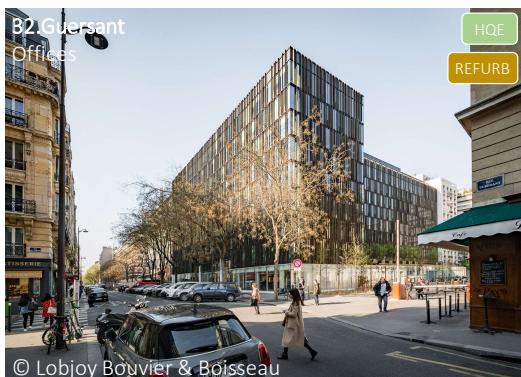


MAJOR PROJECTS SINCE 2013



ARGENTEUIL RIVES DE SEINE – VIZEA, 2019-2020

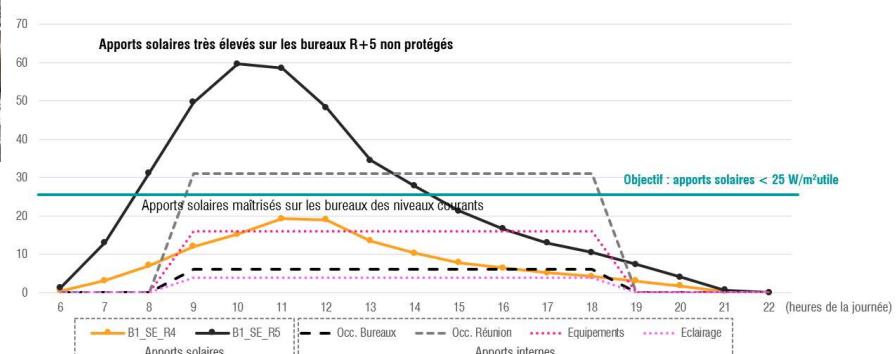
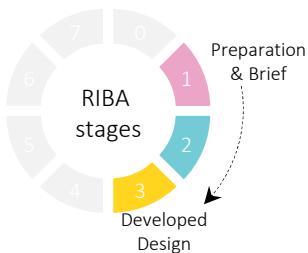
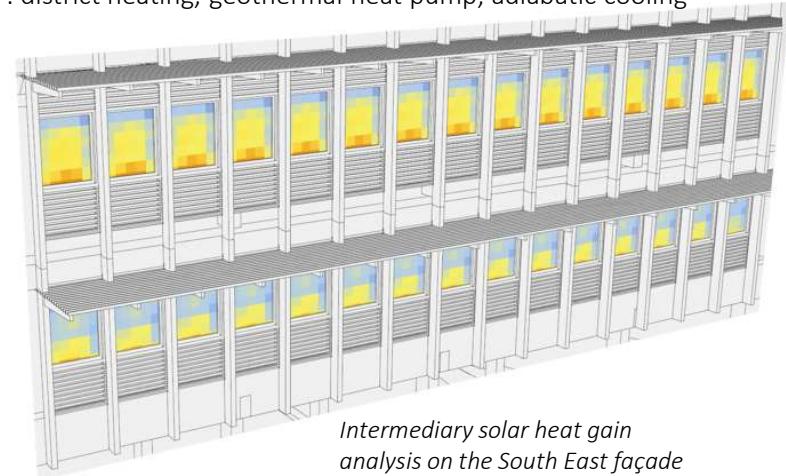
- Mixed-Use project including 6,000 m² of office space and 8,000 m² of industrial halls for ATLAND

Key project characteristics

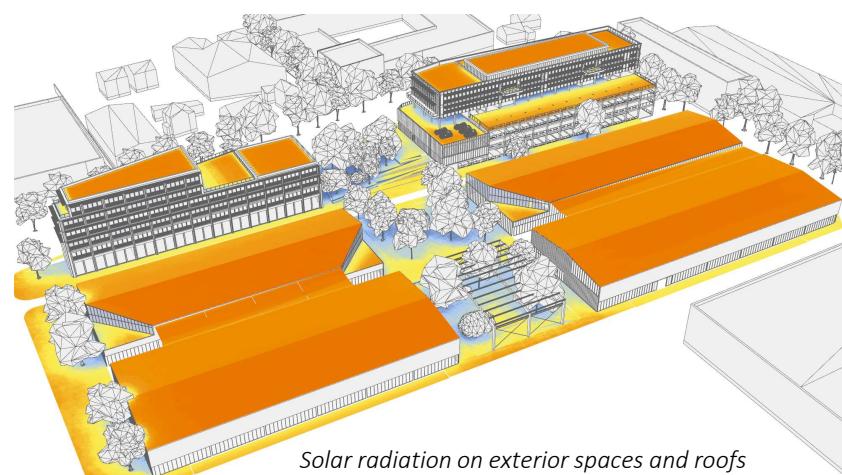
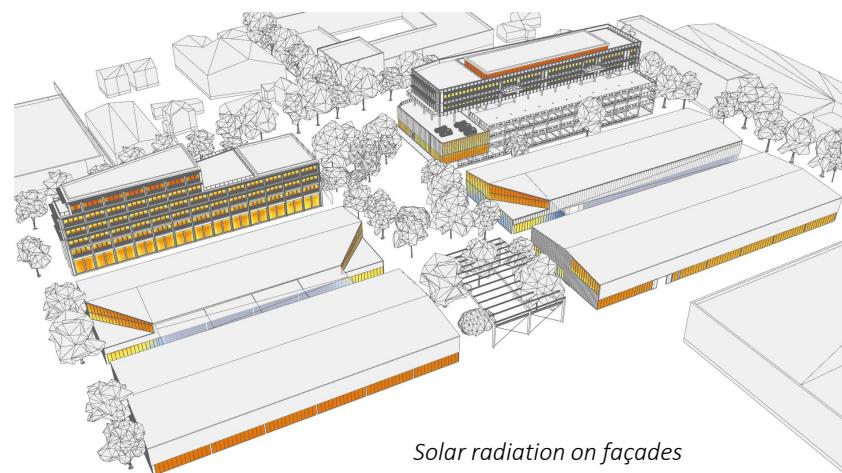
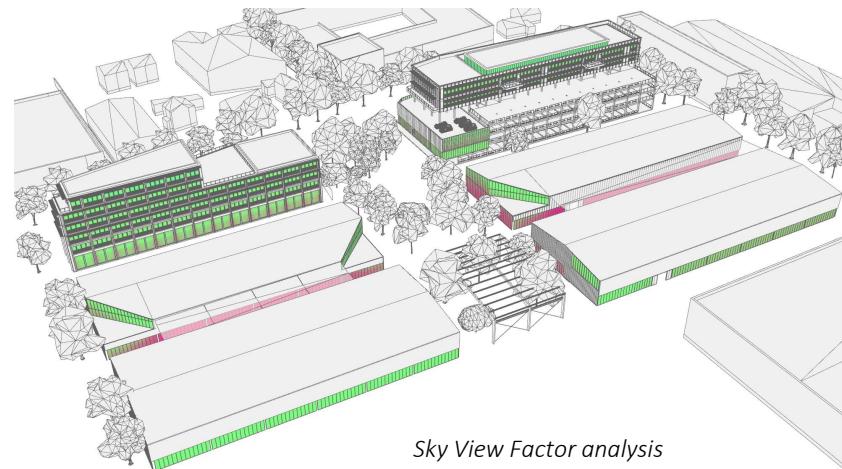
- South façades designed to manage heat gains in summer, so that offices do not require cooling
- Mixed materials : timber structure, timber frame façades, reuse of 14 steel frames from the existing halls
- Certifications : BREEAM, WELL

Specific tasks performed

- Environmental design lead
- Radiation studies of façades and outside areas, heat gain analysis
- Feasibility study for energy and HVAC : district heating, geothermal heat pump, adiabatic cooling



Heat gain analysis in two rooms facing South-East on the 21st of June

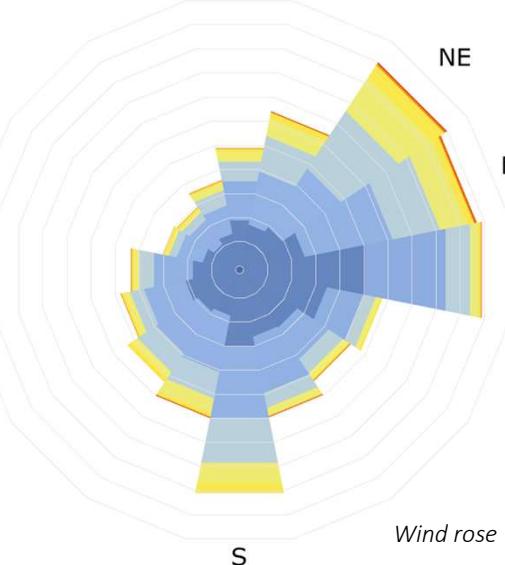
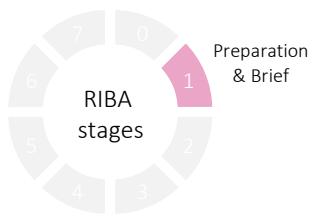
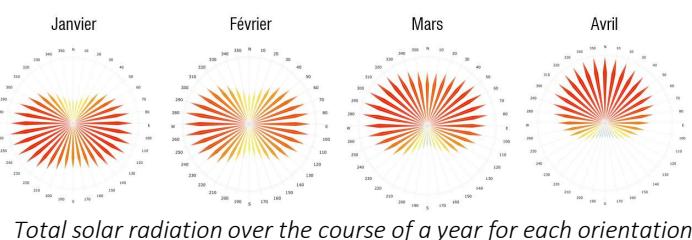
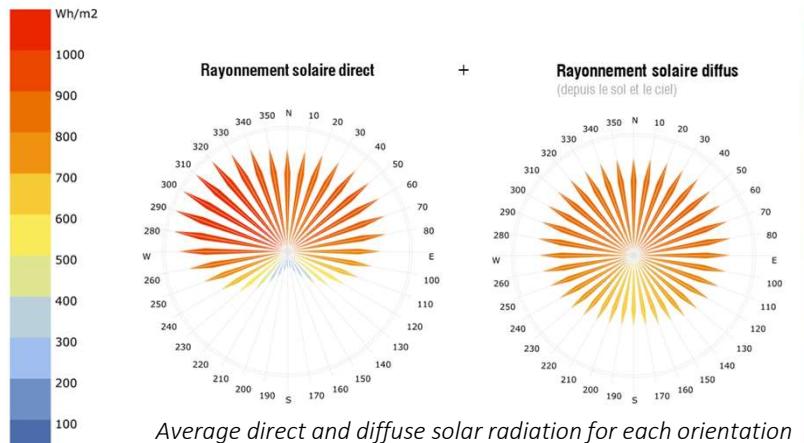
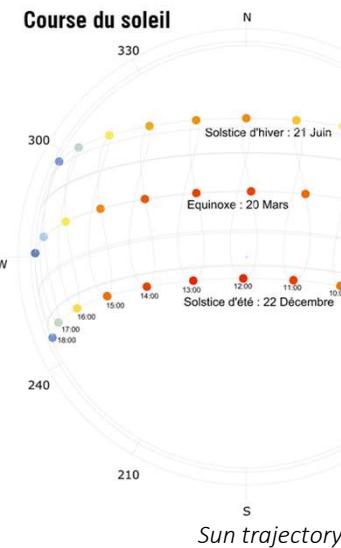


CLIMATE ANALYSIS IN TAHITI (Fr. POLYNESIA) – VIZEA, 2019-2020

- Weather data analysis for current and climate change conditions in a tropical location

Specific tasks performed

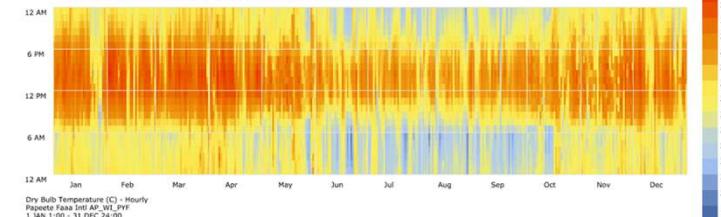
- Weather analysis for temperature, solar radiation and wind for current data (1980), 2020, 2050 and 2080
 - Climate change data generation using the HadCM3 methodology
 - Design input for building volumes and façade design based on this early analysis



Années 1980 (données météo usuelles)

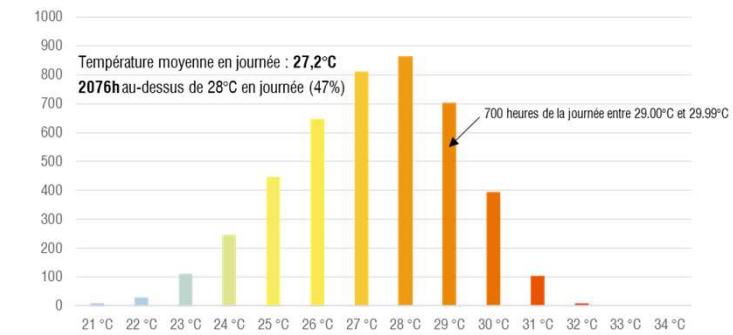
Températures d'air sur l'année

- Chaque point de couleur représente une plage d'une heure
 - Abscisse : jours de l'année du 1^{er} Janvier au 31 Décembre
 - Ordonnée : heures de la journée de 00:00 à 24:00



Nombre d'heures à chaque plage de température en journée

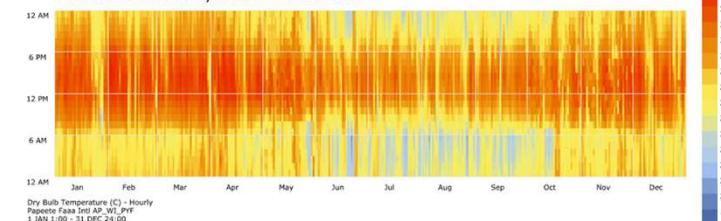
Seules les périodes comprises entre 08h et 20h sont considérées, du 1er Janvier au 31 Décembre.



Années 2050

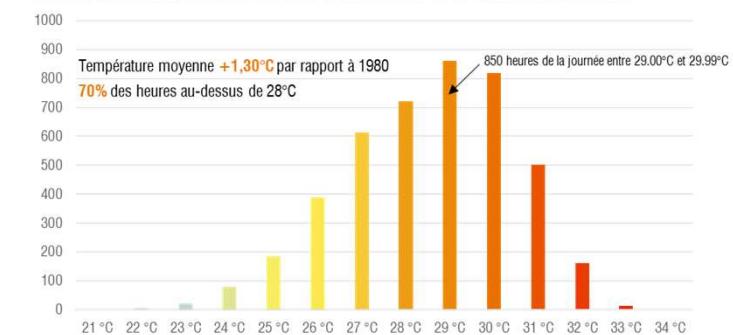
Températures d'air sur l'année

- Chaque point de couleur représente une plage d'une heure
 - Abscisse : jours de l'année du 1^{er} Janvier au 31 Décembre
 - Ordonnée : heures de la journée de 00:00 à 24:00



Nombre d'heures à chaque plage de température en journée

Seules les périodes comprises entre 08h et 20h sont considérées, du 1er Janvier au 31 Décembre.



LES GIRODINS – VIZEA, 2019

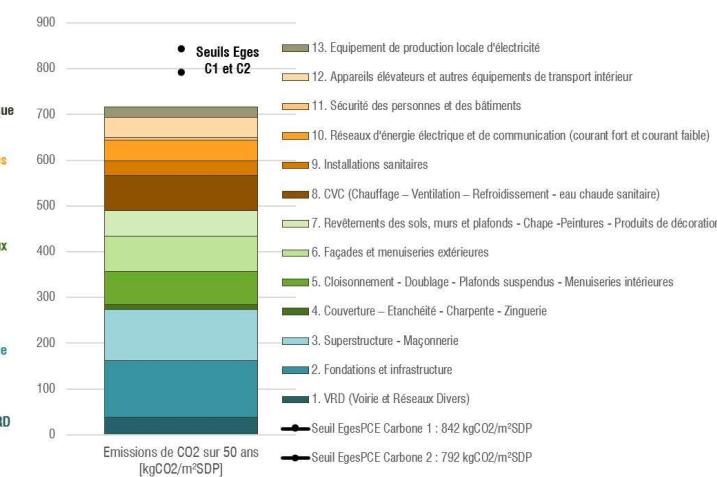
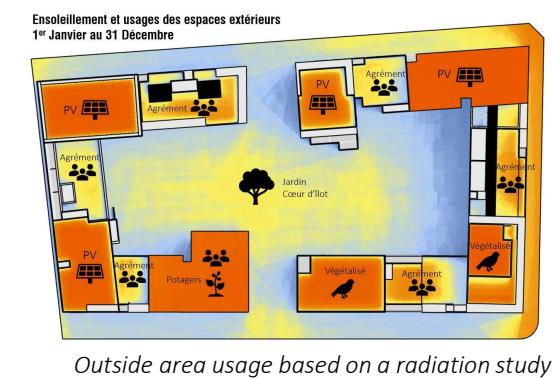
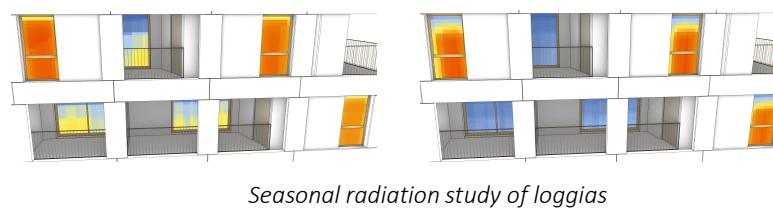
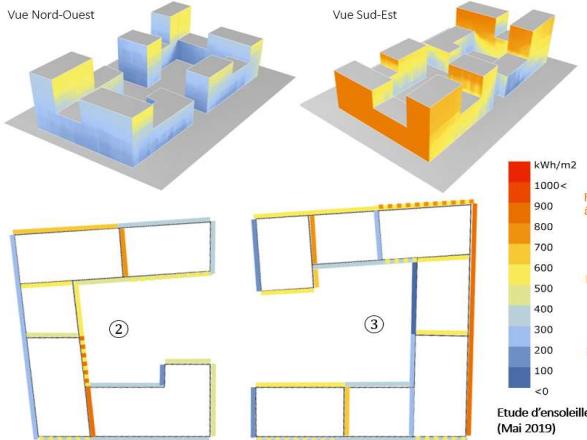
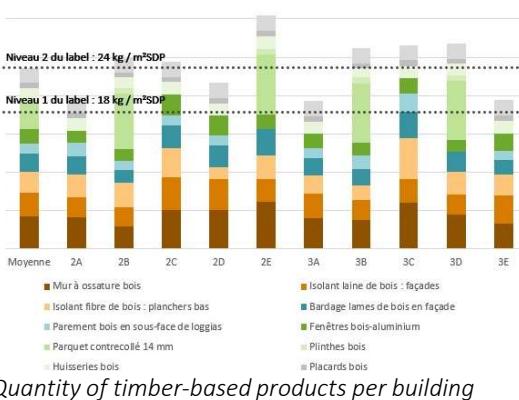
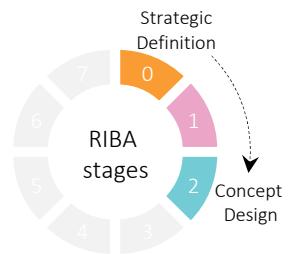
- Competition for a 340 apartments project in a new urban area of Lyon, with developer Altarea Cogedim

Key project characteristics

- Central garden mixing connection to nature and biodiversity preservation
- Low carbon impact through material sobriety and timber construction
- High energy efficiency and connection to low-carbon district heating
- Certifications : NF Habitat HQE, BiodiverCity, Label E3C2

Specific tasks performed

- Environmental design lead
- Full building LCA
- Radiation studies of façades and outside areas
- Visual comfort studies in a dense urban environment



ARGENTEUIL LITTORAL – VIZEA, 2019-2020

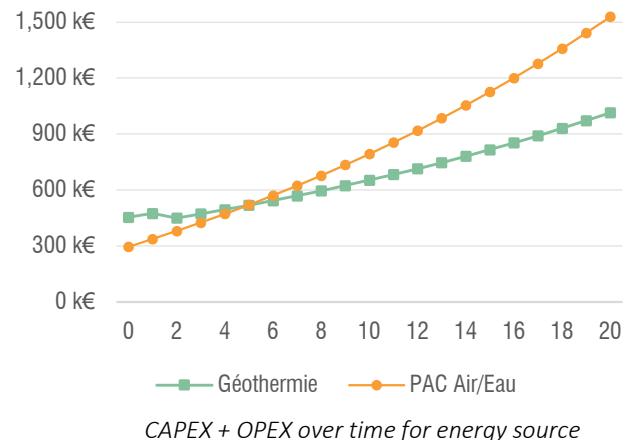
→ Mixed-Use project including a hotel, a car park and 11,000 m² of office space for BRICQUEVILLE

Key project characteristics

- Timber structure for all buildings from the 1st floor
- Geothermal heating and cooling
- Car park building fully transformable into office space
- Certification : HQE, Label E2C2

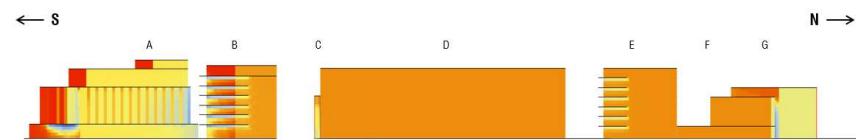
Specific tasks performed

- Environmental design lead, management of HQE certification
- Radiation study and design input to reduce cooling demand
- LCC analysis of geothermal energy compared to air heat pump, with subsidies

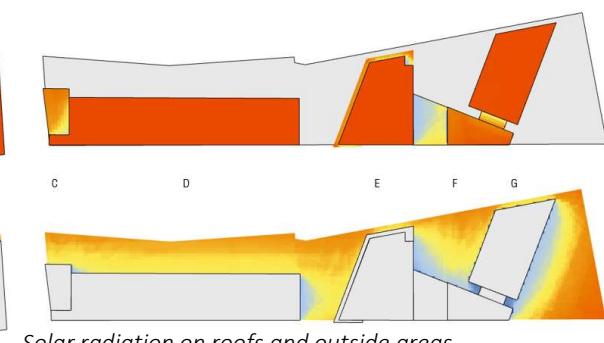


Engagement Qualité de vie : ★★★☆	
1 Des lieux de vie plus sûrs et qui favorisent la santé	Qualité de l'air intérieur B B
	Qualité de l'eau C C
	Ondes électromagnétiques A A
	Accessibilité C C
2 Espaces agréables à vivre, pratiques et confortables	Adaptabilité C C
	Confort hygrothermique B B
	Confort acoustique C C
	Confort visuel C C
3 Services qui facilitent le bien vivre ensemble	Transports B B
	Services D D
Engagement Respect de l'environnement : ★★☆☆	
4 Utilisation raisonnée des énergies et ressources naturelles	Energie B B
	Eau C C
5 Limitation des pollutions et lutte contre le changement climatique	Déchets C C
	Changement climatique B B
	Impacts environnementaux Non évalué par HQE
6 Biodiversité	Biodiversité D D
Engagement Performance économique : ★★☆☆	
7 Charges et coûts	Charges et coûts B C
8 Patrimonial	Valeur patrimoniale Non évalué par HQE
9 Territoires	Développement des territoires C C

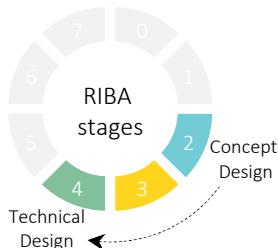
HQE Rating



Solar radiation on façades



Solar radiation on roofs and outside areas



22 MALESHERBES – SINTEO, 2017-2018

- Refurbishment of 5,600 m² of office space in Paris for AG2R La Mondiale

Key project characteristics

- Among the top 5 highest rated refurbishment projects in Paris (HQE & BREEAM)
- Rooftop terraces around a central patio, integrating habitats for biodiversity
- Connection to low-carbon district heating and district cooling
- Certification : HQE, BREEAM, BiodiverCity, Effinergie, WiredScore

Specific tasks performed

- Environmental design lead
- Management of 3 environmental certifications

HQE Rénovation Niveau Exceptionnel

1. Environnement		TP	8. Confort thermique		TP
2. Choix des Matériaux		TP	9. Confort acoustique		P
3. Chantier propre		TP	10. Confort visuel		B
4. Energie		TP	11. Confort olfactif		TP
5. Gestion de l'eau		B	12. Qualité des espaces		TP
6. Gestion des déchets		TP	13. Qualité de l'air		TP
7. Maintenance		TP	14. Qualité de l'eau		TP

BREEAM RFO 2015 Niveau Excellent



BiodiverCity Niveau Performant



Les Axes



ENGAGEMENT du Maître d’Ouvrage

PROJET du Maître d’Oeuvre

POTENTIEL ECOLOGIQUE par l'Ecologie
AMENITES pour l'Utilisateur



H2B – SINTEO, 2017-2018

- Construction of 13,000 m² of office space in Clichy for GDG Investissement

Key project characteristics

- Geometric façade design based on solar radiation
- Series of interconnected terraces from the 1st floor to the 6th
- Certification : HQE, BREEAM, WELL, WiredScore

Specific tasks performed

- Environmental design lead
- Management of 3 environmental certifications
- Full building LCA using a Revit model
- Radiation studies of façades and outside areas

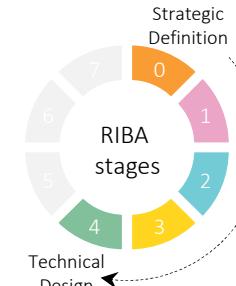
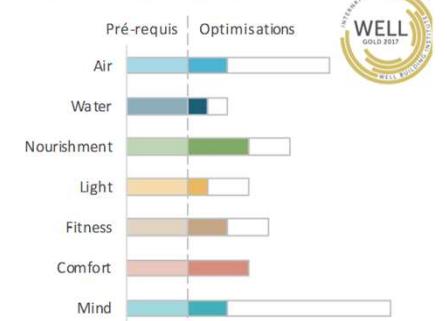
HQE Bâtiment Durable 2016 Niveau Excellent

MANAGEMENT RESPONSABLE		1. Santé
→ Maîtrisé (Maturité M2)		2. Confort
QUALITÉ DE VIE		3. Services
★★★☆☆		4. Ressources
RESPECT DE L'ENVIRONNEMENT		5. Impacts
★★★☆☆		6. Biodiversité
PERFORMANCE ÉCONOMIQUE		7. Charges
★★★☆☆		8. Valeur
M2		9. Contribution
10. Organisation		
11. Pilotage		
12. Amélioration		

BREEAM New Construction 2016 Niveau Excellent



WELL Core & Shell Niveau Gold



32. GUERSANT – SINTEO, 2015-2018

- Refurbishment of 15,000 m² of office space in Paris for GECINA

Key project characteristics

- HVAC modules integrated into the façade for plenum-free office space
- Improved air quality through material selection and outside air supply
- Reduced maintenance and operations cost
- Certification : HQE, BiodiverCity, Effinergie

Specific tasks performed

- Energy performance analysis for guaranteed operational cost
- Thermal and visual comfort analysis
- Environmental management during the construction phase

HQE Rénovation Niveau Excellent

1. Environnement		8. Confort thermique	
2. Choix des Matériaux		9. Confort acoustique	
3. Chantier propre		10. Confort visuel	
4. Energie		11. Confort olfactif	
5. Gestion de l'eau		12. Qualité des espaces	
6. Gestion des déchets		13. Qualité de l'air	
7. Maintenance		14. Qualité de l'eau	



LE JADE – SINTEO, 2015-2018

- Refurbishment of 18,000 m² of office space in Paris for EUROSIC

Key project characteristics

- Refurbishment of an iconic building by Richard Meier, formerly Canal+ headquarters
- Creation of patios around office spaces to improve daylight access
- Building shared with TV studios that remained active during construction
- Certification : BREEAM

Specific tasks performed

- BREEAM Assessment
- Thermal comfort and energy performance analysis
- Environmental management during the construction phase

