

RESPONSIVE LAYOUTS **WITH VAADIN AND SASS**

Jouni Koivuviita, Vaadin

GWT.create EU, Frankfurt am Main, 18.12.2013

WHAT WE NEED
FOR THIS WORKSHOP

WORKSPACE

WORKSPACE

- Eclipse / your preferred IDE

WORKSPACE

- Eclipse / your preferred IDE
 - Vaadin Plug-in for Eclipse

WORKSPACE

- Eclipse / your preferred IDE
 - Vaadin Plug-in for Eclipse
 - Tomcat / your preferred app server

WORKSPACE

- Eclipse / your preferred IDE
 - Vaadin Plug-in for Eclipse
 - Tomcat / your preferred app server
- Vaadin 7 (use Ivy or Maven)

WORKSPACE

- Eclipse / your preferred IDE
 - Vaadin Plug-in for Eclipse
 - Tomcat / your preferred app server
- Vaadin 7 (use Ivy or Maven)
 - Vaadin Responsive add-on

WORKSPACE

- ▶ Eclipse / your preferred IDE
 - ▶ Vaadin Plug-in for Eclipse
 - ▶ Tomcat / your preferred app server
- ▶ Vaadin 7 (use Ivy or Maven)
 - ▶ Vaadin Responsive add-on
- ▶ Starting point from <https://github.com/jounik/GWT.create-workshop>

RESPONSIVE **DESIGN**

CURRENTLY
MOSTLY THIS



CONSIDER
ALSO

CONSIDER
ALSO

- ▶ Viewport/container height

CONSIDER **ALSO**

- ▶ Viewport/container height
- ▶ Screen DPI

CONSIDER **ALSO**

- ▶ Viewport/container height
- ▶ Screen DPI
- ▶ Input device

CONSIDER **ALSO**

- ▶ Viewport/container height
- ▶ Screen DPI
- ▶ Input device
- ▶ Bandwidth

CONSIDER **ALSO**

- ▶ Viewport/container height
- ▶ Screen DPI
- ▶ Input device
- ▶ Bandwidth
- ▶ Ambient luminosity

IN THIS WORKSHOP
WE ONLY CONSIDER
THE WIDTH

TOOLS & **TECHNIQUES**

MAKE IT RESPONSIVE

MAKE IT RESPONSIVE

- ▶ CSS Media Queries

MAKE IT RESPONSIVE

- ▶ CSS Media Queries
- ▶ JavaScript polyfills for “element queries”

MAKE IT RESPONSIVE

- ▶ CSS Media Queries
- ▶ JavaScript polyfills for “element queries”
 - ▶ Vaadin Responsive add-on

MAKE IT RESPONSIVE

- ▶ CSS Media Queries
- ▶ JavaScript polyfills for “element queries”
 - ▶ Vaadin Responsive add-on
- ▶ Server-side stylesheet & stylename switching

MAKE IT RESPONSIVE

- ▶ CSS Media Queries
- ▶ JavaScript polyfills for “element queries”
 - ▶ Vaadin Responsive add-on
- ▶ Server-side stylesheet & stylename switching
- ▶ Viewport meta tags

MEDIA QUERIES

Can only respond to the width of the viewport, not individual elements changing size.

Supported by all major browsers, desktop and mobile. Internet Explorer 9 is the baseline.

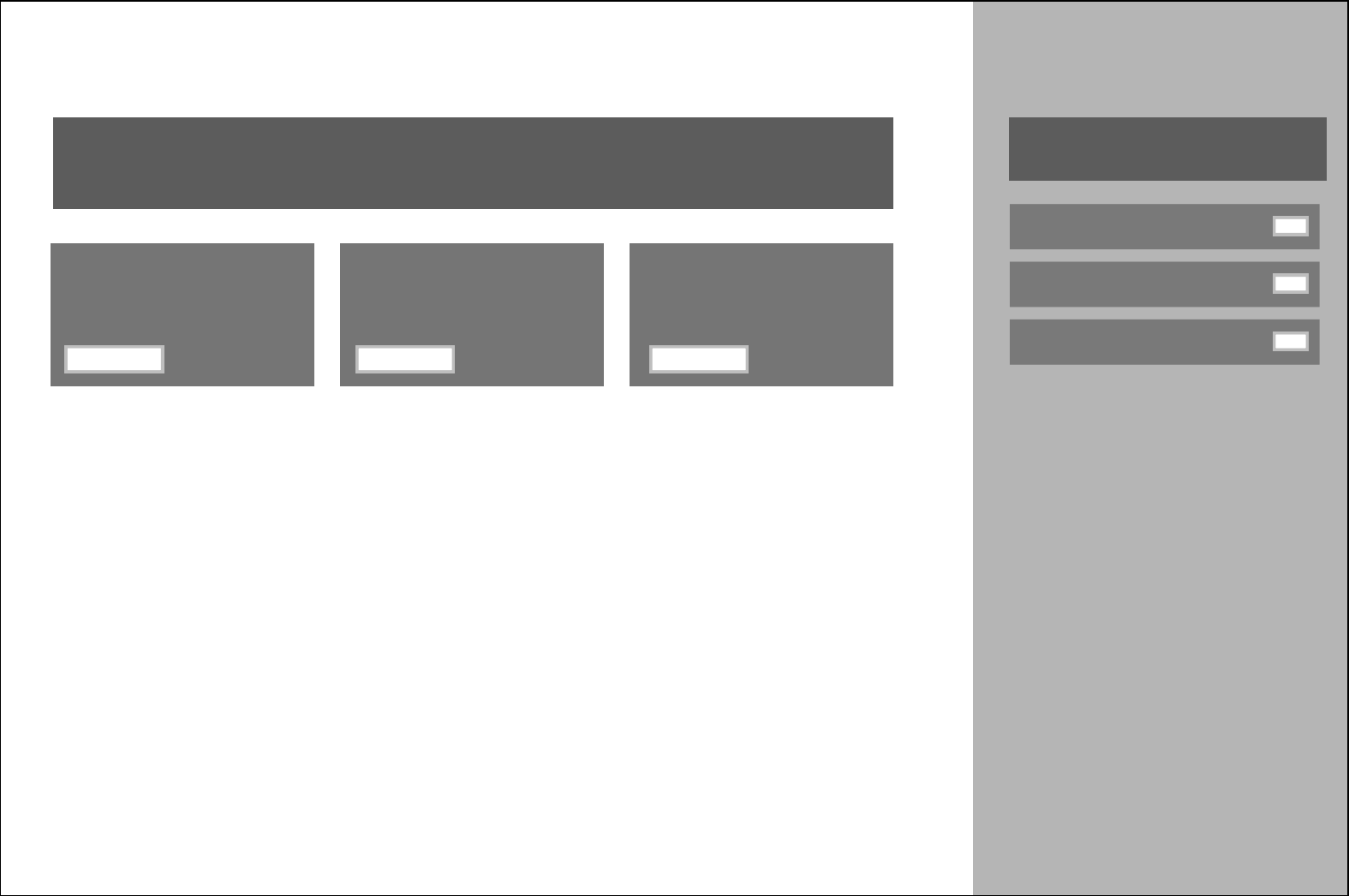
MEDIA QUERIES

```
@media only screen and (max-width: 1234px) {  
  .selector {  
    property: value;  
  }  
}
```

VAADIN RESPONSIVE

- Vaadin add-on/polyfill for element queries
- Can respond to any Vaadin widget's size changes
 - Uses ElementResizeListeners under the hood
- Works on all browsers Vaadin 7 supports, including IE8
- You can find it in the Vaadin Directory:
 - vaadin.com/addon/vaadin-responsive

ELEMENT QUERIES



VAADIN RESPONSIVE

```
new Responsive(component);
```

```
.v-component[width-range~="0-1234px"] {  
  .selector {  
    property: value;  
  }  
}
```

VIEWPORT META TAGS

Mobile browsers usually render the page into a larger canvas (on iOS 980px), and then scale it down to fit the actual viewport size.

You can adjust this with the viewport meta tag.

- ▶ Customizing the startup page in an app

VIEWPORT META TAGS

```
<meta name="viewport"  
      content="width=device-width,  
              initial-scale=1">
```


THE LAYOUT
BEGINS



NEW **REQUIREMENTS**





WE NEED MORE
RESPONSIVENESS



