



Project Smart **Museum** & **Park**



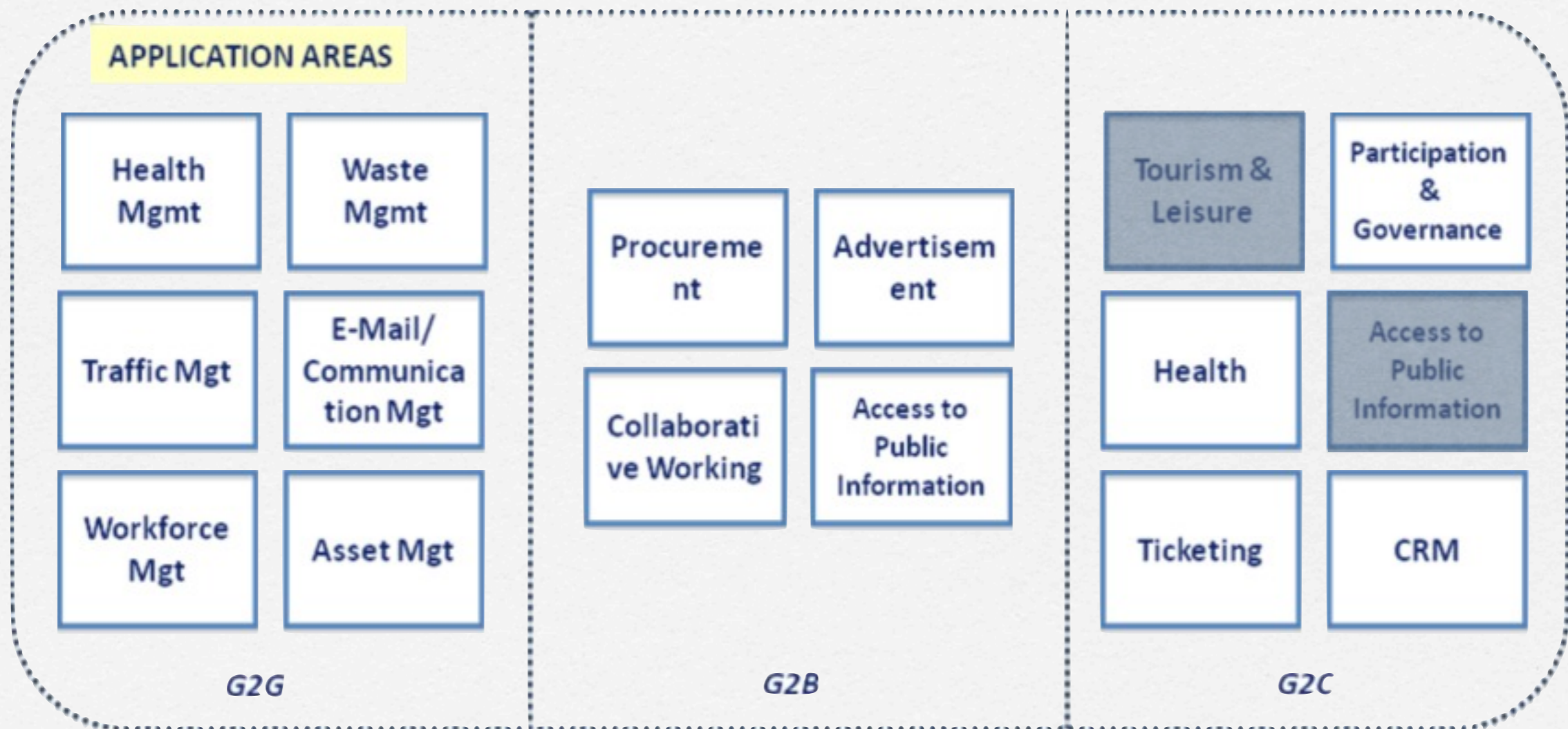
A Revival of Interest in Greenery

- In recent years, the need of the contact "between man and nature" on the part of citizens has increased more and more both for the reaffirmation of a growing need for nature and for the recognition of the intrinsic values of the "green".
- This need has increased the interest not only in parks and historical villas but also in urban greenery surrounding the city, including also the historical anthropic elements presented (for instance San Tecla's Fort).

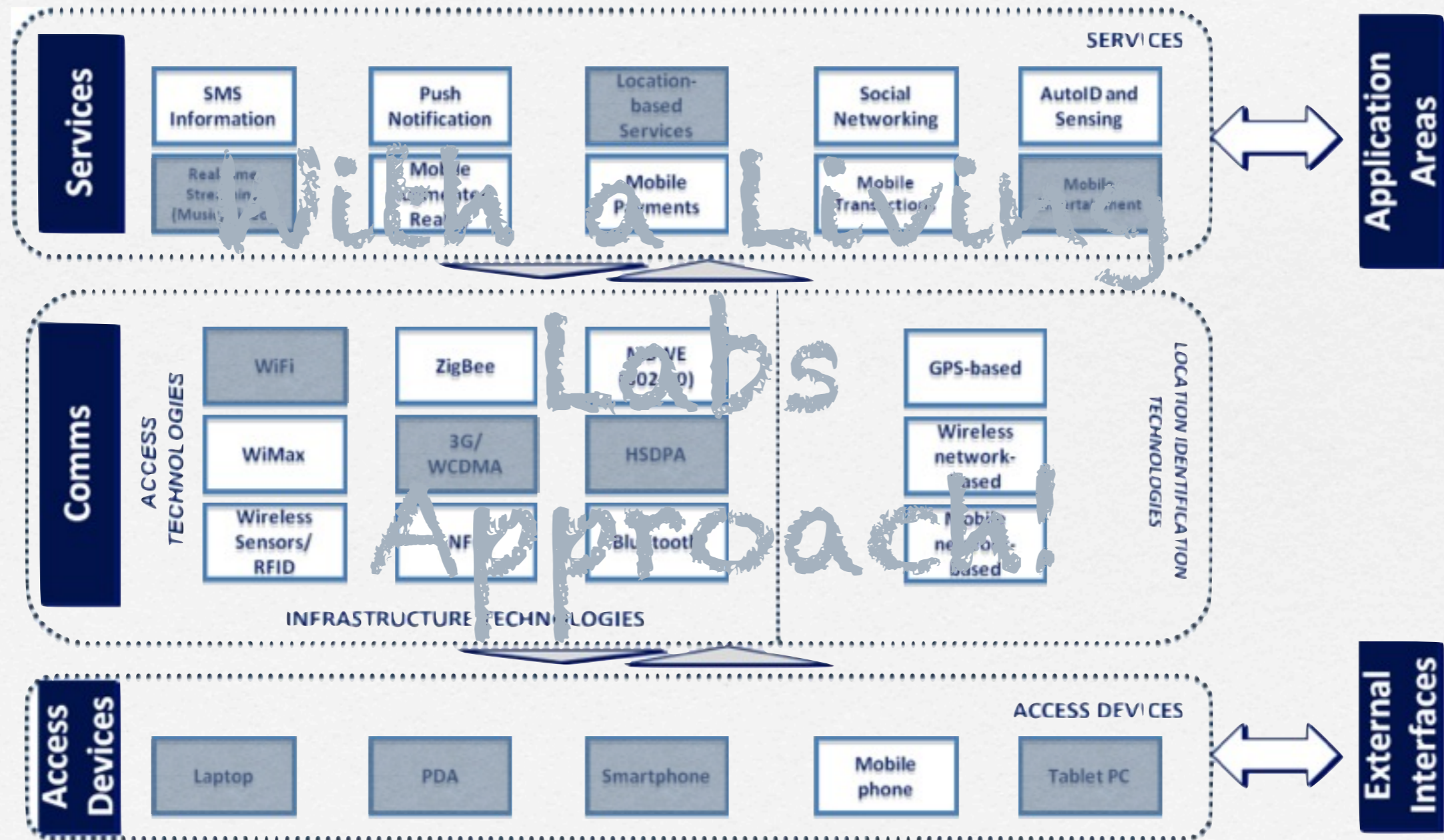
First Steps

- Selection of Application Area
- Selection of Service
- Selection of Infrastructure Tech/
Comms, Access Devices and
Implementation Technologies

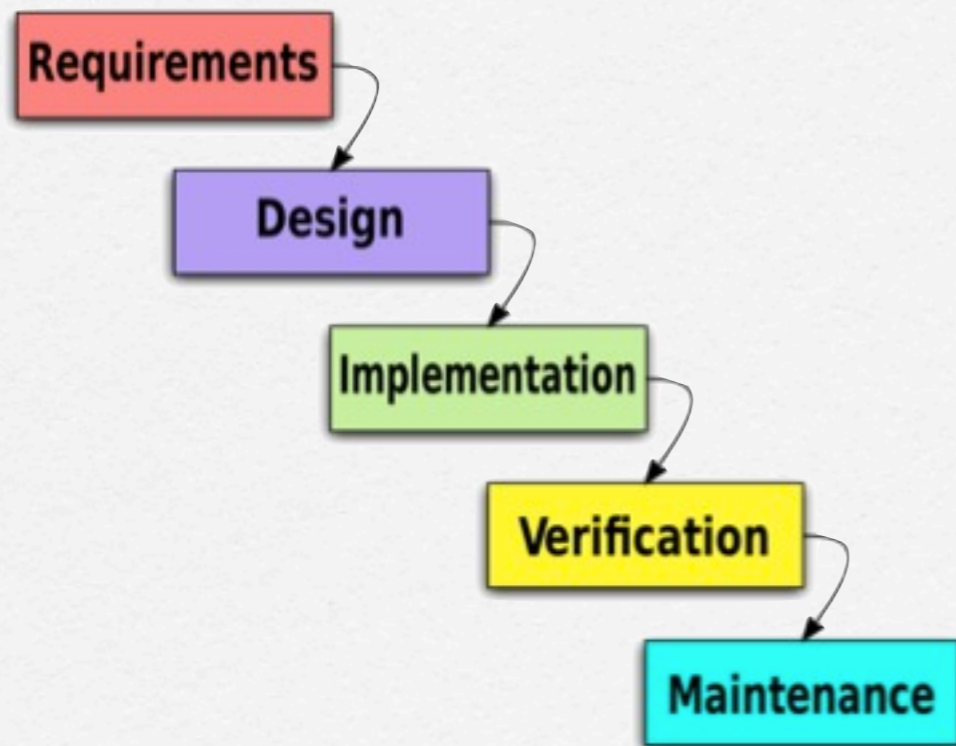
Application Areas



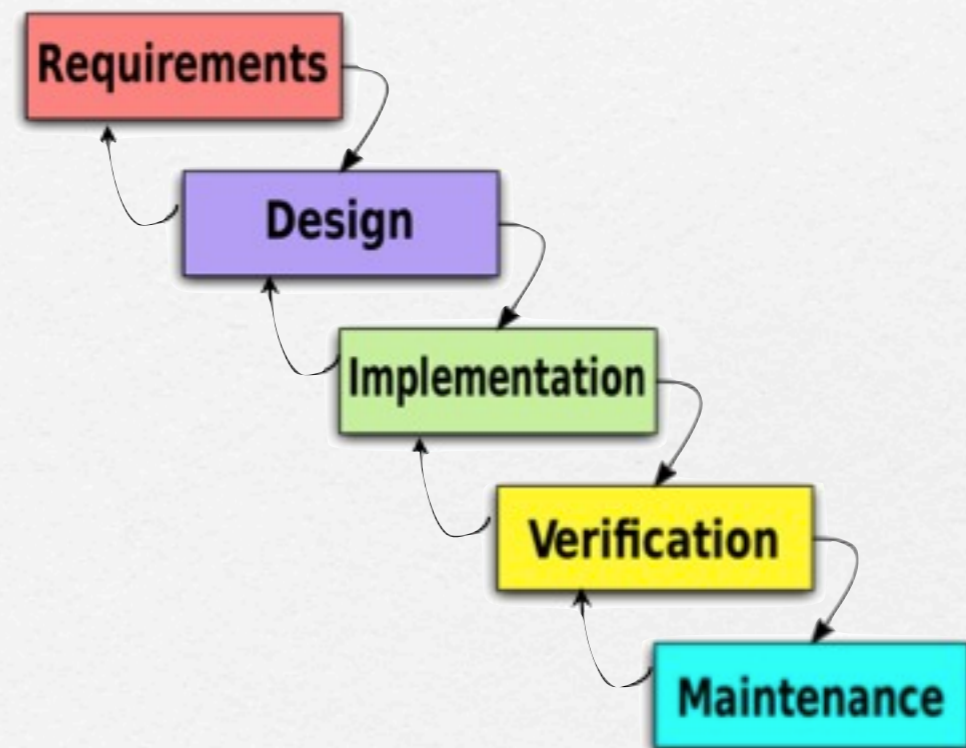
Services, Comms and Access Devices



The Development Process: The Waterfall



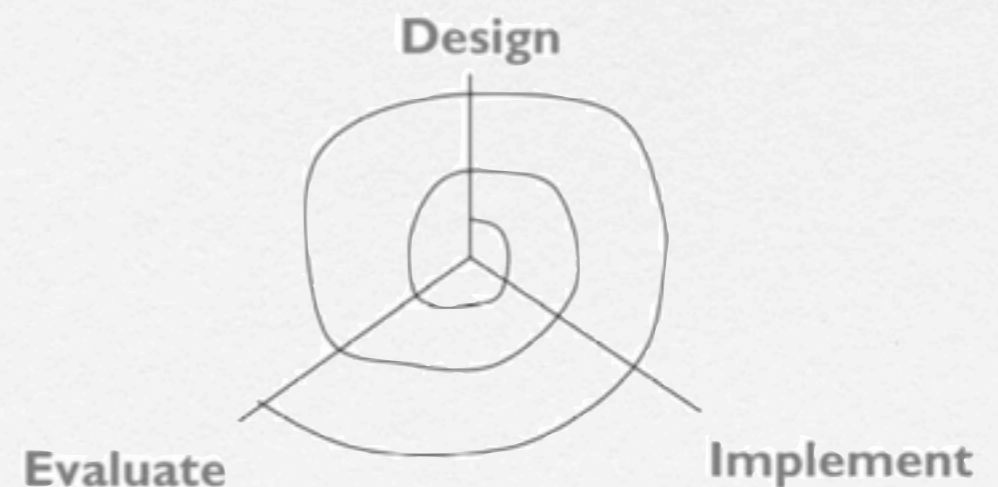
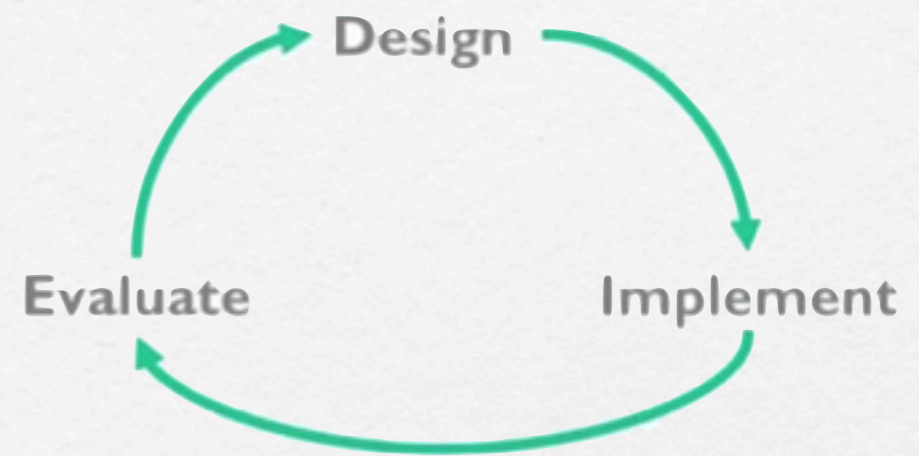
Classic Waterfall Model



Waterfall Model with Feedback

The Development Process: Spiral Model

- Several iterations into the design process.
- Early iterations as cheap as possible.
- The radial dimension of the spiral model corresponds to the cost of the iteration step or, equivalently, its fidelity or accuracy.



User Centered Design

- Users are at the center of the design process.
- It is an iterative design process.
- Early focus on users and tasks:
 - ✓ User analysis (who the users are)
 - ✓ Task analysis (what they need to do)
 - ✓ Users are involved as evaluators, consultant, and sometime designers
- Constant evaluation throughout the iterations – users are involved in every iteration
 - ✓ Every prototype is evaluated somehow

Pilot Project: Villa Pallavicini

- This park lends perfectly itself to carry out a project that encourages the revival of interest and the knowledge of **nature** because it was a romantic port of the 19th century and especially because it has an extraordinary **botanic garden**.
- The Villa Durazzo-Pallavicini is in Pegli near the station, in a residential quarter in the west of Genoa. Attached to the villa there is the Museo di Archeologia Ligure, one of the most important **museums of archaeology** on a national scale. The **park** and **botanical garden** are open daily.



Pilot Project: Santa Tecla's Fort

- Built in the XVIII century at 180 m above the sea level where once there was the Oratory of Santa Tecla, which gave the Fort its name.
- The construction of the fort was planned by engineer Jacques De Sicre within the wider project of fortifying the city of Genoa, against the Austrian's siege.



Smart Museum & Park

More secure and Interactive

- Informal and custom approach thanks to QR-Code and Isaac
 - by Age
 - by Needs
- Managing data in a central database, according to pre-ordtinate procedures could produce differentiated information. (New Tourism website)
- Interaction could happen with many different methodologies and with the integration of management, access and data transmission techniques.
- Information spread without charge thanks to Wi-Fi. (Genova Free Wi-Fi)
- A video vigilance system. (Axis, Robotics)






Qr-Code Technology

- QR code (abbreviation for Quick Response code) is a specific matrix barcode (or two-dimensional code) that is readable by dedicated QR barcode readers and camera telephones. The code consists of black modules arranged in a square pattern on a white background. The information encoded may be text (up to 4096 chars), URL, or other data.
- We want to replace/integrate the "obsolete" textual description with appropriate QR-CODES that can be read with up-to-date smartphones.
- These smartphones refer to prepared sections of the tourism portal, with downloadable multimedia contents depending on visitor's knowledge and age, making the visit to the parks a unique, all-round and 360-degree experience.



How Qr-Code Works?



-  version information
-  format information
-  position information
-  alignment information
-  timing information

Generating a Qr-Code

Sala 6

Che cosa si vede in esposizione:

Strumenti, fauna, sepolture dall'Età neolitica a quella Tardo Antica della Grotta delle Arene Candide, rinvenuti durante gli scavi condotti da L. Bernabò Brea alla metà del Novecento.

Vita quotidiana durante il Neolitico

I livelli neolitici sono i più consistenti della grotta che è stata occupata stabilmente. Una parte della grotta era adibita a stalla per il bestiame e vi sono state trovate le ossa degli animali (caprovini, bovini e suini) addomesticati e diffusi in questo periodo. Gli abitanti andavano anche a caccia di cervi e cinghiali, come dimostrano i resti delle prede e le numerose punte di freccia in pietra la cui tipologia e lavorazione subì un continuo sviluppo. Forse allevavano a questo scopo i cani, che tuttavia potevano costituire anche una fonte di cibo. Era praticata attivamente anche la pesca, come dimostrano numerosi ami fabbricati in osso, con frammenti di conchiglia o zanne di cinghiale ed è evidente il forte valore economico attribuito alle risorse marine. La grotta fu costantemente coinvolta nei circuiti di scambio a scala regionale (le pietre verdi) ed extraregionale (ossidiane liparesi, pontine e sarde).

Gli abitanti neolitici usarono la grotta anche per seppellirvi i loro morti deposti in posizione fortemente rannicchiata sul fianco, con le mani raccolte vicino al capo e comedo piuttosto povero. Durante i successivi periodi della preistoria la frequentazione dell'uomo deve essere stata meno intensa ed i materiali riferibili all'Età dei Metalli rinvenuti permettono di ipotizzare che la grotta fosse visitata solo saltuariamente.



url Qr-Code



Text Qr-Code

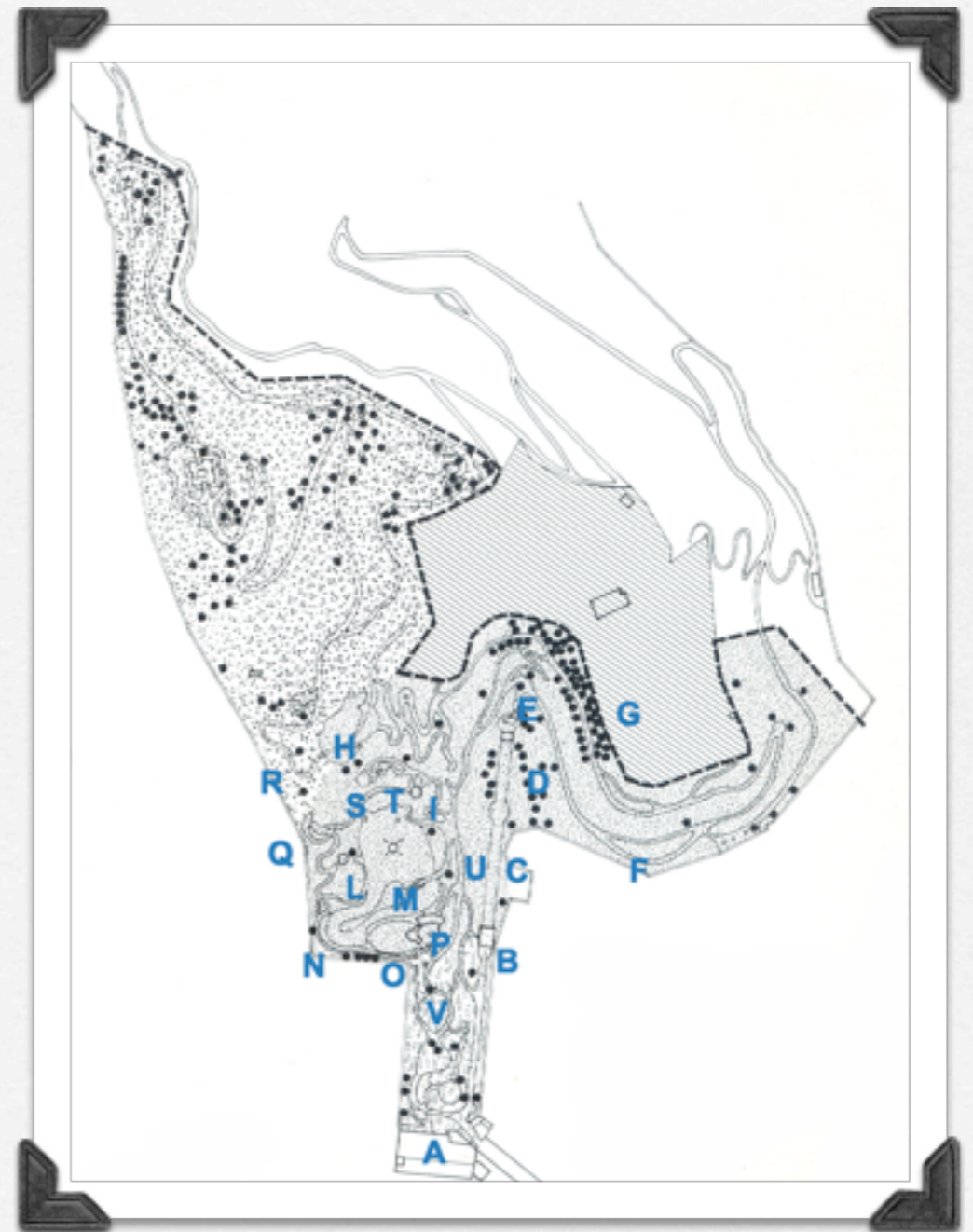
Isaac

- A working prototype is available at:
[http://
isaac2.comune.
genova.it/](http://isaac2.comune.genova.it/)



Next P.O.I for Villa Pallavicini

ID	AREA
A	Tribuna Gotica
B	Coffee House
C	Viale Classico
D	Arco di Trionfo
E	Casa dell'Eremita
F	Oasi Mediterranea
G	Le Camelie Antiche
H	Lago Vecchio
I	Le Grotte
L	Tempo di Diana
M	Lago Grande
N	Obelisco Egizio
O	Tempio di Flora
P	Serra di Flora
Q	Chiosco Turco
R	Monumento a G. Chiabrera
S	Ponte Romano
T	Chiosco delle Rose
U	Pagoda e Ponte Cinese
V	L'aquila e il cocodrillo



Assignment for contents according to age and education

User	Recreational	Scientific (simply)	Scientific (deepen)	Scientific (technical)	Historical Environmental	Costums and traditions
Baby	✓					
Student	✓	✓			✓	✓
Teenager		✓	✓		✓	✓
Adult			✓		✓	✓
Adult with specific skills				✓	✓	✓

Wi-Fi Coverage for Villa Pallavicini

- Archeology Museum
- Botanical garden



Wi-Fi Coverage for Santa Tecla's Fort

□ Santa Tecla's Fort

□ Park of Santa Tecla



Genoa's Wi-Fi Network



The End