



Urbasense[®]

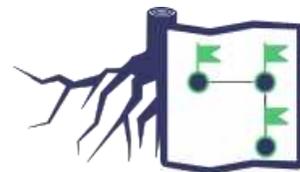
4 SCOPE OF APPLICATION AND MARKETS



4 markets



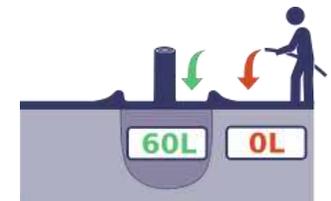
Taking care of the plantations



Root's growth control



Quality control and traceability



Watering rationalization

HISTORY OF TRUST



"A technique that simultaneously optimizes watering but also follows root lengthening, thus empowering the tree."

Frédéric Ségur, Espace public & paysage, January 2019

Watermark®
probe

Root monitoring
protocol - tree

Urbasense®

1970

1995

2015





















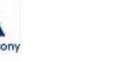






























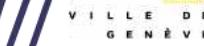
























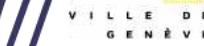
























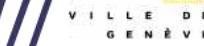
























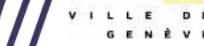
























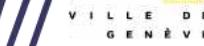
























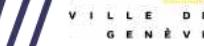
























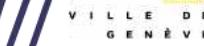
























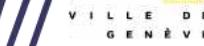
























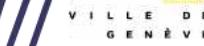
























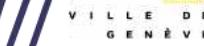
























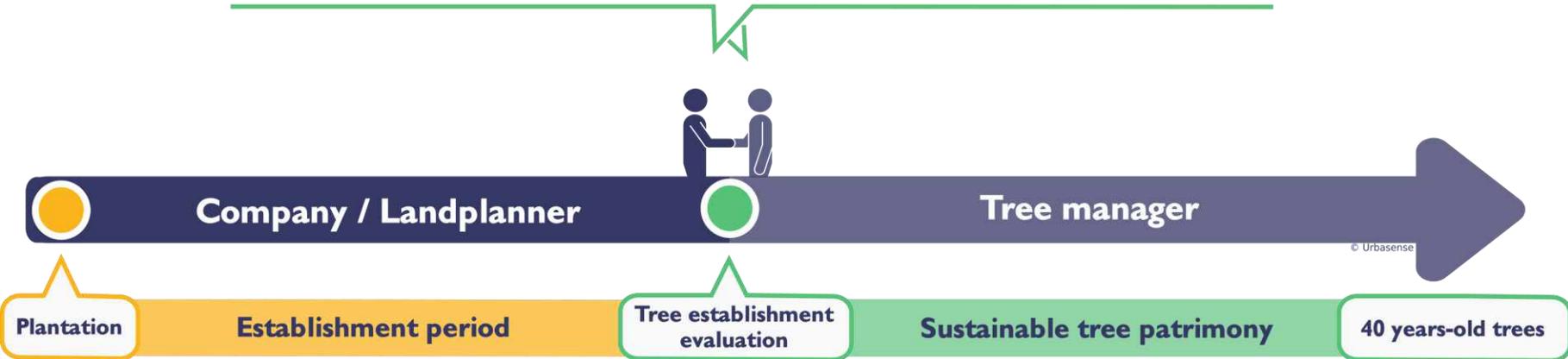
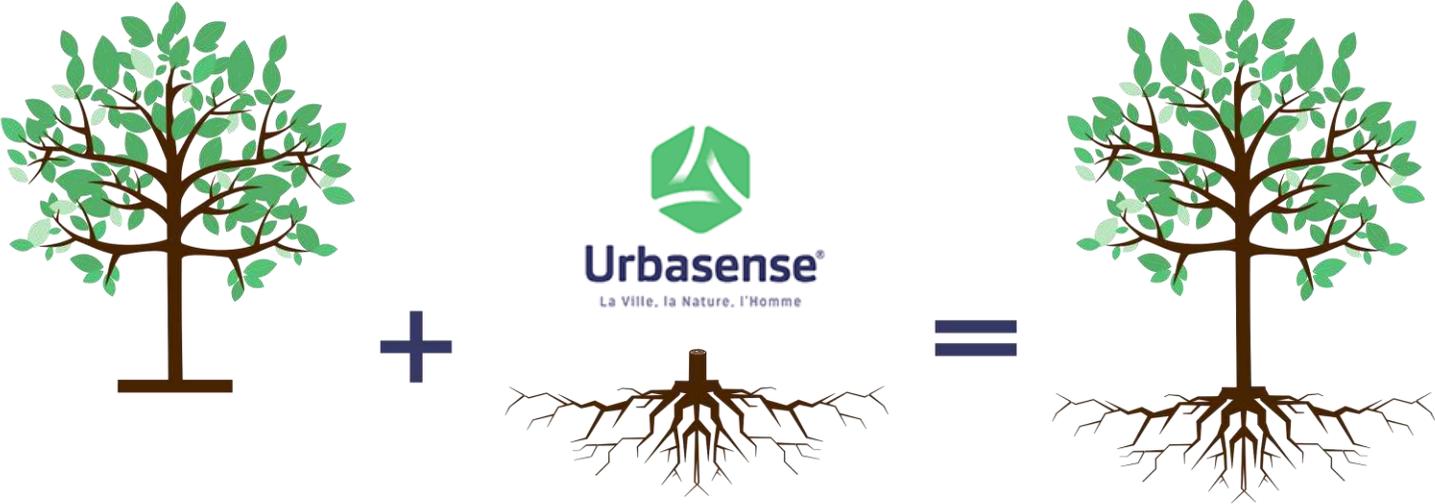









RESPONSIBILITY CALENDAR





Minisense® device connected



Protective manhole



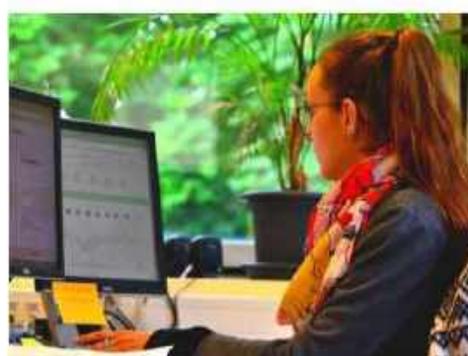
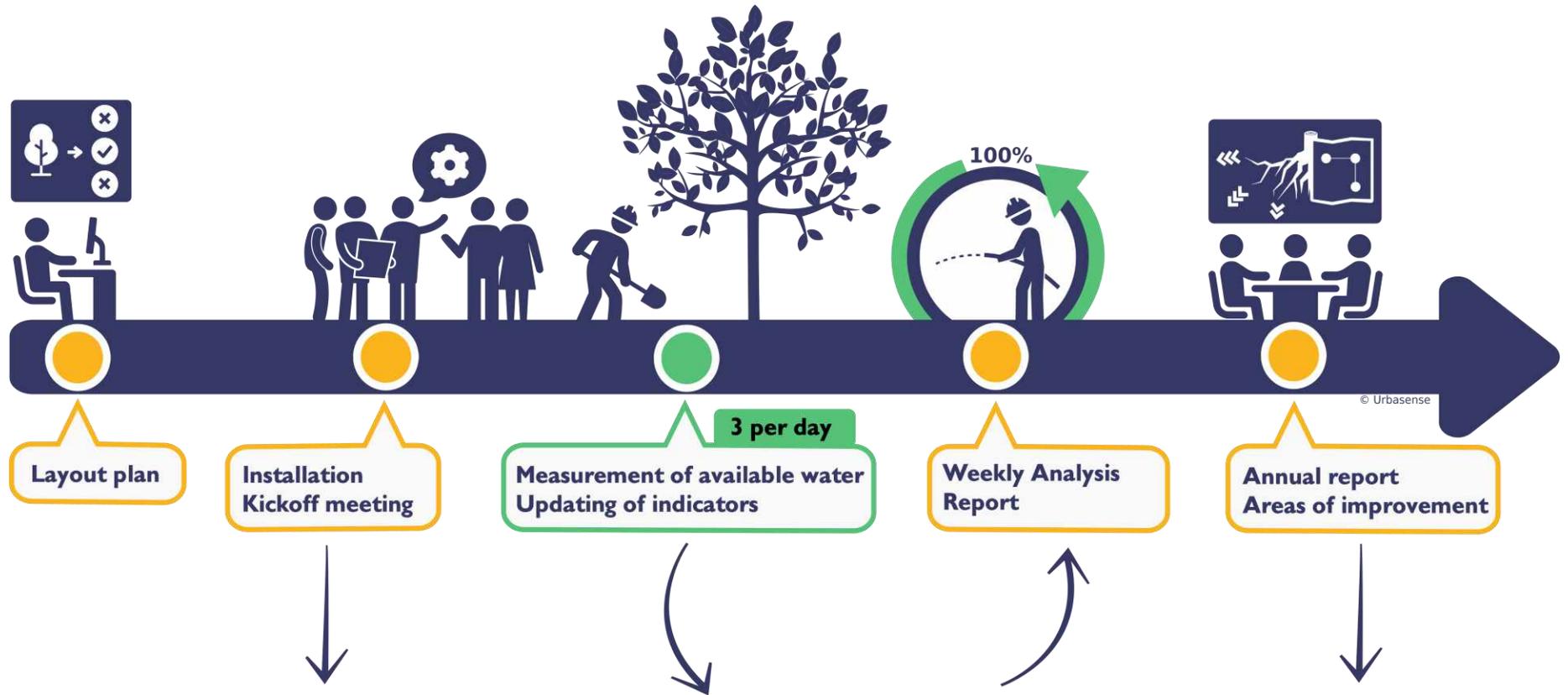
Tensiometric probe



Battery



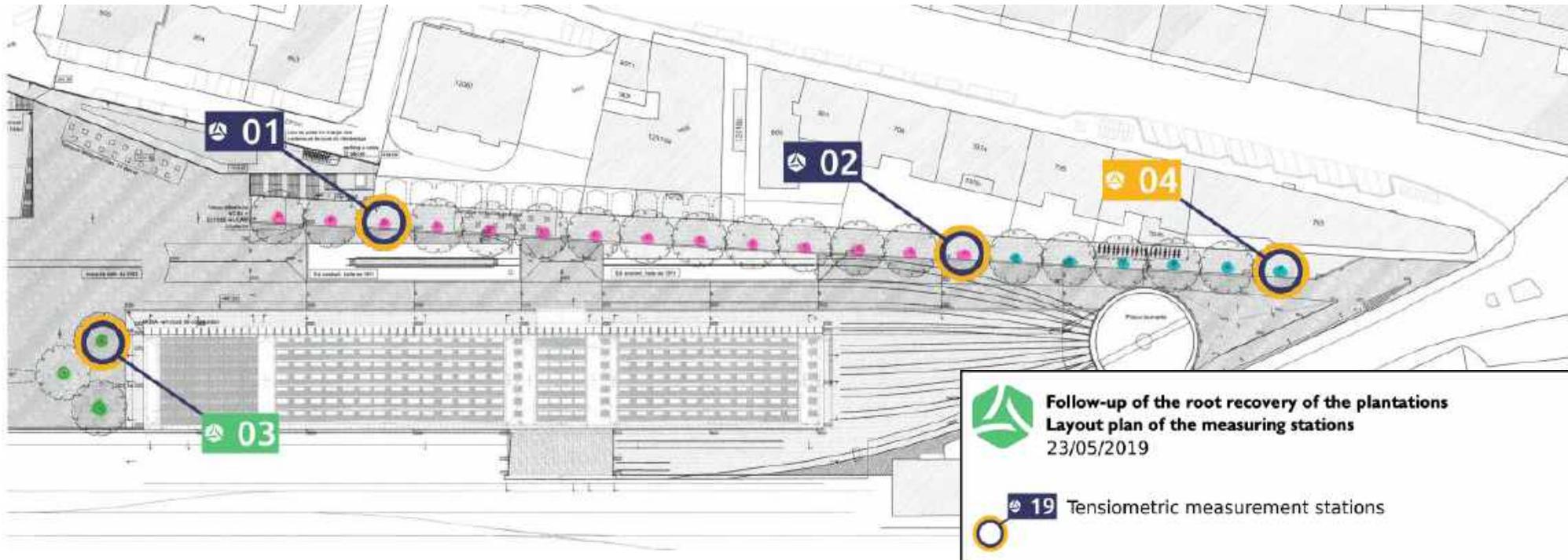
AGRONOMIC MONITORING SERVICE



IMPLEMENTATION STRATEGY



Planting plan – MCBA Project – Lausanne - Swiss



Average equipment rate :

Trees : 10% of plantations

Bedding plant and lawns : every 500m²

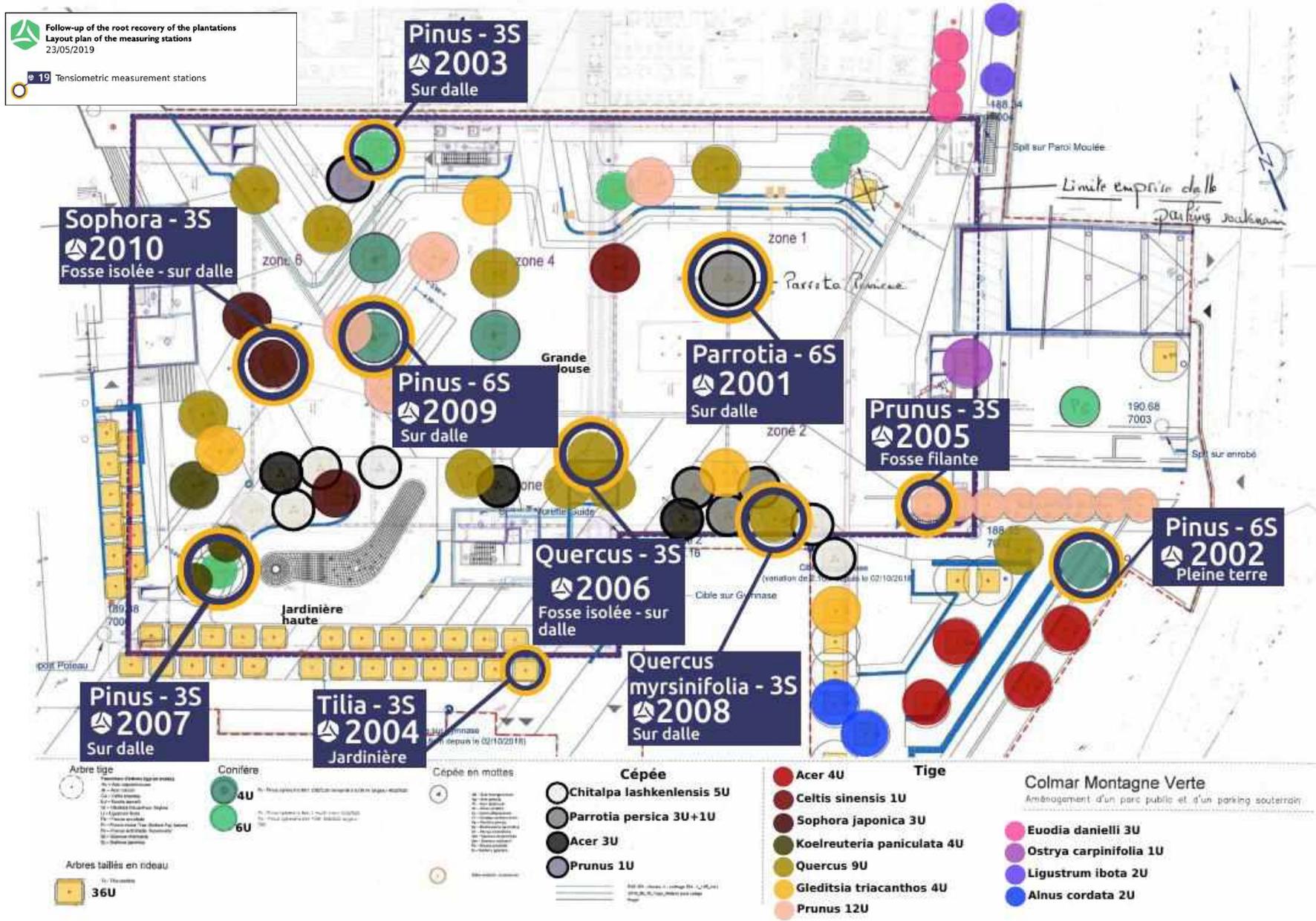
Differences between groups :

- Genus, Species, Varieties
- Year of plantation
- Exposure (sun, wind)
- Soil type

IMPLEMENTATION STRATEGY



Planting plan - Montagne Verte project - Colmar - France



IMPLEMENTATION STRATEGY



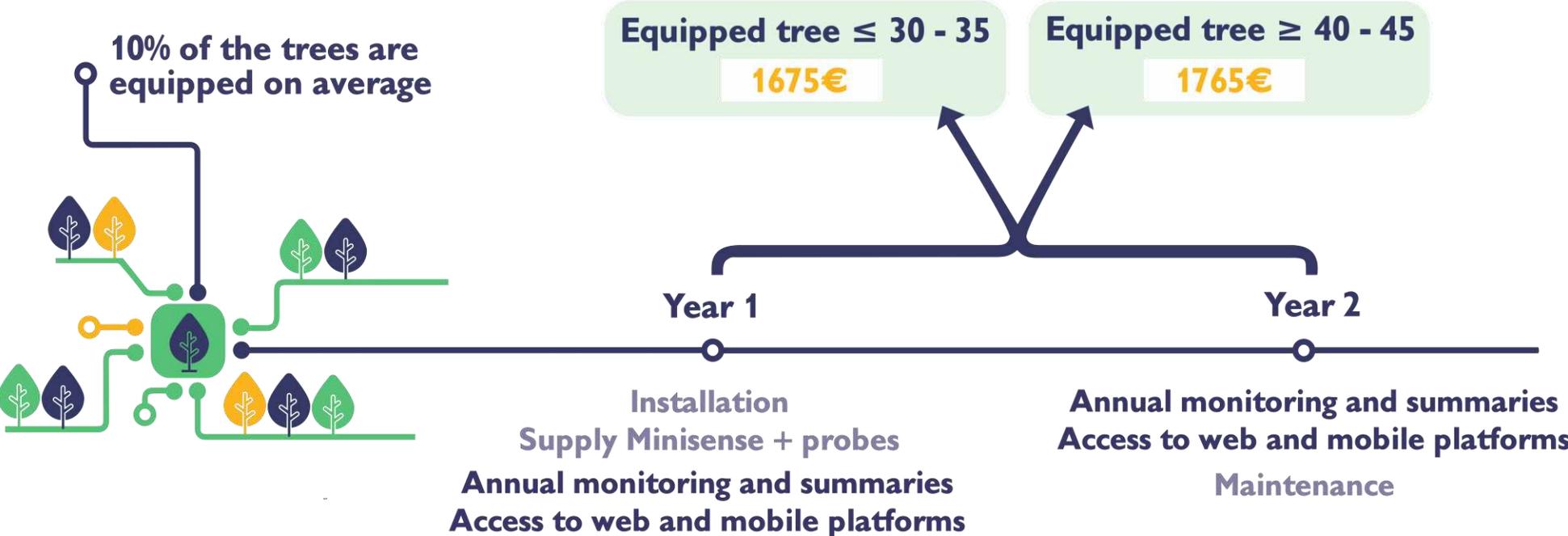
 **Follow-up of the root recovery of the plantations**
Layout plan of the measuring stations
23/05/2019

 19 Tensiometric measurement stations

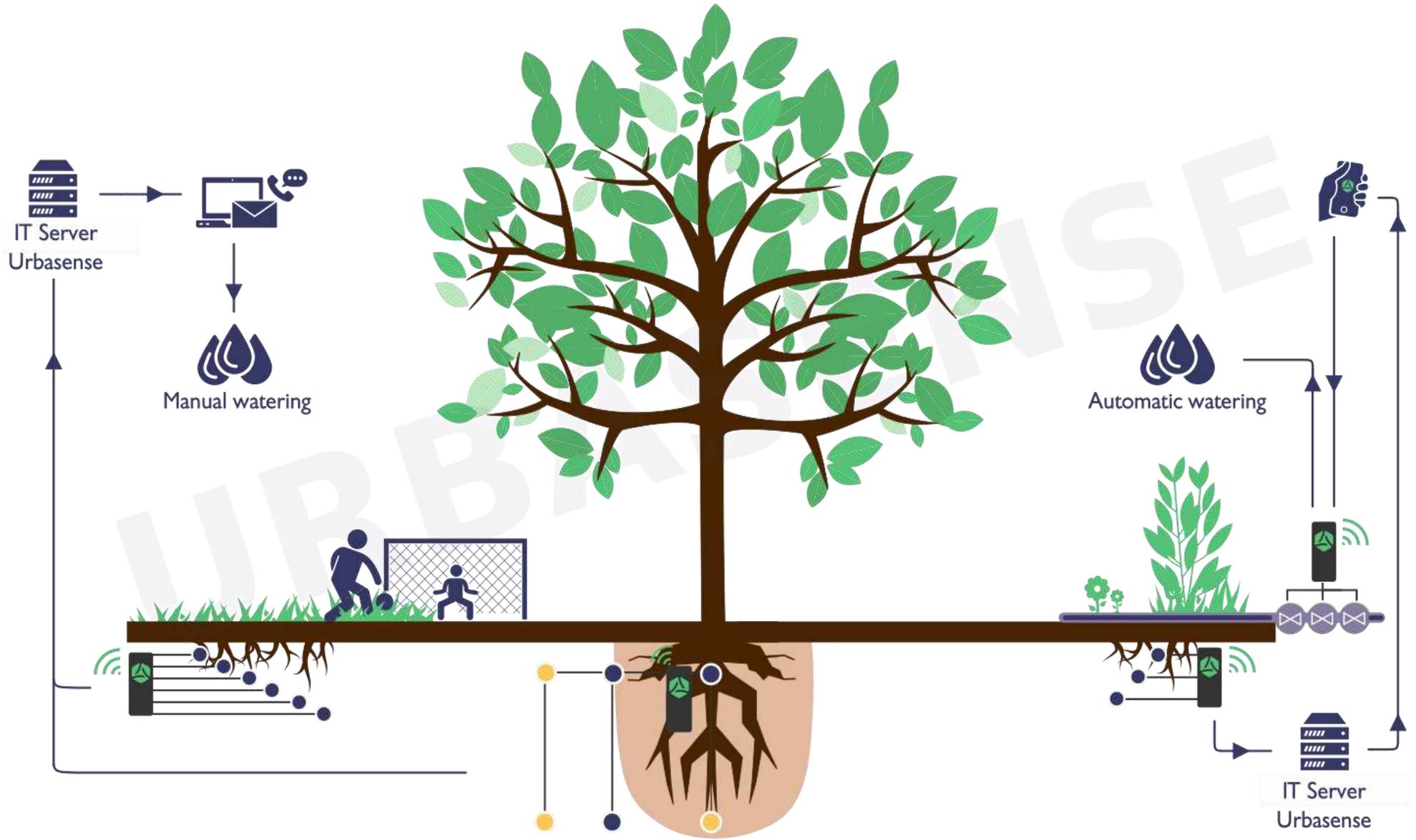


Planting plan – Quai Saint Serge project – Angers - France

PRICES – TREE SERVICE



PROTOCOL AND OPERATION



INSTALLATION

YOUNG
PLANTATION



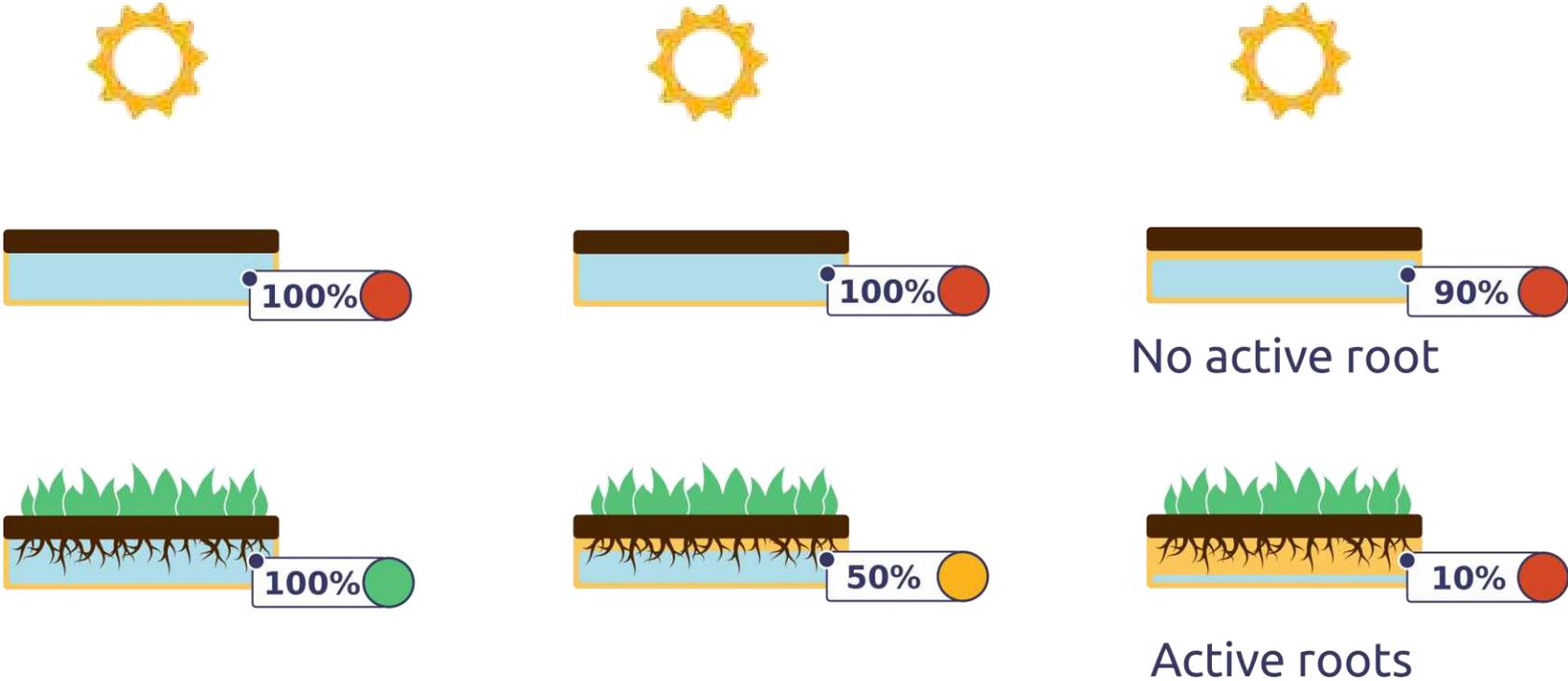
INSTALLATION - SPORTS FIELD



FLOWERING / BEDDING PLANT



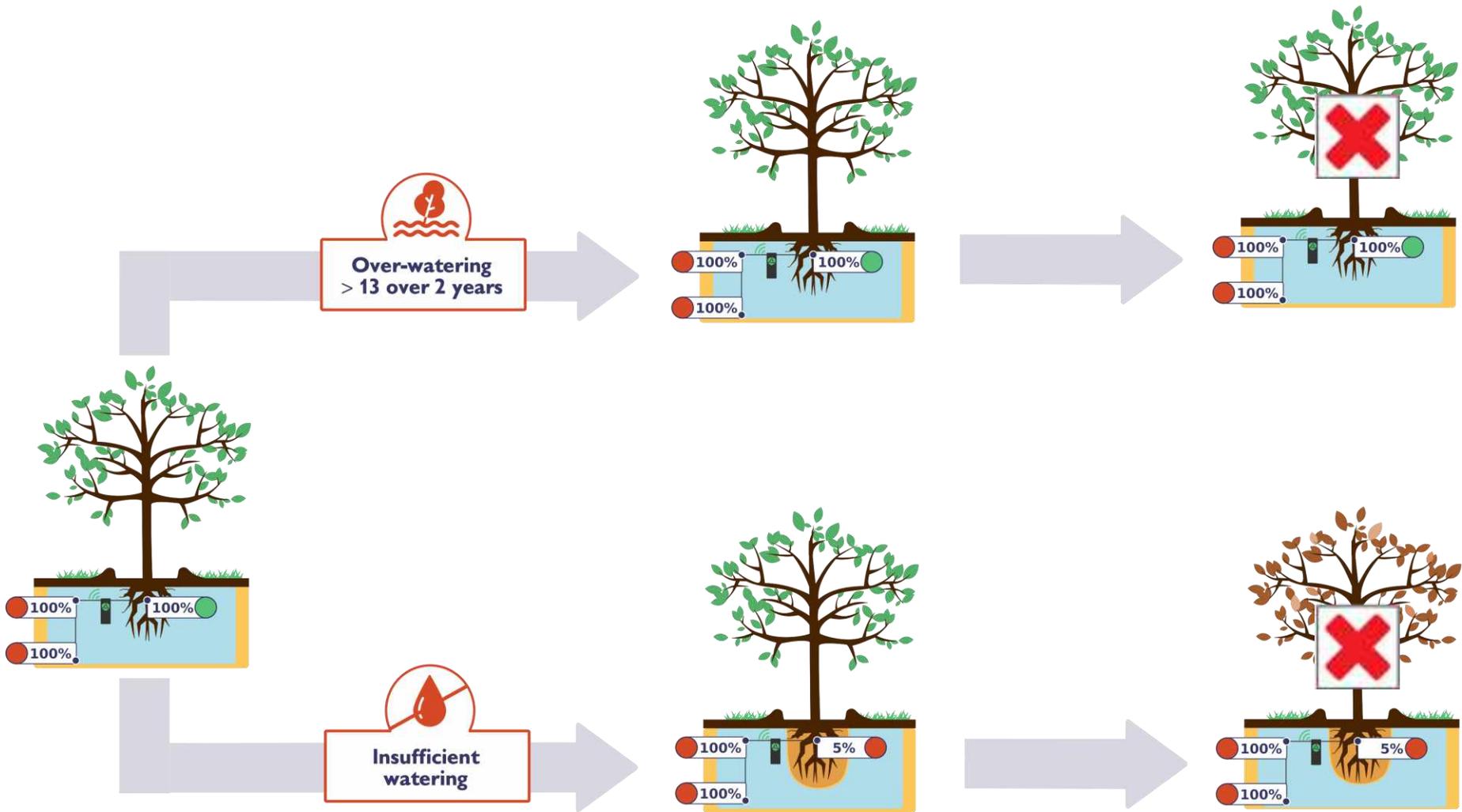
DRYING KINETICS



100% Available water resource for the plant in the soil

 Urbasense conformity

WHY AN AGRONOMIC WATERING ?



100%

Available water resource for the plant in the soil

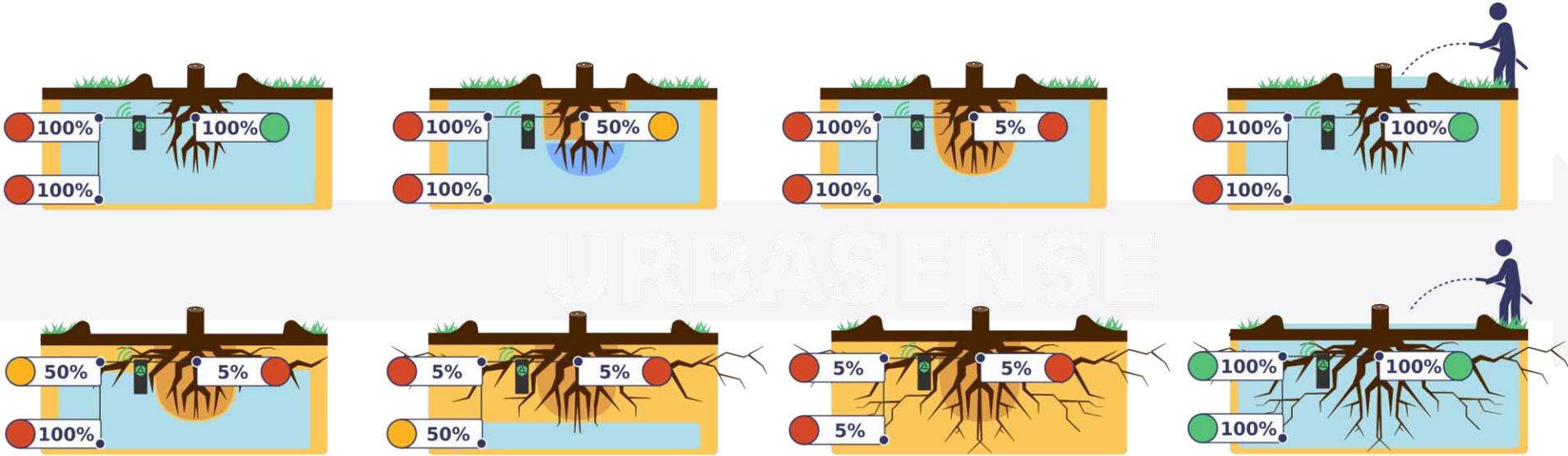


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SPARING ROOT LEAD



Agronomic watering increase the root development



URBASENSE

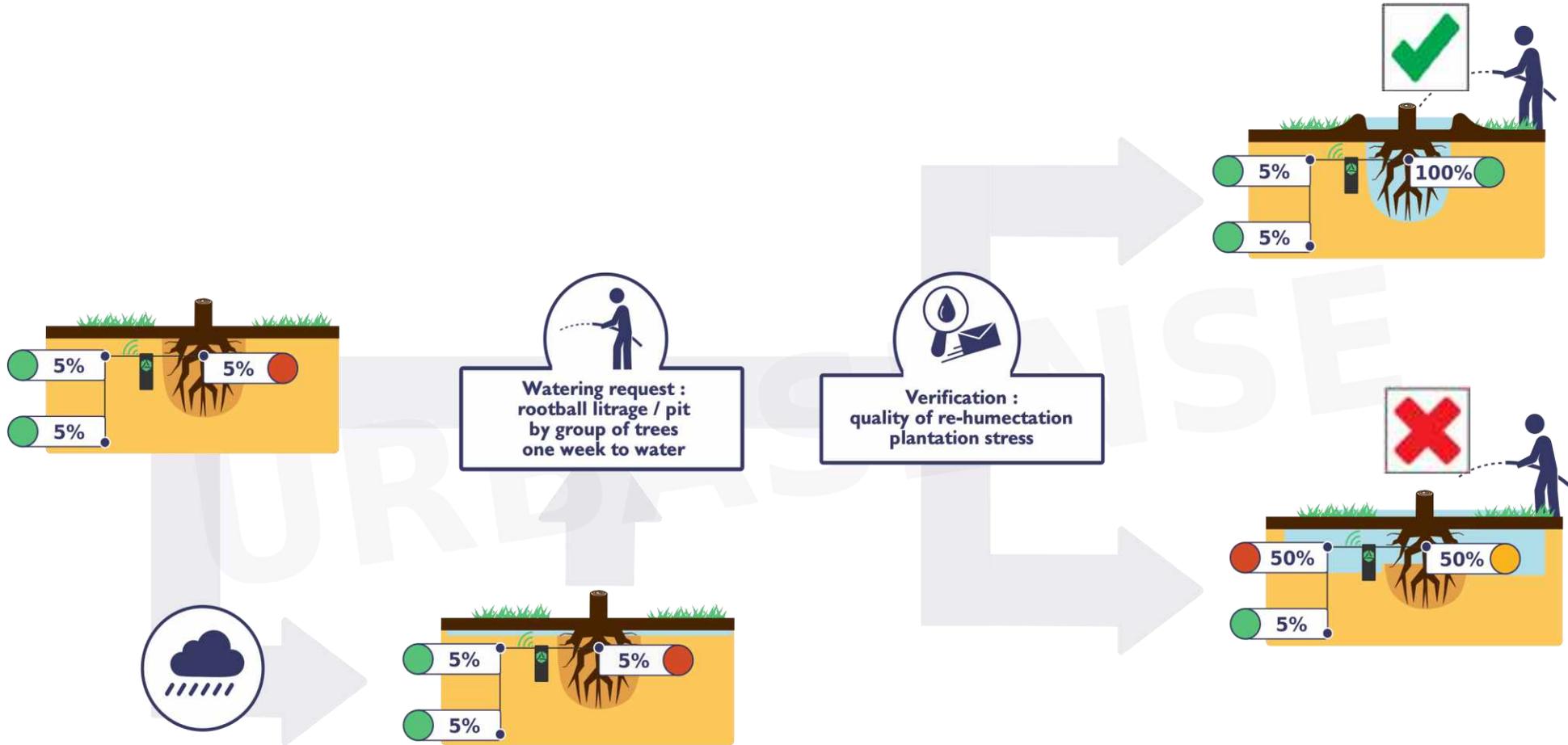
100%

Available water resource for the plant in the soil



Urbasense conformity

WATERING CONFORMITIES



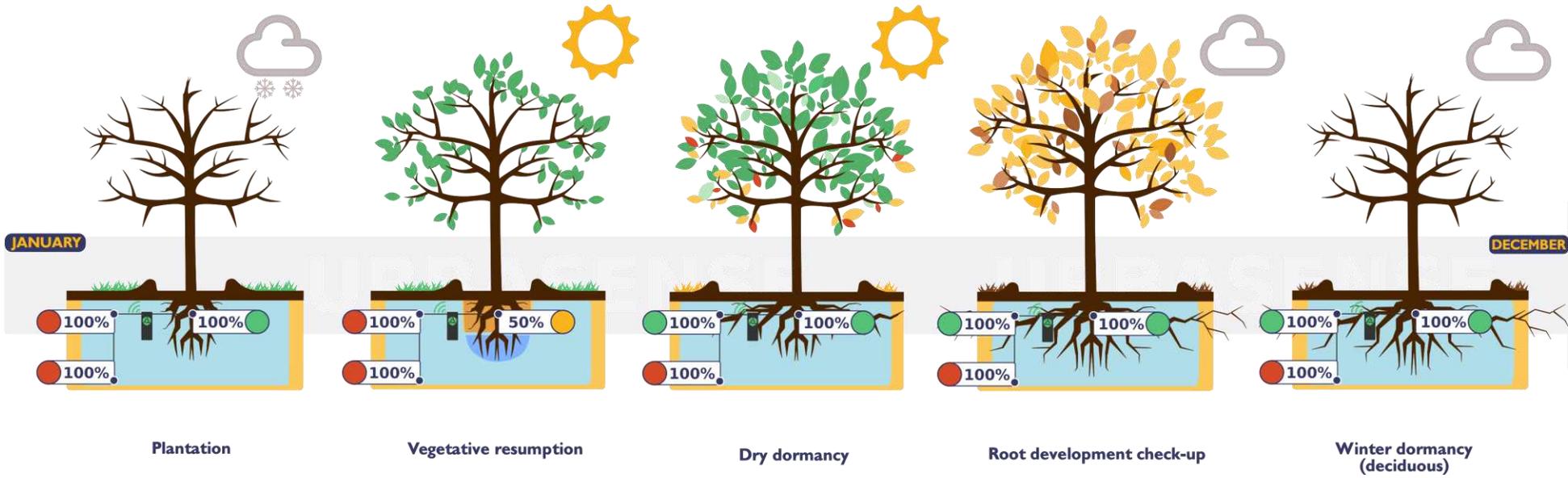
100%

Available water resource for the plant in the soil



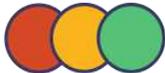
Urbasense conformity

ACTIVITY AND DORMANCY PERIOD



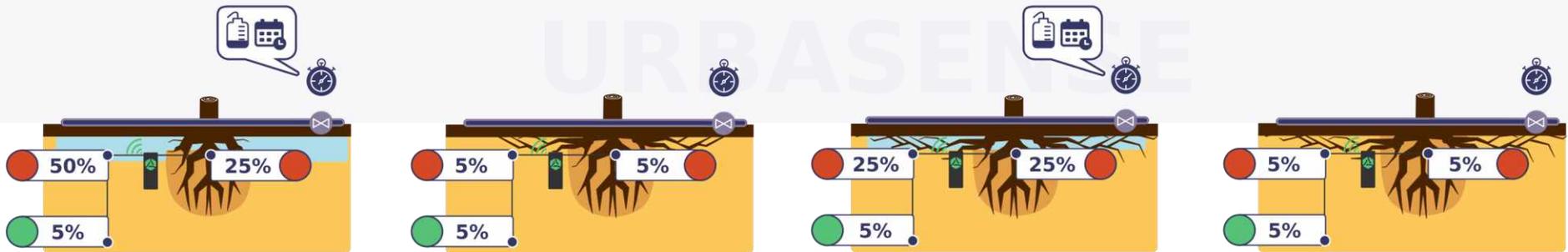
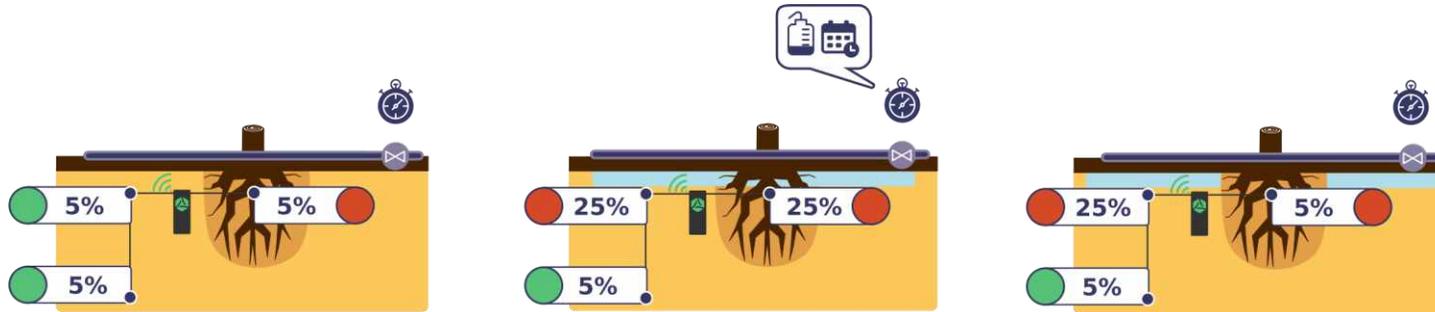
100%

Available water resource for the plant in the soil



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DELETERIOUS BABY-FEEDING



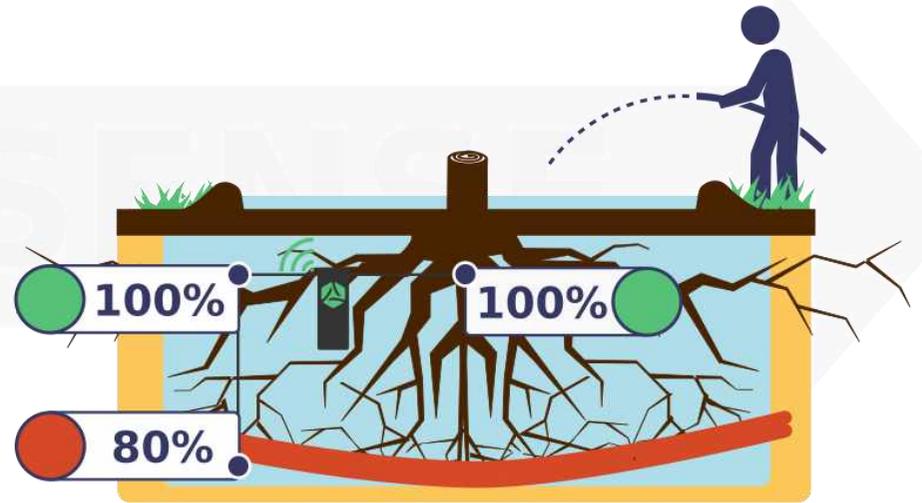
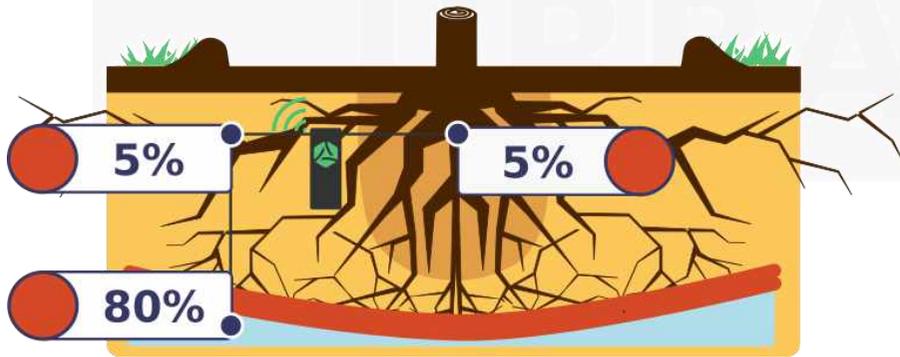
100%

Available water resource for the plant in the soil



Urbasense conformity

PINPOINT ANOMALIES



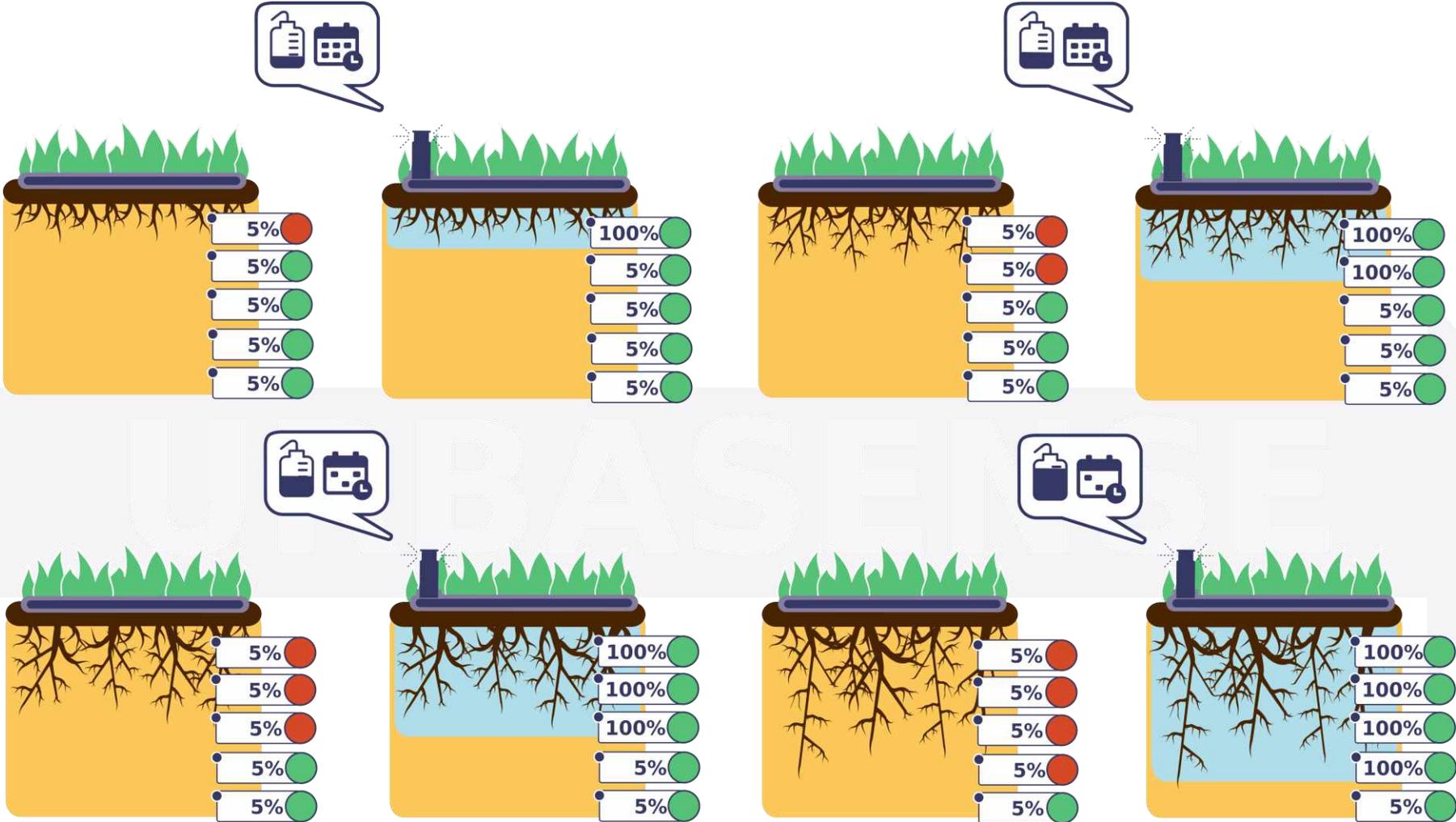
100%

Available water resource
for the plant in the soil



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DEVELOP THE ROOT ZONE



100%

Available water resource for the plant in the soil

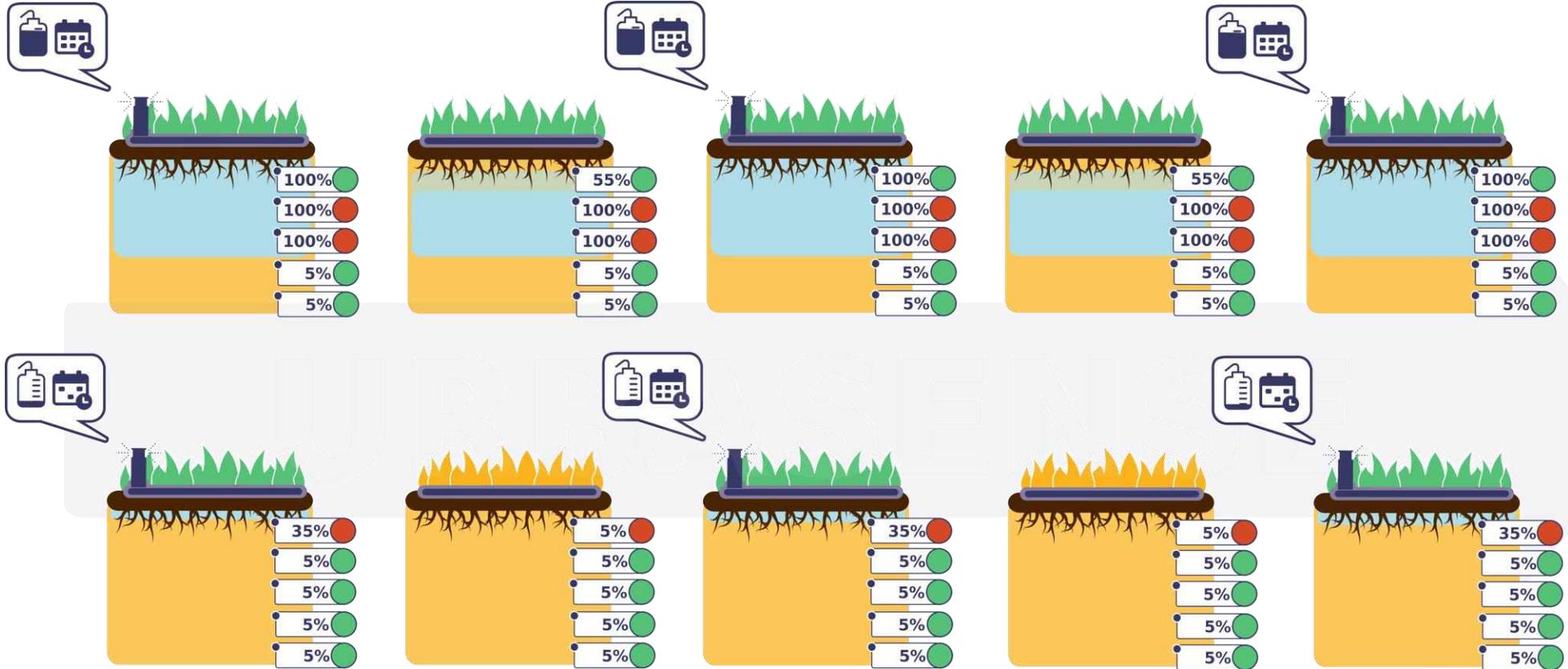


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BABY-FEEDING



Over-watering



Sub-watering

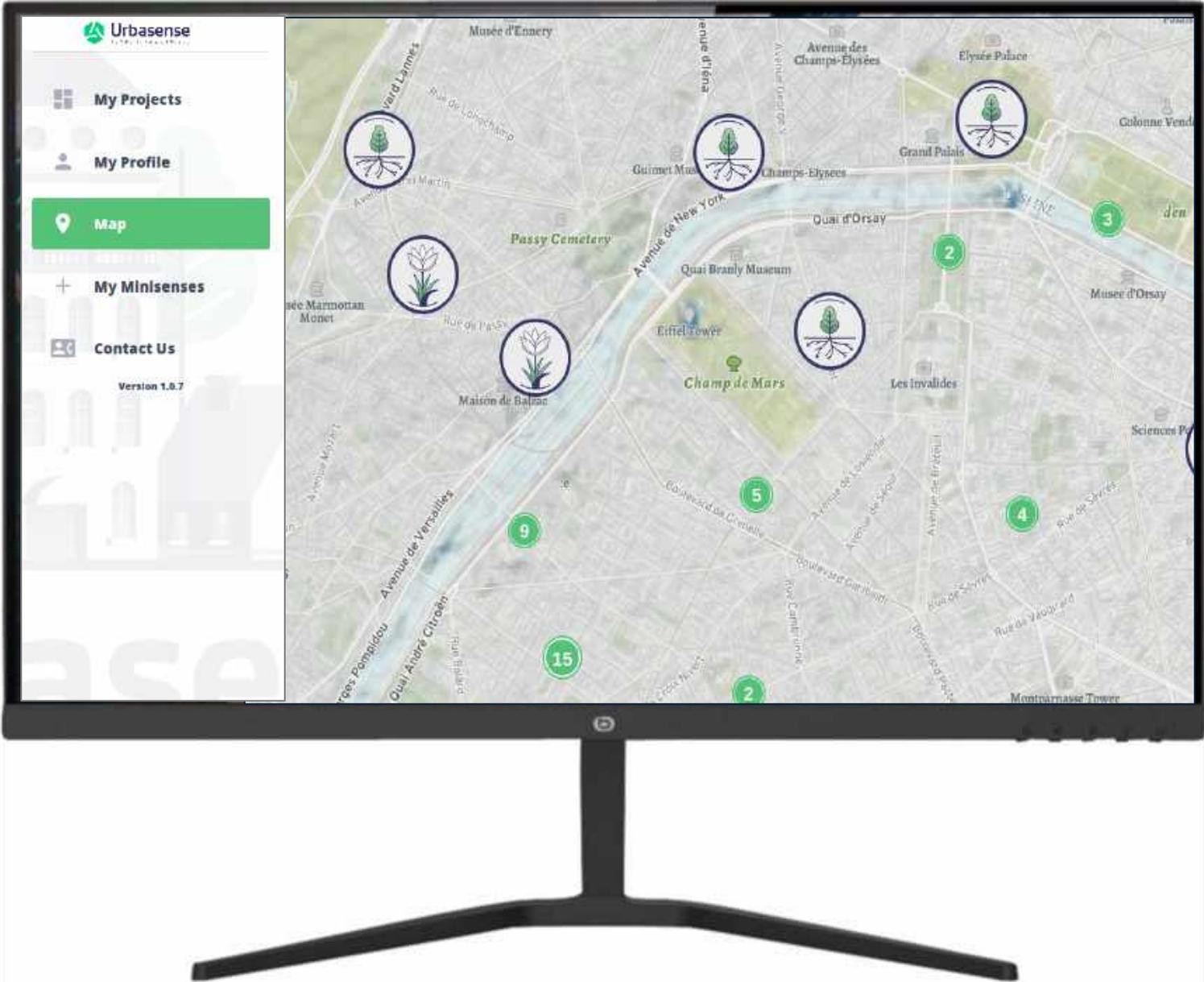
100%

Available water resource for the plant in the soil

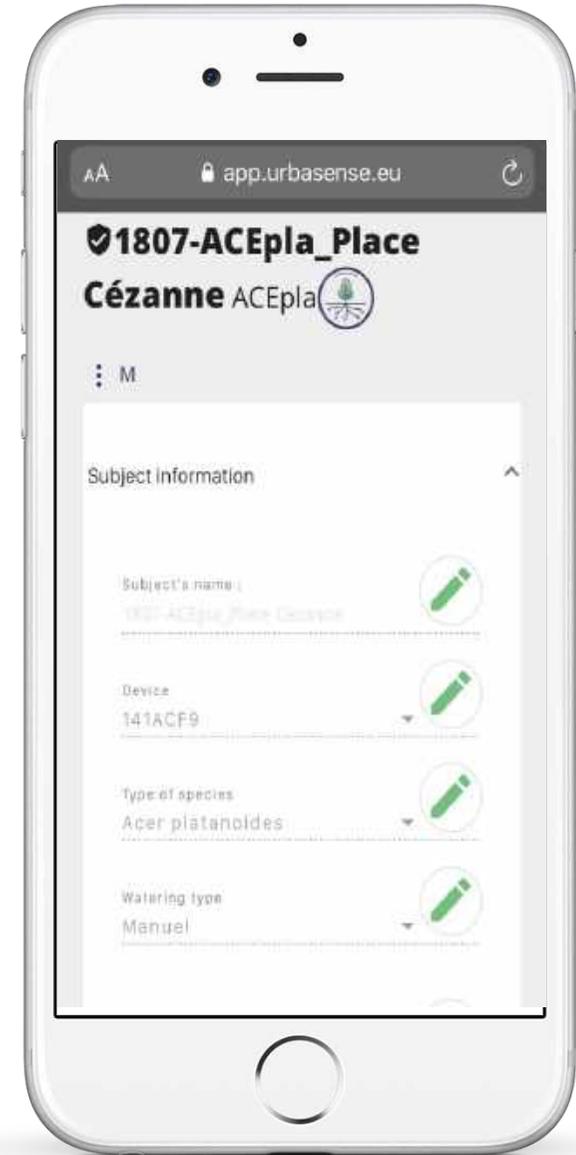
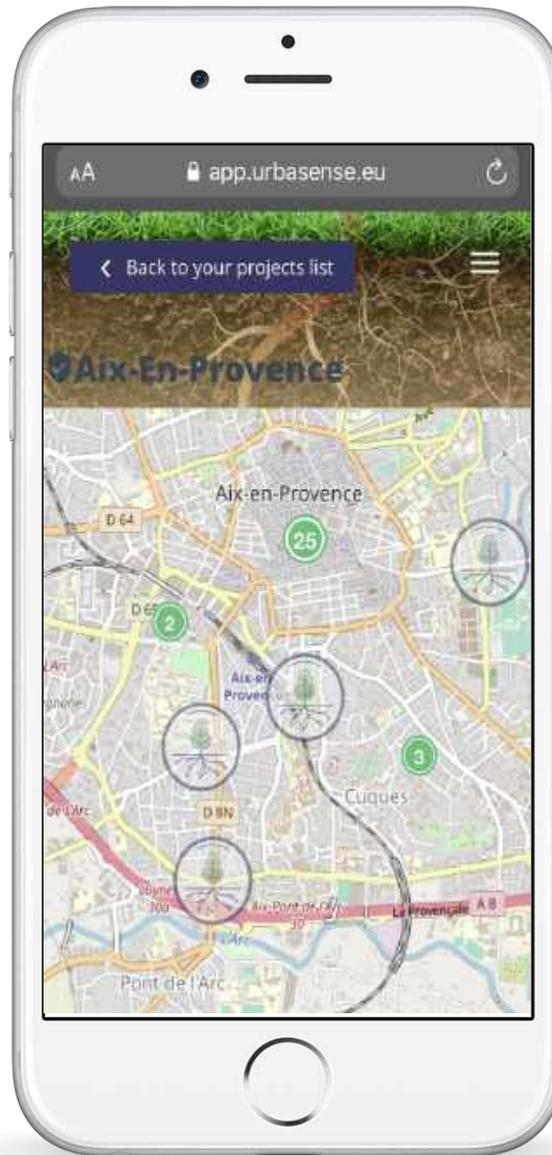
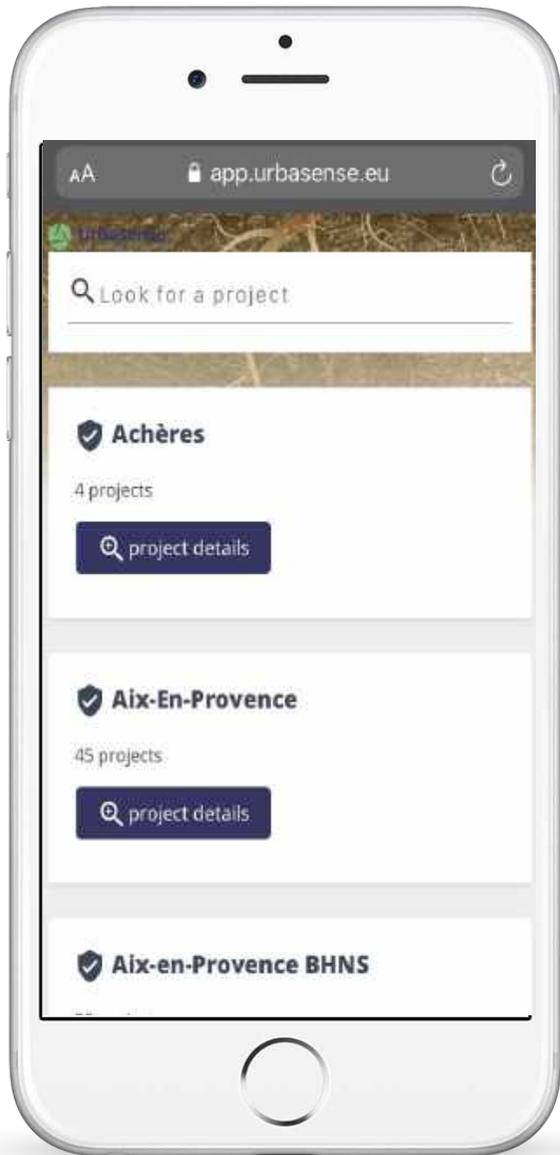


Urbasense conformity

MONITOR YOUR PLANTS



WEB APPLICATION





Hello,

Here is the weekly report for the watering of the Grand Nancy site.

Status : vigilance

Site concerned: **Grand Nancy**

Recommendation transmitted on: **17/09/2019**

Site note:

Group in manual watering

Status	Group	Diagnosis	Recommendation	Amount (L)	Advice
ok	East sector 2018		Do not water	0	
vigilance	East sector 2019	Observed re-wetting: Saint Max : unobserved Tomblaine : unobserved Fleville : unobserved Laneuveville : unobserved Seichamps : OK on 17/09	Water	150	High risk of water stress on non-watered areas. Water as soon as possible.
warning	West sector 2018	No watering observed since the last recommendation on 03/09	Water	120	High risk of water stress on non-watered areas. Water as soon as possible.
ok	West sector 2019	Strong drying up of the tree trunks	Water	120	

Call me back

Addressees of this recommendation : julien.andre@grandnancy.eu, calypso.dard@grandnancy.eu, jeanchristophe.reuter@grandnancy.eu, alexis.cornevin@grandnancy.eu, eric.valet@urbasense.fr, jean-marc@grandnancy.eu, guillaume.stef@grandnancy.eu, keip.paysage@orange.fr

For any further information, fell free to contact me.

Kind regards





Hello,

Here is the weekly report for the watering of the Cd 94 ELAN site.

Status : ok

Site concerned: **Cd 94 ELAN**

Recommendation transmitted on: **11/05/2020**

Site note: **the exceptional rain of 09/05 of 36mm effectively re-wetted all the tree roots.**

Group in manual watering

Status	Group	Diagnosis	Recommendation	Amount (L)	Advice
ok	Plantations 2018		Do not water	0	
ok	Plantations 2019		Do not water	0	
ok	Plantations 2020	Re-wetting by the rain of 09/05	Do not water	0	

React

[Call me back](#)

Addressees of this recommendation : elanenvironnement@wanadoo.fr, elanenvironnement1@wanadoo.fr, Gilles.Perrin@cg94.fr, Jean-Noel.Maleyx@cg94.fr, christian.vaissiere@valdemarne.fr, Marc.Staszewski@valdemarne.fr, theo.chabre@urbasense.fr, Jean.garibal@valdemarne.fr

For any further information, fell free to contact me.

Kind regards


Urbasense
Louise AUDEBERT
06.28.27.64.19
louise.audebert@urbasense.fr
app.urbasense.eu

CONTINUOUS AGRONOMIC CHECK-UP



SUMMARY BY WATERING GROUP :

Diagnosis	Watering	Advice
No rewetting observed since last week. Strong drying in the root ball and fast drying in the planting soil.	Watering required 150 liters	Watering necessary to re-wet the root ball and the planting soil. Low rain effect.



 Watering required
 Watering not required

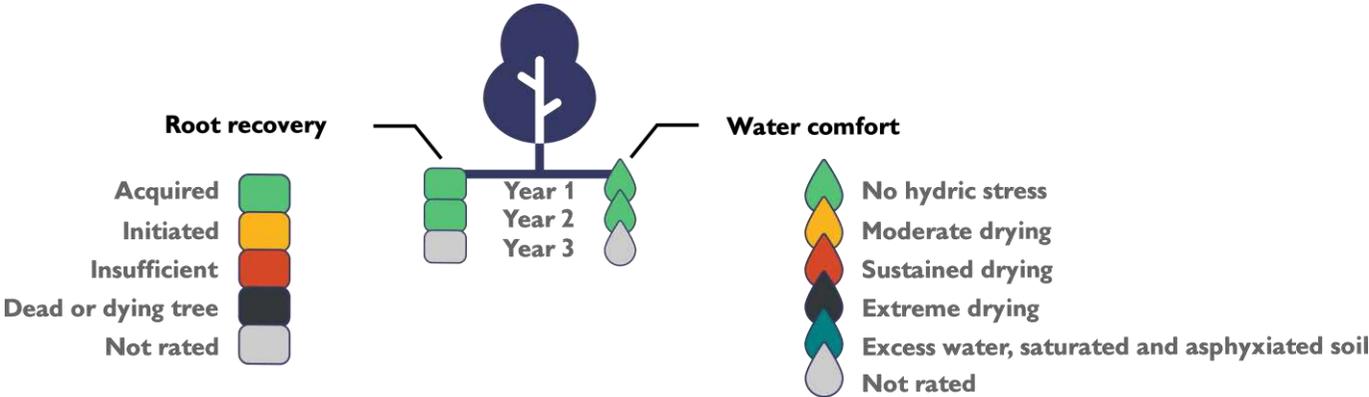
 Observed required re-wetting
 Observed unsolicited re-wetting

OK Vigilance Warning Crisis Crisis
    

CONTINUOUS AGRONOMIC CHECK-UP



SUMMARY BY SUBJECT :



1701 - MELaze
 Second year following root re-growth acquired. No hydric stress.



1702 - MELaze
 Second year following root re-growth initiated. Sustained hydric stress.



1703 - ACEcam
 Second year following root re-growth acquired. No hydric stress.



1 Agronomic monitoring of plants – decision-makers

- ▶ Integration of the agronomic follow-up of a project
- ▶ Tree monitoring: views and explanations
- ▶ The watering, a gesture of care

2 Minisense® installation - field teams

- ▶ Plant equipment protocols
- ▶ Soil observations





Urbasense®

"We were watering blind, we switched to watering with just the right amount of water."

City of Neuilly-sur-Seine (France)

"In addition to saving water, this approach allows us to limit our impact in terms of greenhouse gas emissions. "

Council Department - Val-de-Marne (France)

"For me, this would be the most effective way for planning agencies to pass on to cities a healthy tree heritage."

City of Cergy (France)



L'équipe Urbasense



Find us on :
www.urbasense.fr



**25, rue du maréchal Foch
78000 Versailles**



+33 (0)1 78 14 07 00

SITE PICTURES - MONTPELLIER

