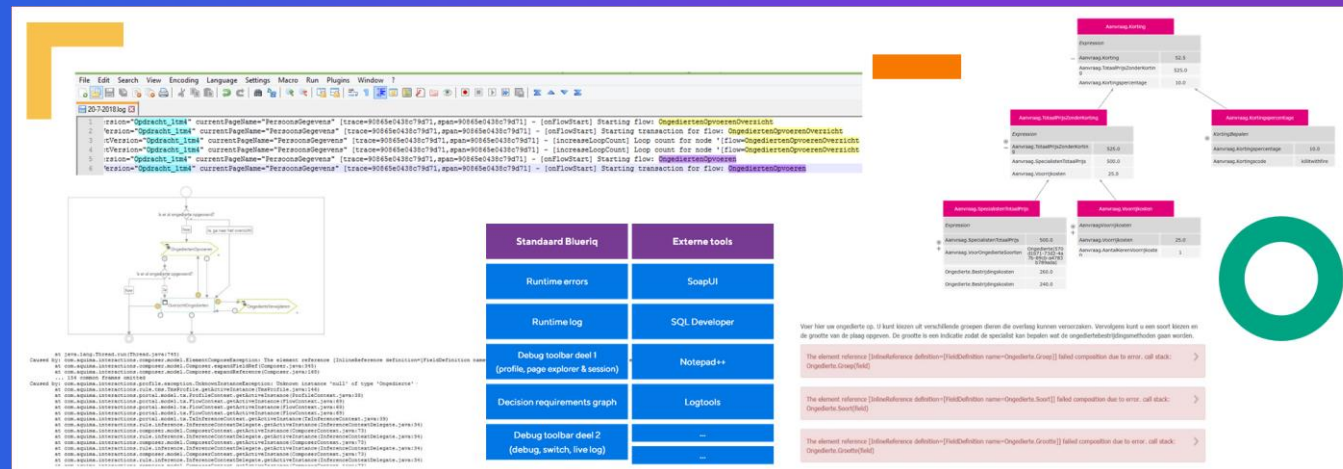


Debugging Business Models

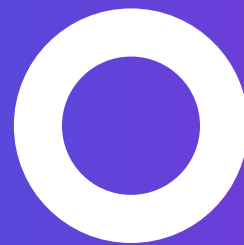
An introduction in debugging and error handling



The screenshot displays the BlueRiq IDE interface. On the left, a BPMN diagram is visible. The top window shows a log with error messages, including 'The element reference [dataReference definition={thisDefinition name=Opgeleiders.Groep}] failed composition due to error. Call stack: Opgeleiders.Organisatie'. Below the log is a table of external tools:

Standaard BlueRiq	Externe tools
Runtime errors	SoapUI
Runtime log	SQL Developer
Debug toolbar deel 1 (profile, page explorer & session)	Notepad++
Decision requirements graph	Logtools
Debug toolbar deel 2 (debug, switch, live log)	---

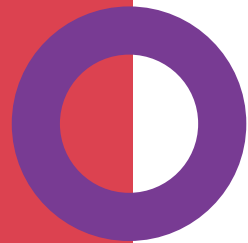
On the right, a process flow diagram shows various activities and their durations. Below it, a list of error messages is shown, each with a 'View for see engels' link and a 'Call stack' link.



blueriq

Goals

- Kennis maken met de debug-mogelijkheden van Blueriq
- Per situatie herkennen welke strategie toepasselijk is
- In staat zijn zelfstandig complexe applicaties te debuggen
- Blueriq logging – analyseren en de log leren ‘lezen’
- De debug tool begrijpen en gebruiken
- Het profiel begrijpen en gebruiken
- De designtim en runtime DRG begrijpen en gebruiken



De hulpmiddelen

Standaard Blueriq	Externe tools
Runtime errors	SoapUI
Runtime log	SQL Developer
Debug toolbar deel 1 (profile, page explorer & session)	Notepad++
Decision requirements graph	Logtools
Debug toolbar deel 2 (debug, switch, live log)	...
	...

Runtime log

2018-06-15 11:45:37.471 **INFO** c.a.i.portal.model.session.FlowHandler runtimeSessionId="aa1ecbc3-803e-4b8a-8f98-e59ccff1bcbe" userId="anonymousUser" projectName="studio-DebuggingCursus-OngediertImplementatie" projectVersion="Opdracht_1tm4" currentPageName="PersoonsGegevens" [trace=90865e0438c79d71,span=90865e0438c79d71] - [onFlowStart] Starting flow: OngediertenOpvoerenOverzicht



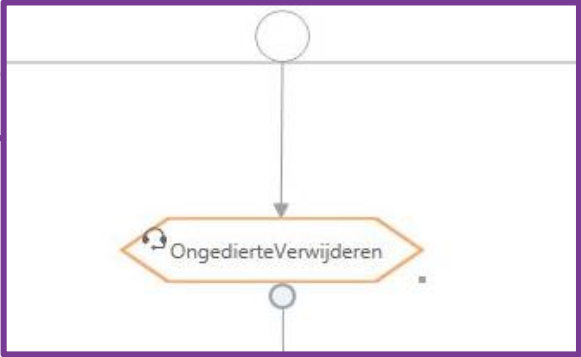
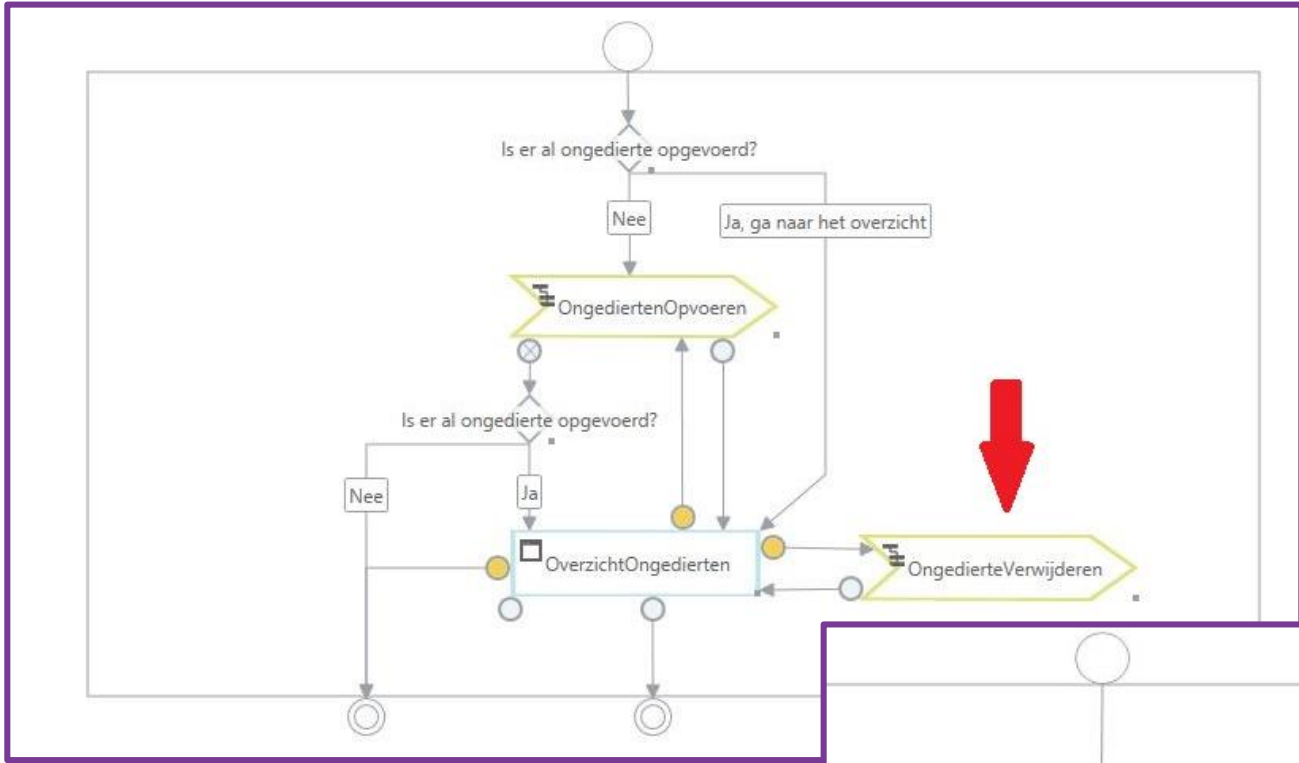
[Datum + tijd] **Loggingtype** c.a.i.portal.model.session.FlowHandler runtimeSessionId=[Sessie id] userId=[Gebruikersnaam] projectName="studio-[Reponaam]-[Projectnaam]" projectVersion=[Branchnaam] currentPageName=[Pagina-naam] [trace=90865e0438c79d71,span=90865e0438c79d71] - [onFlowStart] Starting flow: [Flownaam]

Loggingtype	Betekenis	Voorbeelden
DEBUG	De standaard logregels die worden gebruikt om de business engineers informatie te geven van de uitgevoerde transacties.	<ul style="list-style-type: none">- CreateInstance for entity: Ongedierte [...]- [getActiveInstance] Found active instance local to flow: OngediertenOpvoeren [...]
INFO	Toont de uitgevoerde acties van Blueriq Runtme, maar zonder de inhoud (dat zijn de DEBUG regels). Bijvoorbeeld: Flow has	<ul style="list-style-type: none">- Executing AQ_Instance_Create service call OngedierteVoorAanvraagCreeren- [onFlowStart] Starting flow: OngediertenOpvoeren
WARN	Toont met name functionele fouten. Dit level wordt vaak in productie gebruikt door load en privacy overwegingen.	<ul style="list-style-type: none">- [expandContainerContents] Expand for element 'Ongedierte.Locatie' of type [ElementType 4 - field] failed.
ERROR	Geeft technische fouten aan. Dit level wordt vaak in productie gebruikt door load en privacy overwegingen.	<ul style="list-style-type: none">- Cloud not load properties from resource users.properties.- Uncaught exception thrown [...] An existing connection was forcibly closed by the remote host

*De log kan worden ingesteld op elke type logging met het logback.xml bestand. DEBUG is de hoogste optie, die alle andere loggingtypes ook toont. In de tabel filtert elk loggingtype zijn bovenstaande type(s) er uit.

Hulp bij Exercise 2

2018-08-16 15:23:21.566 INFO c.a.i.f.service.instance.DeleteInstance runtimeSessionId="3c541c3d-c028-44d8-812e-20b2458caf1f" userId="anonymousUser" projectName="studio-DebuggingCursus-OngedierteImplementatie" projectVersion="Opdrachten" currentPageName="OverzichtOngedierten" [trace=fd7d52ef74136680,span=fd7d52ef74136680] - condition: Ongedierte.Aanvraag = ?



DEFINITION

Service type

Delete one or more instances.

Name

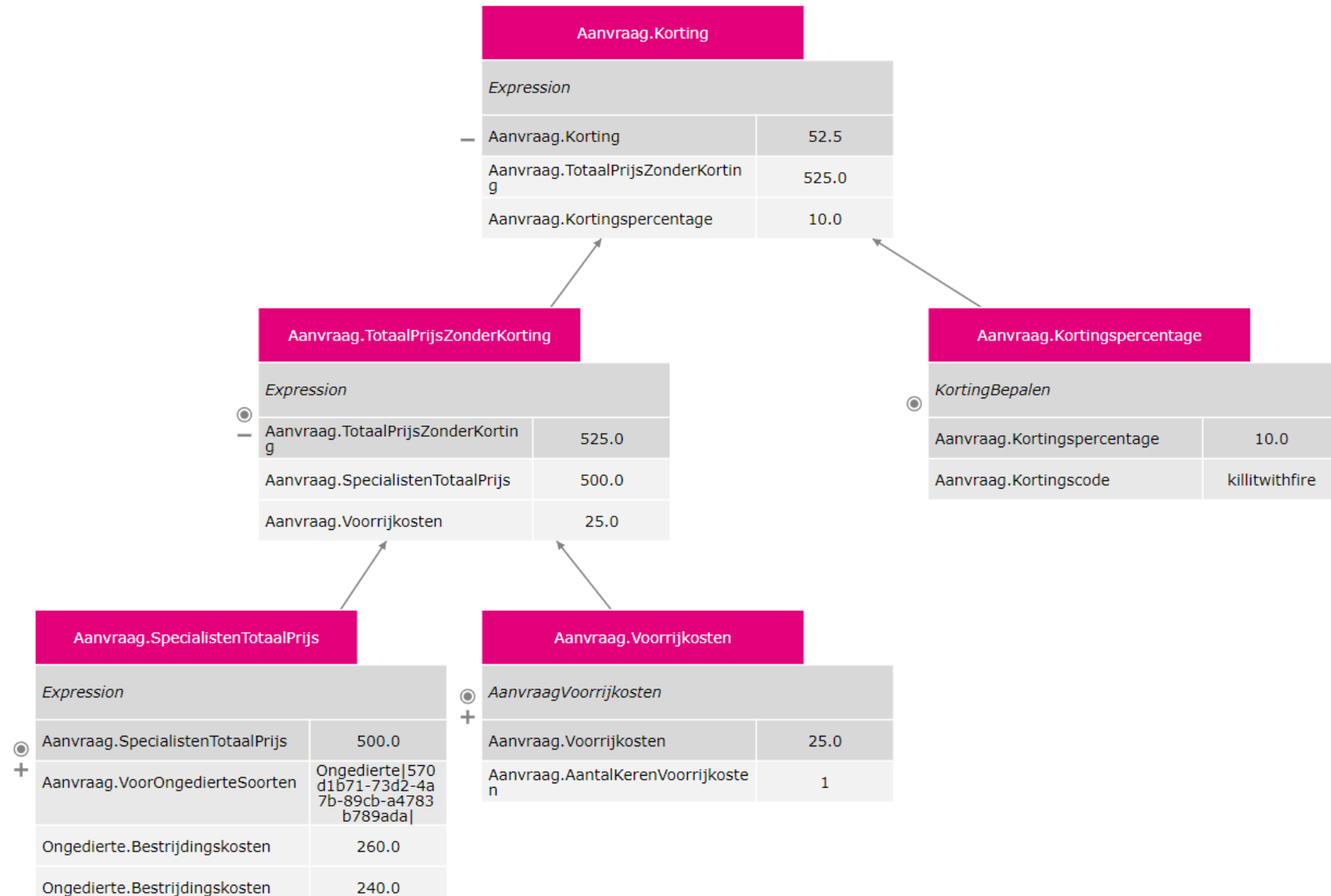
Functional name

Description

PARAMETERS

Parameter	Direction	Value
type	Input	<input type="text" value="Ongedierte"/>
attribute-path	Input	<input type="text"/>
condition	Input	<input type="text" value="Ongedierte.Aanvraag = ?"/>
type-scope	Input	<input type="text"/>
exact-type	Input	<input type="text"/>

Decision Requirements Graph



Debug toolbar

Session Selector

Debug

Session

Profile

Switch

Page Explorer

Live Log

Remove toolbar

PROFILE

Session specific tools

Profile Explorer Profile Import/Export **Expression evaluator**

Expression

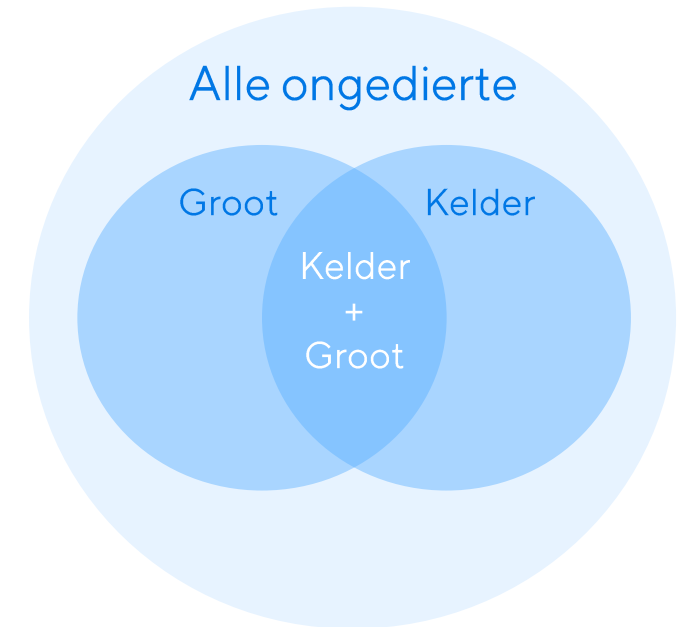
```
COLLECT Ongedierte.Soort FROM Aanvraag.VoorOngedierteSoorten WHERE (Ongedierte.Grootte = "Groot" AND Ongedierte.Locatie = "Kelder")
```

Evaluate

Result "Graafwespen" ?

Type text

Multivalued Yes



Debug toolbar

Session Selector

Debug

Session

Profile

Switch

Page Explorer

Live Log

Remove toolbar

SESSION

Main session tools

Reload current project

Reload

Save session

With this widget you can save the current session to an XML file on the server. Saved sessions on the server can be loaded with the restore session widget on the dashboard, which will restore the session to it's current state.

Please consider the following when saving a session:

- Sessions saved in a java environment are usually not compatible with a .NET environment (and the other way around).
- The current page transaction will be committed when saving the session. (Cancel buttons might not work correctly in a restored session)

Name

PersoonsGegevens

Description

Save

Export profile

Include system derived values

Export profile

End session

End session

Handig voor het herladen van kleine aanpassingen aan je project

Pas op voor de grotere aanpassingen. Dit kan je op het verkeerde spoor zetten

Debug toolbar

Session Selector

Debug

Session

Profile

Switch

Page Explorer

Live Log

Remove toolbar

SESSION SELECTOR

- Main
- Zaakgegevens
- Taken
- Documenten
- Betrokkenen
- Notities

blueriq aanvrager Uitloggen

Zaakgegevens

Aanvraag **Beslissingen** Zaak

Aanvraaggegevens aaa

Taken

Taak Verloopt

Toevoegen bewijsstukken	o
Indienen aanvraag	o

Documenten

Er zijn nog geen items.

Betrokkenen

Id	Naam	Rol
aanvrager	aanvrager	Aanvrager

Notities

+ Toevoegen

Geschiedenis

- Taak voltooid
o 24-01-2017 16:44:40
Initialisatie
automatic-user
- Zaak gemaakt
o 24-01-2017 16:44:40

Debug toolbar

Session Selector

Debug

Session

Profile

Switch

Page Explorer

Live Log

Remove toolbar

PAGE EXPLORER ✕

Session specific tools

🔍

- ▼ OverzichtOngedierten (Page)
 - ▼ null (Container)
 - Uitleg_OngedieerteOverzicht (TextItem)
 - Toevoegen (Button)
 - ▼ OverzichtOngedierten (Container)
 - messageWrapper (Container)
 - ▶ searchContainer (Container)
 - ▼ listData (Container)
 - ▼ header (Container)
 - ▼ cell (Container)
 - GroepOngedieerte (Asset)
 - sort_%s0 (Button)
 - ▼ cell (Container)
 - SoortOngedieerte (Asset)
 - sort_%s1 (Button)
 - ▼ cell (Container)
 - GrootteOngedieerte (Asset)
 - sort_%s2 (Button)

null

Property	Value
Class	class com.aquima.interactions.co
ContainmentId	
ContentStyle	[ContentStyle 'container']
DisplayText	
ElementCount	0
Elements	
EntityInstancelId	
Focus	false
Name	
Parent	
PresentationStyles	
PropertyKeys	
ReadOnly	false
ReferenceAttribute	
RuntimeKey	[RuntimeKey P14-C0]
TypeName	
Visible	true

Debug toolbar

Session Selector

Debug

Session

Profile

Switch

Page Explorer

Live Log

Remove toolbar

DEBUG ✕

Session specific tools

Rule graph

Rule graph xml

State

Portal state xml

Page source

Page source

Main session tools

Recompose page

Recompose

View log

View log

User Interfaces

Reset UI's

Debug toolbar

Session Selector

Debug

Session

Profile

Switch

Page Explorer

Live Log

Remove toolbar

SWITCH ✕

Main session tools

Switch language

Select language

Switch theme

Select theme

- Rijksoverheid
- bootstrap3**

Debug toolbar

Session Selector

Debug

Session

Profile

Switch

Page Explorer

Live Log

Remove toolbar

LIVE LOG

```
14:14:00 .w.f.SkipVaadinMultipartFilter - Using MultipartResolver 'filterMultipartResolver' for MultipartFilter
14:14:00 .w.f.SkipVaadinMultipartFilter - Request [/Runtime/server/session/27d2c789-3899-4bd8-92d9-9e2139bdd03e/api/subscription/27d2c789-3899-4bd8-92d9-9e2139bdd03e/handleEvent] is not a multipart request
14:14:00 c.a.w.f.FilterDelegateHandler - /server/session/27d2c789-3899-4bd8-92d9-9e2139bdd03e/api/subscription/27d2c789-3899-4bd8-92d9-9e2139bdd03e/handleEvent at position 1 of 1 in additional filter delegate chain
14:14:00 c.a.w.f.FilterDelegateHandler - /server/session/27d2c789-3899-4bd8-92d9-9e2139bdd03e/api/subscription/27d2c789-3899-4bd8-92d9-9e2139bdd03e/handleEvent reached end of additional filter delegate chain; proceeding with next filter
14:14:00 c.a.w.w.CsrfInterceptor - intercepted POST /Runtime/server/session/27d2c789-3899-4bd8-92d9-9e2139bdd03e/api/subscription/27d2c789-3899-4bd8-92d9-9e2139bdd03e/handleEvent
14:14:00 c.a.w.w.CsrfInterceptor - expecting CSRF token: a015d0a7-9fba-4e83-8267-7cc5ee35433d, received CSRF token: a015d0a7-9fba-4e83-8267-7cc5ee35433d
14:14:00 c.a.w.a.c.l.SessionController - Handling event P541_Verder_1 for session 27d2c789-3899-4bd8-92d9-9e2139bdd03e
14:14:00 c.a.i.p.m.s.PortalSession - [handleEvent] Current page 'PersoonsGegevens', request action: [RequestAction submit], warnings from previous event: []
14:14:00 c.a.i.p.m.s.PortalSession - [handleFlow] System event: [ListValue type='text' size='0' values=[]] for action: [RuntimeKey P541-C2-B0]
14:14:00 c.a.i.p.m.s.PortalSession - [handleCallbacks] Invoking callback functions, before validation: true
14:14:00 c.a.i.p.m.s.PortalSession - [handleCallbacks] Invoking callback functions, before validation: false
14:14:00 c.a.i.p.m.s.PortalSession - [activateContextInstances] No instances found that need to be activated for element: [Button name=Verder event=Verder]
14:14:00 c.a.i.flow.model.NodeRegistry - [increaseLoopCount] Loop count for node '[flow=Aanvraag targets=Flow:OngediertenOpvoerenOverzicht node-id=3]' increased to 1(maximum = 50)
14:14:00 c.a.i.p.m.session.FlowHandler - [onFlowStart] Starting flow: OngediertenOpvoerenOverzicht
14:14:00 c.a.i.p.m.session.FlowHandler - [onFlowStart] Starting transaction for flow: OngediertenOpvoerenOverzicht
14:14:00 c.a.i.flow.model.NodeRegistry - [increaseLoopCount] Loop count for node '[flow=OngediertenOpvoerenOverzicht targets=Condition:EXISTS ( Ongedierte ) node-id=1]' increased to 1(maximum = 50)
14:14:00 c.a.i.flow.model.NodeRegistry - [increaseLoopCount] Loop count for node '[flow=OngediertenOpvoerenOverzicht targets=Flow:OngediertenOpvoeren node-id=5]' increased to 1(maximum = 50)
14:14:00 c.a.i.p.m.session.FlowHandler - [onFlowStart] Starting flow: OngediertenOpvoeren
14:14:00 c.a.i.p.m.session.FlowHandler - [onFlowStart] Starting transaction for flow: OngediertenOpvoeren
14:14:00 c.a.i.composer.model.Composer - [composePage] Composing page: OngediertenOpvoeren
14:14:00 c.a.i.p.m.s.ComposerHandler - [expandContainerContents] Expand for element 'Ongedierte.Groep' of type [ElementType 4 - field] failed.
com.aquima.interactions.composer.exception.ExpandException: The element reference [InlineReference definition=[FieldDefinition name=Ongedierte.Groep]] failed composition due to error.
call stack: Ongedierte.Groep(field)
  at com.aquima.interactions.composer.model.Composer.expandReference(Composer.java:207)
  at com.aquima.interactions.composer.model.Composer.expandContainerContents(Composer.java:252)
  at com.aquima.interactions.composer.model.Composer.expandContainerRef(Composer.java:508)
  at com.aquima.interactions.composer.model.Composer.expandContainerRef(Composer.java:400)
  at com.aquima.interactions.composer.model.Composer.expandReference(Composer.java:166)
  at com.aquima.interactions.composer.model.Composer.expandContainerContents(Composer.java:252)
  at com.aquima.interactions.composer.model.Composer.expandPageRef(Composer.java:538)
  at com.aquima.interactions.composer.model.Composer.expandReference(Composer.java:172)
  at com.aquima.interactions.composer.model.Composer.composePage(Composer.java:101)
  at com.aquima.interactions.portal.model.session.PortalSession.composePage(PortalSession.java:1111)
  at com.aquima.interactions.portal.model.session.PortalSession.handleFlow(PortalSession.java:625)
  at com.aquima.interactions.portal.model.session.PortalSession.handleEvent(PortalSession.java:450)
  at com.aquima.interactions.portal.portalmessage.PortalMessageSession.handleEvent(PortalMessageSession.java:137)
  at com.aquima.web.api.service.SessionService.innerHandleEvent(SessionService.java:126)
  at com.aquima.web.api.service.SessionService.handleEvent(SessionService.java:98)
```

Clear