

A photograph of two women in a blurred indoor setting. The woman on the right is holding a smartphone and looking at the screen. The woman on the left is leaning in and looking at the phone. The background is out of focus, showing warm lights and architectural elements.

# MIJN INKOMEN LATER

A woman with short dark hair and glasses is looking down at a smartphone she is holding in her hands. She is wearing a light-colored, possibly white, button-down shirt. The background is a blurred office environment with windows and a desk. The entire image has a blue color overlay.

# CUSTOMER STORY: NATIONALE-NEDERLANDEN

# ROWDY RABOUW

- > LEAD DEVELOPER NATIONALE-NEDERLANDEN PENSION APP
  - > FREELANCE WEB AND APP DEVELOPER
  - > PROGRESS DEVELOPER EXPERT FOR NATIVESCRIPT
  - > INTERNATIONAL SPEAKER
- > ORGANIZER NATIVESCRIPT DEVELOPER DAY EUROPE
  - > CURATOR NATIVESCRIPT.NL

A photograph of two young women with blonde hair sitting on a sandy beach. They are both wearing sunglasses and smiling as they look at a smartphone held by the woman on the right. The background shows a beach with some buildings and palm trees under a clear sky. The entire image has a blue color overlay.

# NATIVESCRIPT

4/71 - CUSTOMER STORY: NATIONALE-NEDERLANDEN - ROWDY RABOUW - PROGRESS INNOVATION DAY - @ROWDYRABOUW



# NATIVESCRIPT

- > OPEN SOURCE FRAMEWORK
- > BUILDING TRULY NATIVE MOBILE APPS WITH JAVASCRIPT
  - > TOGETHER WITH MARKUP (XML/HTML) AND CSS
  - > AND NATIVE CODE IF YOU WANT AND DARE
- > CROSS PLATFORM : ONE CODEBASE FOR IOS AND ANDROID

A photograph of four young women taking a selfie outdoors. The woman on the far left is holding a white smartphone. They are all smiling and looking at the camera. The background is a blurred outdoor setting, possibly a beach or park. The image has a blue tint and a semi-transparent dark blue overlay.

# NOT LIKE PHONEGAP / CORDOVA WITH IONIC

7/71 - CUSTOMER STORY: NATIONALE-NEDERLANDEN - ROWDY RABOUW - PROGRESS INNOVATION DAY - @ROWDYRABOUW

# NOT LIKE PHONEGAP / CORDOVA WITH IONIC

- > NO WEBVIEW
- > NO DOM TO MANIPULATE
- > NO HTML ELEMENTS **STYLED** LIKE NATIVE COMPONENTS
- > REAL NATIVE COMPONENTS



A photograph of four young women standing on a beach, taking a selfie together. They are all smiling and looking at a smartphone held by the woman on the left. The background shows a sandy beach and some buildings in the distance under a clear sky. The image has a blue color overlay.

# NOT LIKE XAMARIN

9/71 - CUSTOMER STORY: NATIONALE-NEDERLANDEN - ROWDY RABOUW - PROGRESS INNOVATION DAY - @ROWDYRABOUW

A photograph of four young women with long hair, smiling and taking a selfie together outdoors. They are wearing jackets, and the background is a blurred outdoor setting. The image has a blue tint and is overlaid with white text.

# NOT LIKE XAMARIN

- > NO CROSS COMPILING
- > 100% ACCESS TO NATIVE APIS WITHOUT WRITING BINDINGS
- > NO .NET OR C#

A photograph of four young women standing outdoors, looking at a tablet held by one of them. The image has a blue tint. The text 'NOT LIKE REACT NATIVE' is overlaid in large white letters.

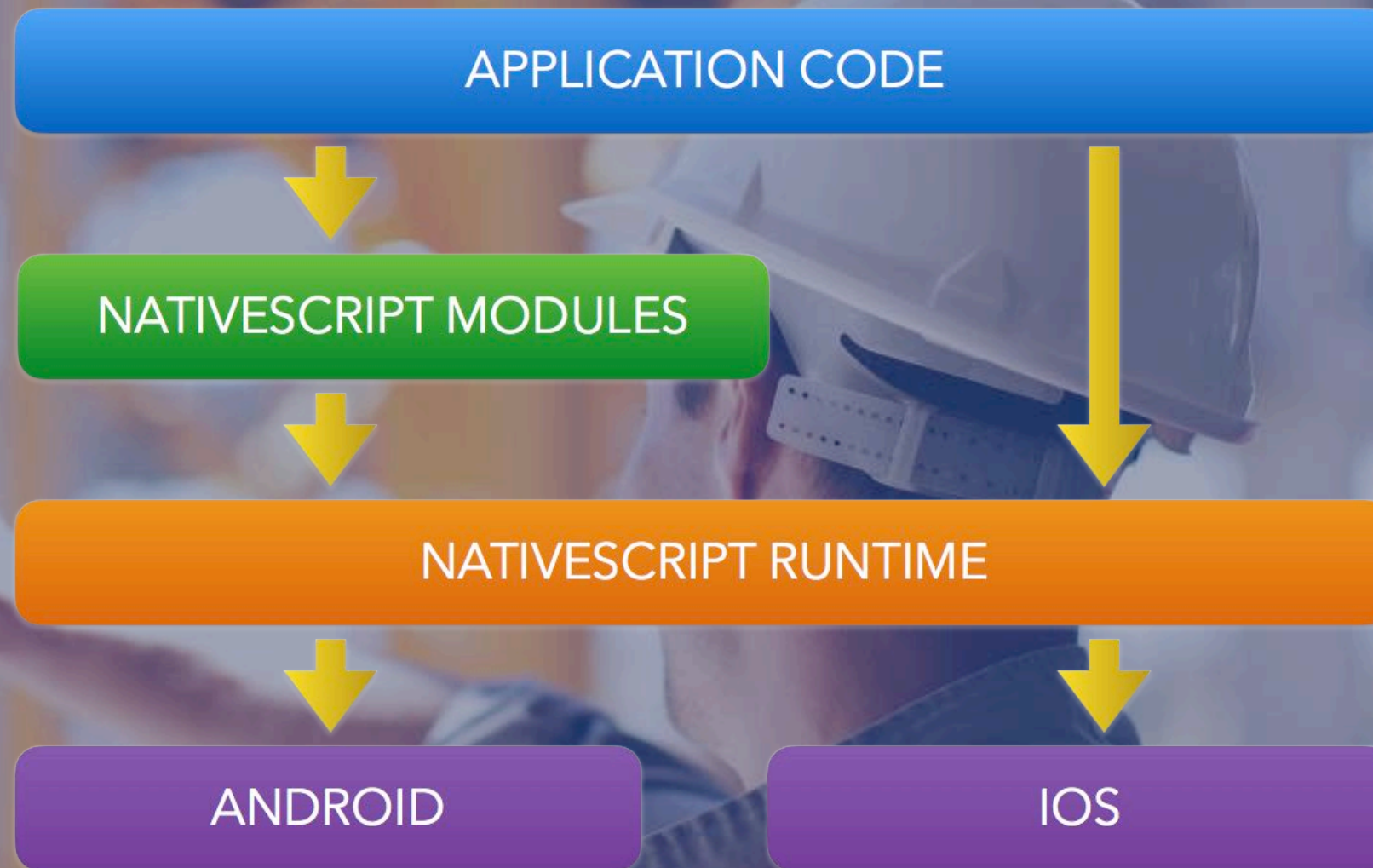
# NOT LIKE REACT NATIVE

# NOT LIKE REACT NATIVE

- > NOT BOUND TO A SPECIFIC FRAMEWORK
- > NO NEED WRITING OBJECTIVE-C, SWIFT OR JAVA
- > {N} JAVASCRIPT HAS 100% ACCESS TO NATIVE APIS
  - > MATURITY: 0.52 VS 3.4

# HOW DOES NATIVESCRIPT WORK?

# HOW DOES NATIVESCRIPT WORK?



# APPLICATION CODE

- > JAVASCRIPT CODE
- > PAGE LAYOUTS IN MARKUP
- > CSS FOR STYLING

# NATIVESCRIPT MODULES

- > **NATIVESCRIPT CORE**
  - > UI COMPONENTS
  - > FILE SYSTEM ACCESS
  - > PLATFORM INFORMATION
- > **NATIVESCRIPT PLUGINS**
  - > CAMERA
  - > BLUETOOTH
  - > FINGERPRINT AUTHENTICATION



# NATIVESCRIPT RUNTIME

- > **RUNS ON JAVASCRIPT VIRTUAL MACHINES**
  - > V8 (ANDROID)
  - > JAVASCRIPTCORE (IOS)
- > **EXECUTES C++ CODE TO INVOKE NATIVE CODE**
- > **USES REFLECTION TO GENERATE METADATA**
- > EXAMINES, INTROSPECTS, AND MODIFIES ITS OWN STRUCTURE AND BEHAVIOR AT RUNTIME
  - > NO SEPARATE BINDING LAYERS BETWEEN {N} AND EACH MOBILE PLATFORM API
    - > NEW FEATURES ARE AVAILABLE IMMEDIATELY

A man and a woman are on a wooden deck. The man is standing and holding the woman, who is lying in a red hammock. The background shows a body of water and trees. The entire image is overlaid with a blue gradient. The word "JAVASCRIPT" is written in large, white, bold, sans-serif capital letters across the center of the image.

# JAVASCRIPT

18/71 - CUSTOMER STORY: NATIONALE-NEDERLANDEN - ROWDY RABOUW - PROGRESS INNOVATION DAY - @ROWDYRABOUW

# JAVASCRIPT

**JS**

# JAVASCRIPT

**JS**

**TS**

# JAVASCRIPT

**JS**

**TS**



# JAVASCRIPT

**JS**

**TS**



# MIJN.PENSIOEN



**mijn.pensioen**



# MIJN PENSIOENCOACH



# CALCULATION OBJECTS

- > PENSION APP CALCULATION ENGINE (PACE)
- > PENSION ADVISORY CALCULATION ENGINE (PEACE)
- > FAMILY PENSION PLAN (FPP)
- > DOELINKOMEN ADVISEUR (DIA)

2015

EXTERNAL PARTNER

NATIVE

IOS + ANDROID

OBJECTIVE-C + JAVA

NATIVE PERFORMANCE

UNHAPPY WITH THE PROGRESS

# PROOF OF CONCEPT

02-22 17:36:39.056998097 -0700

/kernel/slab/dax\_cache/trace'

Blocks: 0 IO Block: 4096 regular file  
Inode: 8086 Links: 1  
Uid: ( 0/ root) Gid: ( 0/ root)

02-22 17:36:41.505507144 -0700  
02-22 17:36:41.505507144 -0700  
02-22 17:36:41.505507144 -0700

/sys/module/snd\_hda\_core/sections/.note.gnu.build-id'  
Blocks: 0 IO Block: 4096 regular file  
Inode: 22822 Links: 1  
Uid: ( 0/ root) Gid: ( 0/ root)

18-02-22 17:40:18.050778293 -0700  
18-02-22 17:40:18.050778293 -0700  
18-02-22 17:40:18.050778293 -0700

/sys/devices/pci0000:00/0000:00:1a.0/usb1/1-0:1.0/usb1-port1/uevent'  
Blocks: 0 IO Block: 4096 regular file  
Inode: 14880 Links: 1  
Uid: ( 0/ root) Gid: ( 0/ root)

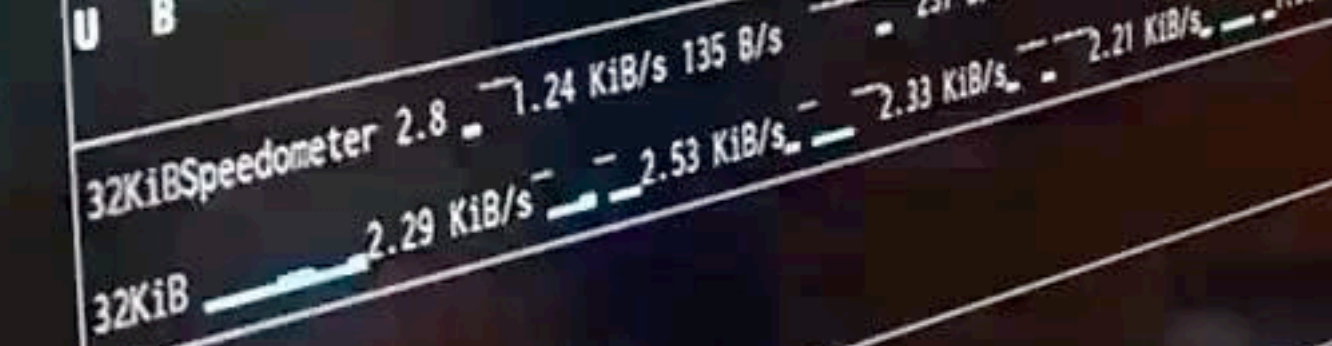
30/71 CUSTOMER STORY: NATIONALE-NEDERLANDEN - ROWDY RABOUW - PROGRESS INNOVATION DAY - @ROWDYRABOUW

dxx:  
col:

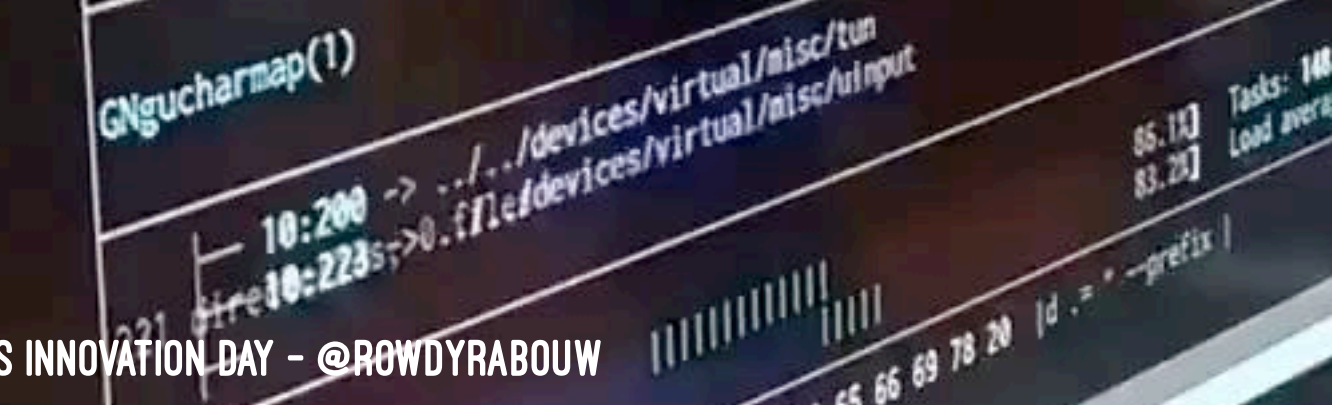
EBFONT 59 Bad font file format  
EKEYREVOKED 128 Key has been revoked

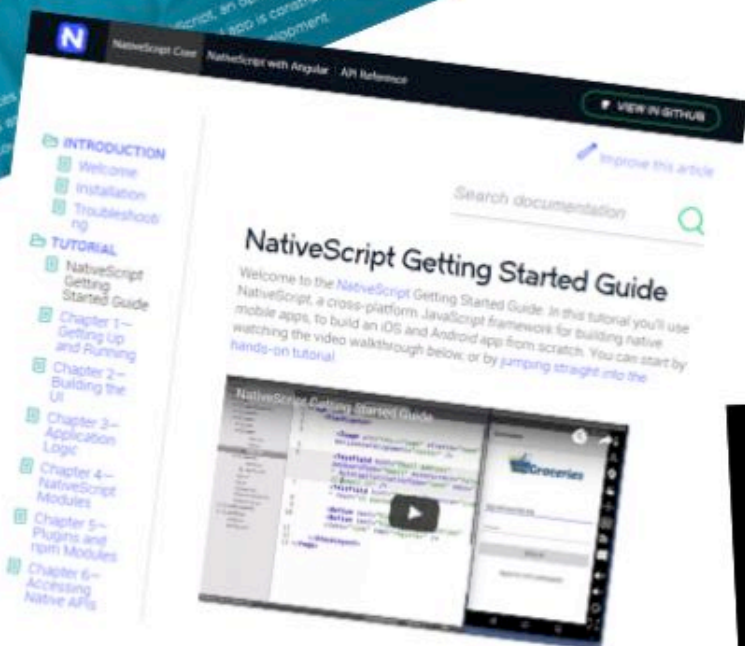
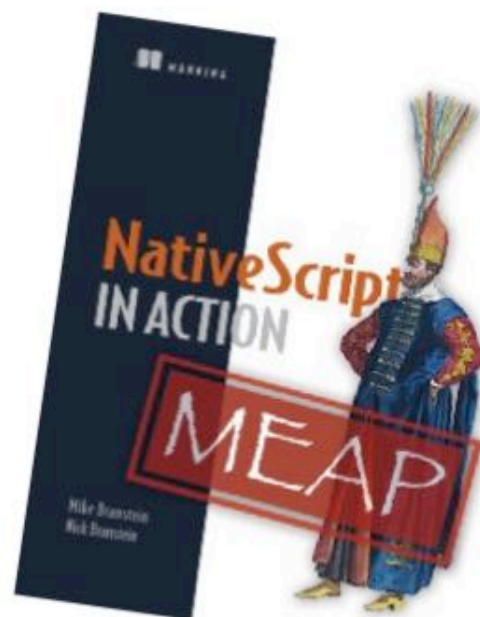
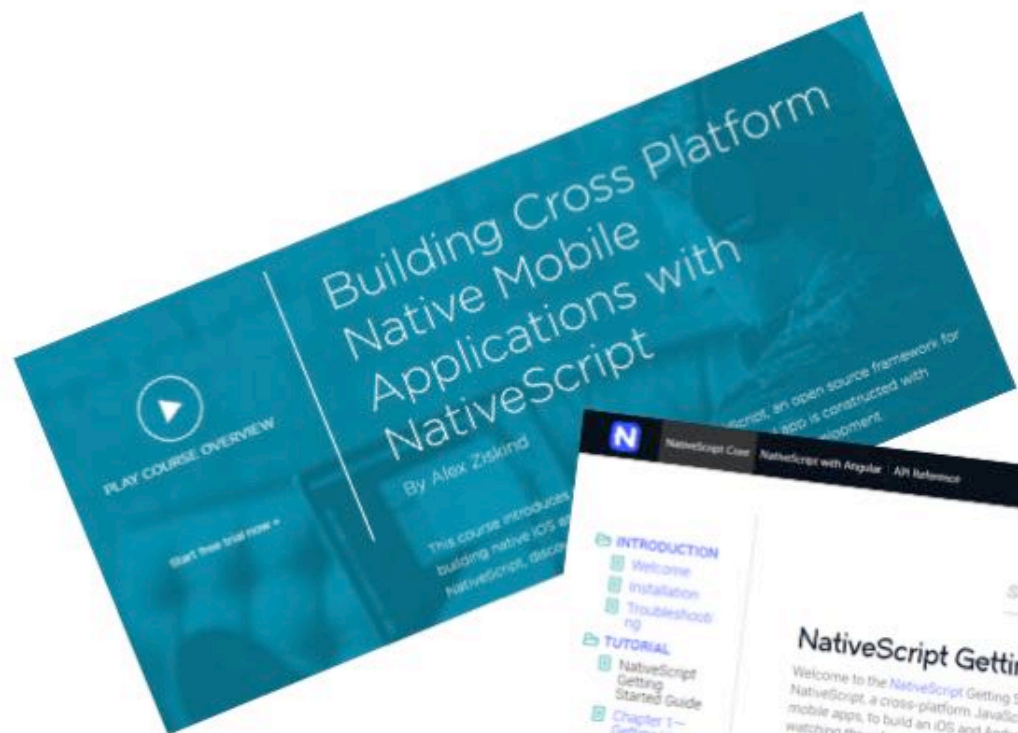
Feb 20 00:34:26 JombiMint kernel: [18001.264416] supboot: CPU 2 is now offline  
Feb 20 00:34:26 JombiMint kernel: [18001.287226] Broke affinity for irq 1  
Feb 19 15:06:20 JombiMint NetworkManager[841] ...

Floating point exception= w: 0 R ] I U 2 \* / e 4 X  
U B F S C L \* N E c - eFloating point exception



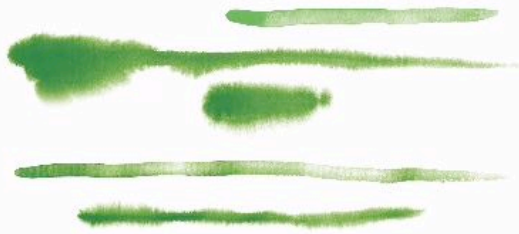
GNgucharmap(1)







## Jouw Inkomen Later



Welkom in de iOS versie!

Profiel

Gewenst inkomen voor later

Importeren

Taalinstelling

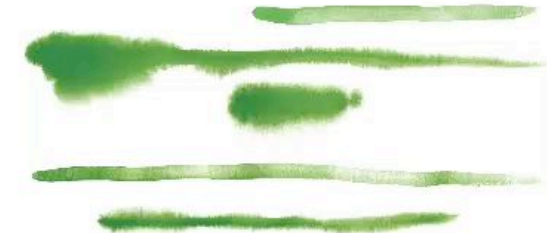
Disclaimer

Tour



11:33

## Jouw Inkomen Later



Welkom in de Android versie!

PROFIEL

GEWENST INKOMEN VOOR LATER

PENSIOENEN

TAALINSTELLING

DISCLAIMER





# ANGULAR

- > OPINIONATED FRAMEWORK
  - > OBJECT ORIENTED
  - > TYPESCRIPT
- > FULL-FEATURED ROUTING
- > DEPENDENCY INJECTION
- > DATA BINDING

# CALCULATION OBJECTS → TYPESCRIPT

- > PENSION APP CALCULATION ENGINE (PACE)
- > ~~PENSION ADVISORY CALCULATION ENGINE (PEACE)~~
- > FAMILY PENSION PLAN (FPP)
- > DOELINKOMEN ADVISEUR (DIA)

# CALCULATION OBJECTS → TYPESCRIPT

- > BELASTINGDIENST
- > CALCULATOR
- > DATABASE (JSON IPV SQLITE)
- > HELPER / LOGGER
- > NNVERZEKERAAR
- > SOCIALEVERZEKERINGSBANK

# DATASERVICE

- > INSTANTIATE CALCULATION OBJECTS
- > CALL CALCULATION OBJECTS METHODS
- > GET AND SET SETTINGS LIKE LANGUAGE
  - > LOAD JSON DATABASE (TAFFYDB)
- > ENCRYPT AND SAVE SENSITIVE USER INPUT

# VALIDATION SERVICE

- > RANGES FOR SPINNERS
- > MAXIMUM LENGTH FOR INPUTS
- > VALIDATE INPUT FIELDS
- > MINIMUM AND MAXIMUM VALUES FOR SLIDERS

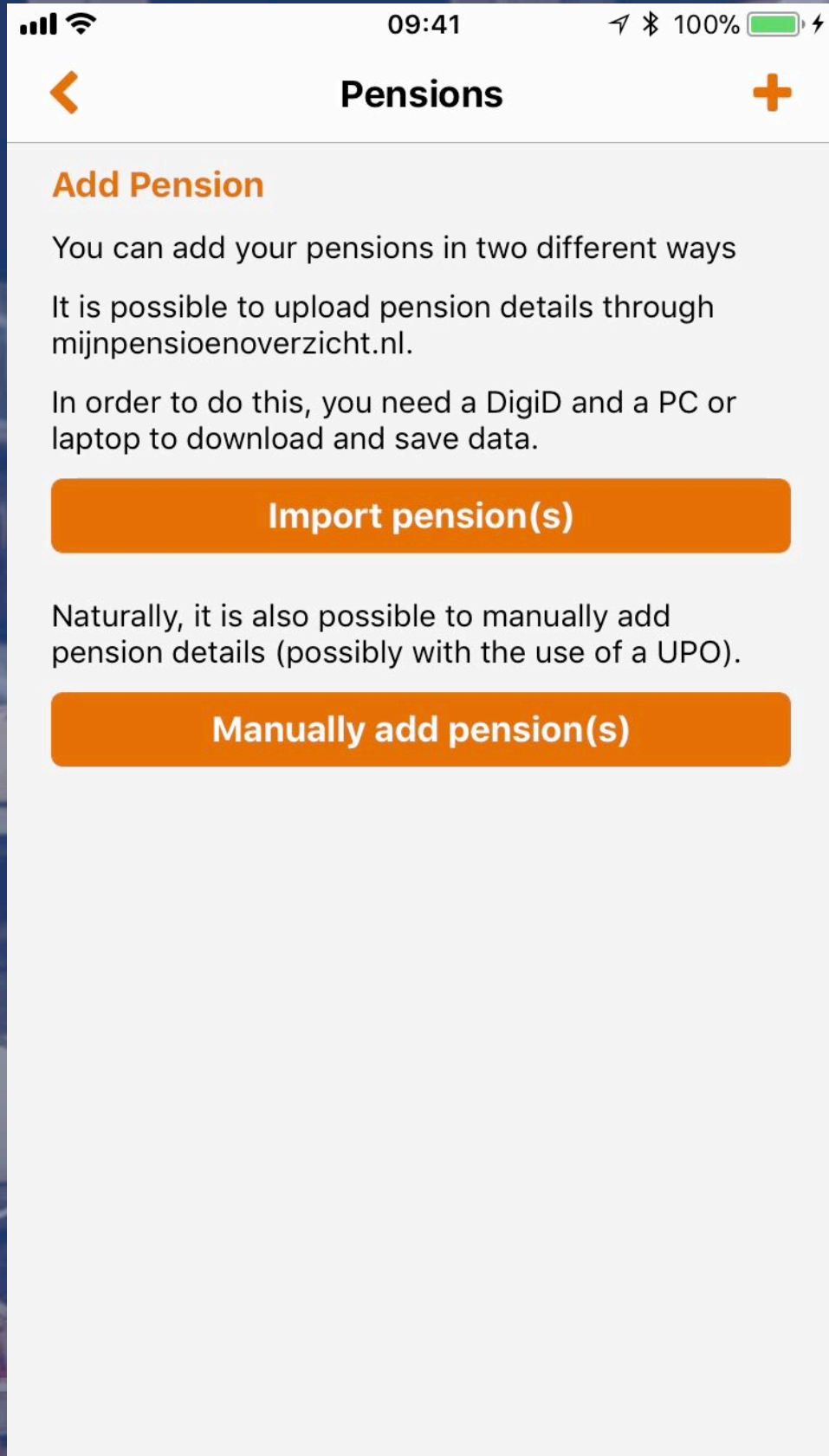
# VALIDATION SERVICE

```
"BeleggenRendementPercentage": {  
  "type": "number",  
  "required": true,  
  "minimum": 0,  
  "maximum": 15,  
  "steps": 0.05,  
  "digits": true  
},  
"WerkurenHuidig": {  
  "type": "number",  
  "minimum": 0,  
  "maximum": 48  
}
```

# NATIVESCRIPT PLUGINS

- > NATIVESCRIPT-BARCODESCANNER
- > NATIVESCRIPT-CAROUSEL
- > NATIVESCRIPT-TOAST
- > NATIVESCRIPT-TELERIK-UI
- > NATIVESCRIPT-EMAIL
- > NATIVESCRIPT-PLUGIN-FIREBASE





📶 09:41 100% 🔋

⏪ Pensions ⏩

### Add Pension

You can add your pensions in two different ways

It is possible to upload pension details through [mijnpensioenoverzicht.nl](https://mijnpensioenoverzicht.nl).

In order to do this, you need a DigiD and a PC or laptop to download and save data.

**Import pension(s)**

Naturally, it is also possible to manually add pension details (possibly with the use of a UPO).

**Manually add pension(s)**

A person wearing a grey t-shirt and a denim apron is working in a workshop. They are leaning over a table, cutting a piece of dark fabric with a pair of scissors. The workshop is filled with various items, including rolls of fabric, boxes, and other materials. The background is slightly blurred, showing more of the workshop environment.

**MONDRIAN ?**

**PIEKENPIJP ?**

Telfort NL 13:26

### pensioen Natascha

Mijn gewenste pensioenleeftijd

67 en 0 maand



Doel € 2.415

+ Keuzes voor later


+ Pensioen toevoegen

- AOW

€ 1.278 netto per maand

 **Mijn inkomen later** 



Netto per maand: € 4.567 >


**63<sup>9</sup>** **Mijn gewenste pensioenleeftijd is 63 jaar en 9 maanden** 



Netto per maand: € 2.567 >

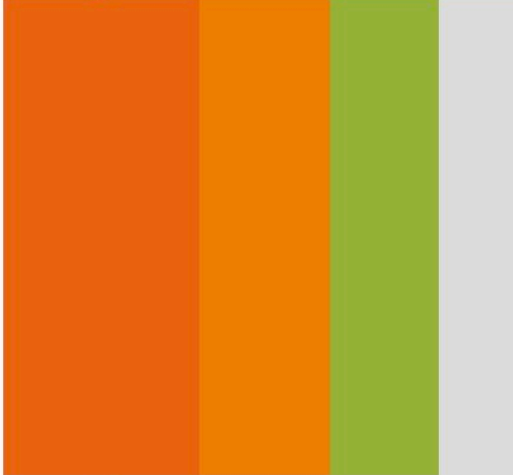
**67<sup>3</sup>** **Mijn AOW leeftijd is 67 jaar en 3 maanden. AOW wordt door de overheid uitgekeerd.**



Netto per maand: € 2.987 >

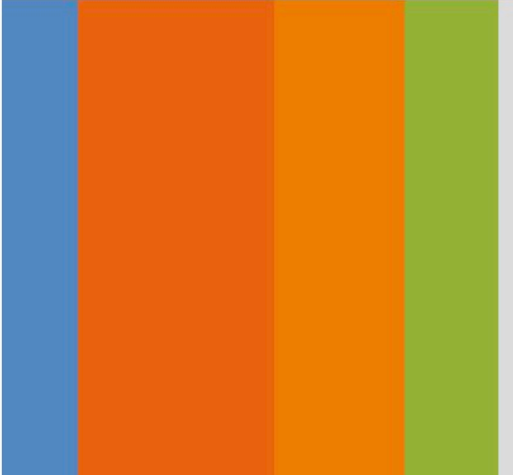
 **Mijn inkomen later** 



**63<sup>9</sup>**  Mijn gewenste pensioenleeftijd. Dan stop ik met werken en mijn pensioen(en) gaan uitkeren. 

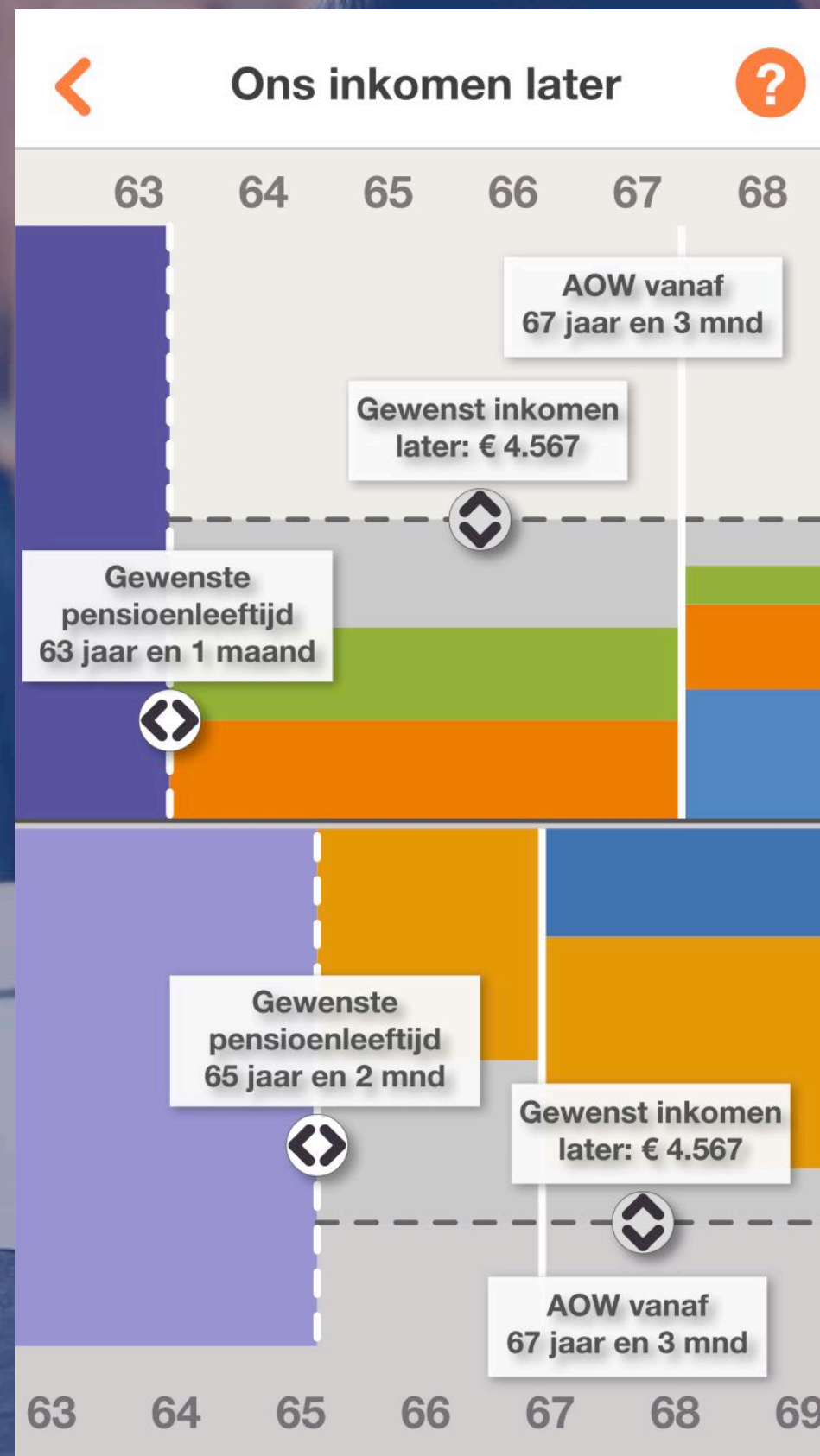


**67<sup>3</sup>**  Mijn huidige AOW-leeftijd is 67 jaar en 3 maanden. U krijgt AOW pensioen van de overheid. 

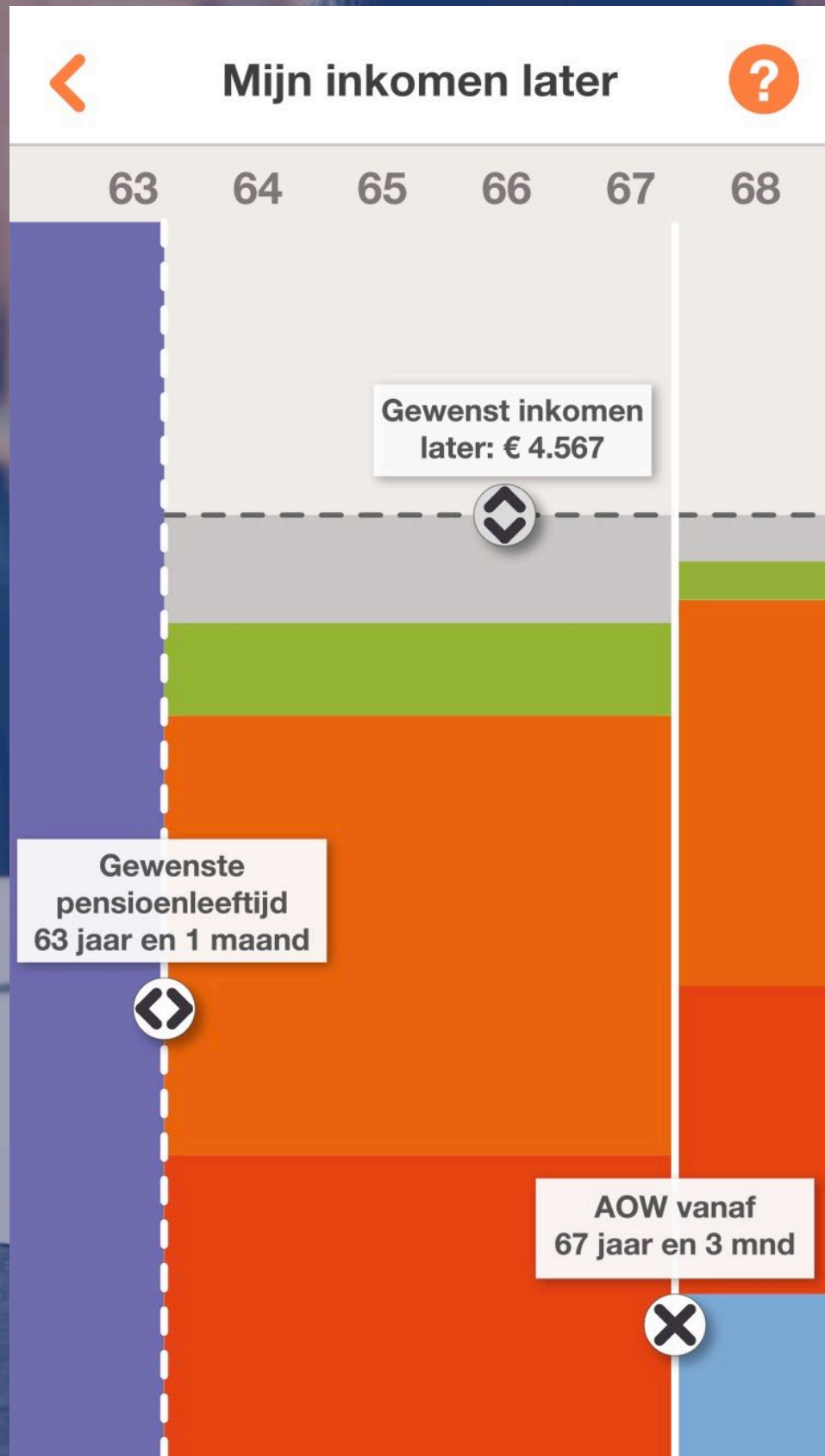






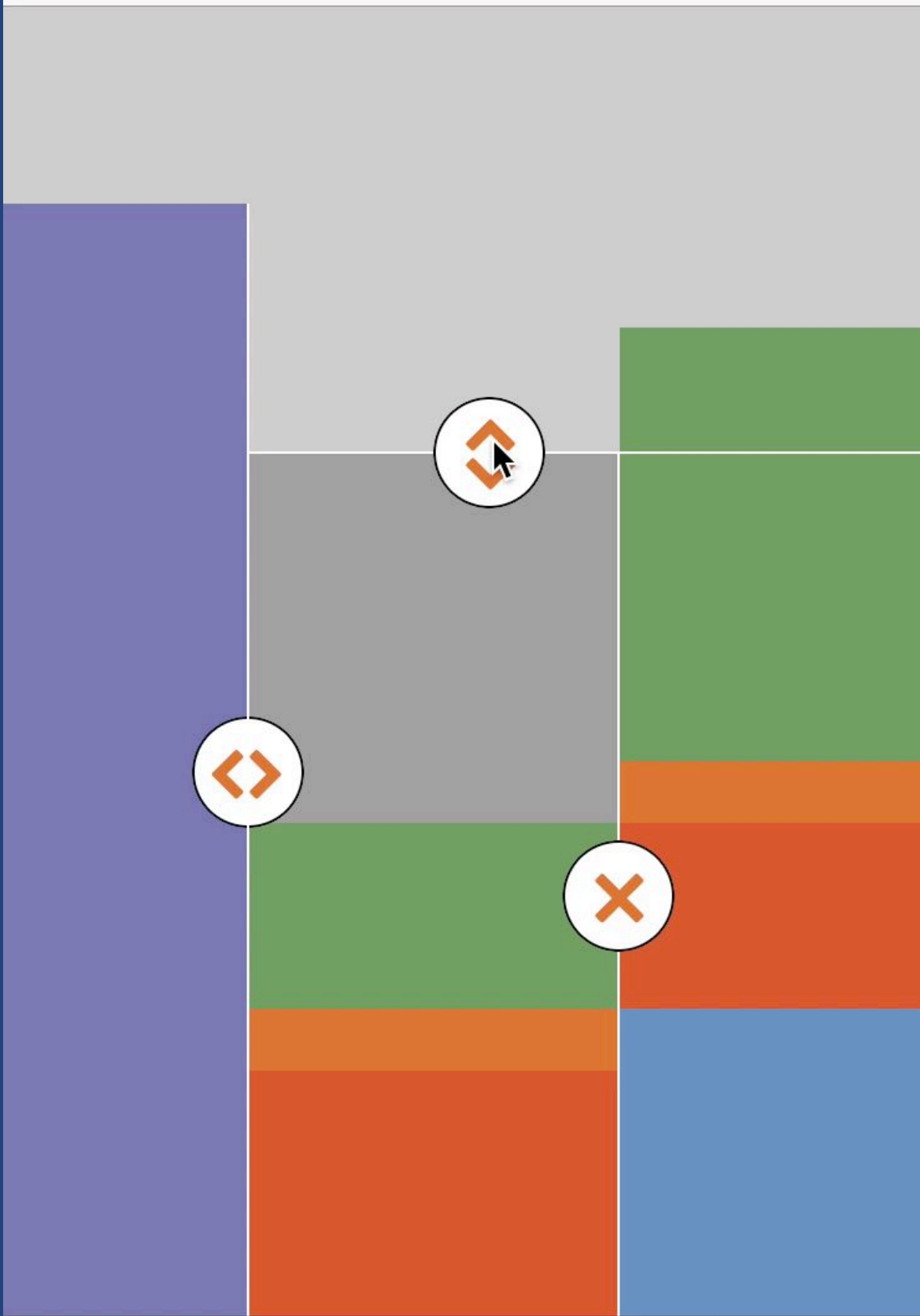








# Graph POC



# Welcome



Home

Pension overview

Pension overview Rosita

rowdy

Rosita

Pensions

Choices for later

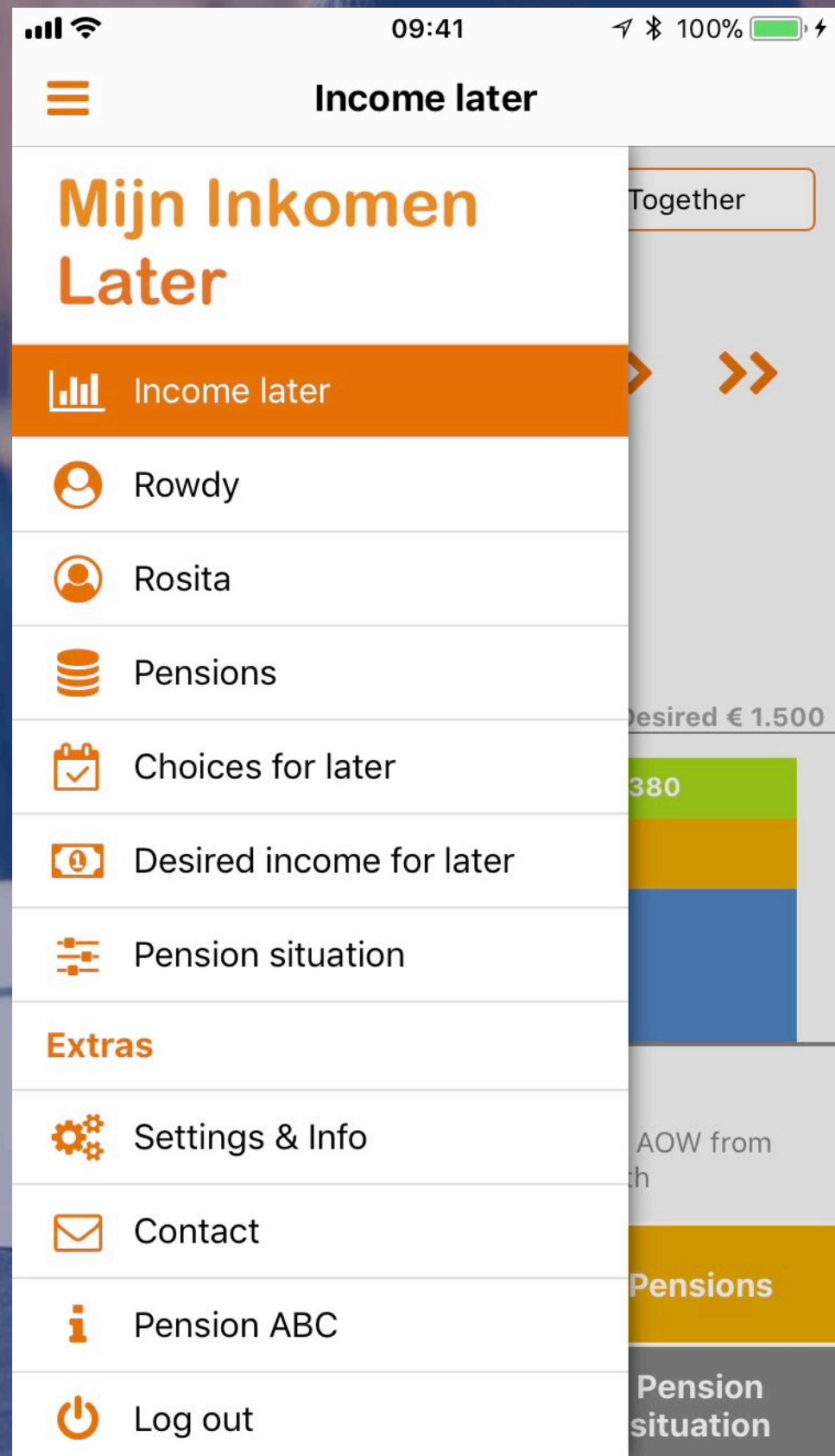
Desired income for later

### Account

Settings

### Extras

Pension clarification

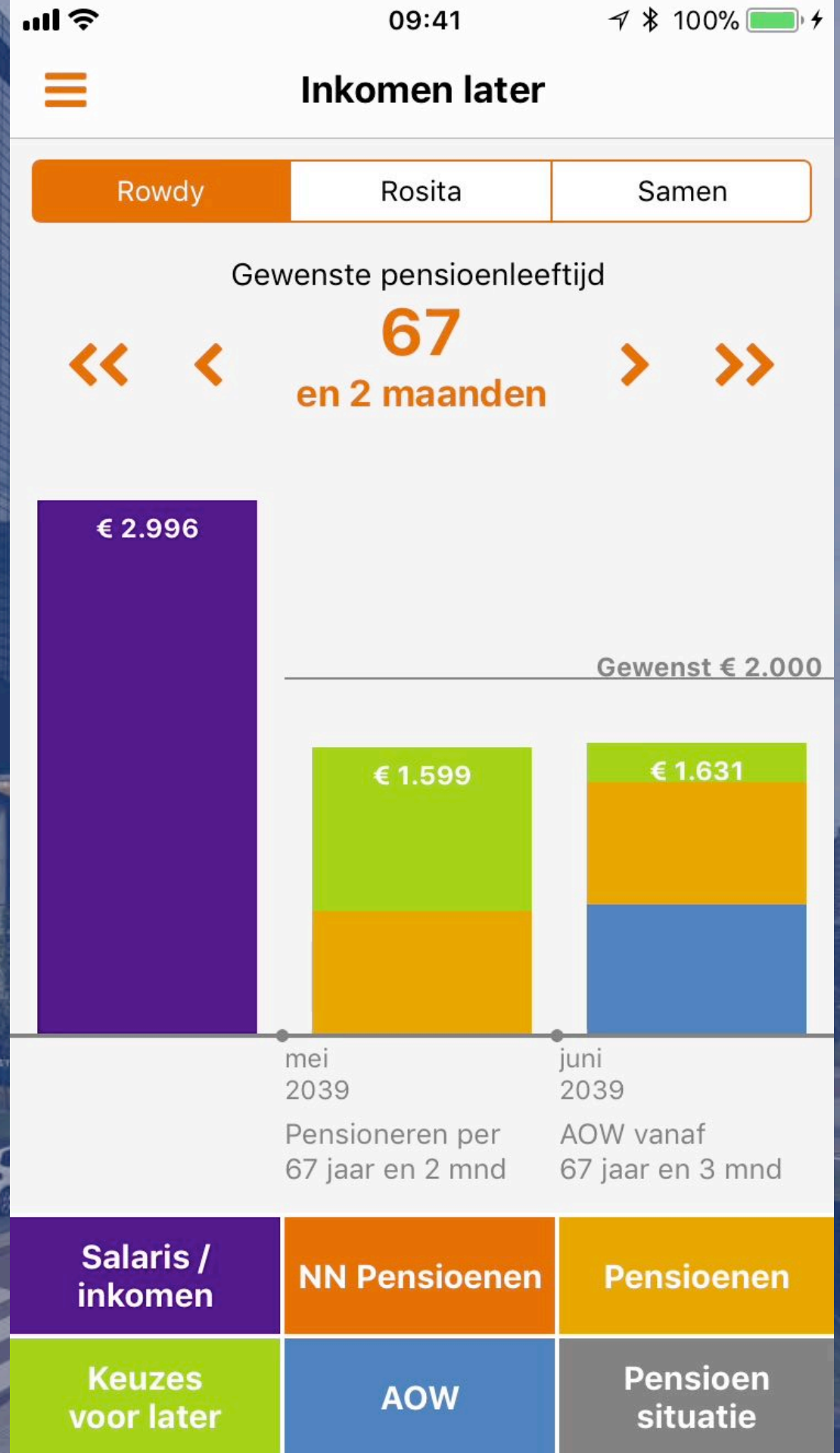


# MULTILINGUAL WITH NGX-TRANSLATE

- > INTERNATIONALIZATION LIBRARY FOR ANGULAR 2+
- > DEFINE TRANSLATIONS IN DIFFERENT LANGUAGES
  - > SWITCH BETWEEN THEM EASILY
- > NO HARDCODED TEXT / LABELS - ALL IN ONE PLACE
  - > START DIRECTLY - EVEN WITH ONE LANGUAGE

# NL.JSON

```
{  
  "GRAPH": {  
    "PAGETITLE": "Inkomen later",  
    "HDRTXT": "Gewenste pensioenleeftijd",  
    "BTN_01": "Salaris / inkomen",  
    "BTN_02": "NN Pensioenen",  
    "BTN_03": "Pensioenen",  
    "BTN_04": "Keuzes voor later",  
    "BTN_05": "AOW",  
    "BTN_06": "Pensioen situatie"  
  }  
}
```

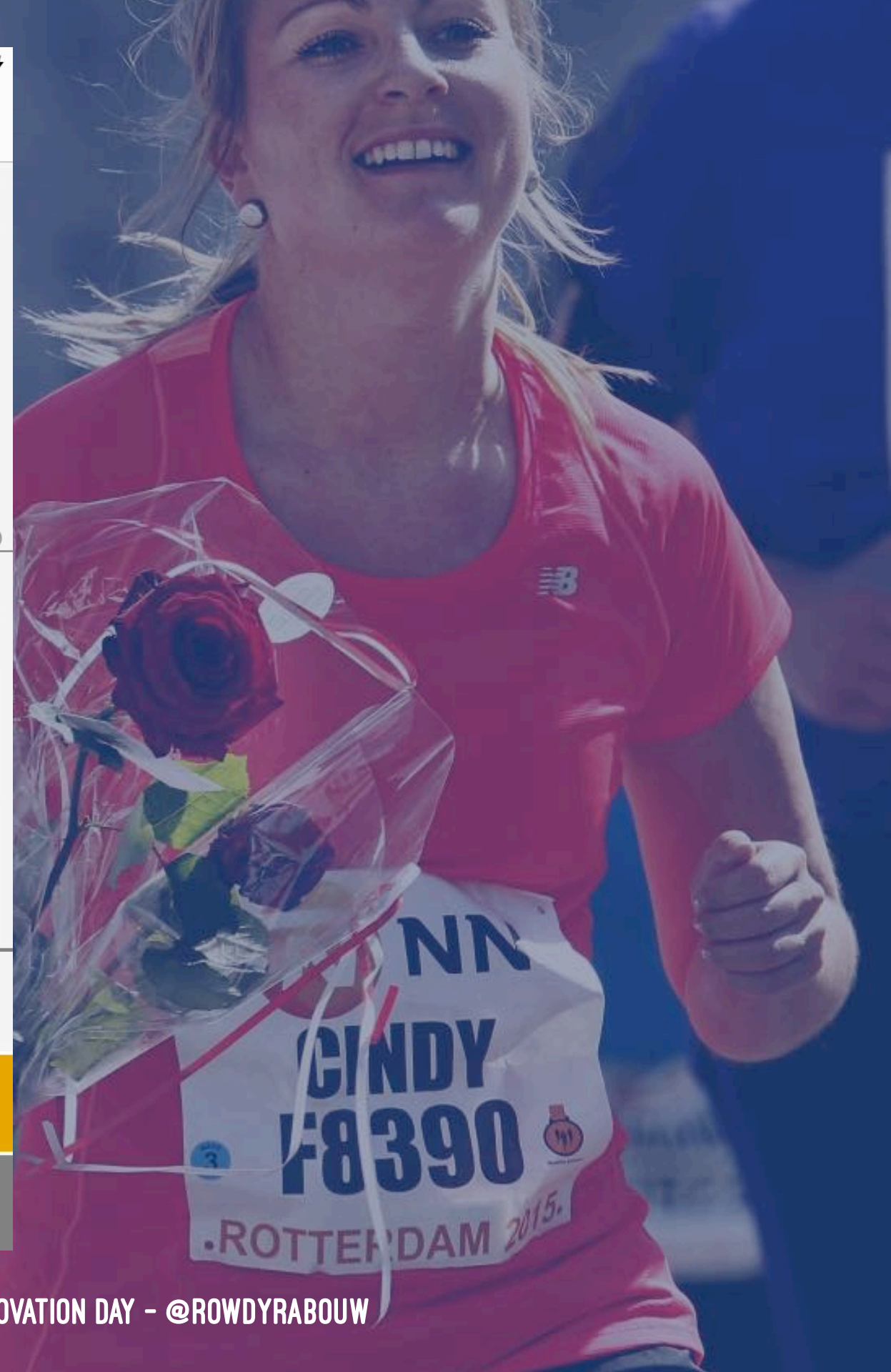
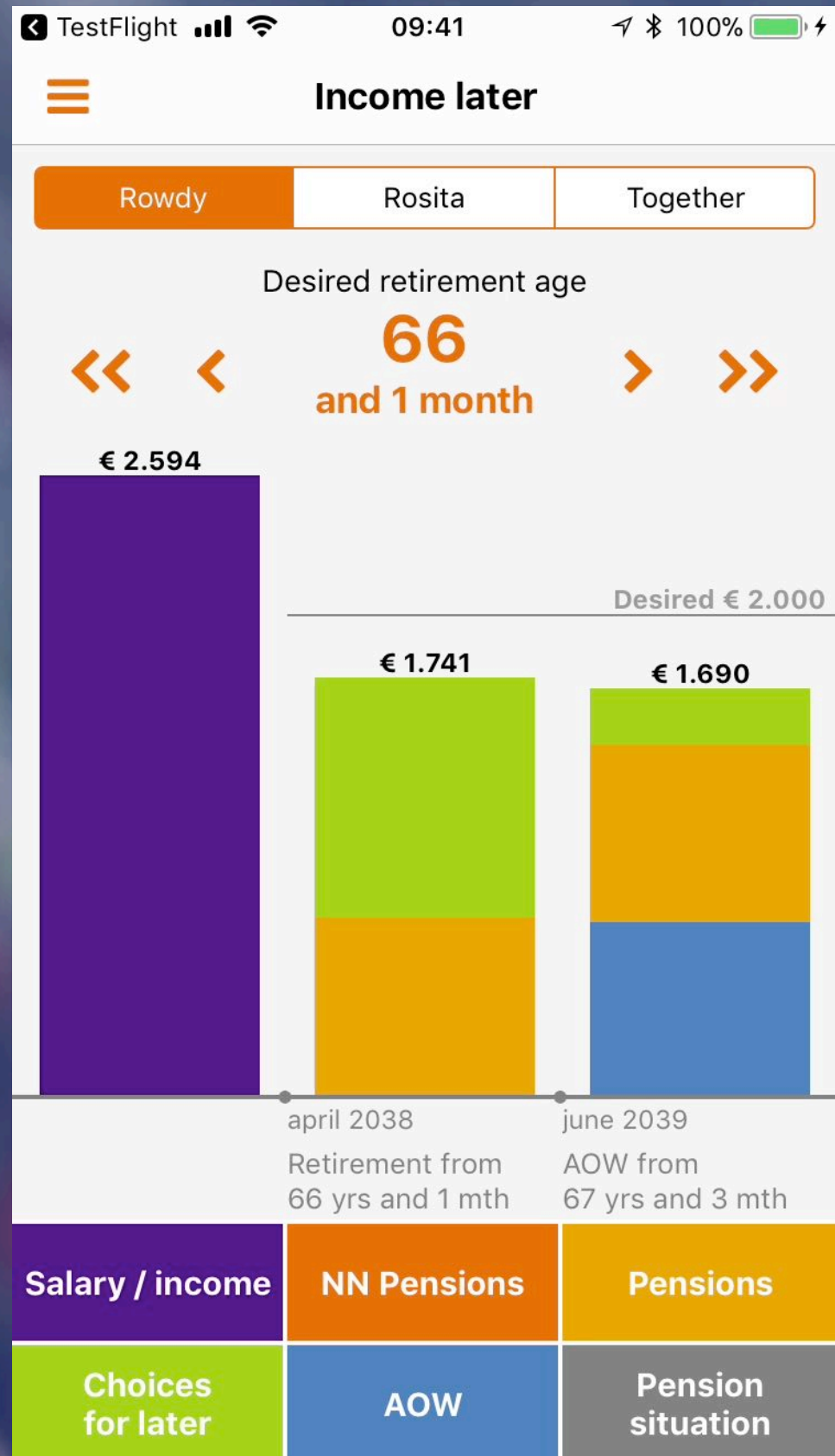


# EN.JSON

```
{  
  "GRAPH": {  
    "PAGETITLE": "Income later",  
    "HDRTXT": "Desired retirement age",  
    "BTN_01": "Salary / income",  
    "BTN_02": "NN Pensions",  
    "BTN_03": "Pensions",  
    "BTN_04": "Choices for later",  
    "BTN_05": "AOW",  
    "BTN_06": "Pension situation"  
  }  
}
```



# NOT ALL ROSES





# NOT ALL ROSES: SLIDERS

```
<Slider  
  minValue="0"  
  maxValue="100"  
  value="40"  
  (valueChange)="onSliderValueChange($event)">  
</Slider>
```

# NOT ALL ROSES: SLIDERS

```
<Slider  
  minValue="{{minSliderSparen}}"  
  maxValue="{{maxSliderSparen}}"  
  [(ngModel)]="extraSparenInlegPerMaand"  
  (valueChange)="onSparenSliderValueChange($event)">  
</Slider>
```

# NOT ALL ROSES: SLIDERS

```
<Slider #sparenSlider  
  minValue="{{minSliderSparen}}"  
  maxValue="{{maxSliderSparen}}"  
  [(ngModel)]="extraSparenInlegPerMaand">  
</Slider>
```

# NOT ALL ROSES: SLIDERS

```
@ViewChild("sparenSlider") sparenSlider: ElementRef;

ngOnInit() {
  this.sparenSlider.nativeElement.addEventListener("valueChange",
    (args: PropertyChangeData) => {
      this.debouncerSparen.next(args);
    });

  this.debouncerSparen.debounceTime(150).subscribe(args => {
    this.sparenSliderChanged(args);
  });
}
```

# NOT ALL ROSES: SLIDERS

```
sparenSliderChanged(args: PropertyChangeData) {  
    this.extraSparenInlegPerMaand = Math.round(args.value);  
    this.removeAllEventListeners();  
  
    ....  
  
    // calculate and set all values for 5 sliders  
  
    ....  
  
    this._changeDetectorRef.detectChanges();  
    this.addAllEventListeners();  
}
```



AFV

# NOT ALL ROSES: ANGULAR & PERFORMANCE

- > LAZY LOADING
- > WEBPACK & UGLIFY
- > FASTER START-UP TIME (12 SECONDS → 3 SECONDS)
  - > SMALLER APP BUNDLE (IOS 114 MB → 42 MB)

AFV

A young child with dark hair, wearing a pink polo shirt, is sitting in a shopping cart in a grocery store aisle. The child is holding a jar of jam up to their face, looking at it with a smile. The background shows shelves stocked with various products, and another person is visible in the distance. The entire image has a blue tint.

# UPDATES



# UPDATES

- > NATIVESCRIPT CLI
- > NATIVESCRIPT CORE MODULES
  - > XCODE
  - > PLUGINS

# UPDATES: PLUGINS

## PACKAGE.JSON

```
"dependencies": {  
  "nativescript-angular": "~4.4.1",  
  "nativescript-barcodescanner": "^2.7.0"  
}
```

## SEMANTIC VERSIONING: MAJOR.MINOR.PATCH

# UPDATES: PLUGINS

TILDE VS 🥕

~4.4.1 >= 4.4.1 < 4.5.0

^2.7.0 >= 2.7.0 < 3.0.0

# UPDATES: PLUGINS

## PACKAGE.JSON

```
"dependencies": {  
  "nativescript-angular": "4.4.1",  
  "nativescript-barcodescanner": "2.7.0"  
}
```

[SIBBELL.COM](http://SIBBELL.COM)

2015

EXTERNAL PARTNER

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IOS + ANDROID

OBJECTIVE-C + JAVA

NATIVE PERFORMANCE

UNHAPPY WITH THE PROGRESS

2018

IN-HOUSE TEAM

NATIVESCRIPT

CROSS-PLATFORM

WEB TECHNOLOGIES

NATIVE PERFORMANCE

2015

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2018

IN-HOUSE TEAM

NATIVESCRIPT

CROSS-PLATFORM

WEB TECHNOLOGIES

NATIVE PERFORMANCE

HAPPY WITH **PROGRESS**



**THANK YOU**

**2XR.NL/NN**