by name

- [1..1] PlanningAssignment**
  - ▶ [1..1] document id ref
  - [0..1] action code
  - ▶ [0..1] supplier
  - ▶ [1..1] customer
  - ▼ [0..1] planning request reference
    - ▶ [1..1] document id ref
  - ▼ **[1..1] assigned worker**
    - [1..1] assigned status
    - ▶ [0..1] worker id ref
    - ▶ [0..1] person ref
    - ▶ [0..1] work assignments ref
  - ▶ [1..1] position profile
  - ▶ [0..n] assigned periodic planning line
  - ▶ [0..n] assigned single planning line

# Aan de slag met v1.0 berichten!

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Wat heb jij nodig van de SETU om aan de slag te gaan met de 1.0 versie van de Planningsberichten?

# Vragen

**STEL JE VRAAG  
IN DE CHAT**



**STEEK JE HAND  
OP EN STEL EEN  
VRAAG**

