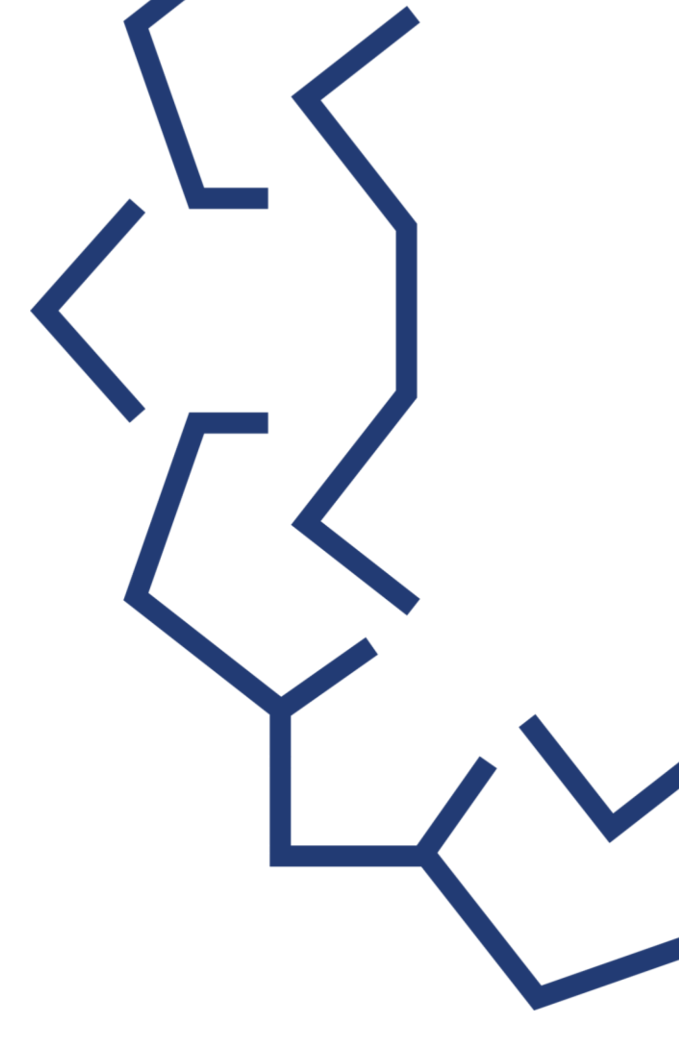
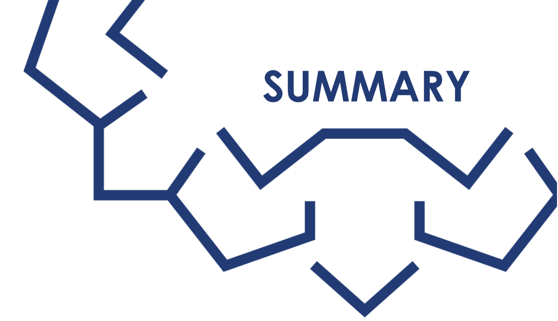


BUILDING INFRASTRUCTURE PORTFOLIOS FOR LONG TERM

2019-11-25

Vauban Infrastructure Partners has not yet been approved by the AMF to act as management company and/or alternative investment fund manager

115, rue Montmartre - 75002 PARIS ◇ Tél. : (+33) 1 58 55 53 58 ◇ contact@vauban-ip.com
VAUBAN-IP.COM ◇ SAS au capital de XXX€ - RCS Paris XXX XXX XXX - TVA intercommunautaire FR 00 000 000 000
An expertise of Natixis Investment Managers SA



SUMMARY

1/ INFRASTRUCTURE: THE RISING STAR AMONG REAL ASSET CLASSES 3

2/ WHY IS THERE SO MUCH APPETITE FOR INFRASTRUCTURE? 5

3/ HOW TO DEFINE THE RIGHT INVESTMENT STRATEGY?.. 9

4/ SELECTING THE RIGHT TEAM AND WHY IT MATTERS 18

5/ CONCLUSION 20

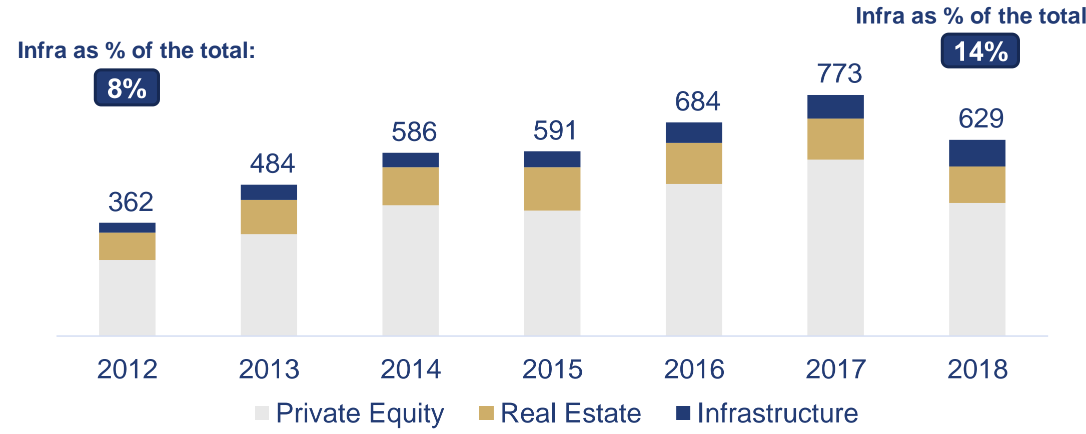
Disclaimer:

Vauban Infrastructure Partners has not yet been approved by the AMF to act as management company and/or alternative investment fund manager. The Core Infrastructure team that will make up Vauban Infrastructure Partners currently is a part of Mirova, a limited liability company with a share capital of €8,322,790. RCS Paris no. 394 648 216. Regulated by AMF under no. GP 02-014. 59 Avenue Pierre Mendès-France, 75013 Paris.

1/ INFRASTRUCTURE: THE RISING STAR AMONG REAL ASSET CLASSES

2018 will probably be remembered as the record year when the Infrastructure asset class out blasted the other real asset classes by getting all the attention of investors and becoming « The » asset class getting the most traction from investors. Infrastructure is the asset class that has been increasing within the « real asset buckets » of investors over the last 5 years.

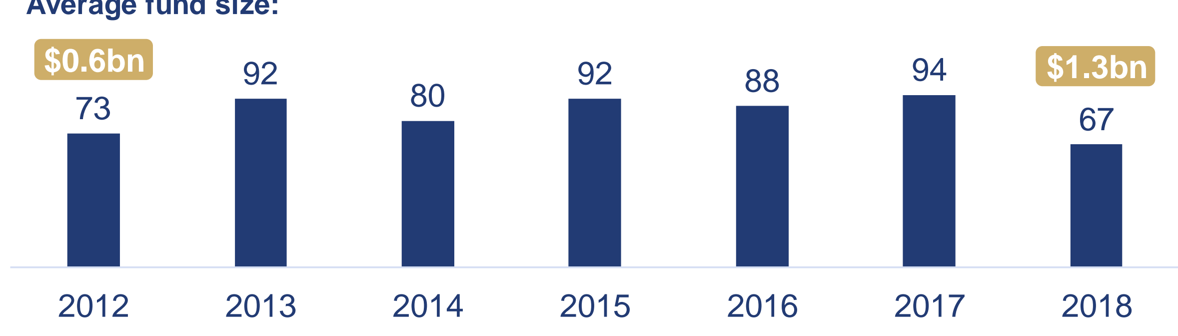
Global private capital fundraising since 2012 (in $bn)



Source: Preqin 2018 fundraising update (focus on private equity, real estate & infrastructure)

Fundraising for private infrastructure funds is indeed booming. In 2018, $80billion were raised in closed-ended Infrastructure funds and, while the aggregated amounts raised are even larger every year, funds raised are increasingly ending-up in fewer hands.

Number of infrastructure funds closed since 2012



Source: Preqin 2018 fundraising update

The asset class is now seeing the surge of « Godzilla » size funds with the largest fund managers known to be seeking to break their own records by raising close to $20bn for their latest vehicles. According to the ranking of the top 75 asset managers run by IPE Real Assets, the 11 largest infrastructure asset managers gather 45% of the $861bn aggregated AuM in 2019.

This evolution is creating concerns around pricing as there is an increasing number of investors that believe managers will be able to deploy such vast amounts of capital into the market despite a finite pool of potential transactions at any one point in time and an increasingly competitive pool of buyers.

Top 75 largest infrastructure funds by Assets Under Management

	Company	Infrastructure AUM (€m)	Total AUM (€m)
1	Macquarie Infrastructure & Real Assets (MIRA)	107,691	119,852
2	Brookfield Asset Management	99,234	309,300
3	M&G Investments/Infracapital	51,000	295,421
4	Global Infrastructure Partners	50,285	50,285
5	IFM Investors	37,629	72,092
6	Allianz Global Investors	29,310	505,000
7	The Carlyle Group	24,066	197,879
8	BlackRock	20,539	5,331,072
9	EIG Global Energy Partners	19,955	19,955
10	AMP Capital	18,550	128,431
11	MetLife Investment Advisors	18,131	539,027
12	DWS	16,433	78,741
13	Energy Capital Partners	16,321	16,321
14	EQT	14,938	40,000
15	First State Investments	14,916	125,751
16	Stonepeak Infrastructure Partners	12,876	12,876
17	APG Asset Management	11,567	462,592
18	Kohlberg Kravis Roberts & Co.	11,017	169,596
19	Nuveen	10,821	811,431
20	Lazard Asset Management	10,325	168,656
21	J.P. Morgan Asset Management	10,273	1,485,998
22	I Squared Capital	10,190	10,190
23	Pantheon Ventures (UK)	9,801	38,072
24	Amber Infrastructure Group	9,241	9,241
25	Partners Group	9,178	72,846
26	InfraRed Capital Partners	8,524	10,560
27	Legal and General Investment Management	8,296	1,117,000
28	Antin Infrastructure Partners	8,225	8,225
29	Ardian	7,862	78,620
30	Copenhagen Infrastructure Partners	7,500	7,500
31	AXA Investment Managers - Real Assets	7,452	82,000
32	Aviva Investors Global Services	7,323	397,924
33	QIC	6,657	52,261
34	Meridiam	6,600	6,600
35	Cohen & Steers	6,300	55,700
36	Manulife Investment Management	6,128	344,059
37	Blackstone	6,049	456,190
38	CBRE Caledon Capital Management	6,000	8,000
39	Alinda Capital Partners	5,843	5,843
40	Goldman Sachs Merchant Banking Division	5,742	82,683
41	DIF	5,596	5,596
42	Dalmore Capital	5,545	5,545
43	Aquila Group	5,473	8,192
44	Actis	5,384	-
45	MEAG	5,215	254,297
46	Hermes Infrastructure	4,616	4,616
47	Equitix Investment Management	4,600	4,600
48	Capital Dynamics	4,355	13,960
49	UBS Asset Management	4,214	735,000
50	Pathway Capital Management	4,135	48,269
51	GCM Grosvenor	4,132	46,739
52	Rivage Investment	4,031	5,237
53	InfraVia Capital Partners	4,000	4,000
54	Morgan Stanley Infrastructure Partners	3,840	3,840
55	Arcus Infrastructure Partners	3,400	3,400
56	Aberdeen Standard Investments	3,387	660,199
57	Golding Capital Partners	3,300	8,400
58	Vantage Infrastructure	3,139	3,139
59	RARE Infastructure	3,100	3,100
60	Swiss Life Asset Managers	3,000	206,700
61	Whitehelm Capital	2,989	3,263
62	KGAL Investment Management	2,900	20,500
63	Vauban Infrastructure Partners	2,800	2,800
64	Schroder Aida	2,765	2,765
65	Foresight Group	2,603	3,164
66	Axium Infrastructure	2,585	2,585
67	Amundi Platform of Alternative & Real Assets	2,427	1,425,000
68	Equis	2,421	2,421
69	Northleaf Capital Partners	2,163	11,314
70	3i Infrastructure	2,153	2,153
71	Oaktree Capital Management	2,075	104,591
72	Edmond de Rothschild Asset Management	1,830	68,000
73	La Banque Postale Asset Management	1,647	3,500
74	Sequoia Investment Management Company	1,424	1,424
75	Ancala Partners	1,400	1,400

The 11th largest funds gather 45% of AUM of the $861bn aggregated AuM in 2019

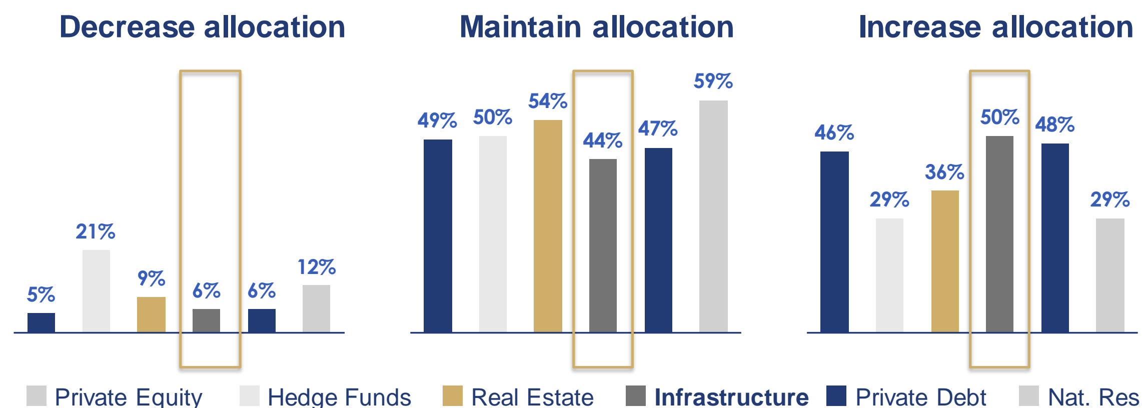
Source: IPE Real Assets – July 2019

2/ WHY IS THERE SO MUCH APPETITE FOR INFRASTRUCTURE?

In the current environment of low interest rates, it has become increasingly difficult for investors to find asset classes where an investor can put a significant amount of capital at work and expect to outperform the risk-free rates by more than a narrow margin while offering a sound risk return profile.

The return differential between high-grade and risky assets has narrowed, and yet the pressure for institutional investors to post strong returns has never been higher. Investors progressively got attracted by the infrastructure asset class as the perfect alternative to the bonds market thanks to its resilient yielding profile and historical resilience to various crises.

Investors' intentions for assets allocation over the long term



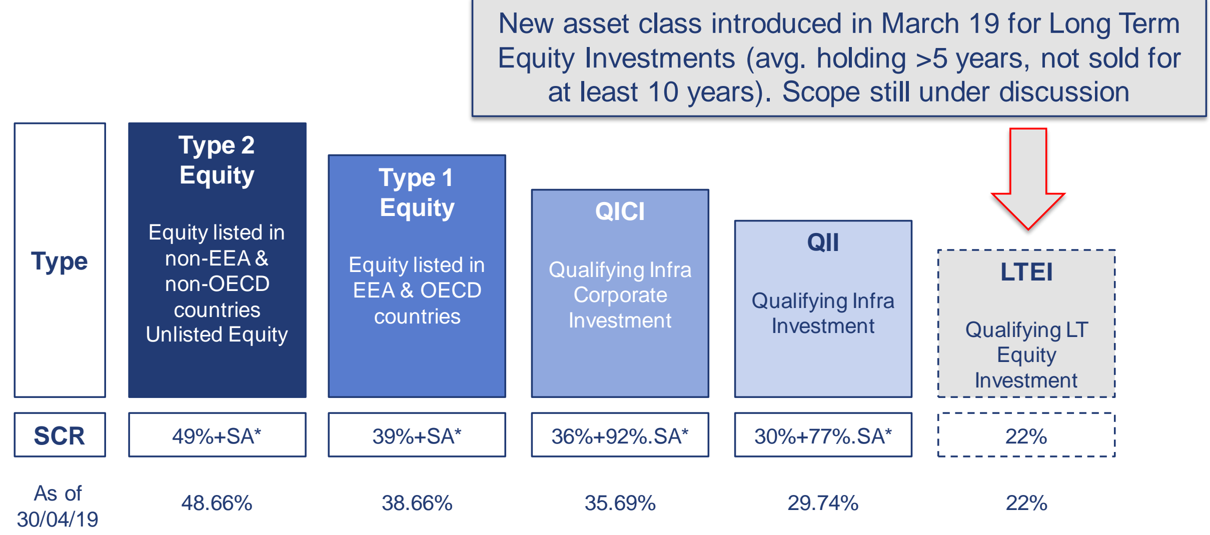
Source: Preqin Investor Outlook: Alternative Assets H1 2019

Moreover, the European Commission increasingly encouraged the private investment in infrastructure to channel long term resources into the real economy as the only alternative to public spending, when most of European governments are still struggling with their debt burden and ways to grow their economy. For instance, after years of discussions and debate between EIOPA[1], the European Insurance regulator and the European Commission, insurance companies are now benefiting from a lower capital charge on infrastructure investments versus standard private equity investments, when they invest in corporate infrastructures or qualified infrastructures (SCR decreases from 49% to 30% or 26% depending on the investment characteristics). The regulator is even now creating a dedicated capital charge for long term infrastructure investment (beyond 10 years of holding period) reduced to 22%.

The rationale is to reflect in the capital charge the resilience of the kind of investments being made and differentiate the risk being borne, for instance versus a standard private equity risk profile.

[1] European Insurance and Occupational Pensions Authority

SCR treatment of equity investments under Solvency II

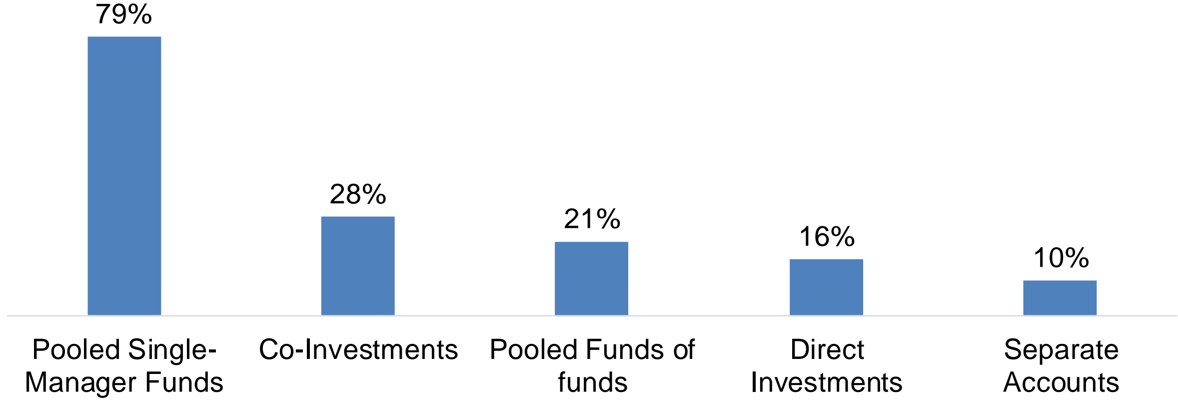


Source: EY – Infrastructure assets Solvency II eligibility – May 23rd 2019.

* *The SA figure should be between -10% and +10% and is published every month by the regulator. SA equal to -0.34% as of 30/04/2019*

As investors progressively developed their allocation to infrastructure, they progressively created a proper asset class and, as they ratcheted up allocations to the sector, they progressively learned more about the asset class and became themselves savvier infrastructure investors. As a result, direct investments by investors is on the rise.

Favored structure used by investors for their future infrastructure investment

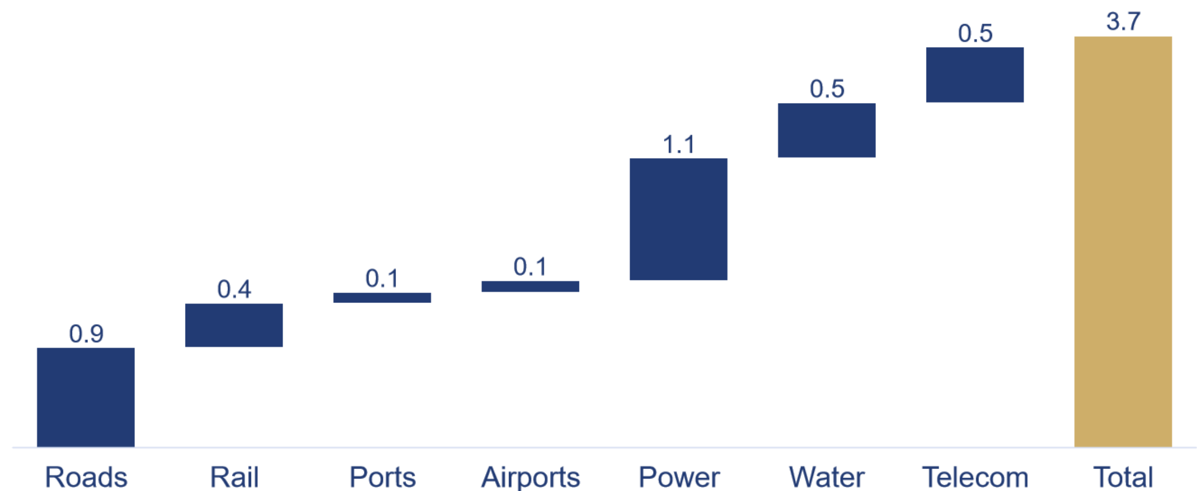


Source: Preqin Investor Outlook: Alternative Assets H1 2019

Is there a risk of shortage of opportunities?

Despite the amazing increase in allocations to infrastructure, Infrastructure investment gaps remain globally massive.

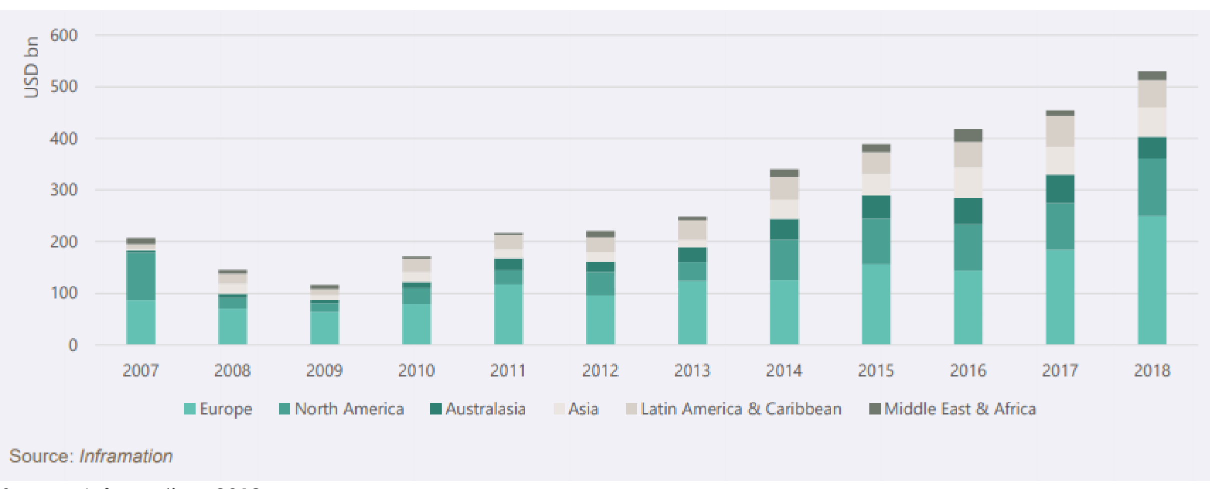
Average annual investment need, 2017-35



Source: McKinsey Global Institute, Bridging Global Infrastructure Gaps – Has the world made progress?, October 2017

While 63% of the gap is estimated to be related to developing economies, the European Union has also identified a significant infrastructure investment need across the continent: the European Commission estimates that Europe needs €2 trillion of investments in infrastructure by 2020 and that €600 billion needs to be spent annually to keep Europe competitive. Investments in European infrastructure are indeed expected to represent the largest single market, as it has been historically the case.

Closed infrastructure transactions by region



Source: Inframation, 2019

Because of the scale and breath of infrastructure, the fact it provides essential services to communities, infrastructure will represent an endless pool of investment opportunities due to the increasing needs of our communities, due *inter alia* to population growth, increased urbanization, and new ways of consumption. There will always be need for new infrastructures as well as to refurbish existing ones and adapt them to the evolution of the essential needs of our communities.

Furthermore, as governments continue to face budget constraints, private sector capital is an increasingly important tool to ensure the funding of key infrastructure projects on a cost effective and efficient basis both for greenfield and brownfield assets. The surge of private capital

invested into the creation and redevelopment of infrastructure assets has effectively led to a substantial pipeline of attractive brownfield infrastructure investment opportunities, driven inter alia by the following trends:

- *Privatisation*: national / local government facing funding constraints may seek to raise funding through the sale of publicly-held infrastructure assets
- *Contractors recycling capital:* a substantial portion of the equity positions in essential infrastructures are held by contractors likely to recycle capital to reinvest in new green-field opportunities with strategic construction contracts
- *Balance Sheet and Regulatory Pressure* faced by a number of building companies, developers, operators, and financial institutions to sell equity in infrastructure assets (asset light strategy)
- *Investment funds reaching end of term* and seeking to dispose of infrastucture assets

This represents an attractive opportunity for investors to generate stable, inflation-protected yields over the long term from a portfolio of high-quality infrastructure assets.

3/ HOW TO DEFINE THE RIGHT INVESTMENT STRATEGY?

According to the Edhec Infrastructure Institute, there are two main schools of thoughts currently regarding the definition of infrastructure:

- Focus on what infrastructure *does*: this approach is based on public-policy considerations. The OECD proposes a broad definition as the "system of public works in a country, state of region including roads, utility lines and public buildings", while the World Bank sets a limited list of "essential services" that qualify as infrastructure; and
- Focus on what infrastructure *is like*: this is the approach used by financial regulators (e.g. through Basel II or Solvency II) to define qualifying infrastructure assets. According to EIOPA, infrastructure assets "provide debt providers and equity investors with a high degree of protection" and "cash flows shall be considered predictable".

The Edhec Infrastructure Institute has devised a framework to classify infrastructure assets combining these approaches (*The Infrastructure Company Classification Standard, TICCS*) based on 4 pillars:

Classification	Key categories
Business risk	Contracted Regulated Merchant
Industrial	Power Generation Environmental Services Social Infrastructure Energy & Water resources Data infrastructure Transport Renewable Power Network utilities
Geo-economic	Global infrastructure companies Regional infrastructure companies National infrastructure companies Subnational infrastructure companies
Governance	Infrastructure project Infrastructure corporate

Source: Edhec Infra, The Infrastructure Classification Standard, October 2018.

Irrespective of any classifications, it is commonly agreed that key characteristics of Infrastructure investments include:

- Essential services to communities,
- Benefit from high barriers to entry or monopoly situation,

- Predictability of future revenues thanks to long term contracts and/or legal/regulatory environment,
- Resilience of cash-flows and long-term yielding profile,
- Significant hedge against inflation,
- Decorrelation of return with the listed equity markets,
- Illiquidity premium that provides significant margin against risk-free rates.

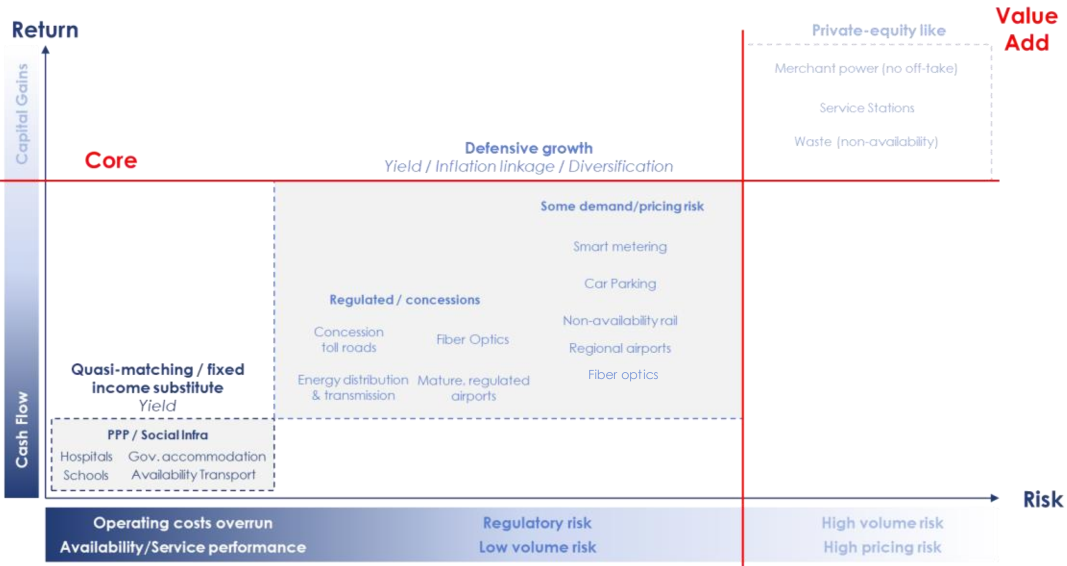
However, the need of classification appeared more recently as mainly two categories of infrastructure assets have emerged: the “core” infrastructure and the “value add” infrastructure assets.

On one hand, “core” infrastructure assets feature typically:

- *Higher barrier to entry*: core infrastructure assets often feature monopoly positions (by contract, regulation or de facto) or very limited direct competition for their user base;
- *Low demand risk*: as infrastructure assets provide an essential service, usage should be relatively unaffected by variations in prices and income. Demand risk can be non-existent (as in availability-based PPPs for example) or limited through long-term contracts with end-users with very high renewal rates, long-term off-take agreements, broad user base etc.;
- *Low pricing risk*: the pricing structure for infrastructure assets should provide visibility on cash flows and downside protection to ensure a fair and stable remuneration of capital, for example through inflation-linked or regulated prices;
- *Real assets*: core infrastructure investments are based on ownership or availability of real assets and not relying merely on contractual arrangements or financial instruments;
- *Long asset life*: infrastructure assets typically have long asset or contract life to be compatible with long-term yield strategies;
- *Some correlation to inflation:* Infrastructure investments are generally generating cash flows providing a natural hedge against inflation and a low correlation to macro-economic downturns.

On the other hand, “value-add” infrastructure assets, which have a different risk/return profile compared to the core assets, typically feature high volume risk (higher competition risk, shorter term off-take contracts), high pricing risk (e.g. power market exposure, lower EBIDTA margin, …), sometimes no real asset.

Infrastructure categories

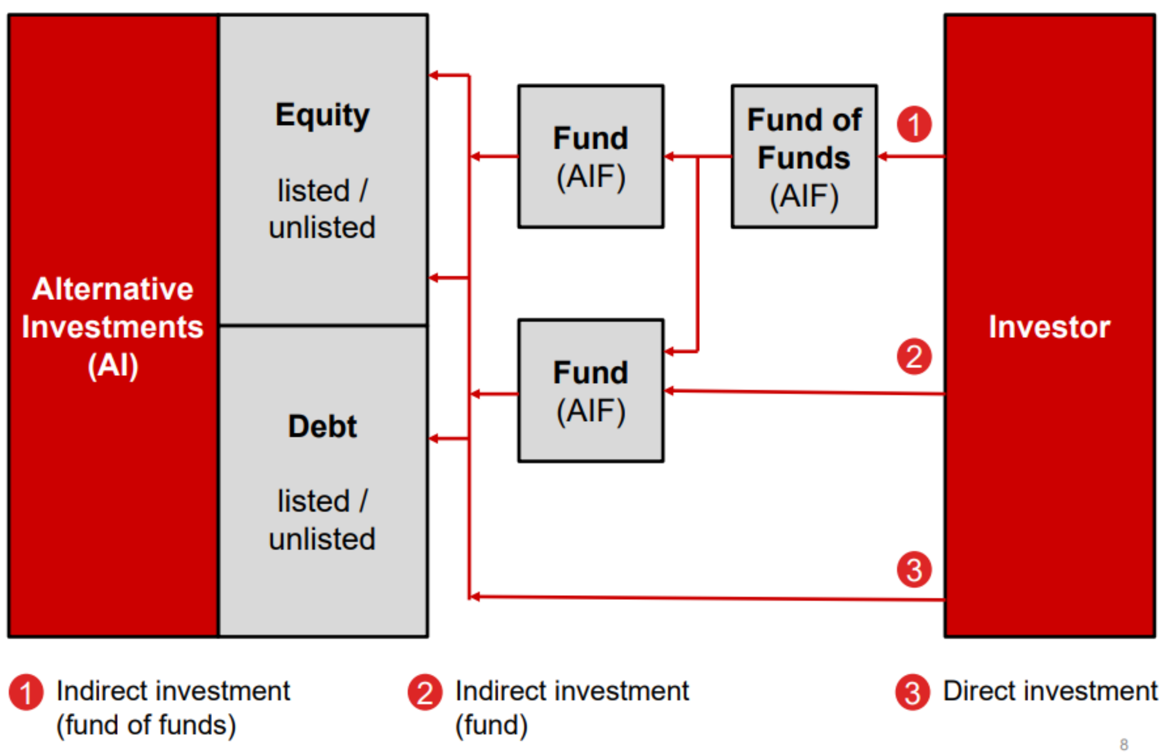


Source: Vauban, 2019

When looking at infrastructure, investors have a number of paths available to access the asset class:

- First, selecting whether to invest into "debt" or "equity" instruments funding infrastructure assets, depending on their risk appetite and return target, and
- in both cases, by selecting whether to invest directly (3), in funds making direct investments (2) or in funds of funds making direct investments (1), depending on their knowledge of the asset class, their desired investment diversification (specific asset, diversified pool of assets with specific strategy, or diversified strategies) and their return targets

Types of investment in infrastructure



Source: SOF Infrastructure, 2018

Defining the right strategy is indeed key to build a coherent portfolio. And it all depends on what you are looking for:

Criteria	Key considerations
Risk-adjusted return	What is the target level of return? - Double digit returns will require value add or emerging markets investment for example
Return horizon / profile	What is the preferred type of return (capital gain or yield)? What is the target investment horizon / required liquidity?
Geographies	Global vs. regional strategies
Investment approach	Direct investment vs. investment through an asset manager vs. fund of funds

Criteria	Key considerations
Assets maturity	Brownfield? Greenfield? Mix?
Existing exposure to the asset class	Current stage of existing exposure to infrastructure

Why long-term investment might be one of the best value for money options in infrastructure investing

Beyond the usual benefits of long-term investments enabling to better perform through economic cycles vs short term investments relying on capital gains and market conditions on exit, long term is especially valuable in core infrastructure investing as

- Long term investment matches the underlying assets economic life, in general between 15 to 30 years or even beyond for some infrastructures
- Long term investment matches the underlying nature of these investments, as infrastructures generally generate stable cash-flows, unlike private equity corporates that are bound to significantly grow their business
- Long term investment allows to align interests of all stakeholders - shareholders, users, off-takers, regulators – and in particular, to reconcile Private and Public sectors on the debate about the legitimacy of private investments returns (cf UK PFI challenge)
- Long term investment allows to build partnerships with industrial companies and platforms which become natural providers of deal flow
- Long term investment allows to work on value creation more broadly
- Long term investment allows to invest in the development of new infrastructures that are becoming essential infrastructures (Digital, EV Charging, etc.)

As a result, long term investing would certainly be one of the best value for money options but it requires a meticulous and rigorous approach to select the appropriate assets and manage them accordingly.

How to build the right portfolio for long term value

A portfolio that provides the target risk adjusted return for long term value creation require a dedicated approach:

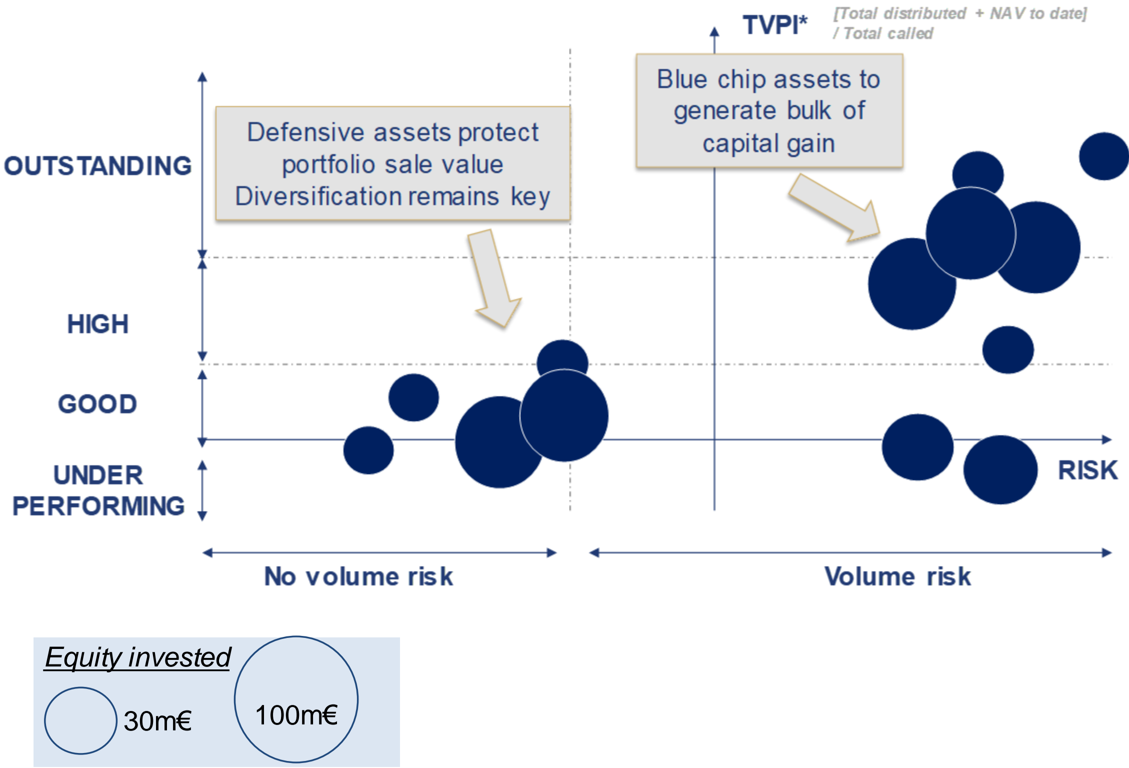
- Infrastructure investors must take a long view as infrastructure requires long term investment
- Investors must be able to build a portfolio of assets that can withstand a range of negative factors such as economic cycle volatility and/or disruptions
- Long term sustainability of these infrastructures is key as they provide vital amenities to our communities, they rely on the long-term need and satisfaction of citizens: therefore incorporating ESG criteria into investment analysis is paramount to its success
- Diversification by sectors and geographies is a must to procure the appropriate portfolio resilience
- Select assets in countries/regions with the right legal, political and economic environment
- Investors need to understand innovation and have the capacity to determine which technologies will turn into trends that dominate asset types and determine the positive returns that can be gained from technology disruptors
- Sticking with discipline to the definition of infrastructure as the infrastructure asset class is having a definition somewhat stretched lately

- Favor dynamic building of portfolio where each investment is also analysed with its potential complementary impact on the existing and target final portfolio
- Sticking with discipline on pricing and risk analysis through thorough due diligence and best-in-class transaction execution

In a nutshell, one would need to invest in the right assets with the right balance of diversification providing the target risk/return through the appropriate mix of resilient cash-flows and capital appreciation.

This requires to be able to build a portfolio with a forward thinking on how each asset is going to impact the overall performance of the portfolio and to anticipate its value creation potential.

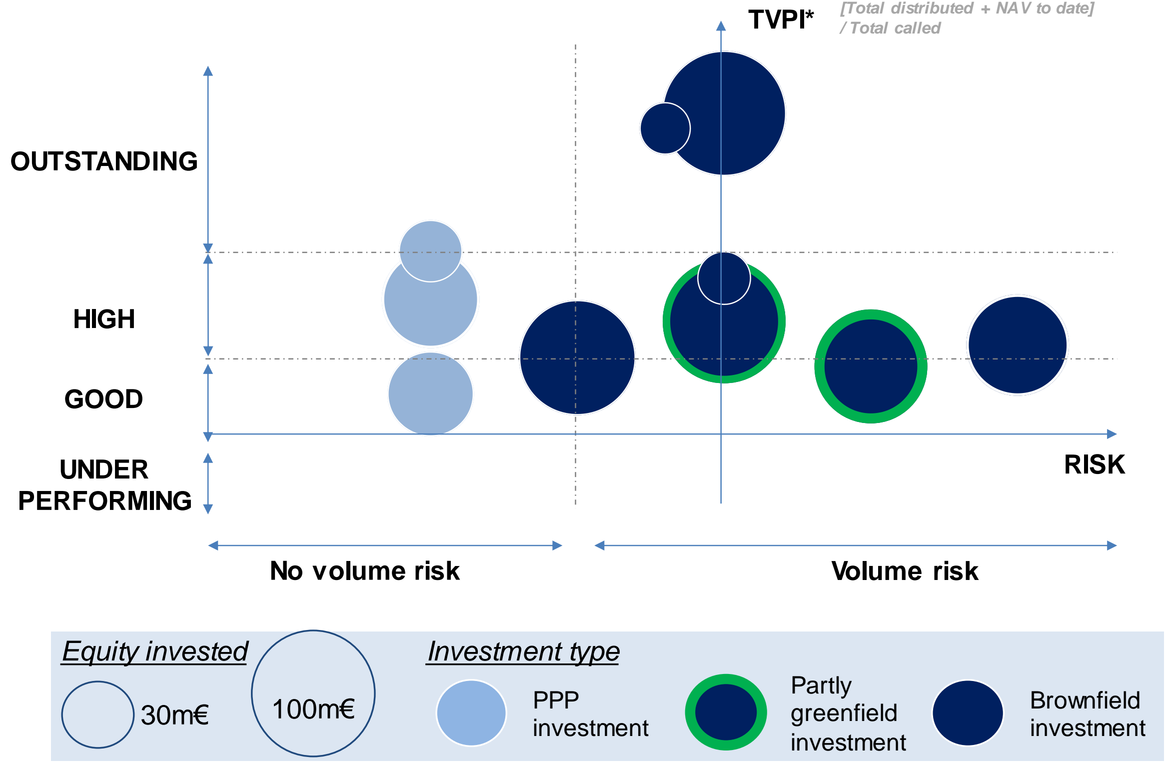
Value add / capital gain portfolio driven by ability to grow and sell (illustrative)



Diversification must be a way to find the right mix of business model not a way to avoid making any choice

For instance, the right portfolio in the case of a value-add strategy will be constituted by a mix of defense assets which will secure a floor of value, with infrastructure corporates that provide growth potential and capital appreciation spread within medium risk and higher risk so that some of them would ultimately constitute the blue chips that will allow to maximize the capital gain from the portfolio exit strategy depending on market conditions.

Building a successful long-term yield-oriented portfolio



Source: *Vauban, 2019*

Note: *As of 31/03/2019*

The submitted information can be construed as reflecting the opinion of VAUBAN as of the date of this document and may change without notice.

With respect to a long-term yield-driven strategy, the ideal portfolio will be constituted by a combination of assets with different business models:

- *Very "de-risked" infrastructure assets* with low yield returns such as availability payment PPPs providing super resilient returns but with limited value creation potential (the *defensive assets* that will provide the floor of yield)
- Some infrastructure corporates like utilities with *still limited risk* but with still some growth potential and value creation - these investments will match the target IRR/yield through active asset management to maximize their growth potential and value creation (the *average assets*)
- *Few infrastructures assets with significant growth potential* like transportation assets, digital assets that will generate the bulk of the value creation potential of the overall portfolio - these investments will allow to exceed the target IRR/yield thanks to active asset management that will make possible their growth potential (the *blue chips*)

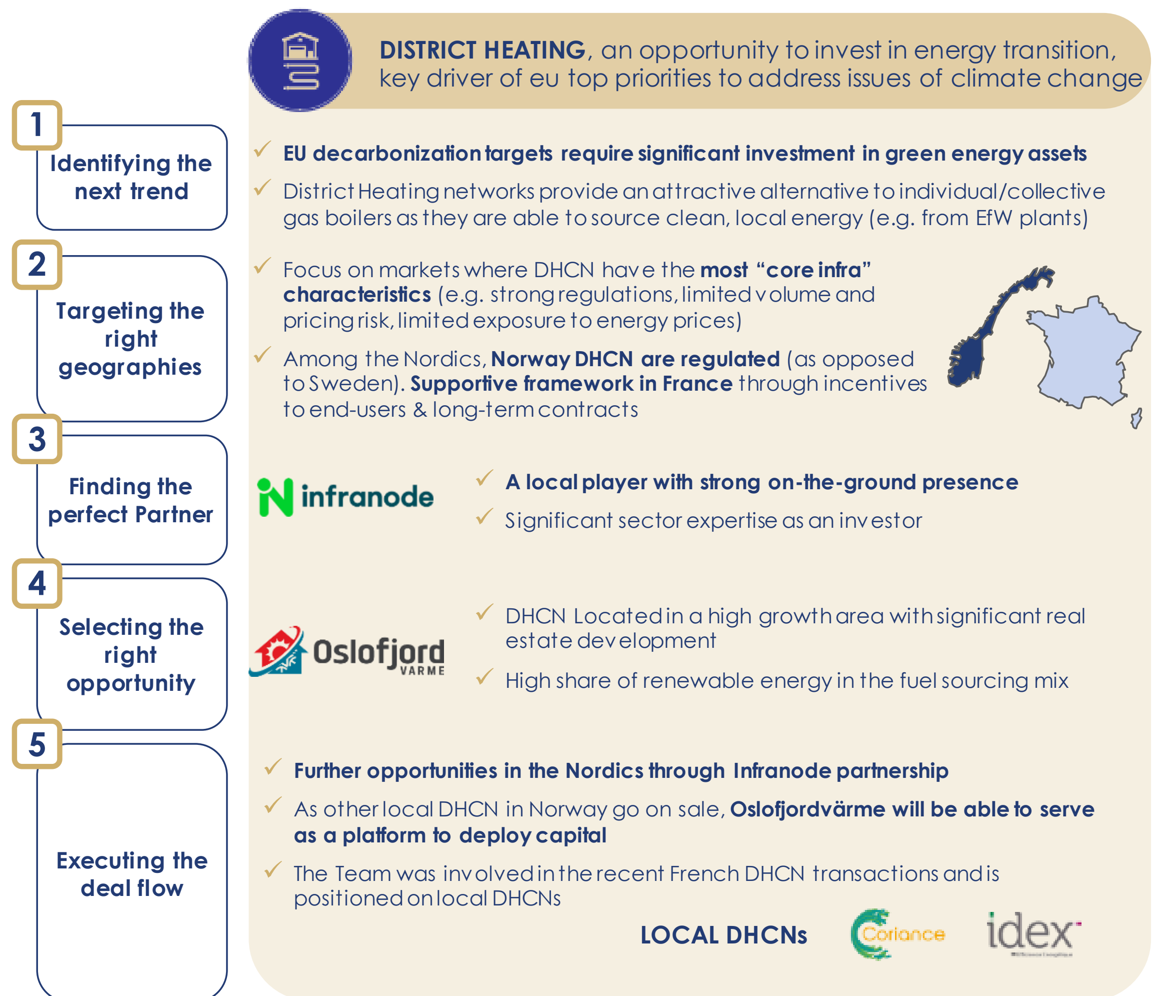
How to identify the infrastructures that will constitute the average assets and blue chips potentials

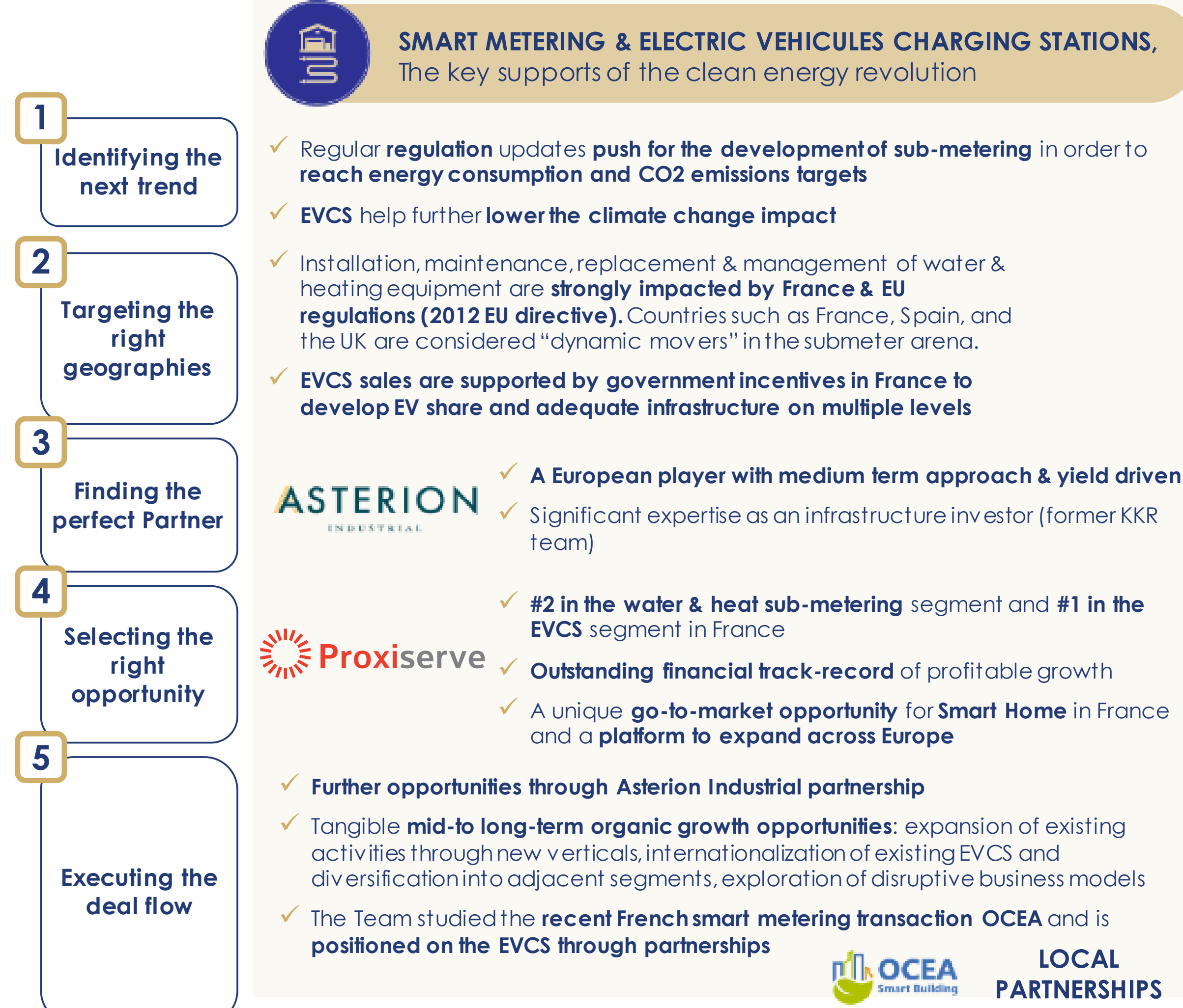
Building the appropriate portfolio for the long term means finding the right balance between different types of infrastructure so that the overall portfolio provides the optimal resilience with the targeted yield/ return profile.

This requires a significant expertise and network to identify the right long-term sustainable infrastructures that will constitute the average assets and blue chips potentials of a long term portfolio. It comes down to find the right team / asset manager to build the targeted portfolio and being able to implement with discipline a five-step investment approach through origination to execution:

1. Identify the next infrastructure macro trend
2. Target the right geographies and/or markets
3. Find the right partner(s) to invest, providing as appropriate access to deal flow, industrial expertise and/or local footprint
4. Select the right opportunity within the deal flow which will represent the best value for money with the right potential for value creation
5. Execute the transactions

Illustrations of this approach by Vauban on the district heating and smart metering/electric vehicle charging stations sectors, both supported by the energy transition macro trend in infrastructure investing are presented below





The key factor of success in such asset selection and diversified portfolio construction is to select the appropriate team that will be able to consistently implement the long term value creating strategy to write the future of the portfolio.

How could investors benefit from liquidity under a long term buy and hold strategy?

In a long term buy-and-hold yield-driven strategy, the maturity of the closed-end infrastructure fund is aligned with the investment approach and consequently the portfolio assets are expected to remain invested over a long term horizon. Liquidity for the investors is therefore provided by the sale of their fund shares via the secondary market before the term of the fund (e.g. 10 years).

As the infrastructure asset class matures, the secondary market for infrastructure funds has been gradually growing over the last years, reflecting market practices known for long time in the private equity and real estate markets, and providing more and more liquidity.

Success of early disposal of the Fund shares via the secondary market will be primarily driven by the quality of the Fund's asset portfolio assessed at that time.

Similarly, a strategy relying on capital gain after 10 years is not a guarantee of liquidity at 10 years but simply provides visibility on when portfolio assets are expected to be exited and for which the effective exit will depend on the then prevailing market conditions and the quality of the portfolio assets.

Consequently, since no one can control market conditions in say 10 years, what is crucial for the investor liquidity is the quality of the fund portfolio and therefore, as mentioned earlier, the key factor of performance is the quality of the team that will constitute the portfolio applying the selected strategy.

4/ SELECTING THE RIGHT TEAM AND WHY IT MATTERS

A strong team to successfully build the required infrastructure portfolio and ensure a solid execution of the investment strategy should demonstrate specific skillsets and organization:

1. *Strong, infrastructure-specific investment experience with a solid track-record*

As with typical private equity funds, building a performing infrastructure portfolio requires a strong, multidisciplinary experienced team with a significant track-record. Infrastructure transactions however features additional layers of complexity, including for example complex contractual structure often backing the expected risk / return profile typical of infrastructure assets (e.g. PPP schemes, concession contracts, take-off agreements, regulatory frameworks), detailed financial modelling over long horizon, ad-hoc financing structures to match the expected long-term stable cash flows and investment profile. The most successful funds in the industry have been able to demonstrate a strong track-record for the past 10 years.

2. *Local footprint and deep knowledge of target markets*

The investment team needs to be strongly rooted in its target investment geography. This is key to be credible as an investor, to have access to the best investment opportunities and to ensure a smooth asset management process. A network of high-level senior advisors with unique knowledge of the individual markets and strong relationships on the ground is a key differentiator.

3. *Unique access to deal flow*

The ability to secure consistent, proprietary deal flow is essential to deliver the investment strategy in terms of sector, geography, risk profile diversification, as well as to mitigate competition and secure attractive entry valuation.

For the infrastructure asset class, proprietary deal flow could result from:

- Deep connection/partnership with key industrial players looking at capital rotation, additional financial support, expertise in asset financing, trusted independent partner for long term projects, etc.
- Sector platforms resulting from the acquisition of a key asset/company suited for a build-up strategy, resulting in increased deal flow through organic and external growth while providing attractive risk/return on the back of operational efficiencies, market synergies etc.
- A longstanding greenfield expertise, providing an edge when assets become operational to deliver sound risk/return investment opportunities

4. *Strong transaction execution capabilities*

A successfully executed transaction requires strong process management, negotiation skills, financial modelling, legal skills to properly value the infrastructure company, structure the legal documentation and arrange the right financing package. It is therefore key to benefit from a deep multidisciplinary pool of talented professionals from senior to junior level to ensure excellent execution.

5. *Best-in class support functions*

Support functions, including but not limited to investor relations, legal, compliance, risk management, audit, middle office and accounting, are essential in ensuring good delivery of the investment strategy, as providing key controls and risk supervision, appropriate information on the funds' activities, monitoring of performance, strong reporting policies, etc.

6. *Asset management: a good team has several levers to significantly enhance portfolio features*

A fund manager typical seeks to protect investment returns, both at the portfolio-wide level and on an asset-by-asset basis, while maximizing long-term value to investors through active participation at the Board of Directors of portfolio companies and ongoing performance monitoring as well as active management to enhance value, including through optimizing capital structure and financings, delivering cost savings and synergies, identifying potential technological shifts that could affect the company and taking appropriate action, etc.

5/ CONCLUSION

While some asset classes have witnessed a slowdown in fundraising recently, demand for infrastructure funds has never been so high, with $80bn raised in close ended funds in 2018. The risk / return profile of private infrastructure investment is particularly attractive to institutional investors in an environment of ultra-low risk-free rate, while the gap between infrastructure investment needs and actual amounts of capital spent remains substantial across the world.

In that supportive environment, finding the right investment strategy corresponding to specific institutional investor's objectives is key. The strategy needs to be consistent in terms of investment horizon, geography, type of return (yield vs. value add), etc.

Once the strategy has been identified, private infrastructure investment can be a very successful investment opportunity for institutional investors, providing that they are able to select the best teams to execute this strategy by building the right portfolio and managing it efficiently over the investment horizon.

This requires a combination of unique skills of the General Partner in terms of (i) consistent access to a proprietary deal flow, in particular in a context of rising asset prices, (ii) ability to efficiently execute transactions, (iii) asset management over the life of the investment and (iv) support and control function such as legal, compliance, risk management and investor relations. For each of these areas, the right team can implement actions that will safeguard the return profile / maximize value for investors of a performing portfolio, hereby delivering on the stated investment strategy.

MENTIONS LÉGALES
This material has been provided for information purposes only to investment service providers or other Professional Clients, Qualified or Institutional Investors and, when required by local regulation, only at their written request. This material must not be used with Retail Investors. **In the E.U. (outside of the UK and France):** Provided by Natixis Investment Managers S.A. or one of its branch offices listed below. Natixis Investment Managers S.A. is a Luxembourg management company that is authorized by the Commission de Surveillance du Secteur Financier and is incorporated under Luxembourg laws and registered under n. B 115843. Registered office of Natixis Investment Managers S.A.: 2, rue Jean Monnet, L-2180 Luxembourg, Grand Duchy of Luxembourg. Italy: Natixis Investment Managers S.A., Succursale Italiana (Bank of Italy Register of Italian Asset Management Companies no 23458.3). Registered office: Via San Clemente 1, 20122 Milan, Italy. Germany: Natixis Investment Managers S.A., Zweigniederlassung Deutschland (Registration number: HRB 88541). Registered office: Im Trutz Frankfurt 55, Westend Carrée, 7. Floor, Frankfurt am Main 60322, Germany. Netherlands: Natixis Investment Managers, Nederlands (Registration number 50774670). Registered office: Stadsplateau 7, 3521AZ Utrecht, the Netherlands. Sweden: Natixis Investment Managers, Nordics Filial (Registration number 516405-9601 - Swedish Companies Registration Office). Registered office: Kungsgatan 48 5tr, Stockholm 111 35, Sweden. Spain: Natixis Investment Managers, Sucursal en España. Serrano n°90, 6th Floor, 28006, Madrid, Spain. **In France:** Provided by Natixis Investment Managers International – a portfolio management company authorized by the Autorité des Marchés Financiers (French Financial Markets Authority - AMF) under no. GP 90-009, and a public limited company (société anonyme) registered in the Paris Trade and Companies Register under no. 329 450 738. Registered office: 43 avenue Pierre Mendès France, 75013 Paris. **In Switzerland:** Provided for information purposes only by Natixis Investment Managers, Switzerland Sàrl, Rue du Vieux Collège 10, 1204 Geneva, Switzerland or its representative office in Zurich, Schweizergasse 6, 8001 Zürich. **In the British Isles:** Provided by Natixis Investment Managers UK Limited which is authorised and regulated by the UK Financial Conduct Authority (register no. 190258) - registered office: Natixis Investment Managers UK Limited, One Carter Lane, London, EC4V 5ER. When permitted, the distribution of this material is intended to be made to persons as described as follows: in the United Kingdom: this material is intended to be communicated to and/or directed at investment professionals and professional investors only; **in Ireland:** this material is intended to be communicated to and/or directed at professional investors only; **in Guernsey:** this material is intended to be communicated to and/or directed at only financial services providers which hold a license from the Guernsey Financial Services Commission; **in Jersey:** this material is intended to be communicated to and/or directed at professional investors only; **in the Isle of Man:** this material is intended to be communicated to and/or directed at only financial services providers which hold a license from the Isle of Man Financial Services Authority or insurers authorised under section 8 of the Insurance Act 2008. **In the DIFC:** Provided in and from the DIFC financial district by Natixis Investment Managers Middle East (DIFC Branch) which is regulated by the DFSA. Related financial products or services are only available to persons who have sufficient financial experience and understanding to participate in financial markets within the DIFC, and qualify as Professional Clients or Market Counterparties as defined by the DFSA. No other Person should act upon this material. Registered office: Office 504-D, 5th Floor , South Tower, Emirates Financial Towers, PO Box 118257, DIFC, Dubai, United Arab Emirates. **In Japan:** Provided by Natixis Investment Managers Japan Co., Ltd., Registration No.: Director-General of the Kanto Local Financial Bureau (kinsho) No. 425. Content of Business: The Company conducts discretionary asset management business and investment advisory and agency business as a Financial Instruments Business Operator. Registered address: 1-4-5, Roppongi, Minato-ku, Tokyo. **In Taiwan:** Provided by Natixis Investment Managers Securities Investment Consulting (Taipei) Co., Ltd., a Securities Investment Consulting Enterprise regulated by the Financial Supervisory Commission of the R.O.C. Registered address: 34F., No. 68, Sec. 5, Zhongxiao East Road, Xinyi Dist., Taipei City 11065, Taiwan (R.O.C.), license number 2018 FSC SICE No. 024, Tel. +886 2 8789 2788. **In Singapore:** Provided by Natixis Investment Managers Singapore (name registration no. 53102724D) to distributors and institutional investors for informational purposes only. Natixis Investment Managers Singapore is a division of Ostrum Asset Management Asia Limited (company registration no. 199801044D). Registered address of Natixis Investment Managers Singapore: 5 Shenton Way, #22-05 UIC Building, Singapore 068808. **In Hong Kong:** Provided by Natixis Investment Managers Hong Kong Limited to institutional/ corporate professional investors only. **In Australia:** Provided by Natixis Investment Managers Australia Pty Limited (ABN 60 088 786 289) (AFSL No. 246830) and is intended for the general information of financial advisers and wholesale clients only. **In New Zealand:** This document is intended for the general information of New Zealand wholesale investors only and does not constitute financial advice. This is not a regulated offer for the purposes of the Financial Markets Conduct Act 2013 (FMCA) and is only available to New Zealand investors who have certified that they meet the requirements in the FMCA for wholesale investors. Natixis Investment Managers Australia Pty Limited is not a registered financial service provider in New Zealand. **In Latin America:** Provided by Natixis Investment Managers S.A. **In Uruguay:** Provided by Natixis Investment Managers Uruguay S.A., a duly registered investment advisor, authorised and supervised by the Central Bank of Uruguay. Office: San Lucar 1491, oficina 102B, Montevideo, Uruguay, CP 11500. The sale or offer of any units of a fund qualifies as a private placement pursuant to section 2 of Uruguayan law 18,627. **In Colombia:** Provided by Natixis Investment Managers S.A. Oficina de Representación (Colombia) to professional clients for informational purposes only as permitted under Decree 2555 of 2010. Any products, services or investments referred to herein are rendered exclusively outside of Colombia. This material does not constitute a public offering in Colombia and is addressed to less than 100 specifically identified investors. **In Mexico** Provided by Natixis IM Mexico, S. de R.L. de C.V., which is not a regulated financial entity, securities intermediary, or an investment manager in terms of the Mexican Securities Market Law (Ley del Mercado de Valores) and is not registered with the Comisión Nacional Bancaria y de Valores (CNBV) or any other Mexican authority. Any products, services or investments referred to herein that require authorization or license are rendered exclusively outside of Mexico. While shares of certain ETFs may be listed in the Sistema Internacional de Cotizaciones (SIC), such listing does not represent a public offering of securities in Mexico, and therefore the accuracy of this information has not been confirmed by the CNBV. Natixis Investment Managers is an entity organized under the laws of France and is not authorized by or registered with the

CNBV or any other Mexican authority. Any reference contained herein to "Investment Managers" is made to Natixis Investment Managers and/or any of its investment management subsidiaries, which are also not authorized by or registered with the CNBV or any other Mexican authority. The above referenced entities are business development units of Natixis Investment Managers, the holding company of a diverse line-up of specialised investment management and distribution entities worldwide. The investment management subsidiaries of Natixis Investment Managers conduct any regulated activities only in and from the jurisdictions in which they are licensed or authorized. Their services and the products they manage are not available to all investors in all jurisdictions. It is the responsibility of each investment service provider to ensure that the offering or sale of fund shares or third party investment services to its clients complies with the relevant national law. The provision of this material and/or reference to specific securities, sectors, or markets within this material does not constitute investment advice, or a recommendation or an offer to buy or to sell any security, or an offer of any regulated financial activity. Investors should consider the investment objectives, risks and expenses of any investment carefully before investing. The analyses, opinions, and certain of the investment themes and processes referenced herein represent the views of the portfolio manager(s) as of the date indicated. These, as well as the portfolio holdings and characteristics shown, are subject to change. There can be no assurance that developments will transpire as may be forecasted in this material. Past performance information presented is not indicative of future performance. Although Natixis Investment Managers believes the information provided in this material to be reliable, including that from third party sources, it does not guarantee the accuracy, adequacy, or completeness of such information. This material may not be distributed, published, or reproduced, in whole or in part. All amounts shown are expressed in USD unless otherwise indicated.