Mobile apps

Erasmus + Eurostar - 29/04/2022

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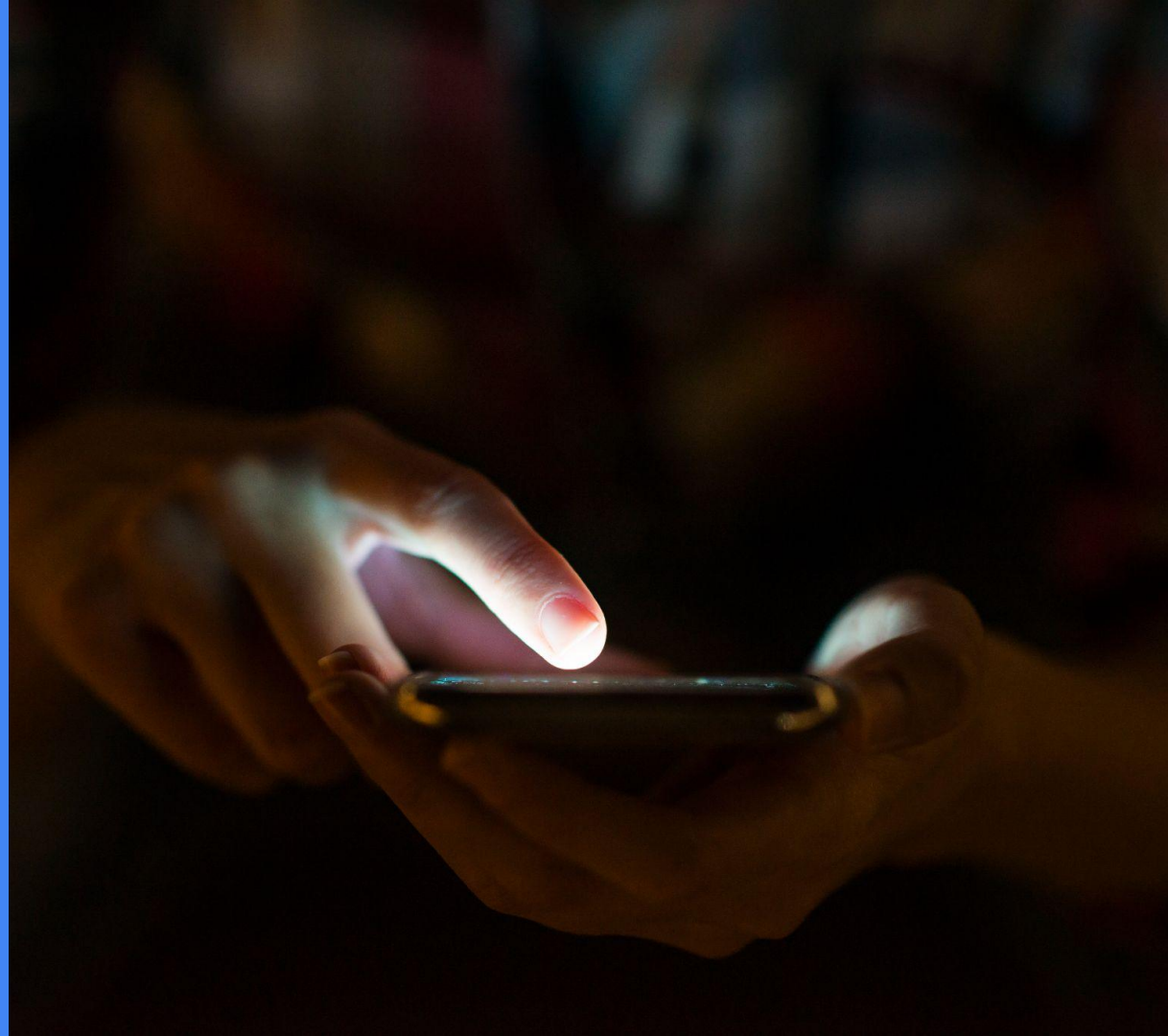
What is a mobile App?



Term definition

“App” it is the short version of “mobile application”.

It is a software developed to run on mobile device such as a phone, tablet or watch.

Wikipedia

Diffusion

The “app” term is really common in everyday language.

In 2010 it was listed as “World of the Year” by the “American Dialect Society”.

Nowadays we are used to the “App” term because each of us has a phone in his pocket.

Many of the services made available by your smartphones use apps to work.

Email, Facebook, Instagram, Whatsapp…

Statistics

68.1%

of global internet traffic in 2020 was made via mobile devices.

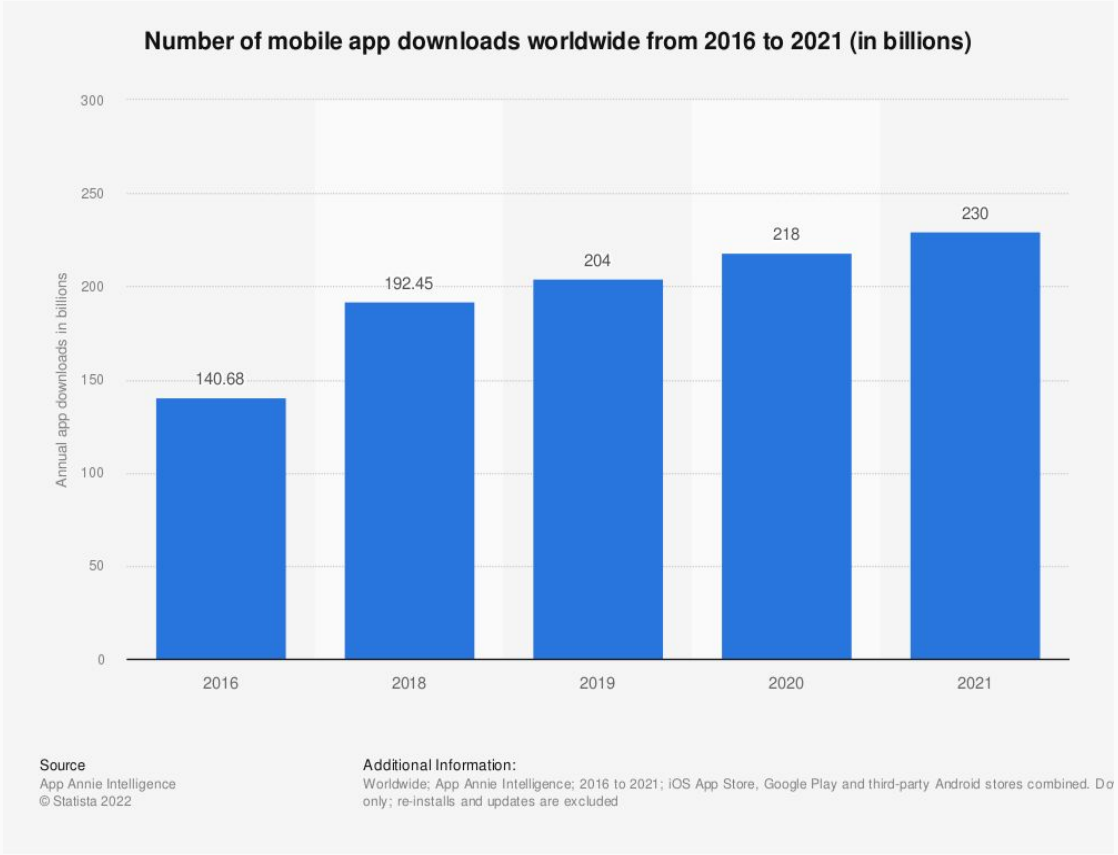
(source: perficient.com)

In 2021

230 billion

of Mobile App download
have been registered

updates and re-install
are excluded

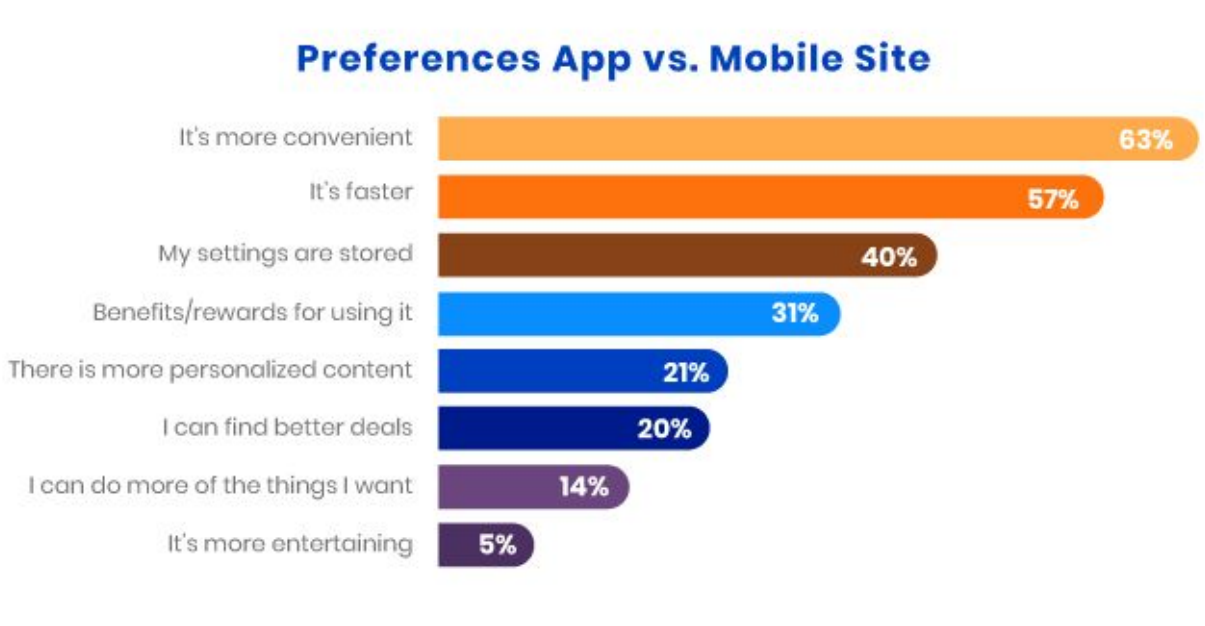


source: statista.com

Mobile app / Mobile Site

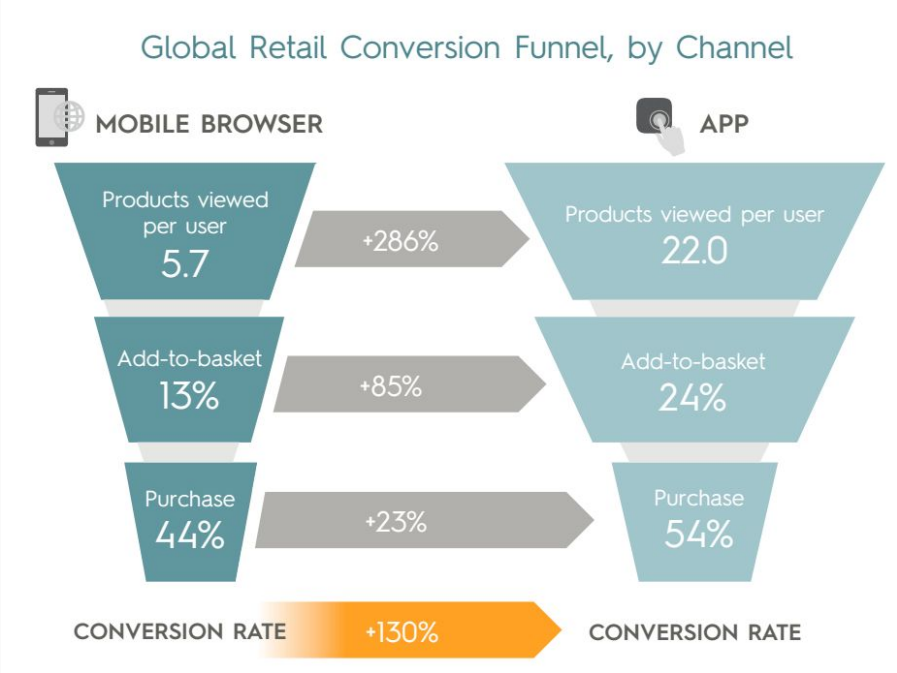
Statistics show us that users prefer using mobile app instead of surfing the web through a web browser

Why?



source: rubygarage.org / Compuware 2016

Economic impact…?



source: skitf.com/ Criteo

Purchases of services and products made through mobile apps increase up to

+130%

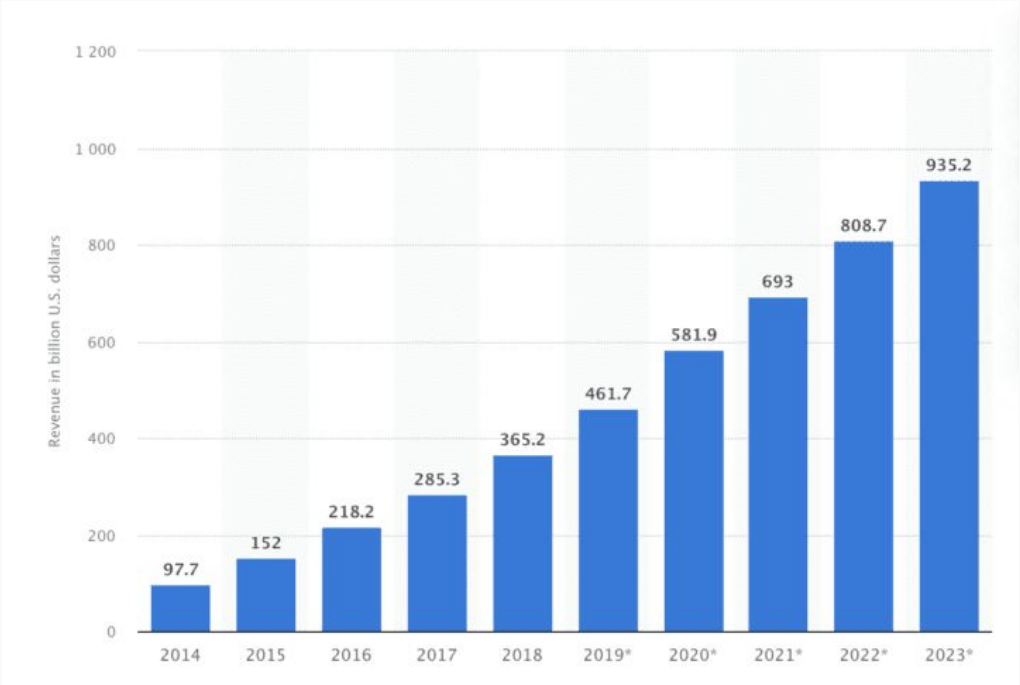
compared to purchases made through websites.

Economic impact….?

Increases of up to

$ 935 billion

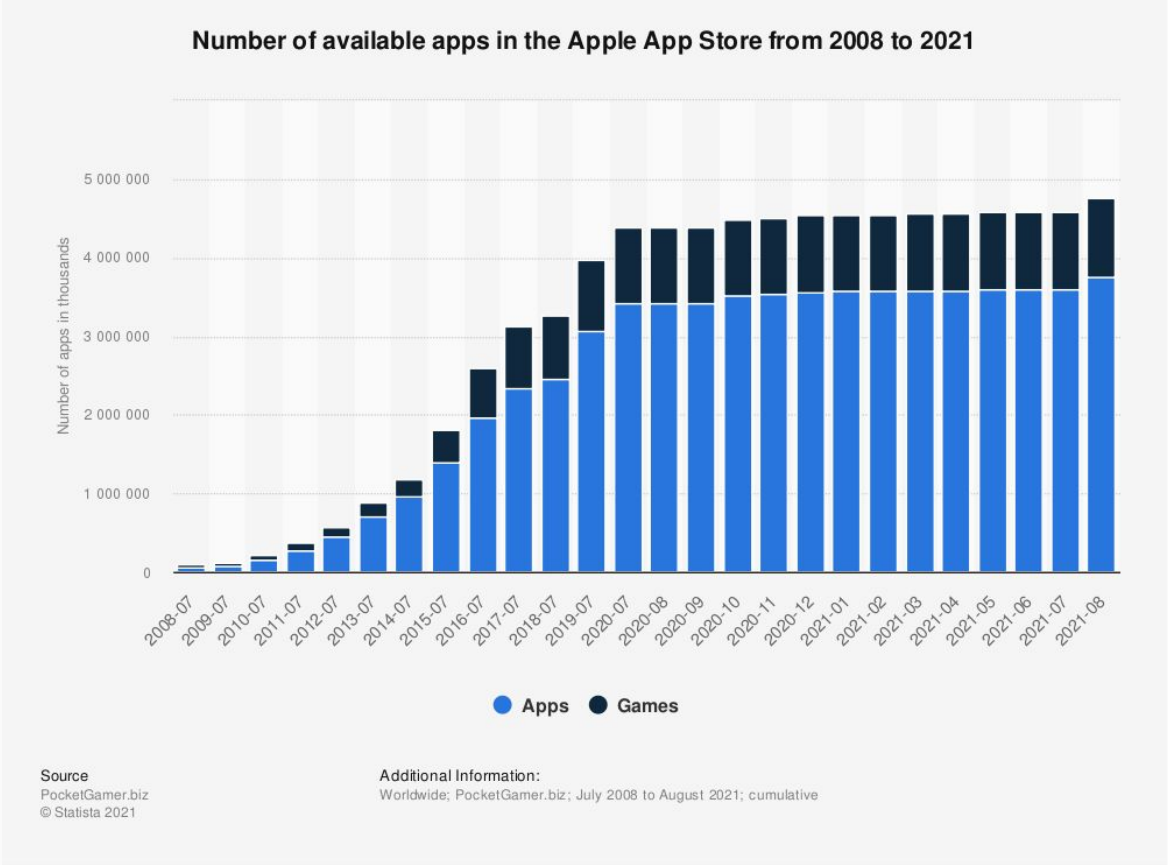
are expected in 2023 in the global market of mobile apps.



source: statista.com

Consequently
it is easy to understand
why companies and
individuals are
interested in mobile
apps developing

In 2021 there were
5 billion of apps
available for download
on Apple App Store.



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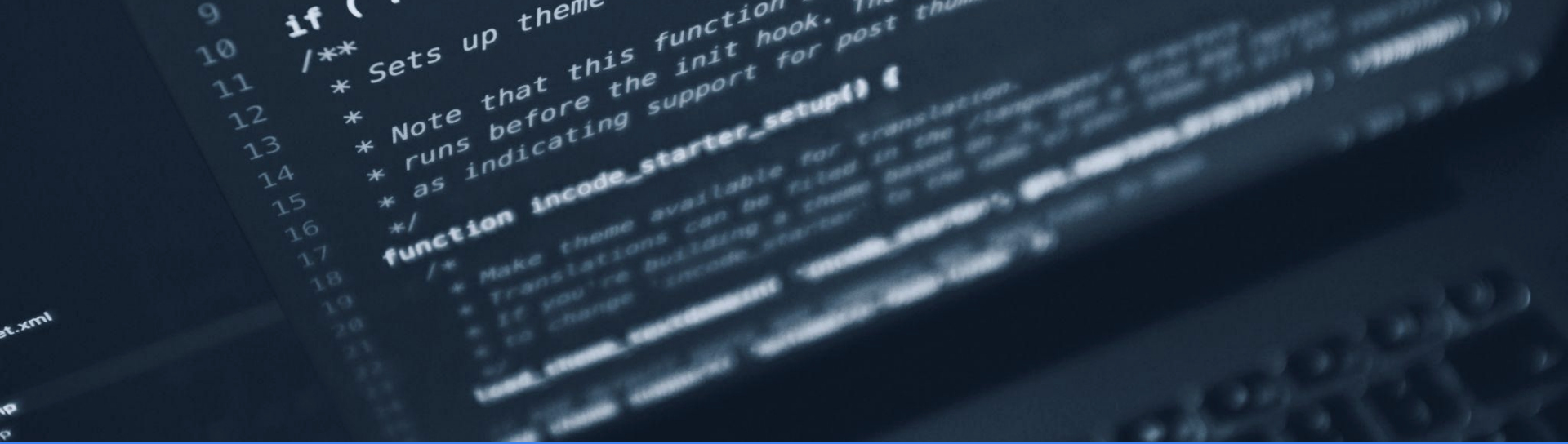


But how is a mobile app actually made?

But how is a mobile app actually made?

We said that mobile apps are software developed to run on mobile device such as a smartphone.

So the first consideration is that this software have to be compatible with the destination device.

To simplify as much as possible, we will discuss only about two main belonging categories of smartphones:

- Android
- Apple

We will try to avoid every technical stuff to be as clear as possible!

There are

3 main categories

of mobile apps

Native apps

Native applications are designed specifically for a mobile operating system, typically iOS or Android. So they have to follow the required standards of coding (Java or Switf). This kind of apps are distributed through Google and Apple stores.

Webapps

Webapps are developed with web tecnologies (Javascript, HTML, CSS) and distributed through a web link.
In case of PWA (Progressive Web App) you can install the app on your phone without going into Apple or Google stores.

Hybrid apps

This kind of apps are developed with web technologies too, but disguised in a native container, like a Native App. So they are distributed through the Google and Apples stores as well.

General remarks

In order to develop a mobile app there are a lot of things to take care to compared to website developing.

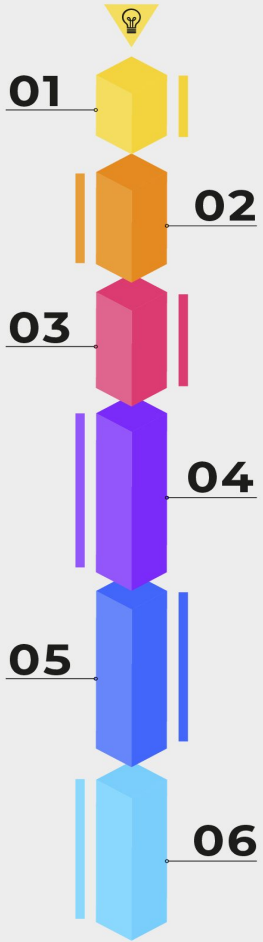
These are just a few examples:

- Small screen size
- Huge users needs about UX (user experience) and UI (user interface)
- Limited battery life
- Native sensor features (Push Notification, GPS, frontal-cam, vibration, gyroscope…)

Steps of App Development

Without getting too technical we can summarize app developments steps into the following:

- App prototyping (Wireframes)
- Design (UX/UI + Mockup)
- Code development
  Based on the features of your app, you can choose between native, hybrid or webapp
- App testing
- Release
  publication on Google and Apple Stores
  (not required in case of PWA)
- Maintenance



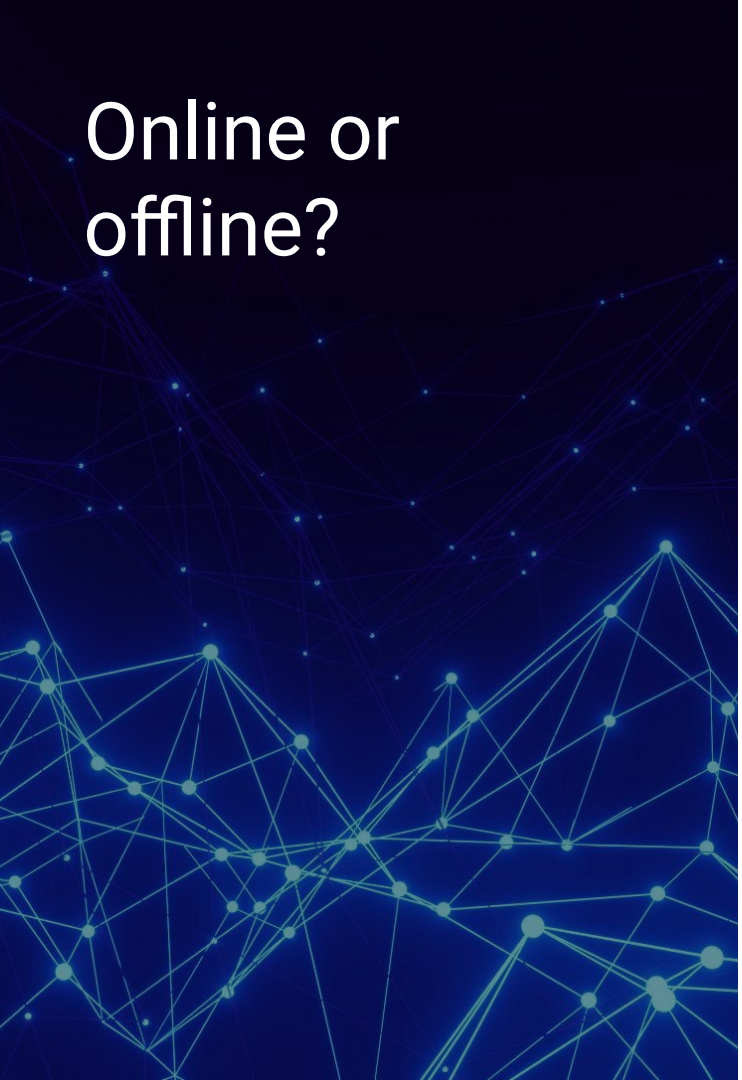
App Distribution

If you want to distribute your app through Google and Apple stores, you'll need to join the appropriate developer program.
Both Apple and Google have developer programs for individuals or companies for a fee.

Your app also have to be compliant with the quality standard required by these stores.
In fact your app will be revisioned by teams of each stores to ensure its quality and compliance to their terms and conditions and it can be rejected if any discrepancy occurs.

Especially Apple requires so much high-quality standard that publish an app through the *App Store* is not so obvious.

Online or offline?



A mobile app can work in three ways:

- **Offline**
  Calculators, video games

- **Online**
  News apps or social networks

- **Hybrid**
  It can work offline but more contents can be downloaded.
  Navigation apps

Online apps

A mobile app that use internet to obtain contents consists of two main parts:

- **Cloud server (server)**
  A service used for storing data and distribute contents to user apps

- **Mobile app (client)**
  The app itself that downloads contents from server and shows it to users.

Sustainable Tourism App

For the **Erasmus + Eurostar project**, we developed a demo app with these features among those seen before:

- Webapp - PWA
- Online working

***Sustainable Tourism* App act like a news aggregator.**

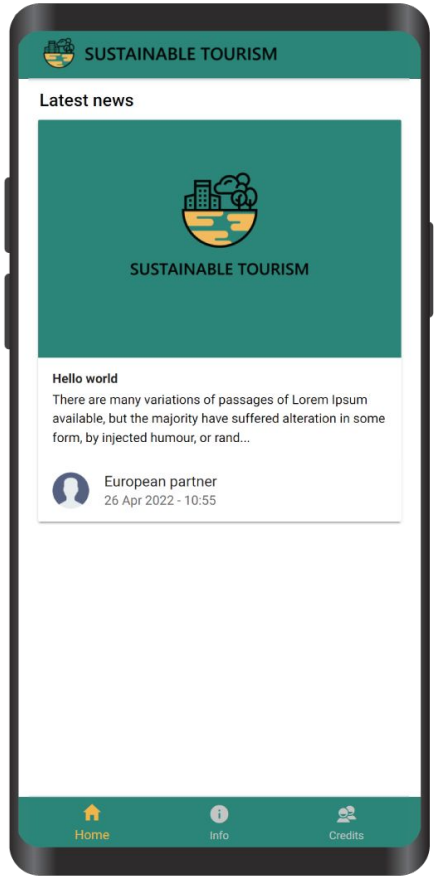
We will give to you a riservate access to a web **dashboard**, where you can create news with text, image and tags.

You can also edit your profile informations, such as profile pic, introduction text and address or simply Country.

This dashboard is the cloud-side component of the ecosystem.

The client-side of the ecosystem is the App itself.

Each news which was created on the dashboard is shared with the App, into an infinite scrolling feed where news of different european partners are mixed together.

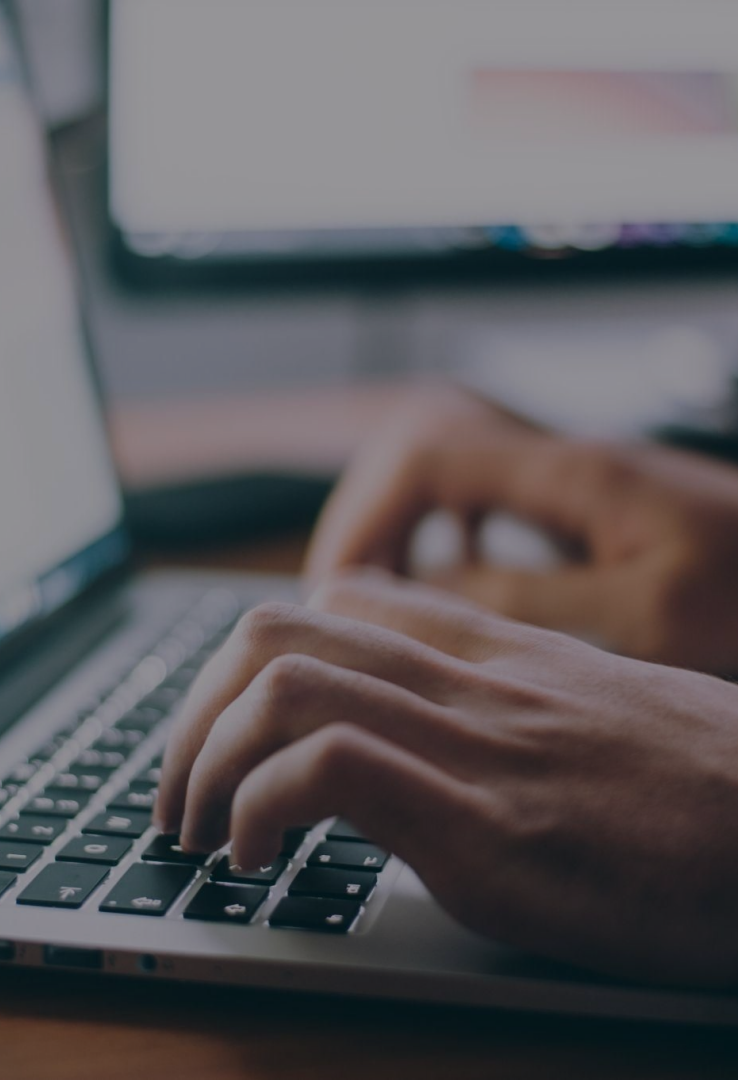


You can obtain the app simply visiting this url or using the QR code:

https://bit.ly/euSTA

- If you have an Android device you can open the url with Chrome browser. A popup will ask you to install the app into the home screen of your phone.

- If you have an iOS device you can use Safari browser to open the url. Then you can install the App by clicking on the *share icon* and then on *Add to Home*



Dashboard access

As said before, as a partner of the *Erasmus + Eurostar project* you will have access to the reserved dashboard where you can manage your contents.

You can use this link to visit the dashboard:

https://bit.ly/dashSTA

We will share with you your login credential later!

Keep in mind that all of the edit you made to the contents on the dashboard side, will be immediately sent to the app, with a **real-time** mechanism.

Thanks for watching!

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Credits & bibliography

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