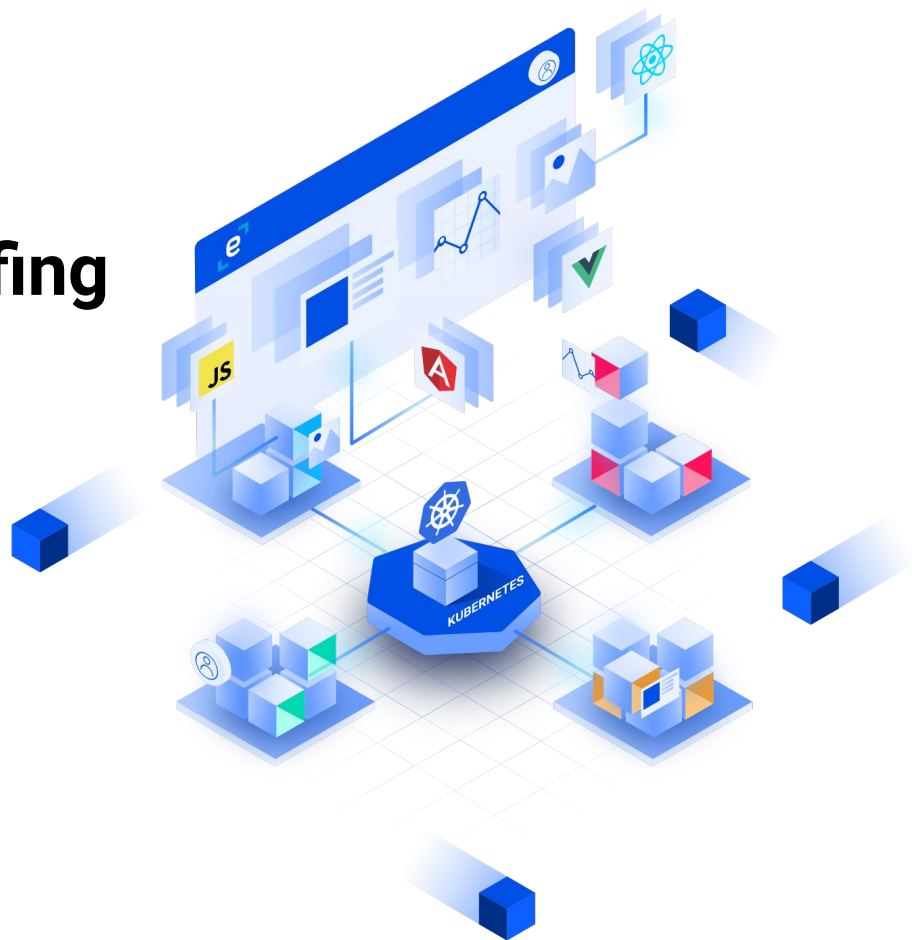# Entando 7.1 Partner Briefing
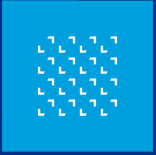
October 18, 2022

# Agenda

1. The Landscape

2. What's New in 7.1

3. What's Next

4. Q&A

# The Landscape

# The future: Composable Applications

"By 2023, organizations that have adopted a composable approach will **outpace competition by 80%** in the speed of new feature implementation."

Source: Gartner Top Strategic Technology Trends for 2021 (G00735310)

"By 2024, 70% of large and medium organizations will **include composability** in their approval criteria for new application plans."
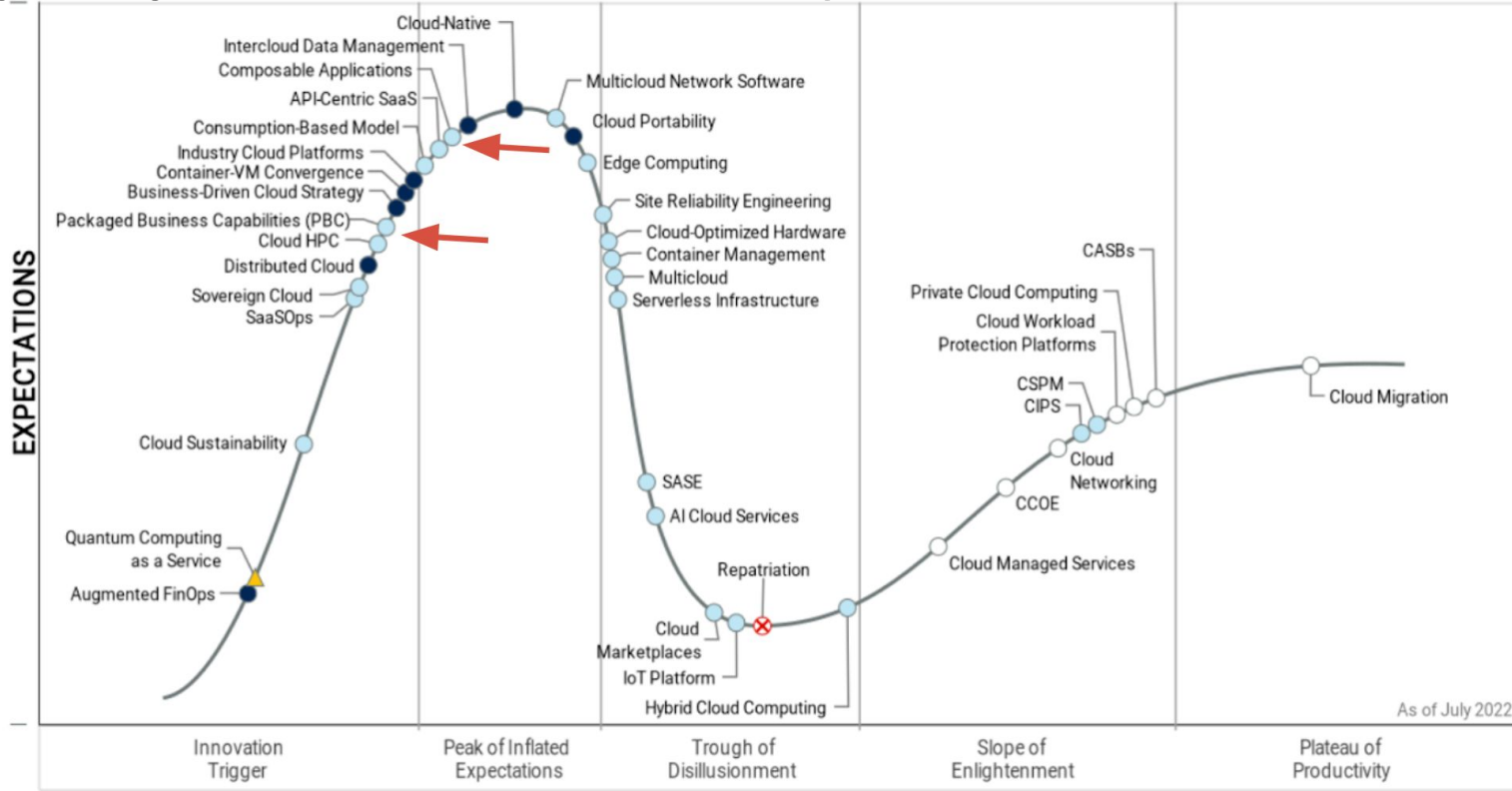
Source: Gartner How to Design Enterprise Applications That Are Composable by Default

"By 2026 integrated application composition platform products will emerge and dominate at least 65% of new LOB application initiatives."

prediction given by Massimo Pezzini at the Gartner Application Innovation & Business Solutions Summit 2021, April 26-27
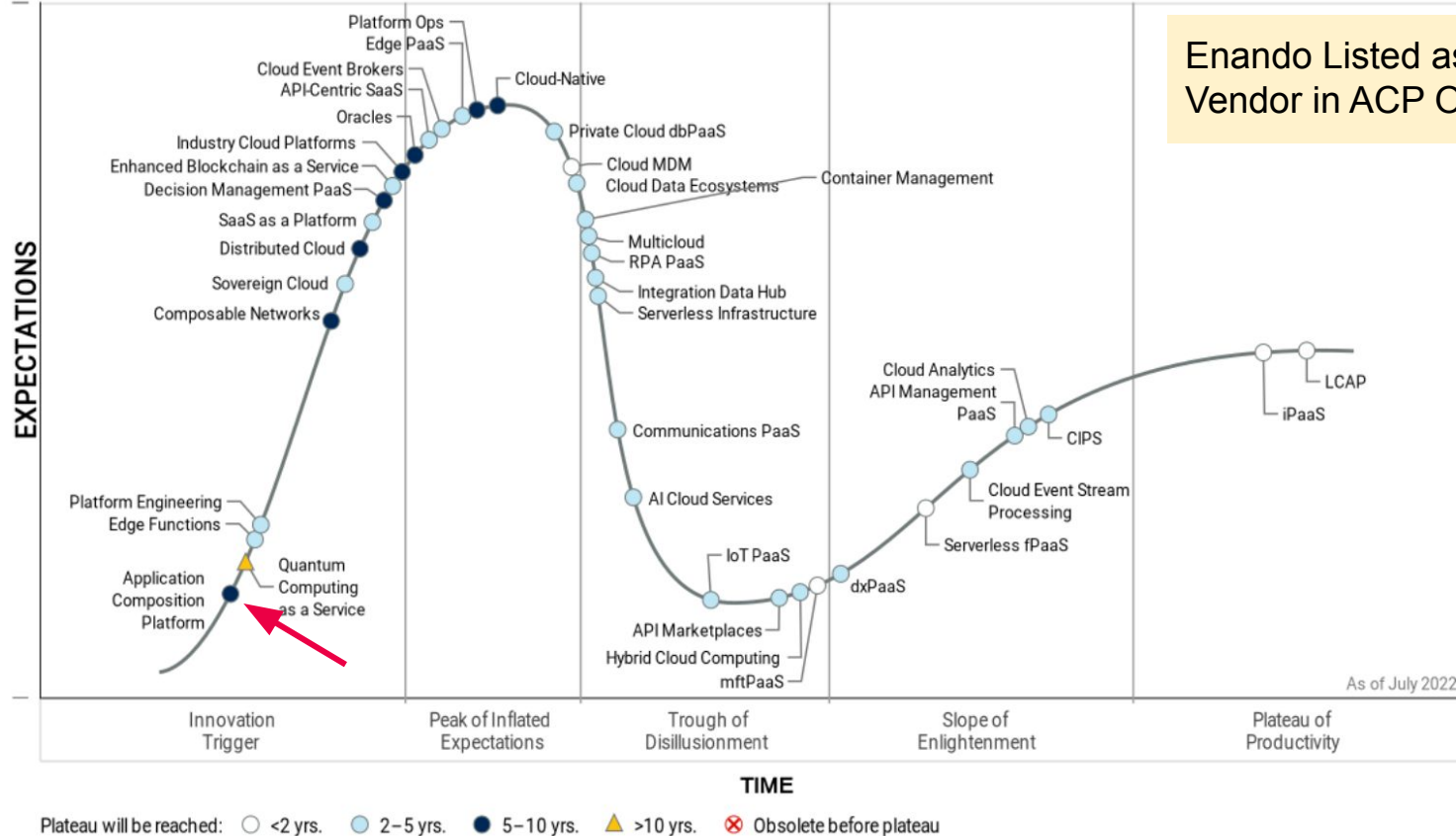
# Hype Cycle for Cloud Computing, 2022

# Hype Cycle for Cloud Platform Services, 2022



Enando Listed as Sample Vendor in ACP Overview

Source: Gartner Hype Cycle for Cloud Platform Services, 2022  Published 19 July 2022 - ID G00770821

# Three ways to accelerate App Dev
## #3.ACP - Reuse Existing PBCs or Leverage as Templates

### Software as a Service

- Very fast to set up
- Prebuilt service
- Fully managed
- Lowest customization
- Bring your data

**SalesForce.com**

### Low Code / No Code

- Fast to set up
- Requires minimum coding capabilities
- Click/drag drop, script to build application
- Can integrate, can customize, but restricted

**Outsystems**

### New: Application Composition

- Assemble modules
- Leverage pro-code templates
- Common Data Fabric
- Unified Business APIs
- Unified Best of Breed Stack
- Curated Library  of PBCs
- Infinite customization
- Critical for innovation

**entando**

All 3 will be used within large enterprises for different application requirements

# Gartner's definition of ACP

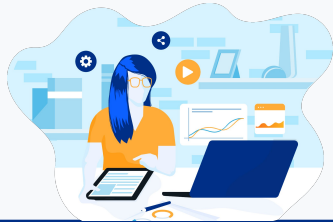An **application composition platform (ACP)** is any development platform that supports:

(1) a prepopulated **catalog** of composable, packaged, software components;
(2) **creation and cataloging of new packaged software components** through custom development and importing existing assets;
(3) democratized development and deployment of applications, **assembled** in part from the cataloged packaged components;
(4) **governance of the life cycle of the cataloged packages and the resulting composed applications.**

**Sample vendors: Betty Blocks; <u>Entando</u>; Novulo; Olympe; SAP; Unqork**

# Application Composition Platform Dev Process

| Model the Modular Business Architecture | Design, Create the Business Modular Building Blocks | Manage the Marketplace of Building Blocks | Use Building Blocks to compose Applications | Use Applications to Achieve Business Goals |
| --- | --- | --- | --- | --- |

**Enterprise Architect**

Selecting, implementing, and designing new applications alongside existing applications for a flexible business architecture
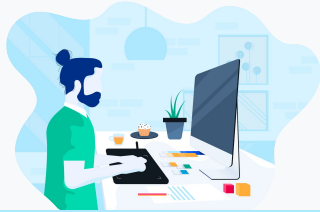
**Creators**

Developers use the **Component Generator** and **CLI** to **build**, **package** and **deploy components** to the **central hub**.

**Curators**
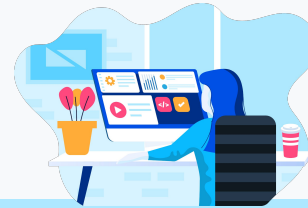
Curators **manage the central repository** for components and business capabilities including content, versioning and metadata.

**Composers**

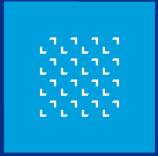Developers and Business IT use low-code application composition tools and/or UI development frameworks to assemble applications from components.
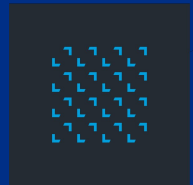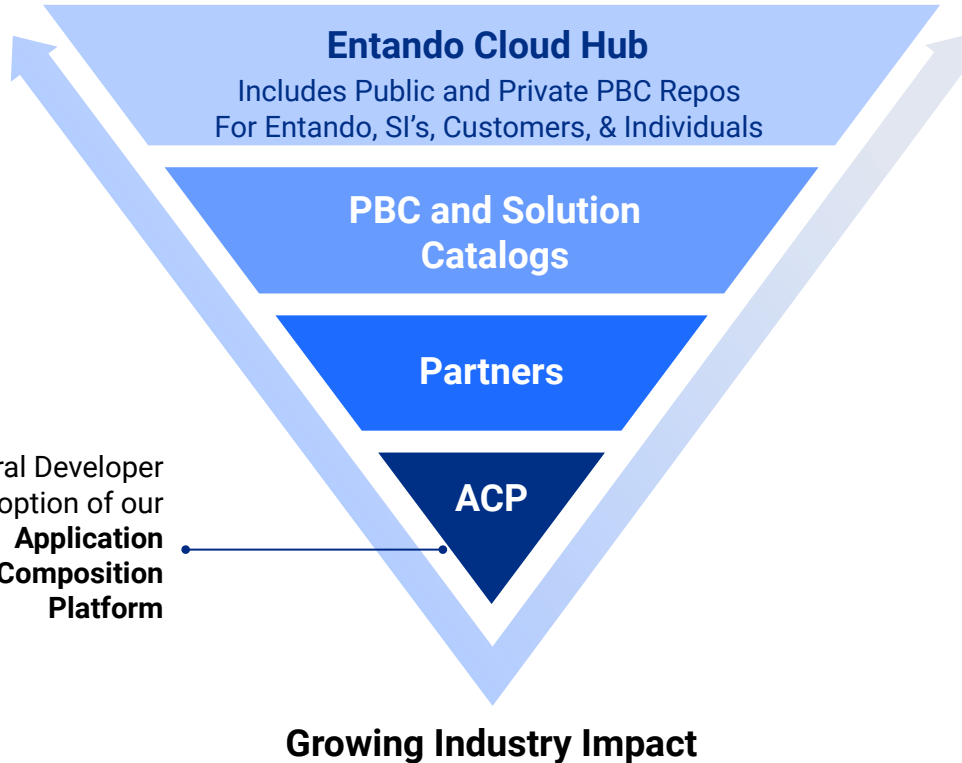
**Consumers**

Business owners and users have the ability to use, monitor, analyze, update content/roles/users/rules and provide feedback to Creators/ Composers.

# What's New in Entando 7.1?

# Entando Vision and Mission

Entando Cloud Hub
Includes Public and Private PBC Repos
For Entando, SI's, Customers, & Individuals

PBC and Solution
Catalogs

Partners

ACP

Viral Developer
Adoption of our
**Application
Composition
Platform**

**Growing Industry Impact**

**Vision:**
An ever growing Hub of PBCs

**Mission:**
Bridge the gap between Business and IT

**Our Commitment to Enterprise Developers**
Bring developer joy for composable applications on Kubernetes.
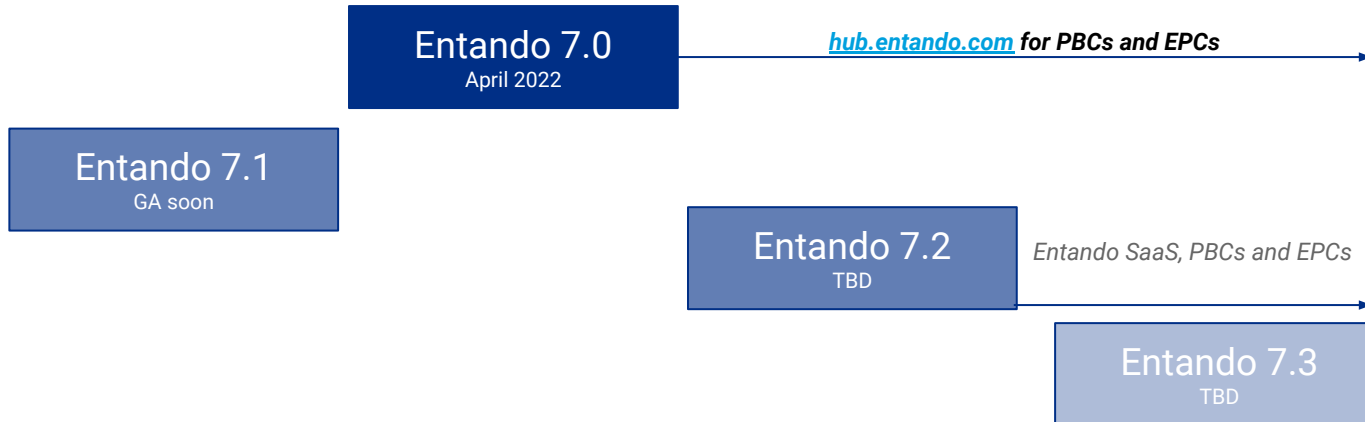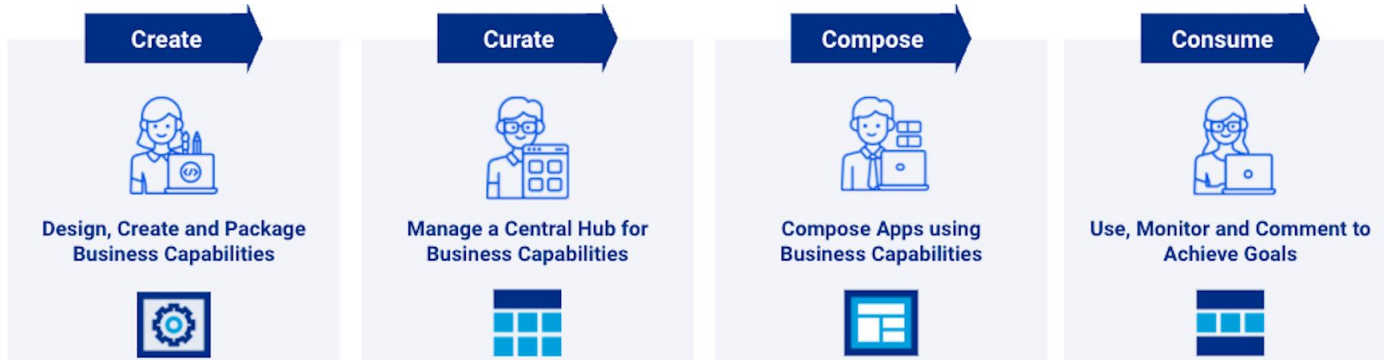
**Our Commitment to Our Channel Partners**
Support System Integrators in the development of new business and new revenue streams

**Our Commitment to Our Enterprise Customer**
Enable business resiliency by accelerating TTM, reducing runtime costs, and streamlining maintenance for enterprise applications

# Product Roadmap Themes



**Create**
Design, Create and Package Business Capabilities

**Curate**
Manage a Central Hub for Business Capabilities

**Compose**
Compose Apps using Business Capabilities

**Consume**
Use, Monitor and Comment to Achieve Goals

**Entando 7.0**
April 2022

*hub.entando.com* **for PBCs and EPCs**

**Entando 7.1**
GA soon

**Entando 7.2**
TBD

*Entando SaaS, PBCs and EPCs*

**Entando 7.3**
TBD

# Development Lifecycle by Persona
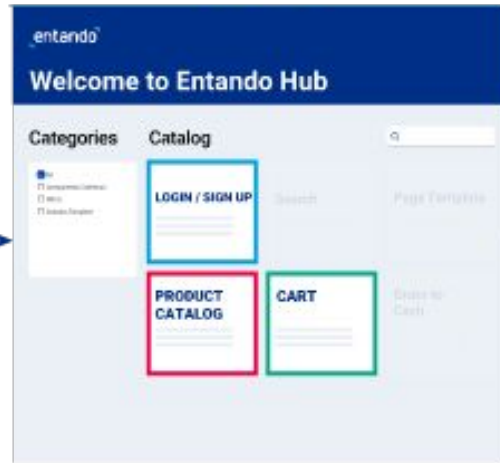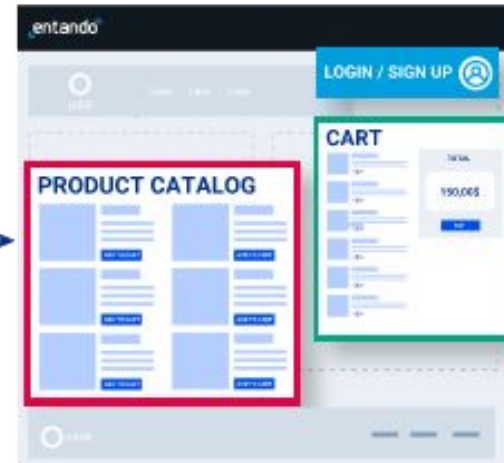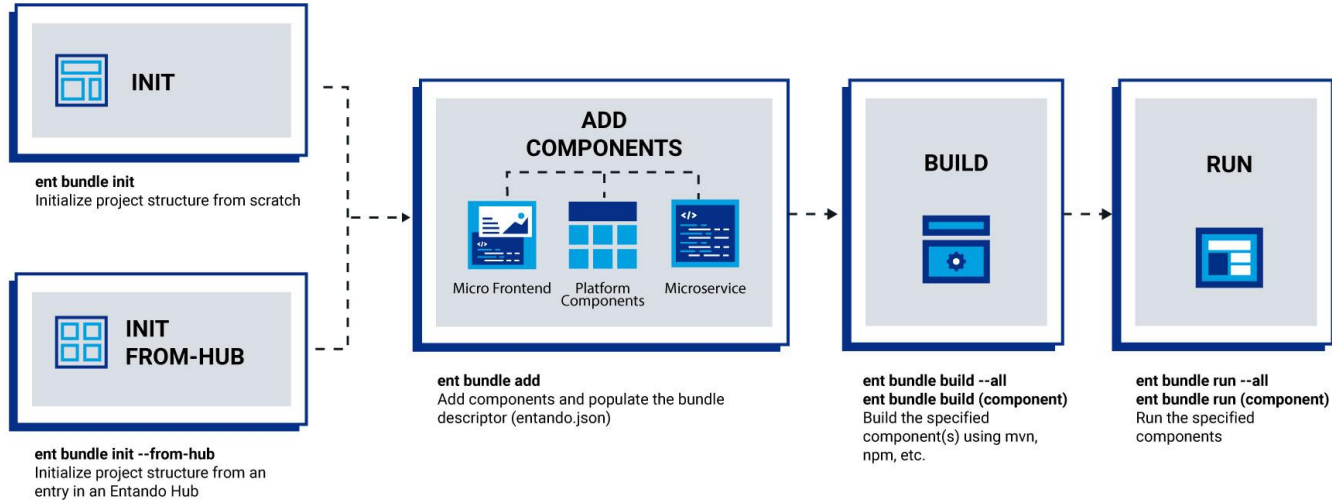
# What's New?

- Bundles as templates
- Expanded CLI with bundle-specific tooling
- New docker-based bundle structure
- Decoupled MFE → MS wiring via service discovery
- App Builder extensibility through Entando Platform Capabilities (EPC)
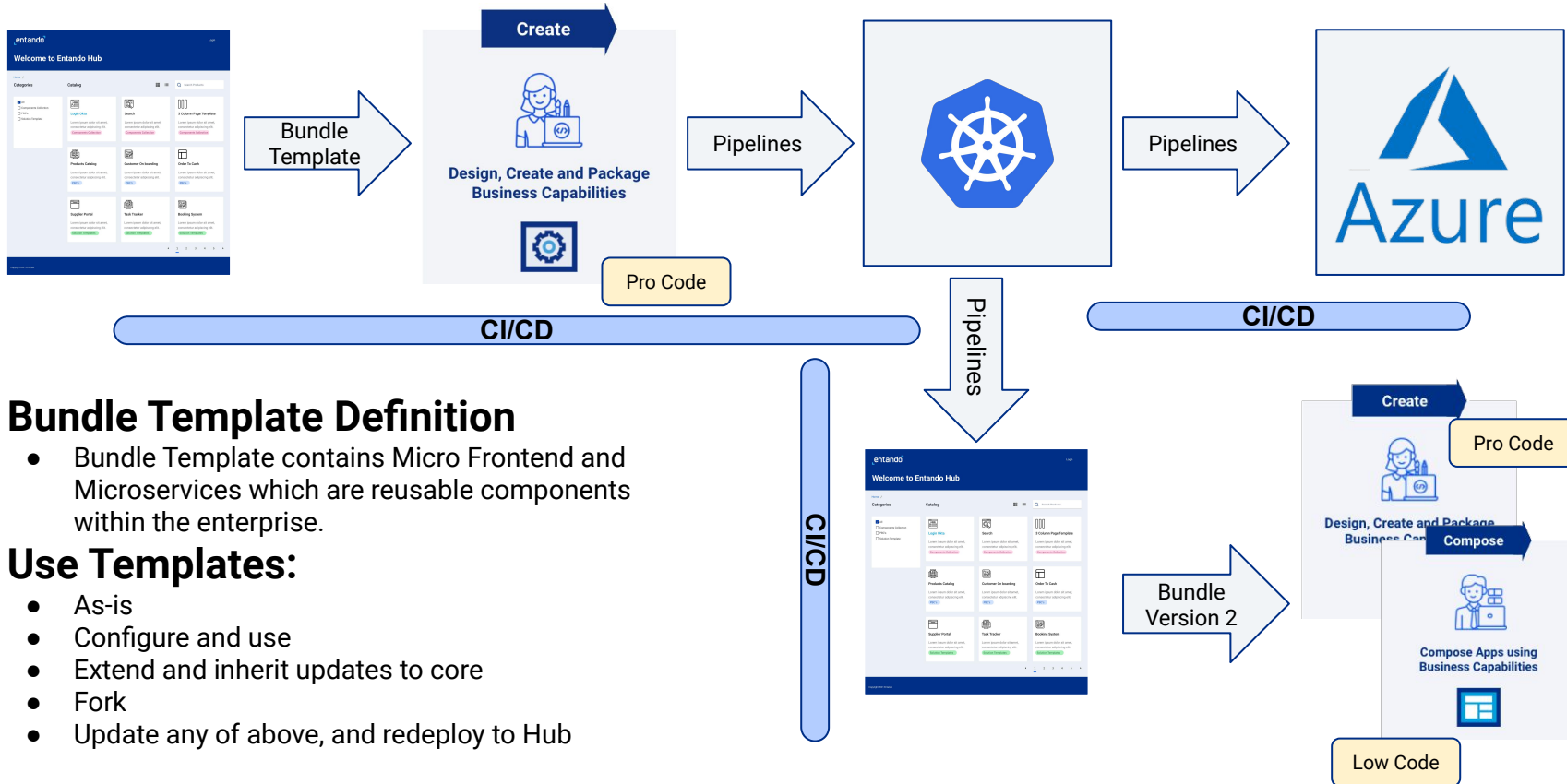- (TBD) Strapi CMS PBC (7.0) and EPC (7.1)

More details: https://developer.entando.com/v7.1/docs/releases/

# CREATE: Local Development Process



**INIT**

**ent bundle init**
Initialize project structure from scratch

**INIT FROM-HUB**

**ent bundle init --from-hub**
Initialize project structure from an entry in an Entando Hub

**ADD COMPONENTS**

Micro Frontend | Platform Components | Microservice

**ent bundle add**
Add components and populate the bundle descriptor (entando.json)

**BUILD**

**ent bundle build --all**
**ent bundle build (component)**
Build the specified component(s) using mvn, npm, etc.

**RUN**

**ent bundle run --all**
**ent bundle run (component)**
Run the specified components

- Creator can use any Hub based template to start a new project (if source is provided by the curator)
- Template can contain any Entando components, e.g. microservice, micro frontend, pages
  - ***ent bundle init --from-hub --hub-url=MY-HUB***
  - Supports both git-based (v1) and docker-based bundles (v5)
- https://developer.entando.com/v7.1/docs/getting-started/ent-bundle.html#initialization

# CURATE: Pro Code Bundles

**Bundle Template** → **Pipelines** → **Pipelines** → Azure

**Create** — Design, Create and Package Business Capabilities

Pro Code

CI/CD

CI/CD

Pipelines

## Bundle Template Definition
- Bundle Template contains Micro Frontend and Microservices which are reusable components within the enterprise.

## Use Templates:
- As-is
- Configure and use
- Extend and inherit updates to core
- Fork
- Update any of above, and redeploy to Hub

**Bundle Version 2**

**Create** — Design, Create and Package Business Capabilities — Pro Code

**Compose** — Compose Apps using Business Capabilities — Low Code

# CREATE: New Bundle Project Structure

- Many improvements to ent CLI with better cross-platform developer experience
  - https://developer.entando.com/v7.1/docs/getting-started/entando-cli.html
- New ent cli commands for developing and publishing bundles
  - https://developer.entando.com/v7.1/docs/getting-started/ent-bundle.html
- Decoupled bundle project structure based on standard concepts (Microservices, Micro Frontends…)
  - https://developer.entando.com/v7.1/docs/curate/bundle-comparison.html
  - JHipster Blueprint decoupled from ent build structure

# CREATE: New docker-based bundles


Create

Design, Create and Package
Business Capabilities

---

**Git-based format (descriptorVersion=v1)**

**bundle/descriptor.yaml** <- Top descriptor file, pointing to sub-descriptor files
**ui/** <- the source for one or more micro frontends
**src/** <- the source for one microservice
**src/main/docker** <- JHipster blueprint-only, for local development services, e.g. keycloak, postgresql
**\*.sh** <- build scripts copied into each project

Example: https://github.com/entando-samples/e70-jhipster-conference

---

**Docker-based format (descriptorVersion=v5)**

**entando.json** <- Top descriptor file, pointing to sub-descriptor files
**microfrontends/** <- the source for one or more micro frontends
**microservices/** <- the source for one or more microservices
**svc/** <- (optional) docker-compose files to assist local development, e.g. keycloak, postgresql
**Build and run commands** <- conventions via entando.json, can be customized
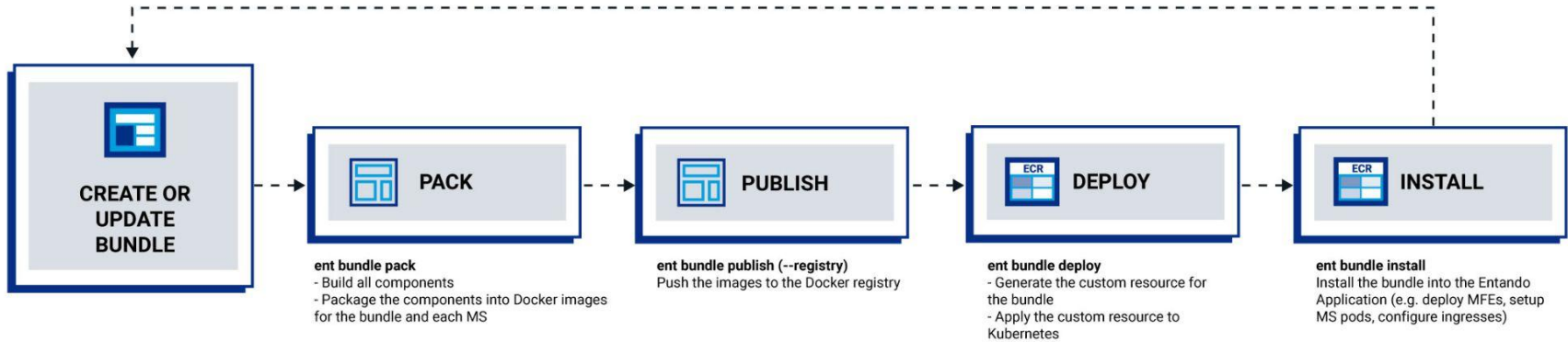
Example: https://github.com/entando-samples/e71-jhipster-conference

# CREATE: Publishing Process



**ent bundle pack**
- Build all components
- Package the components into Docker images for the bundle and each MS

**ent bundle publish (--registry)**
Push the images to the Docker registry

**ent bundle deploy**
- Generate the custom resource for the bundle
- Apply the custom resource to Kubernetes

**ent bundle install**
Install the bundle into the Entando Application (e.g. deploy MFEs, setup MS pods, configure ingresses)

- Simplified publishing process
- Customizable run and build commands
- https://developer.entando.com/v7.1/docs/curate/bundle-details.html#bundle-development-process

# COMPOSE: Extending the Entando App Builder with EPC

## EPC: Entando Platform Capability

- Add additional low code capabilities
- Added as <u>Functional</u> Entando Platform Capabilities or as <u>System</u> Entando Platform Capabilities
- Leverage capabilities in your stack
- Extend to one or more headless capabilities
- EPCs can be app specific
- Functional EPC (Headless) examples
  - WCMS (e.g., Strapi )
  - API Management (e.g., Apiman)
  - Workflow (e.g., jBPM)
  - Rules Mgmt (e.g., Drools)
  - K8s Namespace Monitoring
  - AI/ML (e.g., Azure Open AI)
- https://developer.entando.com/v7.1/tutorials/create/mfe/epc.html

**Entando App Builder**



jBPM
STRAPI.IO
AZURE AI

Entando Platform Capabilities (EPCs) added from Hub

# Entando Catalog Architecture



**PBCs**, aka, Components, Accelerators, and Solutions

(Entando, SI, ISV, Community Components)

- Page Templates
- Design Systems
- Login for Okta
- SPID
- ChartJS Widget
- Customer Portal
- Partner Portal
- Micro Portal
- Advanced Search
- Task Mgmt
- Case Mgmt
- eComm
- Calendar
- Doc Repo
- Node Widget
- Tableau Widget
- Onboarding Portal
- Loyalty Program

**Functional EPC**

(ISV Integrations)

- WCMS (Strapi)
- Workflow Server
- IdM
- AI Service
- Docs Mgmt
- SMS Service
- Eventing Service
- Email Service
- DXP Service
- eComm Service
- Calendar Service
- Hub

**System Level EPC**

(Entando and ISV Integrations)

- WebUI
- CI/CD
- Logging
- Monitoring
- Secrets Mgmt
- App Builder
- API Mgmt
- Message Broker
- Kafka Server
- Data Fabric
- App Engine

# Breaking Changes

- Entando Component Repository re-labeled Local Hub in the App Builder UI
- docker-based bundles
  - Only available for Entando 7.1+
  - git-based bundles are fully forward compatible to 7.1
  - *ent prj* and git-based bundles are deprecated with 7.1
  - Docs and tutorials are shifting to the new format
  - bundle/plugin/component identifiers change when moving to docker-based
- config MFEs (even in git-based bundles) need to be Javascript modules (*type="module"*)
  - https://developer.entando.com/v7.1/docs/releases/#breaking-changes
- K8s 1.24 support coming soon
  - See the blog for announcements

# What's Next?

# Product Roadmap Themes



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TBD

*Entando SaaS, PBCs and EPCs*

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TBD
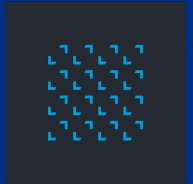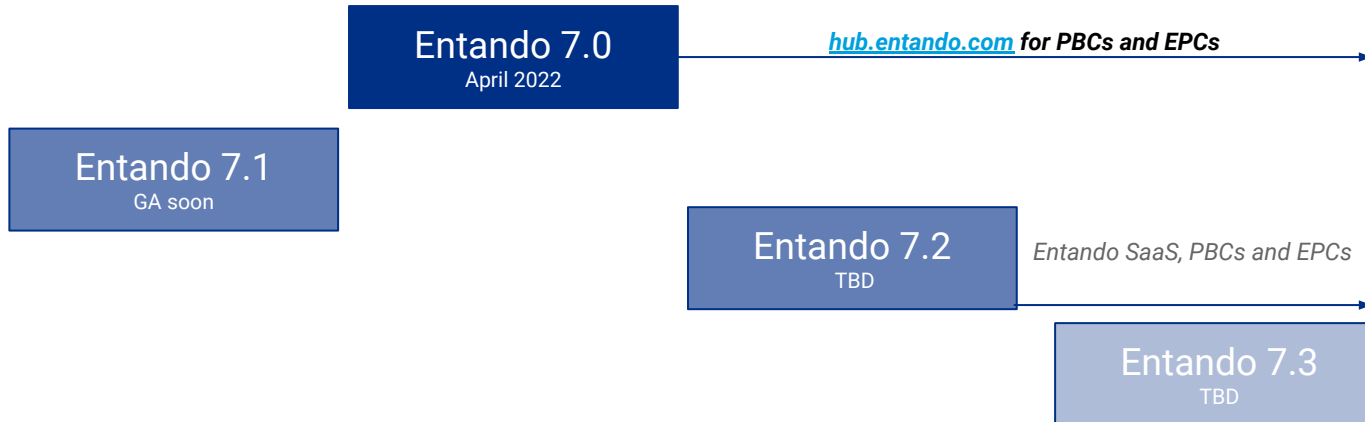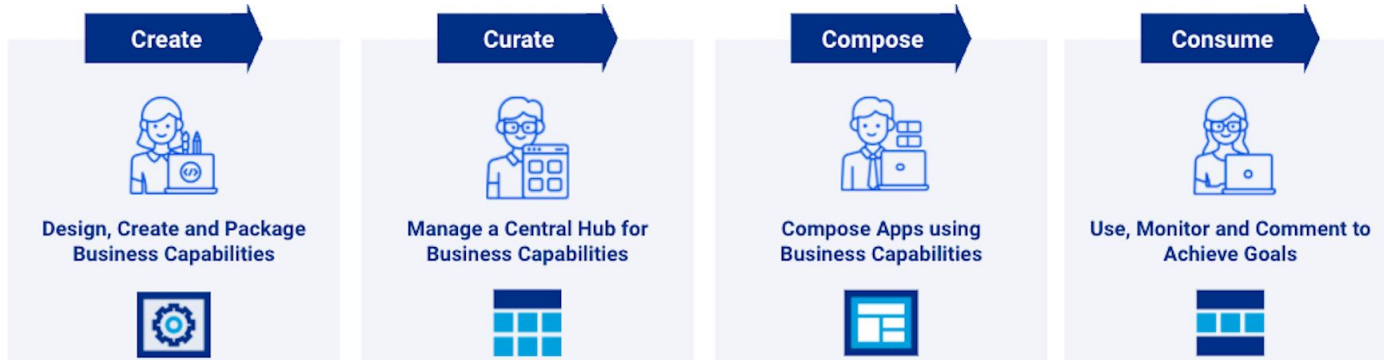
# Compose Applications
## By using PBCs from Multiple Hubs

### App Builder (with a Local Hub)
Included in the AppBuilder. Used to CREATE and compose applications from prebuilt components. Use components and PBCs as-is, configure, extend, or fork.
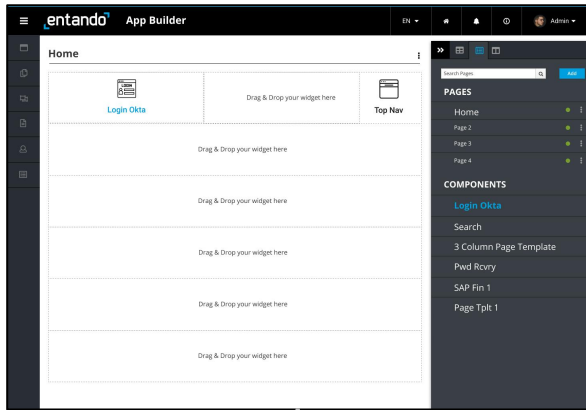
### Enterprise Hubs
Developed and curated by either enterprises or their SI partners. Used to curate IP / PBCs / components and to control governance.
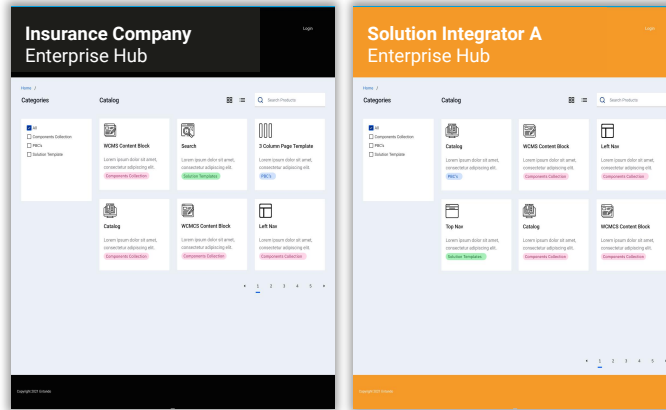
### Entando Cloud Hub
Repository of public and private components and PBCs.
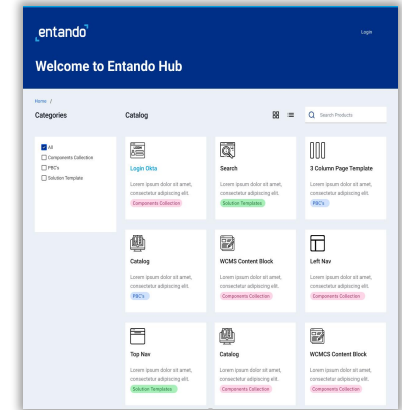


*A single Entando Application Builder can leverage multiple Entando Hubs to build one or more applications*

# Product Vision



## 2021
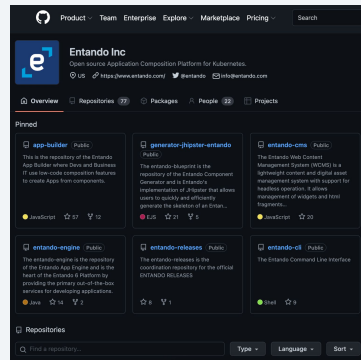
**Entando Platform**
- Platform Subs
- Services
- Platform Training

## 2022
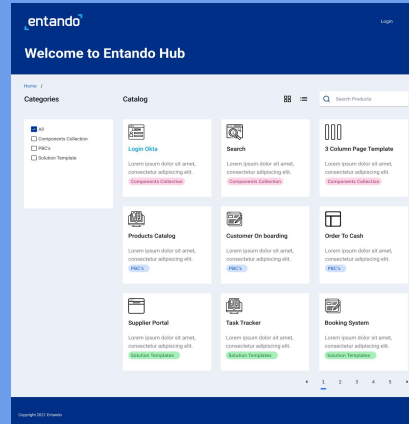
**Entando Cloud Hub**
- PBCs / Solutions
- PBC Dev Services
- SI Hub Support

## 2023/4
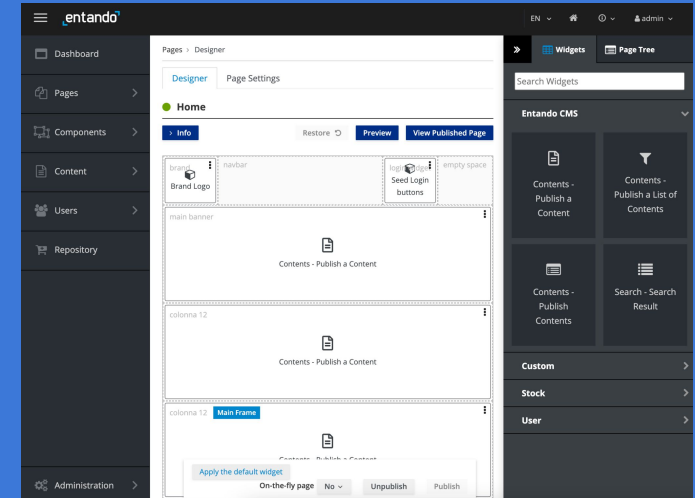
**Entando Cloud Platform**
- PaaS Subs
- Services
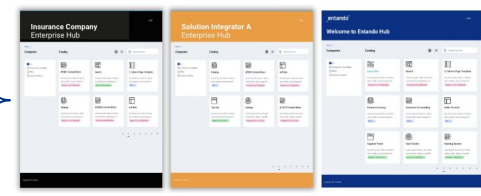- SI PaaS Support

# API Management

## API Aggregation

- Unify enterprise and 3rd party APIs with [Apiman](#)
- Assemble Frontend and Backend Code together into bundle



**Entando App Builder, APIMan**

**Entando Component Generator, and Bundle CLI**
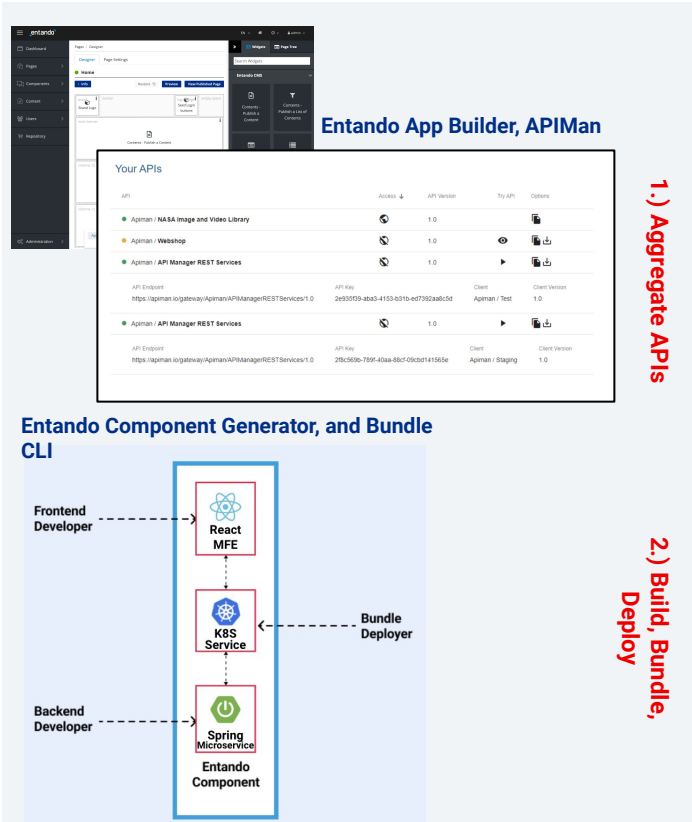
**1.) Aggregate APIs**

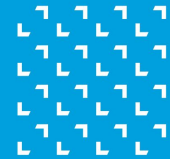**2.) Build, Bundle, Deploy**

# Q&A

linkedin.com/company/entando

github.com/entando

facebook.com/Entando

www.youtube.com/c/EntandoVideos

twitter.com/entando

www.instagram.com/entandoinc

www.entando.com

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www.instagram.com/entandoinc