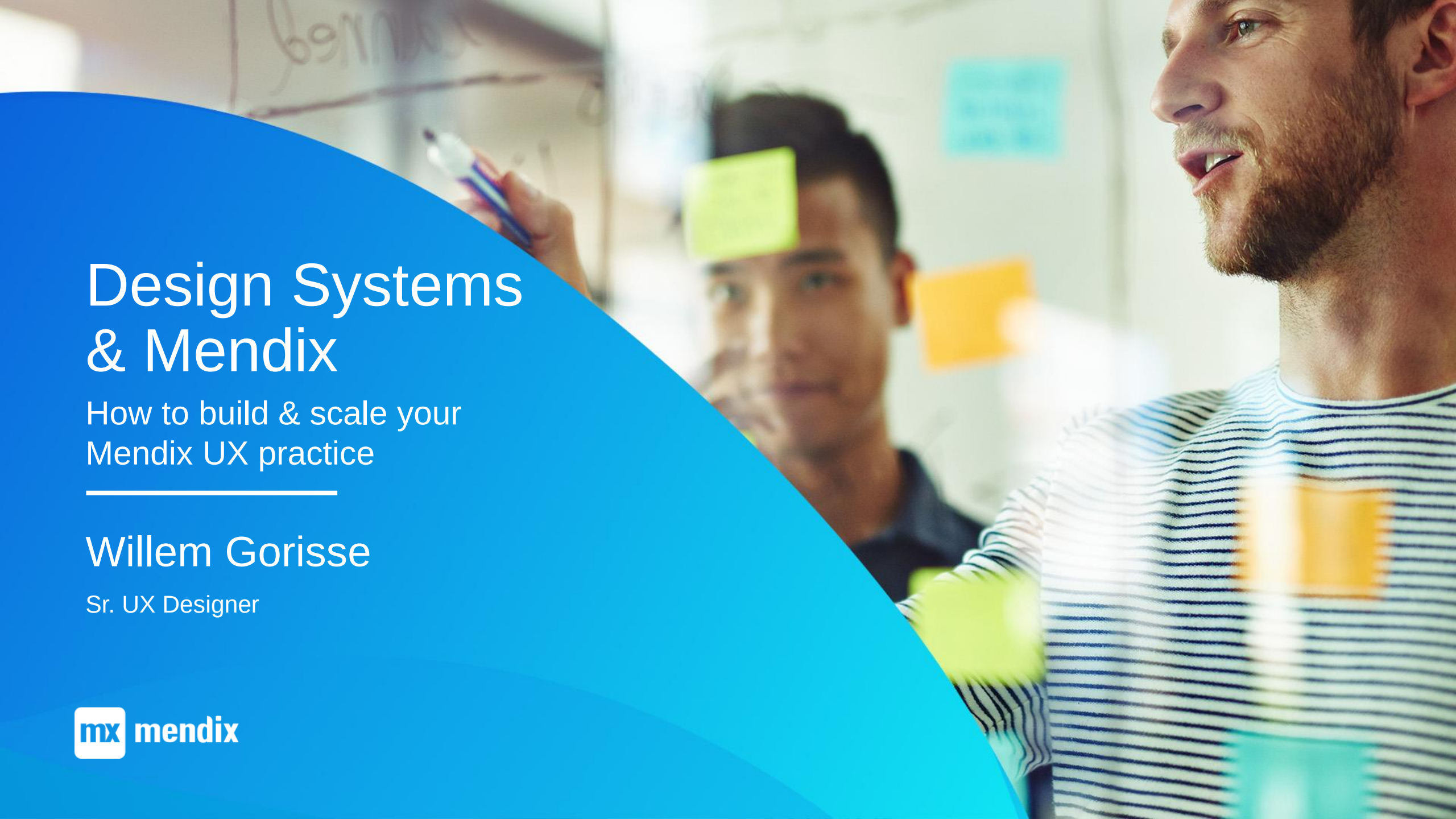

Design Systems & Mendix

How to build & scale your Mendix UX practice

Willem Gorisse

Sr. UX Designer

mendix

Contents

- D.E.P. Challenges in scaling UX practices
- Design Systems to the rescue
- Which type of Design System is best?
- How to create your Design System?
- Enable your design system with the Mendix Platform
- When to create your design system in D.E.P.?

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Digital Execution Practice challenges in scaling UX practices

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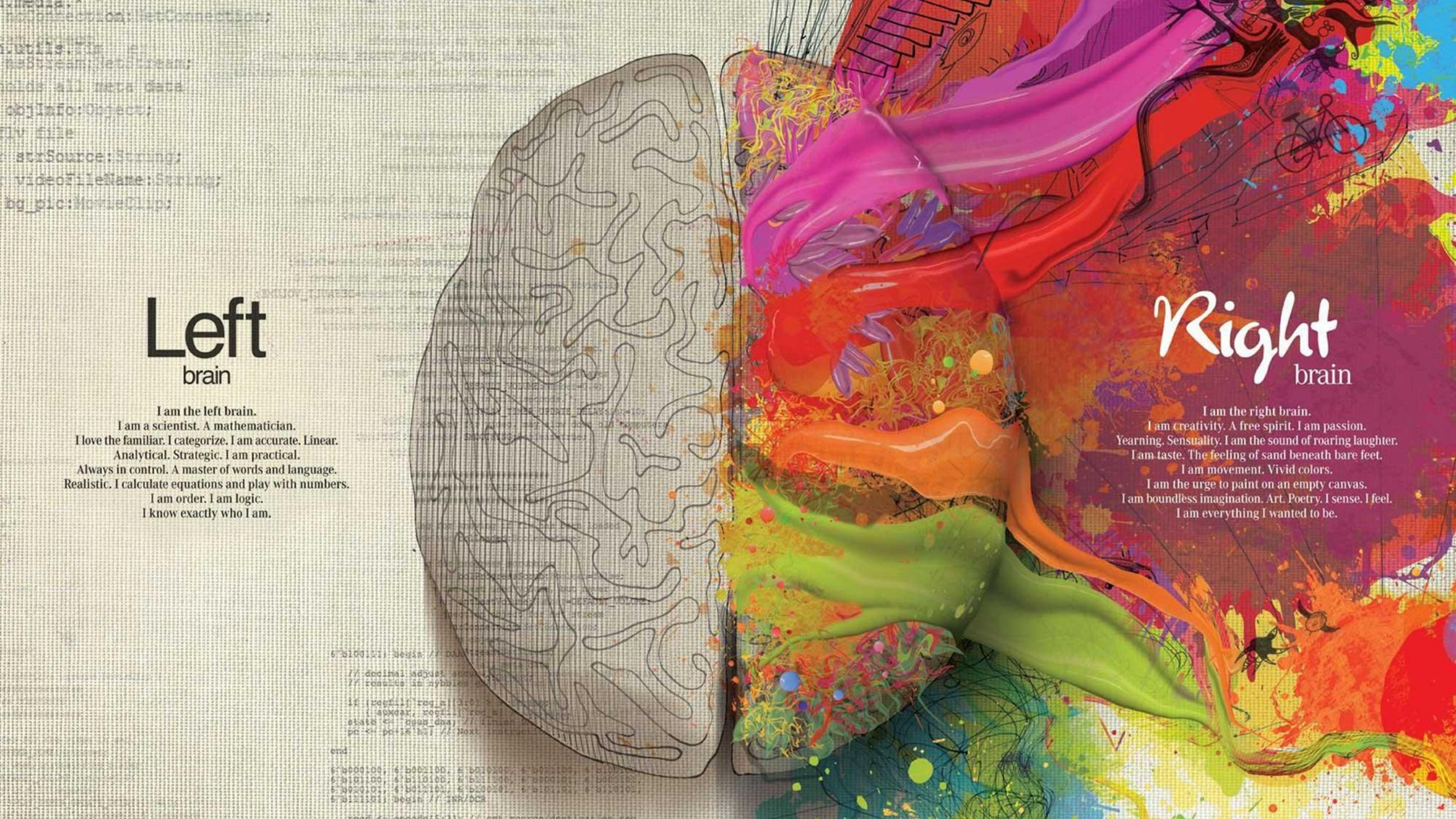
Left
brain
I am the left brain.
I am a scientist. A mathematician.
I love the familiar. I categorize. I am accurate. Linear.
Analytical. Strategic. I am practical.
Always in control. A master of words and language.
Realistic. I calculate equations and play with numbers.
I am order. I am logic.
I know exactly who I am.
Right
brain
I am the right brain.
I am creativity. A free spirit. I am passion.
Yearning. Sensuality. I am the sound of roaring laughter.
I am taste. The feeling of sand beneath bare feet.
I am movement. Vivid colors.
I am the urge to paint on an empty canvas.
I am boundless imagination. Art. Poetry. I sense. I feel.
I am everything I wanted to be.

The sky is not the limit. Your mind is.
Marilyn Monroe
quotefancy

Right
brain

I am the right brain.
creativity. A free spirit. I am passion.
suality. I am the sound of roaring laughter.
eeling of sand beneath bare feet.
ment. Vivid colors.
t on an empty canvas.
. Art. Poetry. I sense. I feel.
I wanted to be.

1 - 5 apps

START

learn &
celebrate success

- Identify start portfolio
- Build dedicated team
- Launch digital program
- First app live in 30 days

5-50 apps

STRUCTURE

Formalize processes

- Launch ideation process
- Define sourcing strategy
- Scale dedicated teams
- Define processes & architecture

50-500 apps

SCALE

The Digital Enterprise

- Systematic enterprise-wide approach to innovation & collaboration
- Center of excellence
- Focus on patterns, gover-nance and scalability
- Focus on automation

DIGITAL PROGRAM

1 - 5 apps

START

5-50 apps

STRUCTURE

50-500 apps

SCALE

DIGITAL PROGRAM

1 - 5 apps

START

5-50 apps

STRUCTURE

50-500 apps

SCALE

DIGITAL PROGRAM

1 - 5 apps

START

5-50 apps

STRUCTURE

50-500 apps

SCALE

DIGITAL PROGRAM

Principles of UX Design

- Consistency
- Usability & Efficiency
- Discoverability / Predictability
- Learnability
- Accessibility
- Delight

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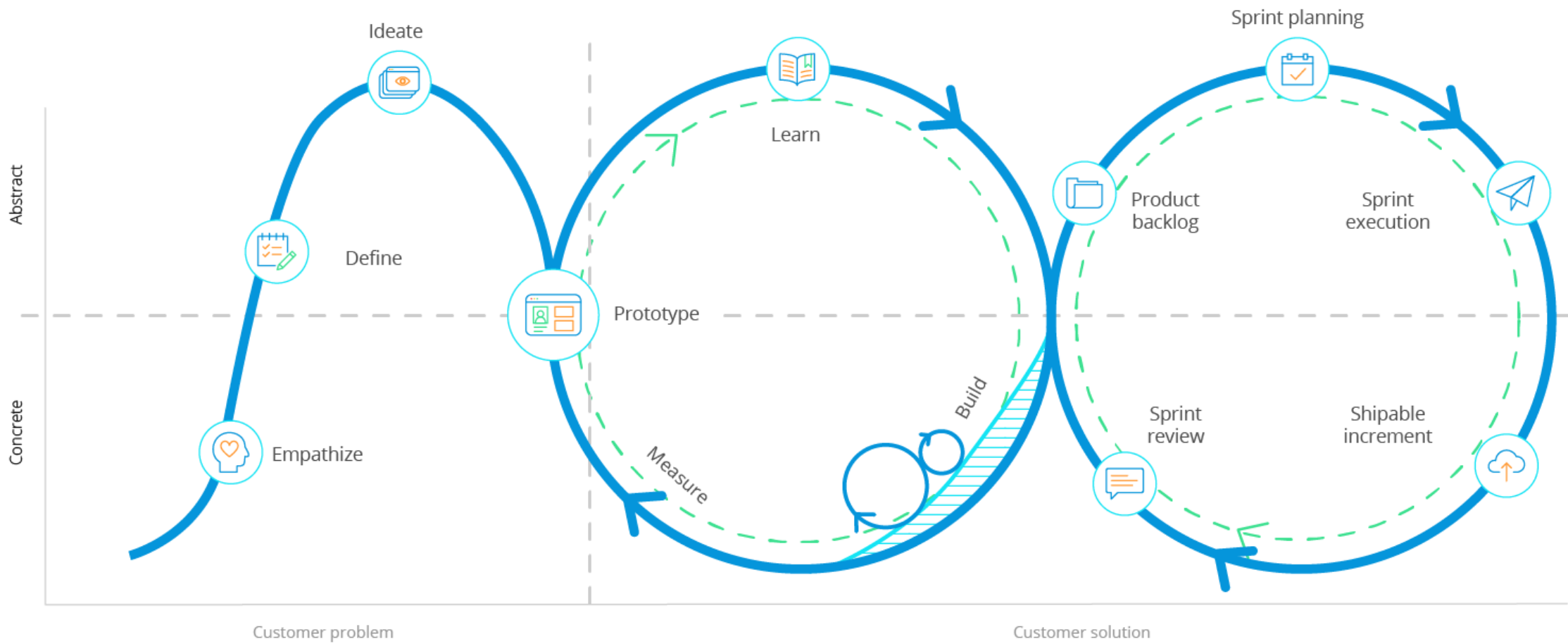

Design Thinking

Lean Startup

Agile

1. Generate

2. Develop

3. Transfer

Design Systems to the rescue

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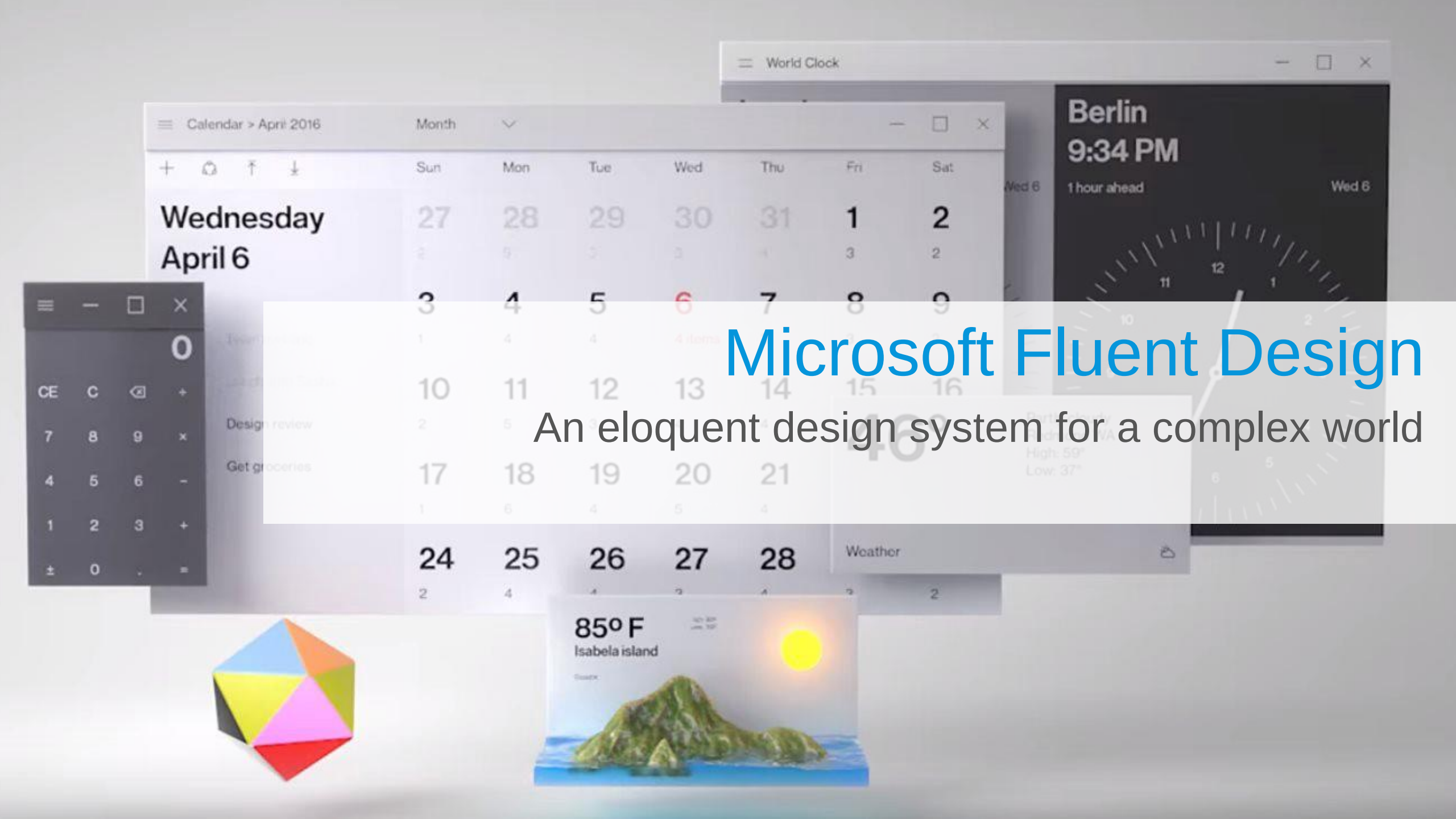
A **systematic approach** for establishing a **common, shared language** among teams.

A set of **connected patterns** and **shared practices**, **coherently organized** to serve the purpose of digital products.

Google Material Design

Material Design is a unified system that combines theory, resources and tools for crafting digital experiences



Microsoft Fluent Design

An eloquent design system for a complex world

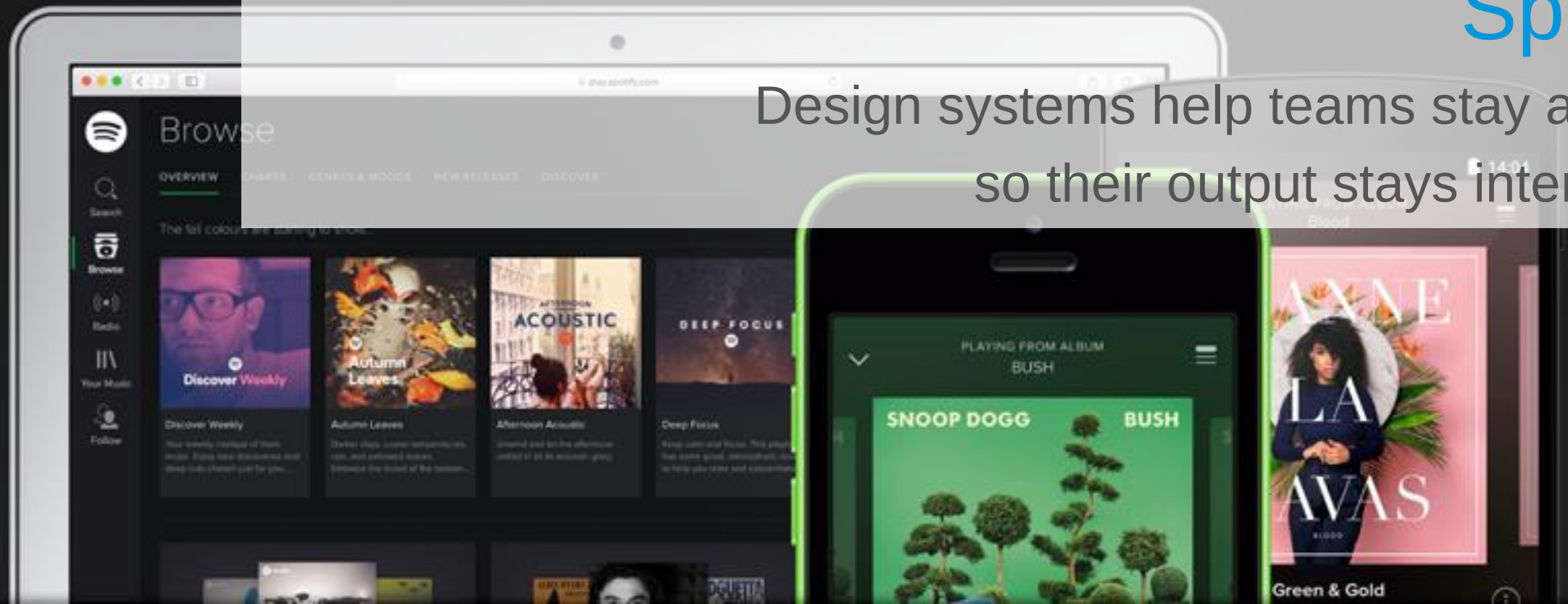
Design Guidelines

GLUE

Global Language, Unified Experience

Spotify

Design systems help teams stay aligned
so their output stays intentional



Design, develop, and deliver

Use Atlassian's end-to-end design language to
create straightforward and beautiful experiences.

B Brand

Foundations, including personality, writing style, color, and type.

M Marketing

How color, type, and illustration are used in marketing.

P Product

Foundations, components, and patterns for building applications.

B A double rainbow!

We use color in meaningful ways in all expressions of our brand.

M Atlassian logos

Why prototyping is a must

M Our illustrations

A AtlasKit

Atlassian

An end-to-end design language

EMMET

Ingredients of a Design System

- Design principles
- Patterns
- A shared language
- Pattern libraries
- Practices

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Design principles

Shared guidelines that capture
the essence of **what good design means**.

Characteristics:

- Authentic and genuine
- Practical and actionable
- Having a specific point of view
- Relatable and memorable

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Lemon lime punch...Happy St. Patrick's Day!

Jacie Dickerson onto Mi (dream) casa

Eiralee SMITH onto Wedding party ideas

Black & Red dining room

June Parker onto Black Kitchen & dining decor

if only ...

Carly Goldmann onto the funnies

vivienne westwood

Tina O'Shea onto wear it

ok now i want to build a fence.

Tyler Balsiger onto cool pics

Skechers - Go Run !!

Doriane Daudon onto Wishlist

easy, inexpensive craft idea

Christie Malchow onto MOPS Crafts

Great stylish boot for the winter just love it!

Betsy Coil onto Boots

Ahhh

Josh Vengley onto relaxation

Decorations

Jennifer Lynn onto Baby Shower

Charisma Black Bed Linen by Private Collection from Harvey Norman New Zealand

Jade Duley onto For the Home

Lunch salad ideas

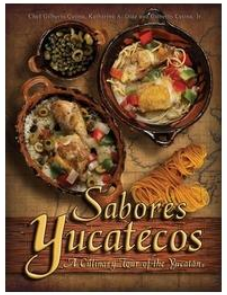
Lizzie Rippe onto Yum yum

42. Stay motivated to lose stomach fat fast! How can any of these best ways to lose stomach fat fast work if you're not motivates? Think about what could help you stay motivated. ...

Fast and Hot onto Workout

Rodan & Fields - Soothe

Kimberly Adkison-Holloway onto Personal Products I Love

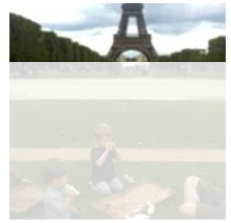


Sabores Yucatecos by Chef Cetina of Chichen Itza

LatinoFoodie onto Favorite Food Books

whole wheat foca cia _ with my favorite flavors. roasted garlic,rosemary , lemon and olive o

Paula Ak ari onto Food



Paris with children

Lisa Hachee onto Ooh la la

Love the side tables.

Lana Dubinsky

Paint It White

Jill O'Hara onto My Style

love it!

Heather Clark onto home design

A succulent mural. Awesome!

Lynn Ferda onto Garden Ideas

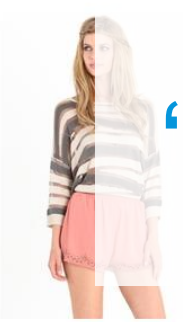
tree

Wenyang Sun onto Love Nature

Joey Lienert onto Illustration

Sssssssssssssssssssss

Zarin Fernandes onto everything

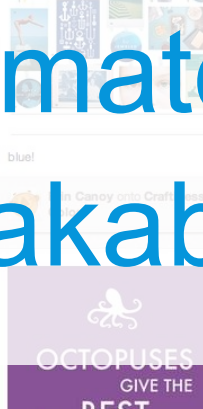


stripes&beaded shorts.

Alyson Manley onto My Style

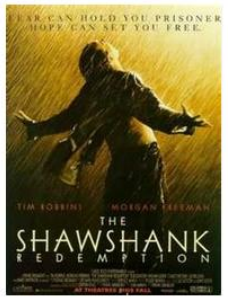
Adorable printed skirt makes such an impact for Spring!

Leslie Sisti onto Spring 2012



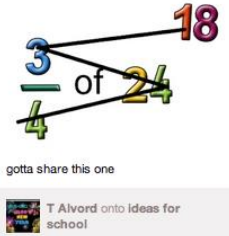
Minty Protein Shake

Caroline Quant



This is such a brutal but life-affirming movie.....

If you have ever wondered what the



gotta share this one

T Alvord onto ideas for school

Scrambled eggs

Latangya Clinton onto Breakfast for dinner

I love her. Resistance is futile

Gary Walker onto Stuff That Makes Me Smile

Cutting Processed Foods from Your Diet...Seriously Considering This

Lauren Graves onto Favorite Websites

lavvv

‘Lucid’

‘Animated’

‘Unbreakable’

Patterns

A **recurring, reusable solution** that can be applied to solve a design problem.

Types:

- Functional patterns
- Perceptual patterns
- Interaction / User flow patterns
- Persuasive patterns
- Domain oriented patterns

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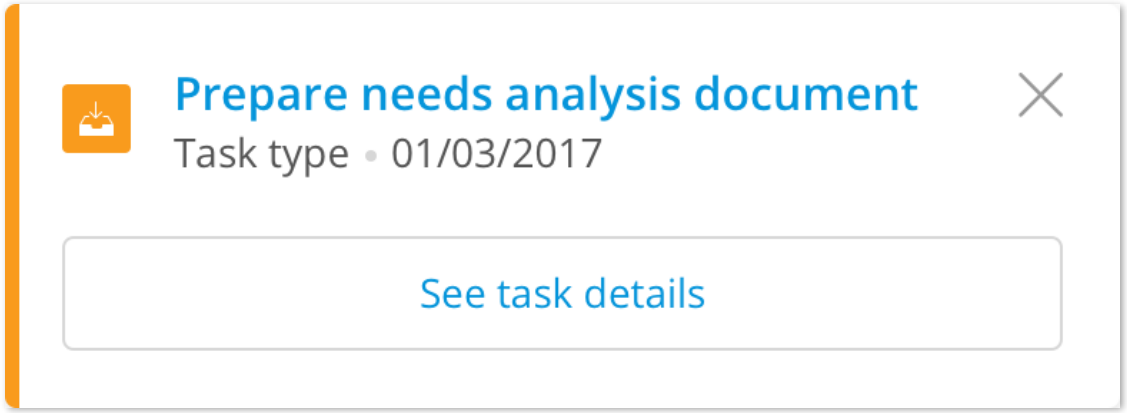
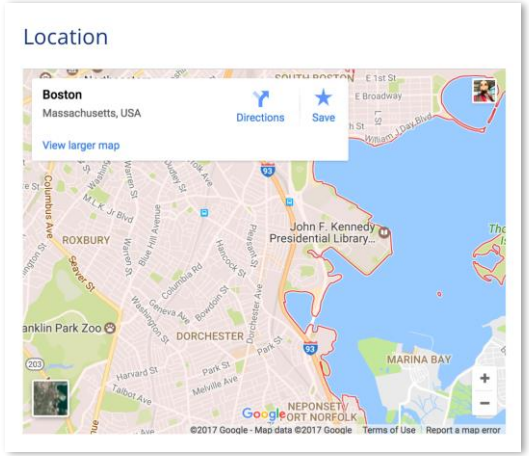
Patterns - Functional patterns

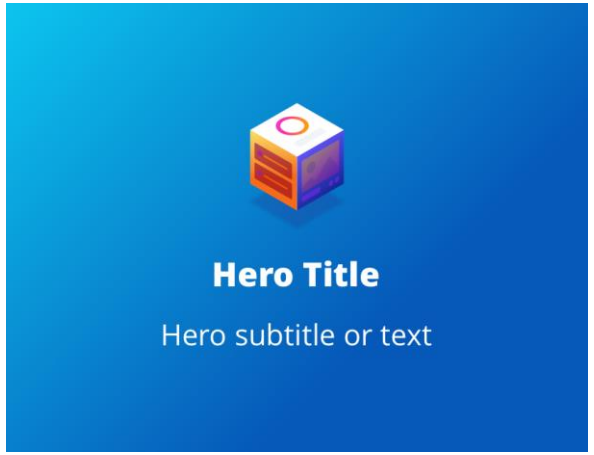
Tangible building blocks of an interface to enable / encourage **user behaviors**



Examples:

- Cards
- Hero headers / billboards
- Progression indicators
- Wizard step navigation





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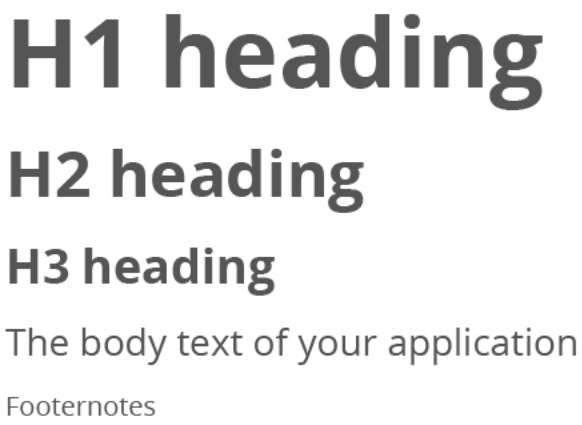
Patterns - Perceptual patterns

Elements / Characteristics that **influence the actual user experience** and connect the entire system of elements. Can be seen as an ambiance or **personality**.

Examples:

- Typography
- Color palette
- Tone of voice
- Layout
- Interactions and animations



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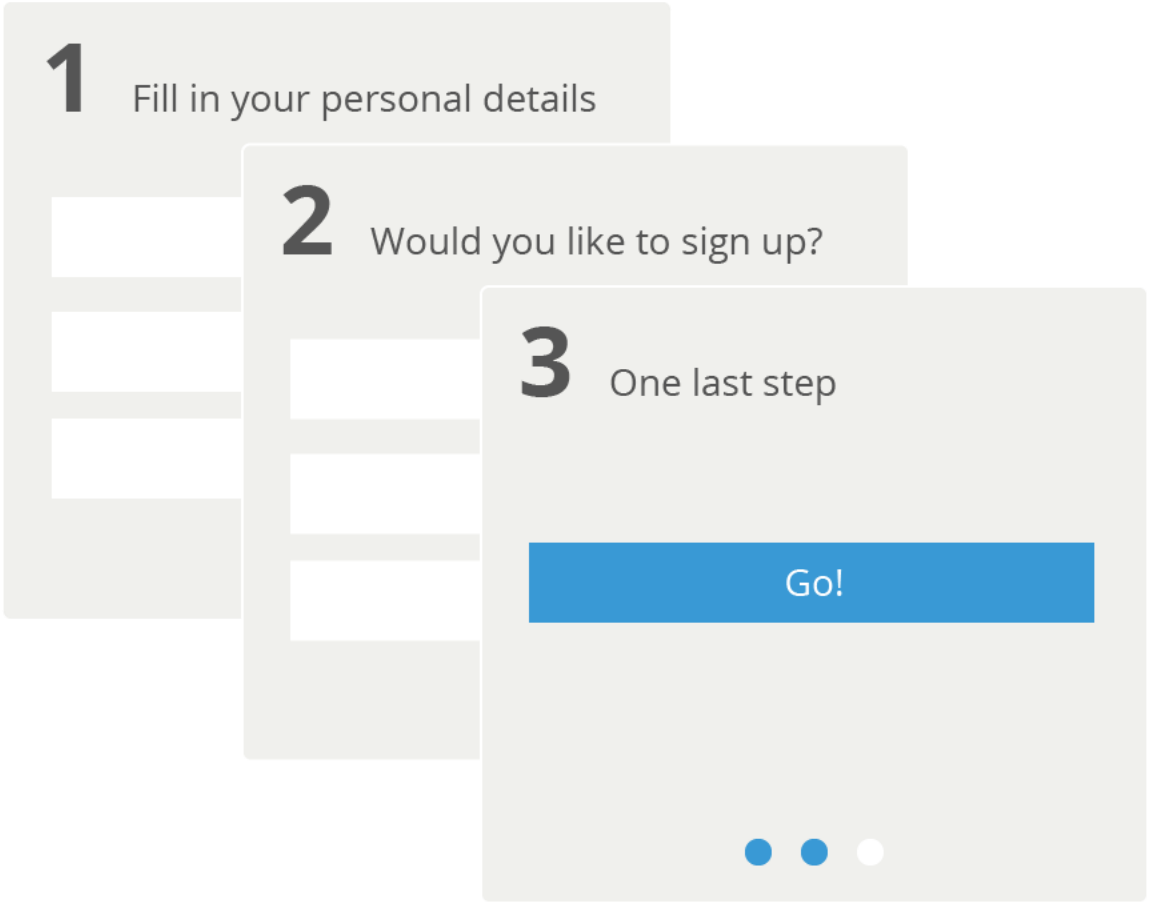
Patterns - Interaction / User-flow patterns

Design solutions for **larger interaction challenges** and user journeys



Examples:

- A user's registration journey
- First launch of an app
- Creation of new objects

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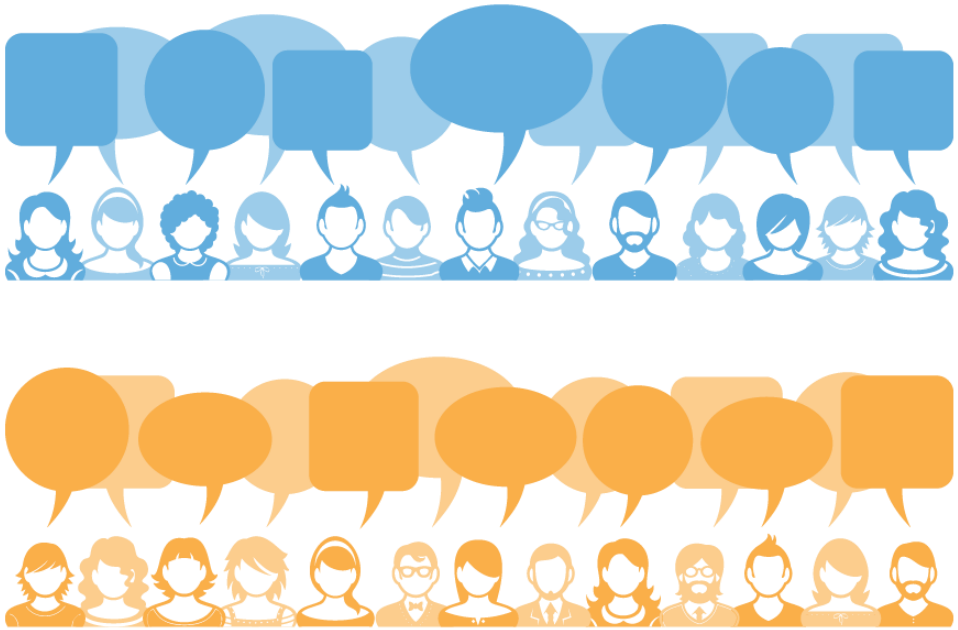
A shared language

Allowing for **creating and using patterns cohesively** by multiple people and teams.

Characteristics:

- Everyone follows the same:
  - guiding principles
  - vision of the brand
  - Approach to design and development
- Every pattern and element has a defined name that:
  - Is known and supported by everyone.
  - Has personality and is memorable
  - Communicates the purpose of the pattern
- Allows for a shared ‘responsibility’ of the system.



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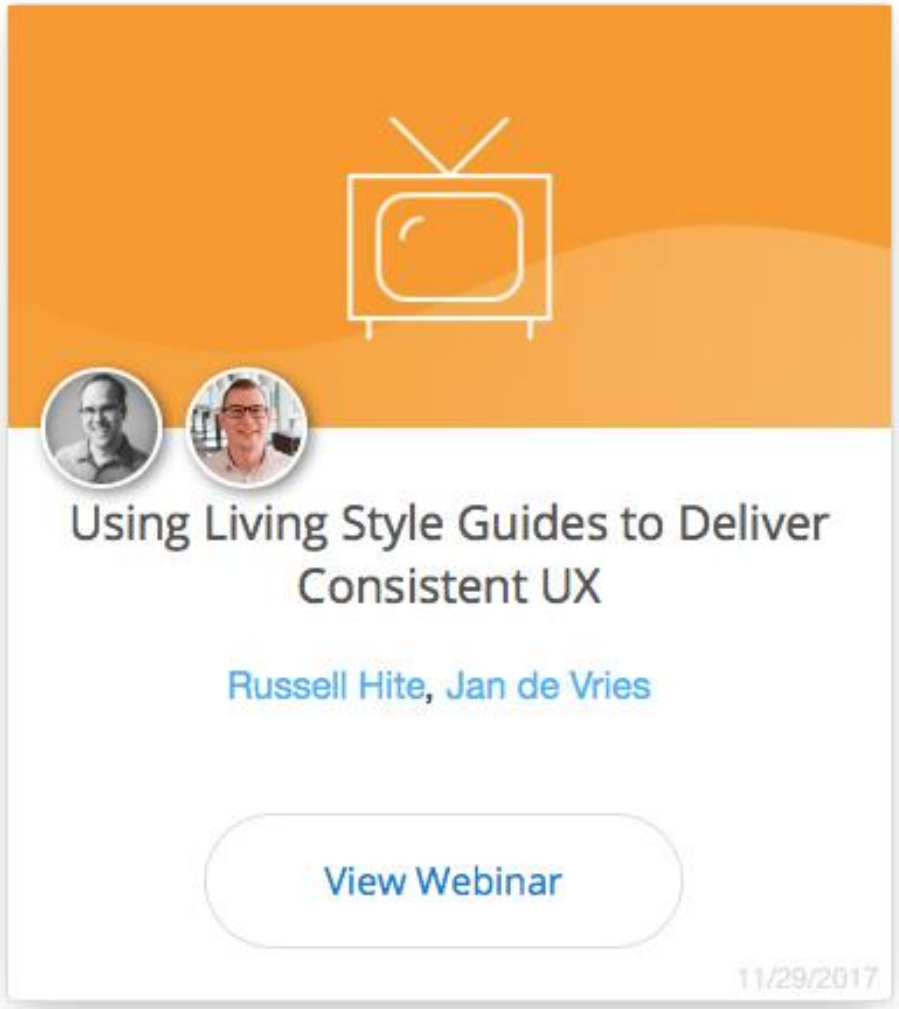
Pattern libraries

A tool for documenting and sharing design patterns. Also known as a **Living Style Guide.**



Notes:

- Not the system but a tool
- Russell Hite recently did an excellent webinar on the subject

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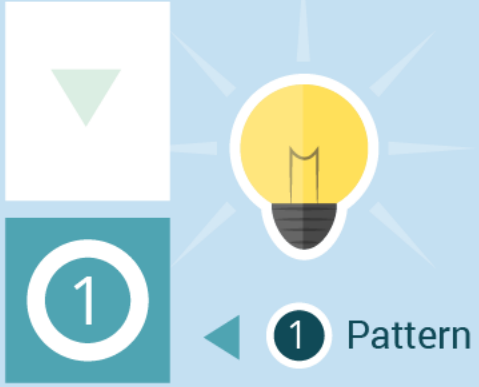
Practices



1 Pattern idea

2 Design & Exploration

3 Selection

Formalisation & Adoption 4

5 Success

Practices

A **set of practices and techniques** for:

- Creating
- applying and
- evolving a design system.

Adding **P**eople and **P**rocess to **P**latform and **P**ortfolio

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Which type of Design System is best?

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Parameters of Design Systems

Three parameters:

RULES

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Parameters of Design Systems

Three scales:

RULES

Strict — Loose

PARTS

Modular — Integrated

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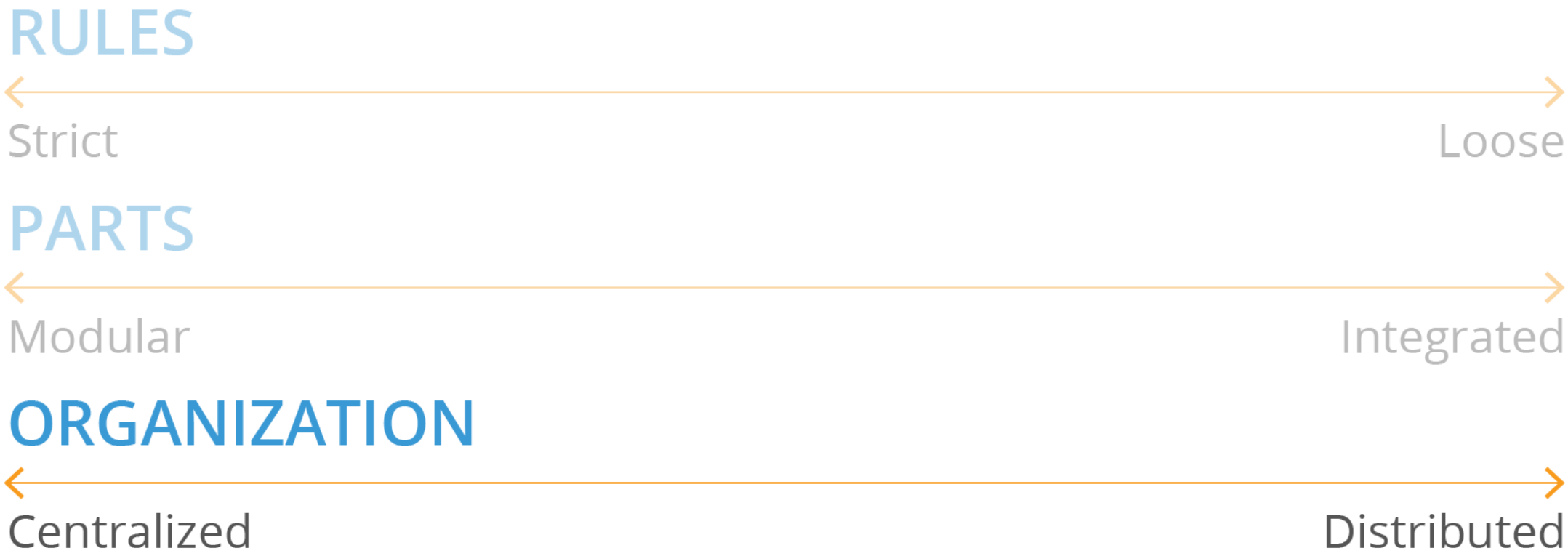
Parameters of Design Systems

Three scales:



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Parameters of Design Systems - Rules

Strict

Our Design System

Table of contents

1 - 51	Our design vision
52 - 120	Our patterns
	Branding
	Tone of Voice
	Page templates
	Building Blocks
120-155	Our processes
155-167	Learning
168-189	Best practices
190-210	Examples

Loose

Our Design System

Table of contents

1	Our design vision
2 - 4	Our patterns

Questions? Mail me at
me@ourdesignsystem.com

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Parameters of Design Systems - Rules

Strict

Strict **processes and rules**
- Predictable outcomes
- Visual consistency

- Can become rigid and restricting

Loose

Emphasizing **branding and utility** over perfect consistency
- Context and experimentation prioritized
- Maximize usability

- Can become messy and fragmented

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Parameters of Design Systems - Parts

Modular

Integrated

Parameters of Design Systems - Parts

Modular

Interchangeable parts for various assemblies

- Good fit with agile and multi teams
- Cost effective (reusability)
- Easy to maintain & adaptable

- High initial investment
- Can lead to patchwork designs or generic outcomes

Integrated

Consist of parts that are **not interchangeable due to their connections**.

- Specific and coherent
- Quick to build

- Not scalable, adaptable or reusable

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Parameters of Design Systems - Parts

Modular

Integrated

Parameters of Design Systems - Parts

Modular

Suited for products that:

- Need to scale and evolve
- Need to adapt to user needs
- Have a large number of repeating parts
- Have multiple teams

Flipboard, Pinterest

Integrated

Suited for products that:

- Are designed for one purpose
- Are one-offs
- Don’t need to scale

Marketing campaigns, showcases, conference websites

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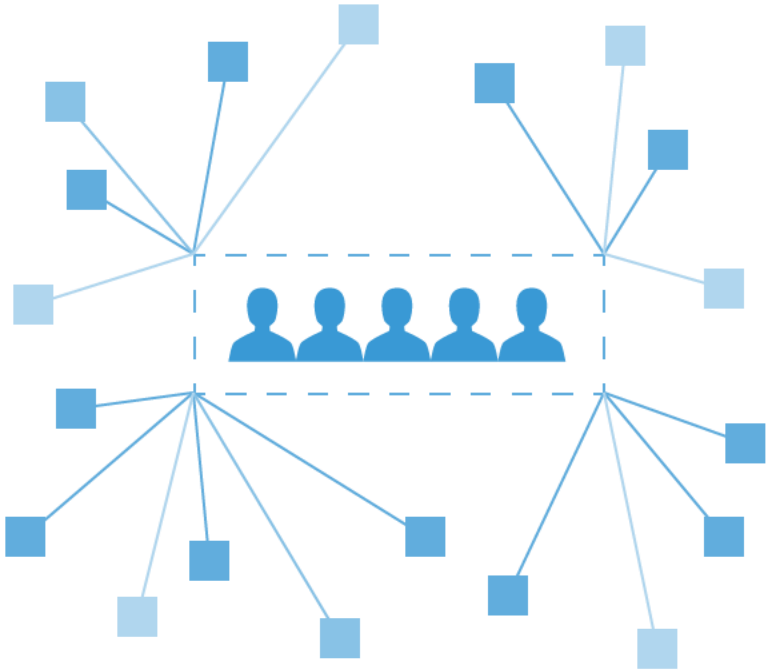
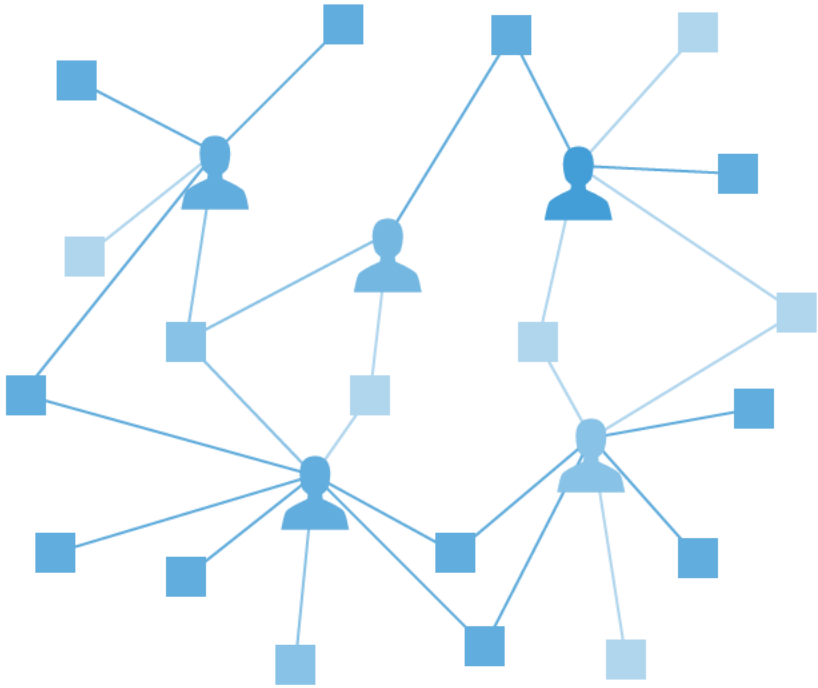
Parameters of Design Systems - Organization

Centralized



Distributed



Parameters of Design Systems - Organization

Centralized

Rules and patterns are **managed by 1 group** of people

- Ownership
- Reliability
- Focus on creative direction

- Can slow down team
- Takes away autonomy

Distributed

Everyone using the system is responsible for maintaining and evolving

- Autonomy
- Resilience
- Distributed design knowledge

- Can get neglected
- Dilutes creative direction

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Parameters of Design Systems - Example

TED

RULES

Strict — Loose

PARTS

Modular — Integrated

ORGANIZATION

Centralized — Distributed

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Best
CHOICE

BEST
CHOISE

Best
CHOISE

BEST
Choice

Best
CHOICE

BEST
CHOICE

BEST
CHOISE

BEST
CHOICE

Best
Choise

Takeaways

- The most important influencing factor is **team culture**: which will be reflected in the design system.
- It’s common for companies that their design system **moves along the 3 axes** in time
- Design systems have **a large impact** on:
  - Design & Development processes
  - Collaboration
- Hence someone else’s system is not yours.
- Every design system is unique

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How to create your Design System

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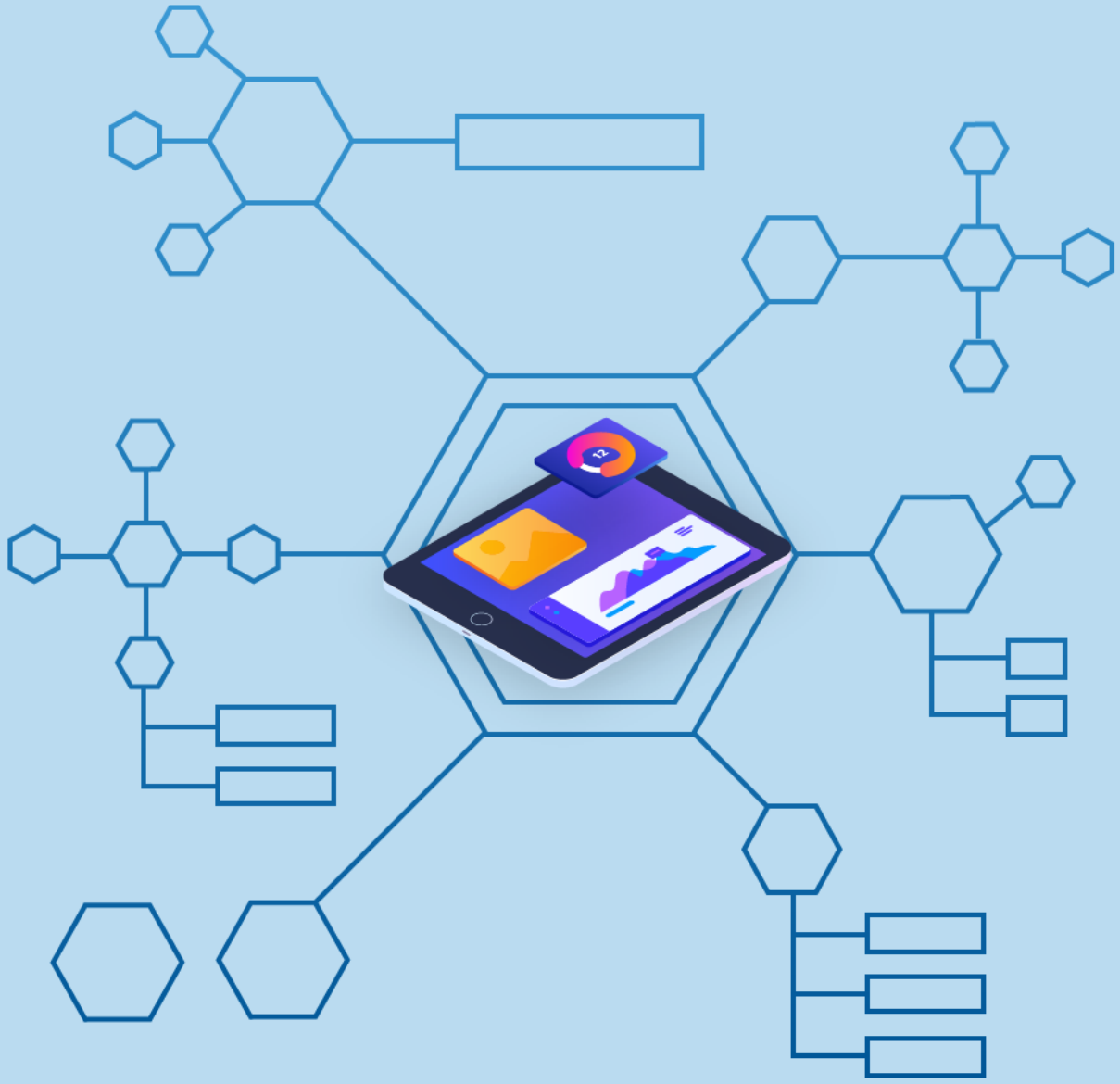
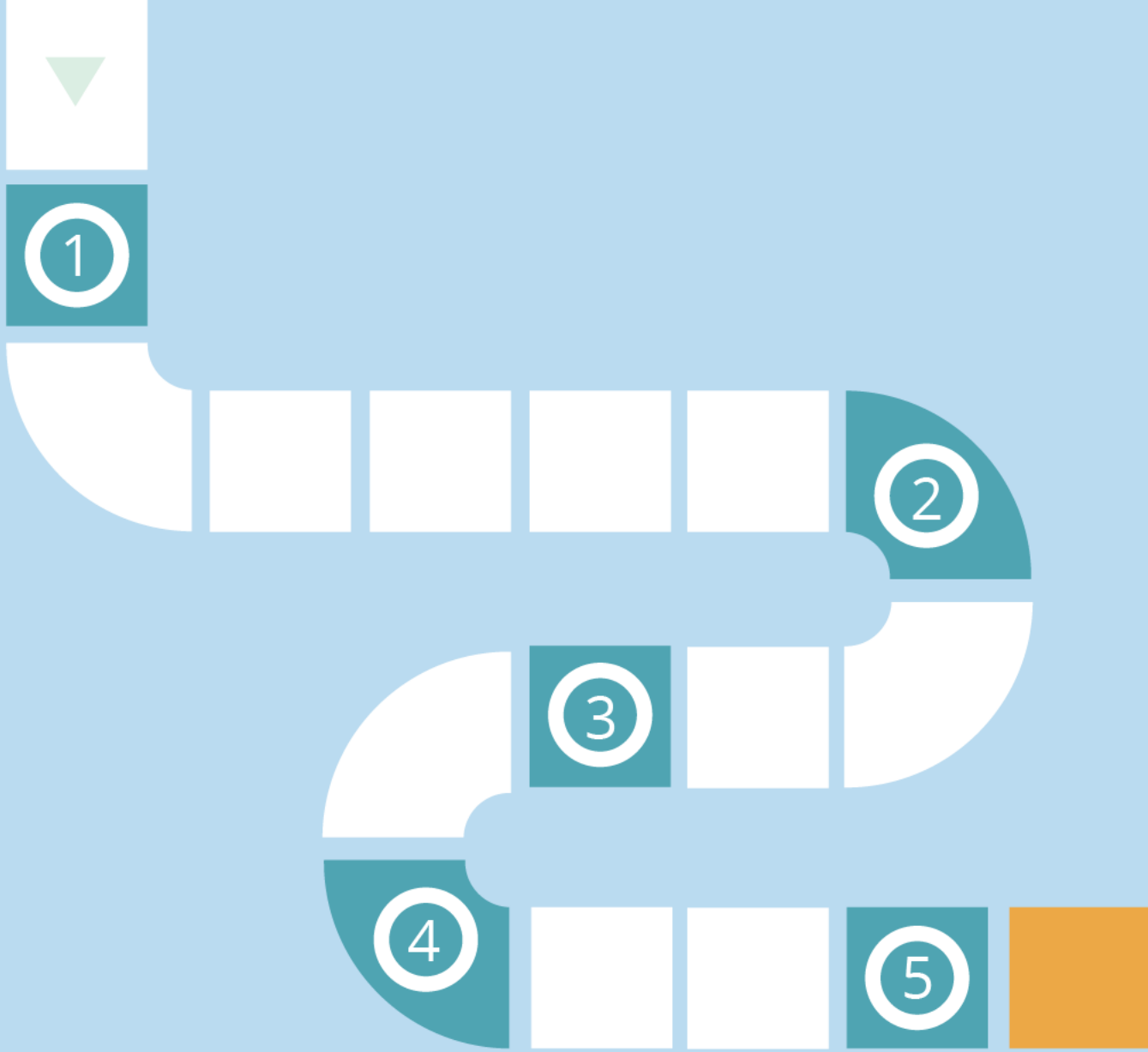
Define & Agree on Goals, Objectives & Process

Systemize your patterns



Create a Pattern Library

Setup Practices and Processes



Enable your design system with the Mendix Platform

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Atlas UI

Mendix Atlas UI is the design language that brings great user experiences to enterprise apps

new Atlas UI 1.0 is released!

Introducing Atlas UI

Introducing Atlas UI

1 Navigation Layouts

Introducing Atlas UI

1 Navigation Layouts

2 Page Templates

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Introducing Atlas UI

1. Navigation Layouts
2. Page Templates
3. Building Blocks

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Introducing Atlas UI

1. Navigation Layouts
2. Page Templates
3. Building Blocks
4. Widgets

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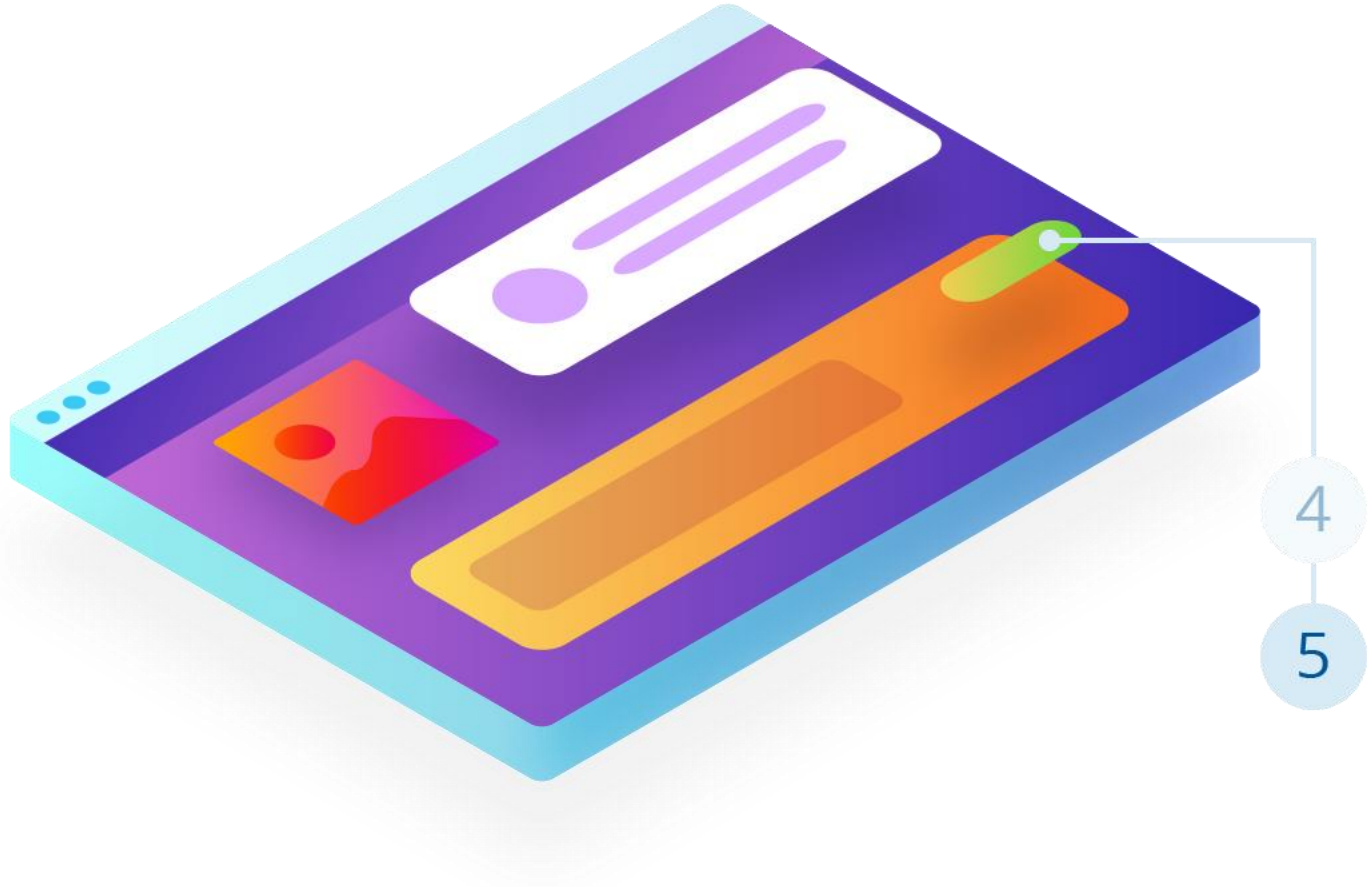
Introducing Atlas UI

1. Navigation Layouts
2. Page Templates
3. Building Blocks
4. Widgets
5. Design Properties



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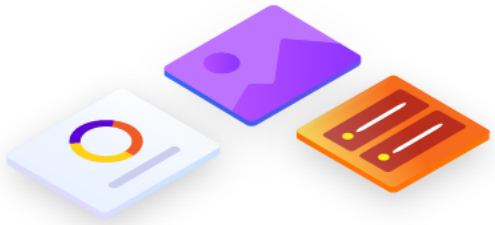
Improved Mendix Platform



PATTERNS

Improved Mendix Platform

ATLASUI
PACKAGE

Improved Mendix Platform

PLATFORM
ASSETS

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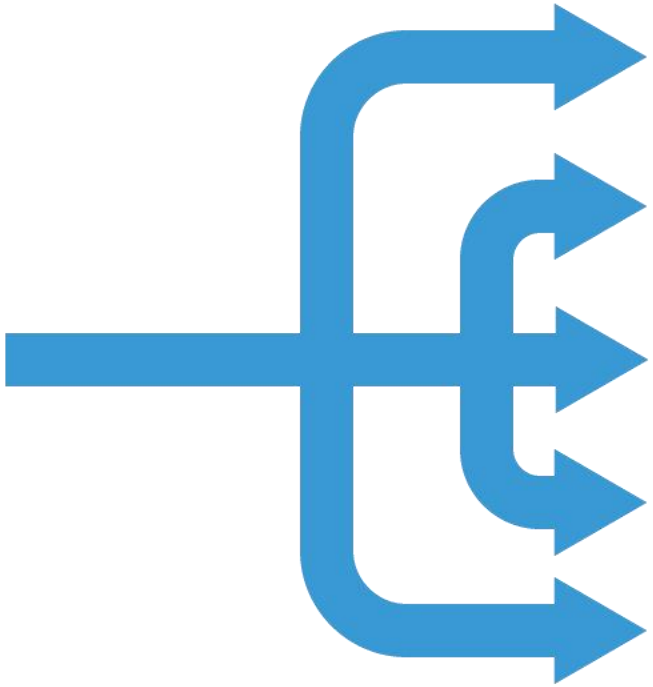
Improved Mendix Platform



DISTRIBUTION
PRIVATE APPSTORE

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When to create your design system in D.E.P.

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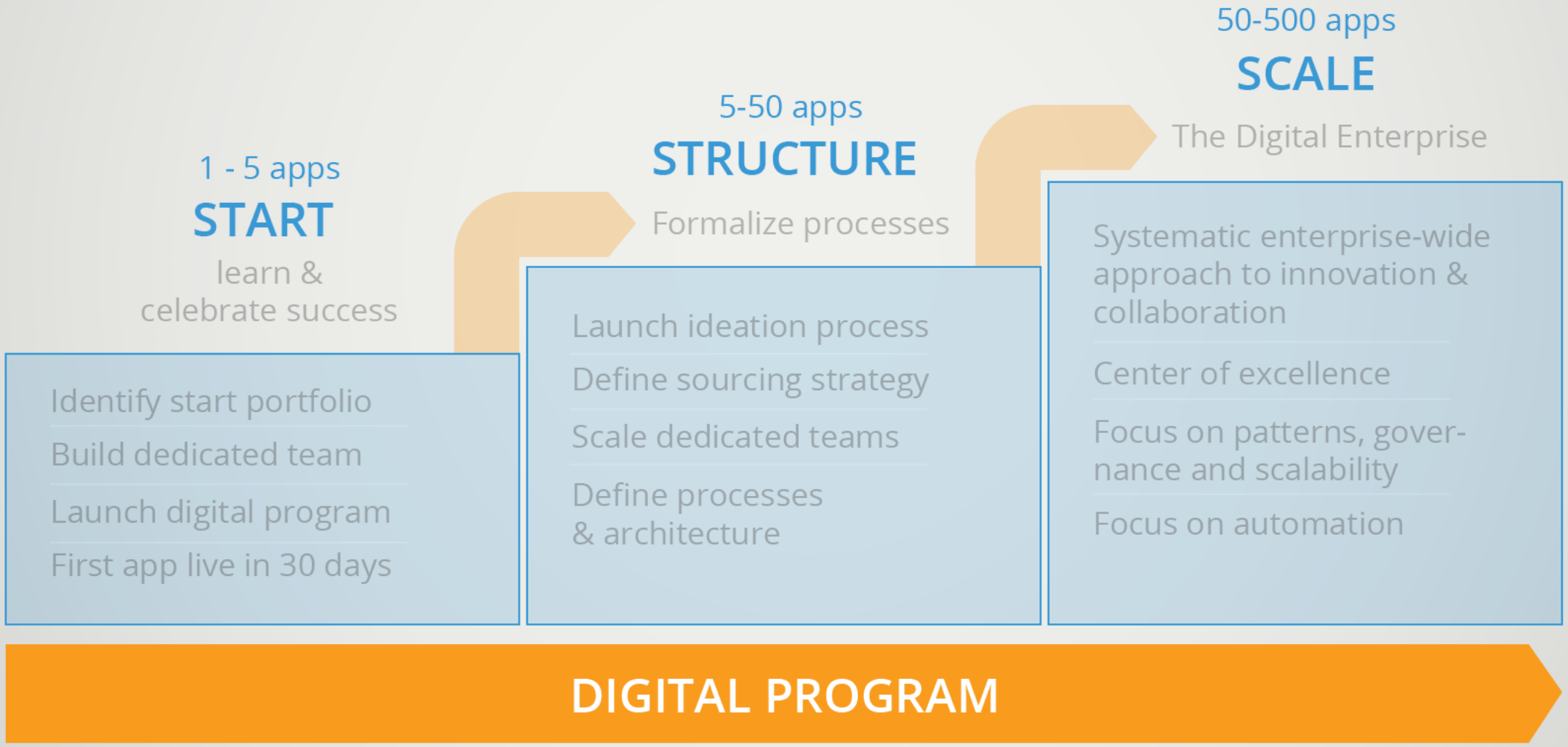
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learn &
celebrate success
Identify start portfolio
Build dedicated team
Launch digital program
First app live in 30 days
5-50 apps
STRUCTURE
Formalize processes
Launch ideation process
Define sourcing strategy
Scale dedicated teams
Define processes
& architecture
50-500 apps
SCALE
The Digital Enterprise
Systematic enterprise-wide approach to innovation & collaboration
Center of excellence
Focus on patterns, gover-nance and scalability
Focus on automation
DIGITAL PROGRAM

Common D.E.P. Challenges

- Including relevant departments such as UX Design & Marketing
- No existing Design System present
- Time and resources not readily available for creating one

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Best practices

- Start as soon as possible:
  at the first inkling of the app portfolio
- Gain company wide traction and support
- Take a holistic approach to your Design System’s strategy

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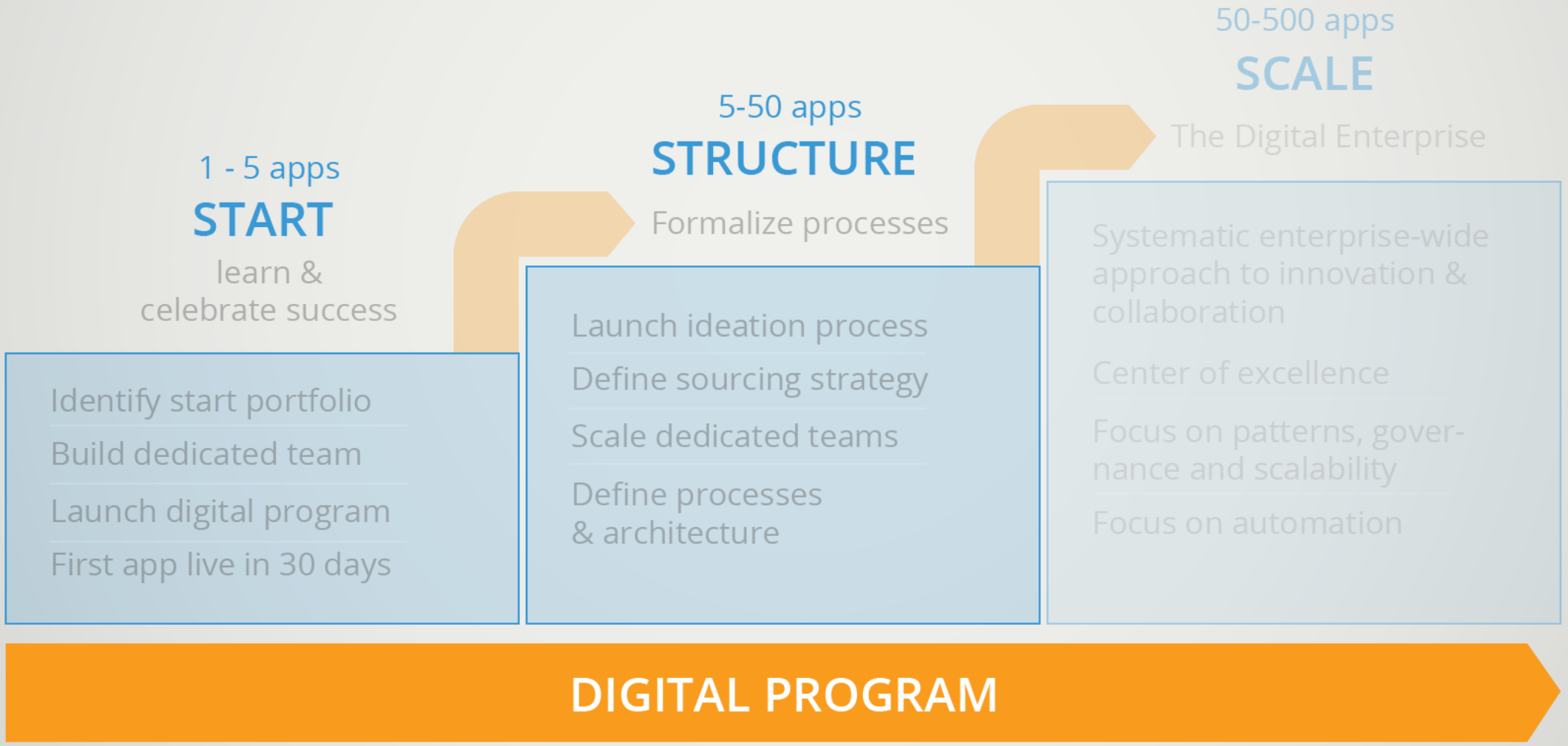
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DIGITAL PROGRAM

Questions?

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