2021 INSTALLERS' SUMMIT

8 October 2021

Online

GCP EUROPE

EuropeOn

This is our first session. If you want to join us at our second session (*New skills and jobs*)**, please come back at 15h30**

2021 Installers' Summit

Digitalisation, new technologies, smarter buildings: what are the new areas of development for the European installation sector?

8 Oct. 2021
13h30-15h

EuropeOn
GCP EUROPE

Welcome to our Annual Conference!

Session 1: **Digitalisation, new technologies, smarter buildings: what are the new areas of development for the European installation sector?** (13h30-15h00)

- **Introduction by GCP Europe vice-President**

- **The key role of installers in EPBD implementation and rollout of smart and efficient buildings**
  - MEP Sean Kelly (Ireland, EPP)

- **The electrical and mechanical sectors' takes on contributing to the green and digital agenda**
  - Sean Downey, Secretary at MEBSA (Ireland): Update on developments in innovation and digital adoption in Ireland
  - Troels Blicher Danielsen, Administrative Director at Tekniq (Denmark): Data is the new gold
  - Bernhard Dürheimer, Vice President at BTGA (Germany): The sustainability of buildings is becoming increasingly important
  - Casto Cañavate, Marketing Manager at KNX: The future landscape for HVAC integration with Energy Management

- **Q&A and conclusion**

First session (13:30 – 15:00 PM CET)

Session 1: **Digitalisation, new technologies, smarter buildings: what are the new areas of development for the European installation sector?**

A few reminders before starting:

Once all of our distinguished panellists will have presented their views on this session, we will open the floor to all attendees for **questions**.

You can ask your questions whenever you want in the **QUESTIONS Box** (on the right side) and we will come back to them in the last 30 minutes of this Conference.

Please provide your name and organisation

Thank you for being with us today!

Second session will start at 15h30!

Introduction

-

Troels Blicher Danielsen, GCP Europe vice-President

what are the new areas of development for the European installation sector?

The key role of installers in EPBD implementation and rollout of smart and efficient buildings

-

Sean Kelly, Member of the European Parliament

what are the new areas of development for the European installation sector?

GCP EUROPE EuropeOn **2021 Installers' Summit**

KNX Media Partner

Update on developments in innovation and digital adoption in Ireland

-

Sean Downey,
Secretary at MEBSA (Ireland)

what are the new areas of development for the European installation sector?

Sean Downey
MEBSCA General Secretary

An overview of the development of BIM in Ireland

October 2021

Todays conversation

- What are the burning questions we are trying to answer?
- Our response to this challenge
- National alignment and strategic partners
- What part have MEBSCA played?

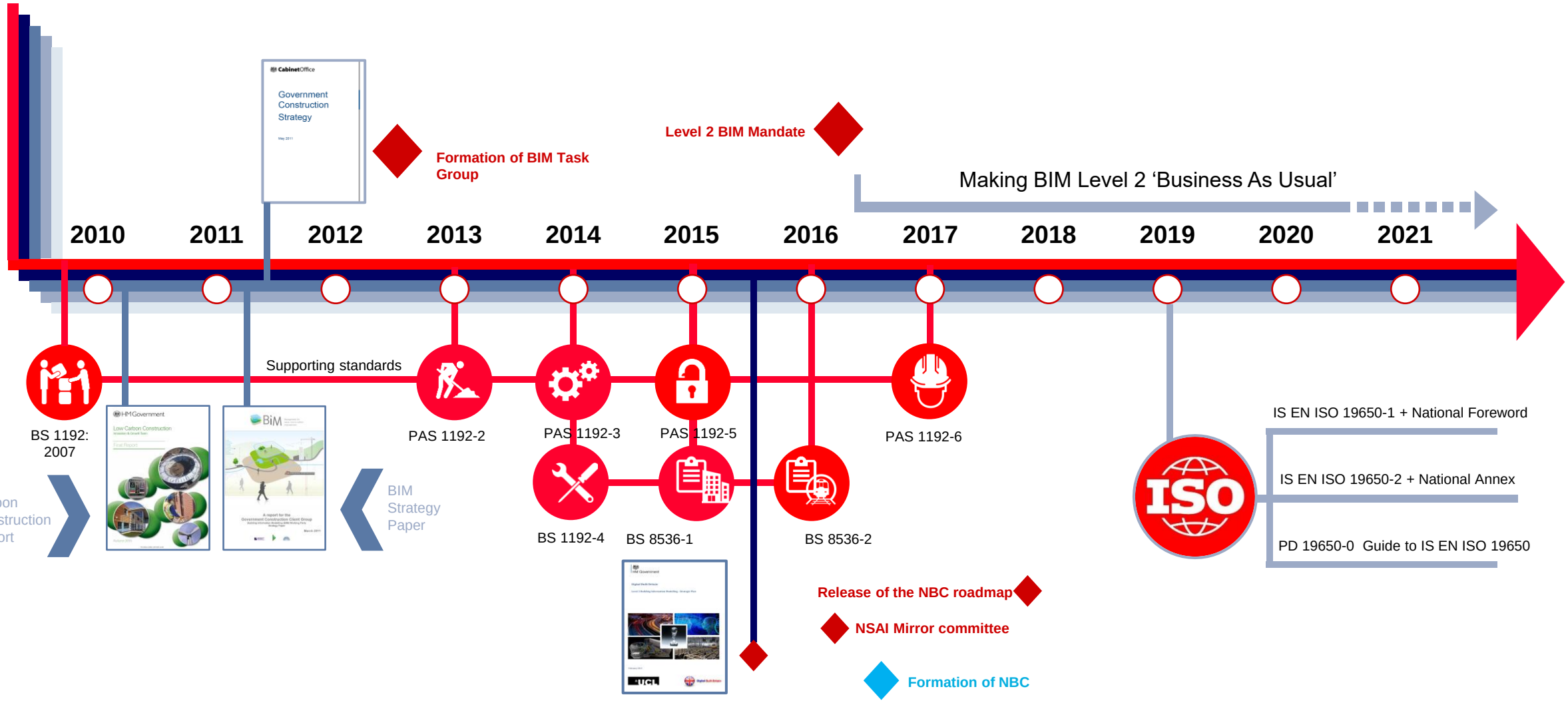
Innovation and Digital Adoption for Constru...

Mandated to deliver 7 Priority Innovation & Digital Adoption Actions for Productivity & Sustai
Construction.

Construction Sector Group on Innovation & Digital Adoption Group

October 2021

The Adoption of BIM in Ireland

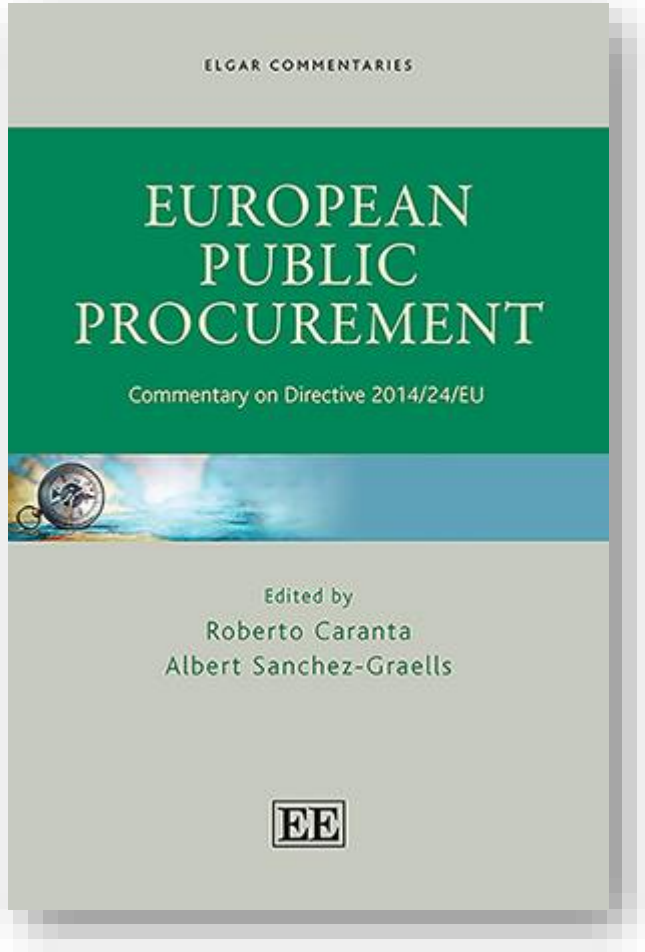


The Adoption of BIM in Ireland - 2014

At a European level the 2014 Procurement Directive recognises the role of BIM in project delivery

EU Commission has established the EU BIM task Group to deliver a common European network aimed at aligning the use of Building Information Modelling in public works.

At the European level, Directive 2014/24/EU on public procurement establishes the need to use **software** (media data and tools to model the building) in processes for contracting construction work, services and supplies as of **September 2018**.



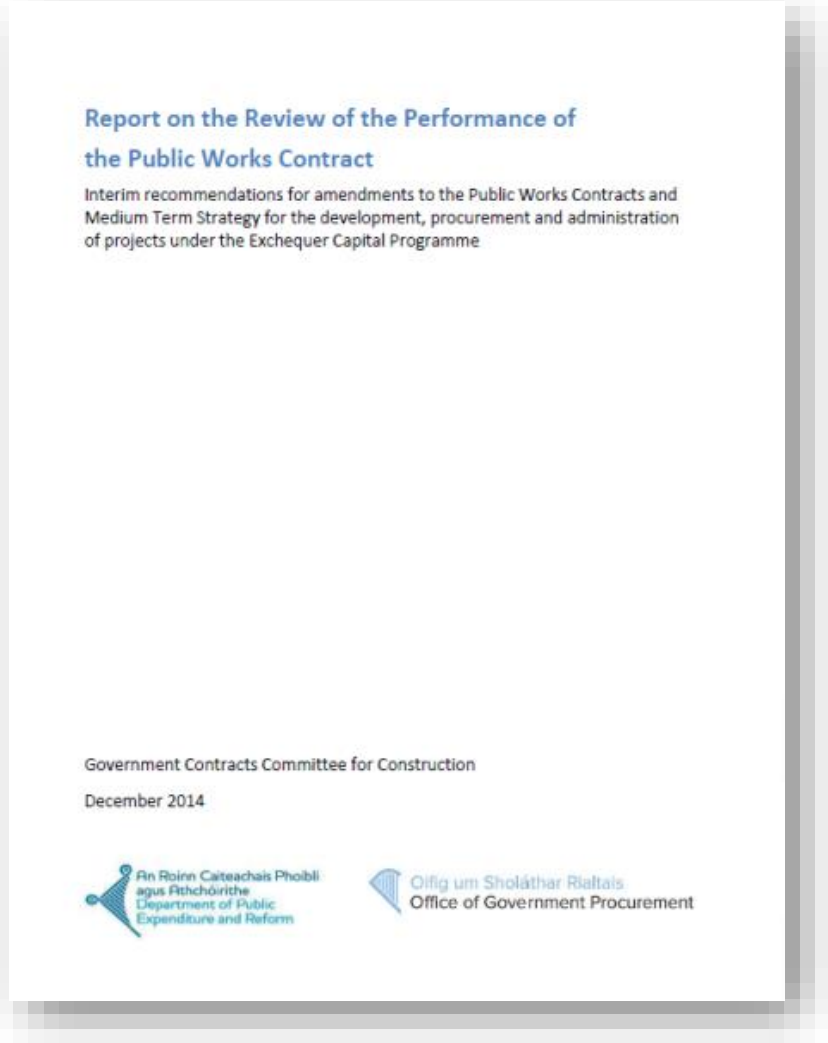
The Adoption of BIM in Ireland - 2014

2014 Review of the public works contracts by GCCC

Some Key Findings:

- Poor definition of the works requirements
- Insufficient identification of risk
- Inappropriate risk allocation

- BIM was recognised by the GCCC as a powerful risk management tool.


Report on the Review of the Performance of the Public Works Contract

Interim recommendations for amendments to the Public Works Contracts and Medium Term Strategy for the development, procurement and administration of projects under the Exchequer Capital Programme

Government Contracts Committee for Construction

December 2014

An Roinn Caiteachais Phoiblí agus Athchóirithe
Department of Public Expenditure and Reform

Oifig um Sholáthar Rialtais
Office of Government Procurement

The Adoption of BIM in Ireland - 2014

Oifig um Sholáthar Rialtais
Office of Government Procurement

Statement of Intent *"Properly implemented, a public sector Building Information Modelling (BIM) adoption strategy will support the implementation of Government policy objectives1 in the procurement of public works projects, in their construction and in their maintenance upon completion.".*

Government policy objectives:

- Cost certainty at tender award stage
- Better value for money (VFM), and
- More efficient delivery of public works projects

The Adoption of BIM in Ireland - 2014

Oifig um Sholáthar Rialtais
Office of Government Procurement

Construction 2020 refers to;
Action 68 • Continue promotion of the Enterprise Ireland Lean Start Programme and advance construction companies onto the following stages, Plus and Transform. Implement a BIM staged development programme to support companies advancing to Level 2 BIM capability.

Action 69 • Work with industry organisations to promote the use of BIM and develop the appropriate technical skills amongst Irish construction firms so that they can successfully compete in markets where BIM is widely adopted or a requirement.

Action Plan for Jobs 2017 • Action 162
Prepare a strategy for the adoption of Building Information Modelling across the public capital programme and to mandate the manner in which it is to be adopted across the public sector.

The Adoption of BIM in Ireland -2014

Oifig um Sholáthar Rialtais
Office of Government Procurement

• Public BIM was set up in 2016 as a representative Group of Public/Civil/Semi State and State Bodies that have an interest in Construction Procurement Utilising BIM.
• Public BIM operates under the auspices of a dedicated GCCC subcommittee both of which are chaired by OGP
• It represents the views of public sector project practitioners on the implementation of BIM • It is a sounding board and networking group

Public BIM ethos is to help standardise the approach of BIM implementation across the Public Sector for works contracts
• To develop procedures for the implementation of BIM
• To develop a documentation suite for implementation of BIM based on best international practice
• It can prepare proposals for the GCCC for Government approval • It can collaborate with industry stakeholders to develop best practice

The Adoption of BIM in Ireland - 2015

ENTERPRISE IRELAND

Enterprise Ireland offer's two levels of support for clients who wish to scope out and then implement a digital roadmap to drive growth.

BIM-Enable is a 7-day strategic consultancy programme which assists companies to set out a digital roadmap and consider how they can apply BIM within their organisation. This programme is designed to heighten BIM awareness across all of a company's business functions and deliver a bespoke roadmap to Level 2 BIM proficiency.

BIM-Implement - BIM-Implement places an emphasis on training and the learning and implementation of BIM across the organisation. This programme strongly supports knowledge transfer with the aim of equipping staff with the competencies required to successfully manage a BIM project which includes giving them a deeper understanding of supply chain implications.

The Adoption of BIM in Ireland - 2017

Indicative phasing concept from GCCC Position paper. BIM implementation is to be phased to accommodate the training and knowledge base in the Irish Construction Sector.

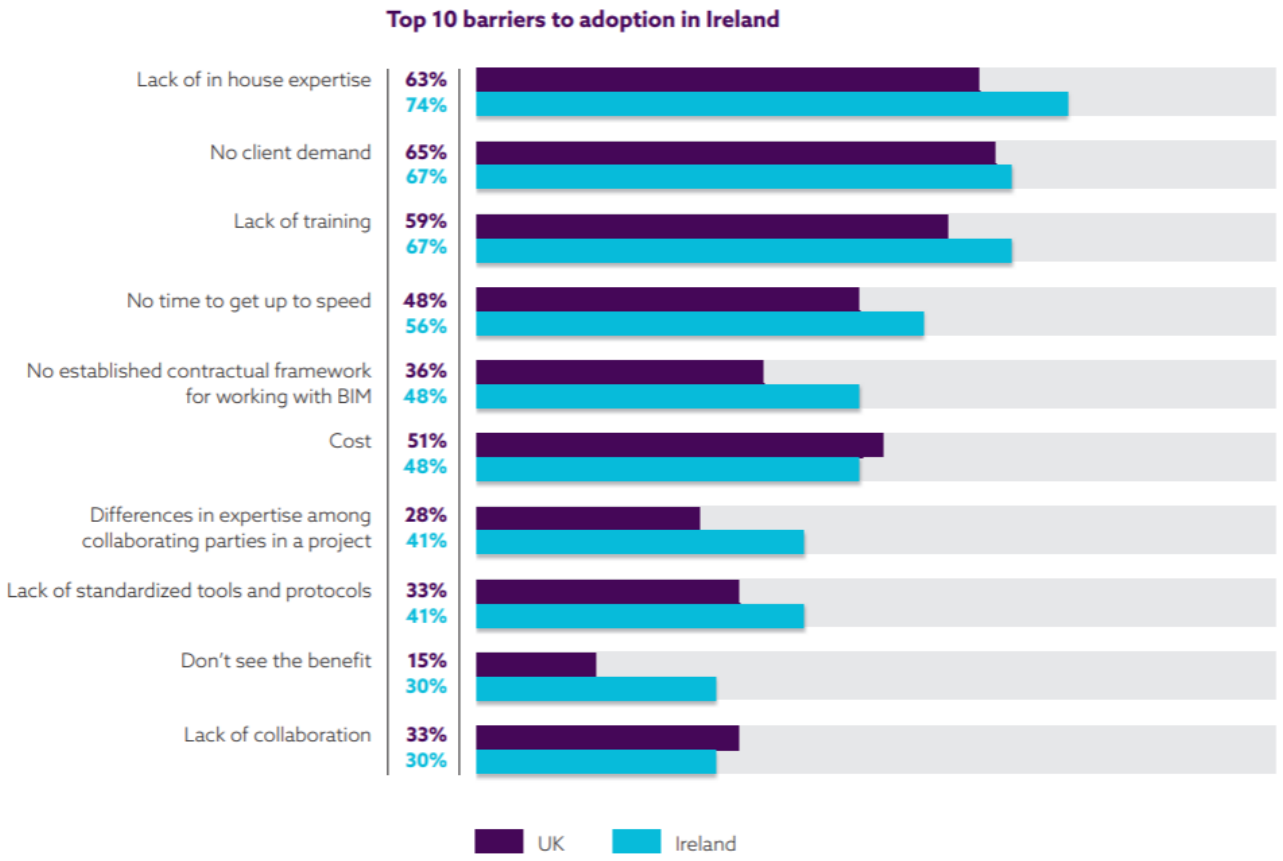
Table 1 – Indicative BIM implementation timeline – Period (months) from Government mandate to the introduction of BIM requirements in contract notices

Department/ Public Body	Sub-sector	Band 5	Band 4	Band 3	Band 2	Band 1
D. Ag & Marine		-	-	-	+ 36	+ 18
D. Defence		-	+ 18	+ 24	+ 36	+ 48
D. Education	Primary	-	+ 18	+ 24	+ 36	+ 48
	Secondary	-	+ 18	+ 24	+ 36	+ 48
	Third Level	+ 12	+ 18	+ 24	+ 36	+ 48
D. Health	HSE	+ 12	+ 18	+ 24	+ 36	+ 48
	Vol. Hospitals	+ 12	+ 18	+ 24	+ 36	+ 48
D. Housing	Housing	-	+ 18	+ 24	+ 36	+ 48
	Non-housing	+ 12	+ 18	+ 24	+ 36	+ 48
Office of Public Works	Heritage	+ 24	+ 30	+ 36	+ 48	-
	Flood Risk Management	-	-	-	+ 36	+ 18
	New Build	+ 12	+ 18	+ 24	+ 36	+ 48
Transport Infrastructure Ireland	Rail	+ 12	+ 18	+ 24	+ 36	+ 18
	Road	+ 12	+ 18	+ 24	+ 36	+ 18

The Adoption of BIM in Ireland - 2017

Ireland had a number of different organisations developing BIM to meet their needs.

The Adoption of BIM in Ireland - 2017



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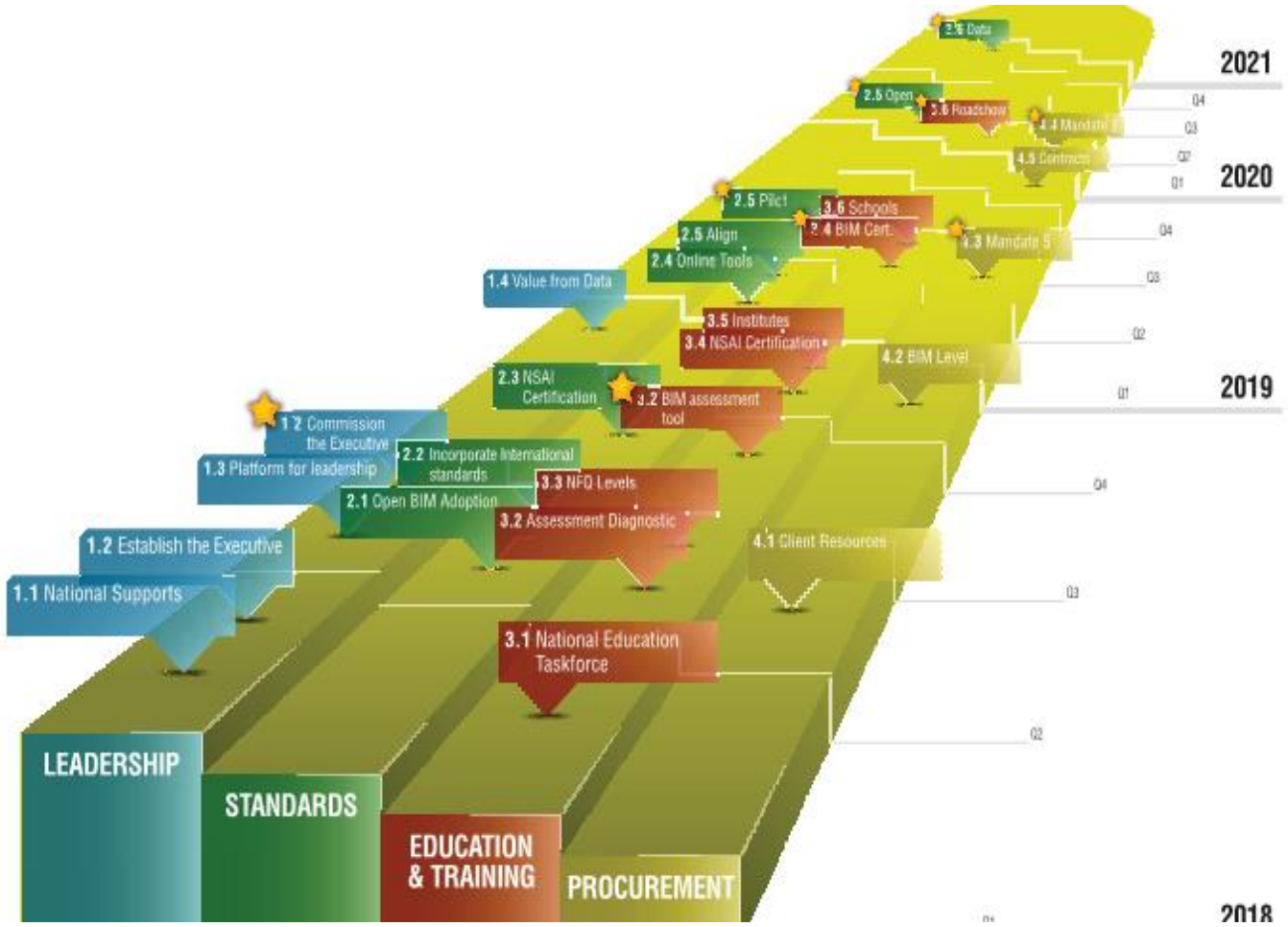
The Adoption of BIM in Ireland - 2018



2021

20% reduction in project delivery programme

20% increase in construction exports

20% reduction in capital costs

NBC
NATIONAL BIM COUNCIL

NBC
NATIONAL BIM COUNCIL

Roadmap to Digital Transition

For Ireland's Construction Industry 2018-2021

The Adoption of BIM in Ireland 2018 - 2021

Leadership

While government has not provided the leadership required, as of yet, there is still evidence that the industry continues to mature.

NBS/CitA survey it was reported that 76% of respondents had adopted BIM.

According to the macro maturity models, leadership is presented by construction organisations, professional institutes, and the 3rd level educational sector.

Despite no strategic funding being provided to-date from the government, some public sector organisations, continue to push BIM.

A collective consortium of industry bodies has presented their findings to the CSG on a roadmap for what services the Centre of Excellence should offer and how it should be funded.

The Adoption of BIM in Ireland 2018 - 2021

NSAI has now developed a BIM certification program.

Development of the National Annex.

Ongoing release of templates and guidance documents, such as the RIAI BIM Pack, continued progress is expected in this area. (PAS 1192)

Three Irish BIM experts attending CEN meetings.

Funding being made available for a Postdoctoral Scholar at DCU to investigate how IFC can be used for digital planning and building regulation control submissions.

The development of online tools and supports to help implement “National Tools” has yet to be progressed.

Standards

The Adoption of BIM in Ireland 2018 - 2021

Education and Training

The third level education sector continues to be seen as the primary entity for upskilling.

Professional institutes also continue to upskill internally

Organisations, such as CitA, continue to provide guidance to both large enterprises and SMEs within the sector through workshops, discounted training, conferences, etc.

To target the skills shortage at its core, it is recommended to explore exemplary international initiatives, such as Class of Your Own and BeIMCraft.

At present, the National BIM Education Taskforce has not been established.

Development of an online BIM self-assessment tool for companies and a base level of learning outcomes targeted at alternative National Framework of Qualifications levels have not been progressed.

The Adoption of BIM in Ireland 2018 - 2021

The procurement process of a phased BIM mandate for public works projects was scheduled to commence in Q2 2019.

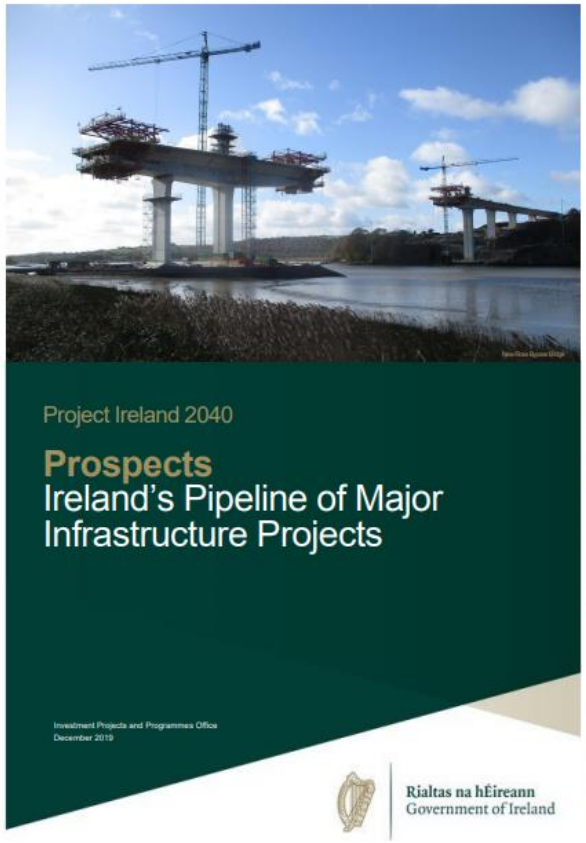
As of yet, there are no online supports or reviews of the suitability or provisions made for developing government construction contracts.

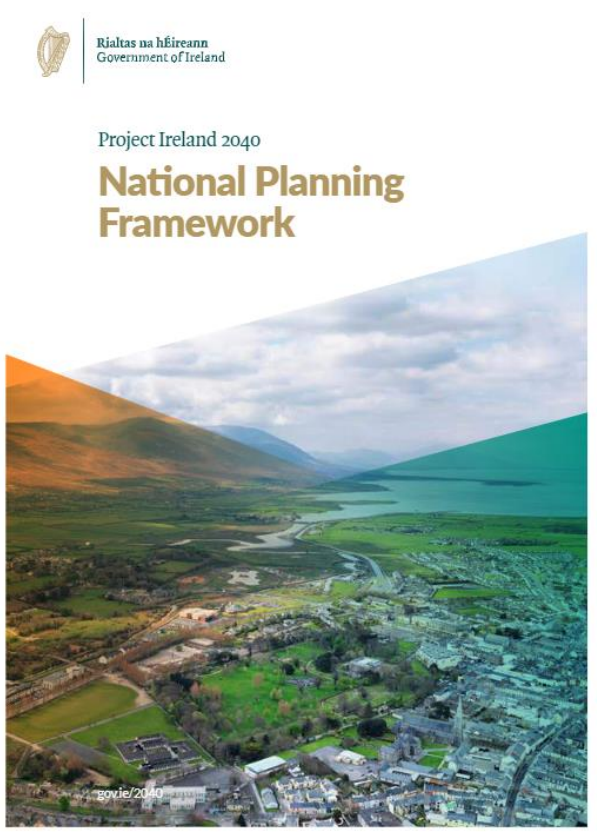
Concerning the maturity, despite rising in this area, benchmarks and processes may stagnate unless clear direction is provided.

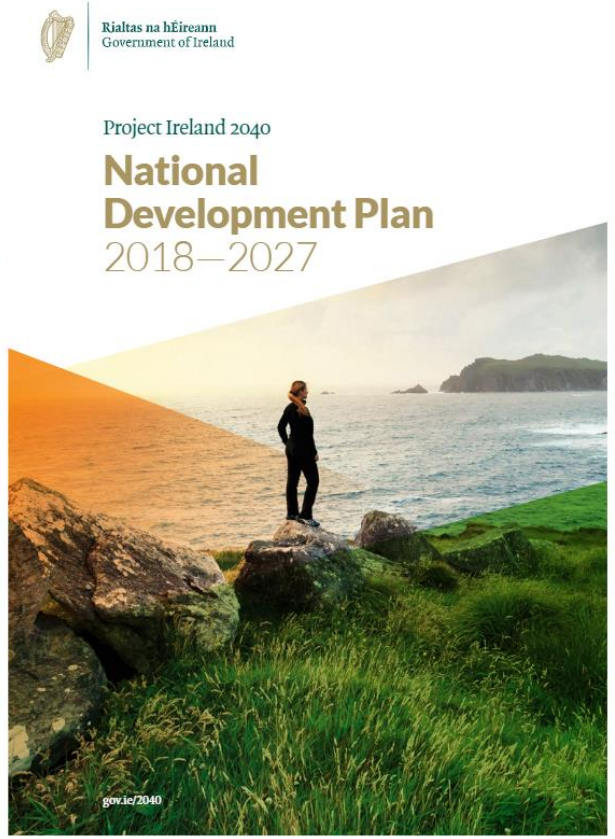
Procurement

The Adoption of BIM in Ireland - 2018

National development plan







The Adoption of BIM in Ireland - 2019

CITA/TUDublin Report highlighted after the release of the BIM roadmap that very little had progressed and the government were not sure which department to undertake the digital strategy moving forward.

The Adoption of BIM in Ireland - 2020

The Construction Sector Group (CSG) which was established in 2018 following the launch of Project Ireland 2040 and acts as a forum for dialogue between Government and stakeholders in the industry.

This construction sector group only got going in 2020.
Some of these issues include:

- The Covid-19 Response
- General health, safety and well-being
- Public procurement
- The impact of Brexit
- Judicial reviews of planning
- Skills e.g. work of the EGFSN
- Diversity
- Attracting capacity from abroad

Rialtas na hÉireann
Government of Ireland

Construction Sector Group
Building Innovation

HIGH LEVEL STAKEHOLDER & PROJECT TEAM 2020

Construction Sector Group – Chair Robert Watt

Meet Every 12 weeks

Construction Sector Innovation and Digital Adoption Group – Chair PJ Rudden

Meet Every 4-6 weeks

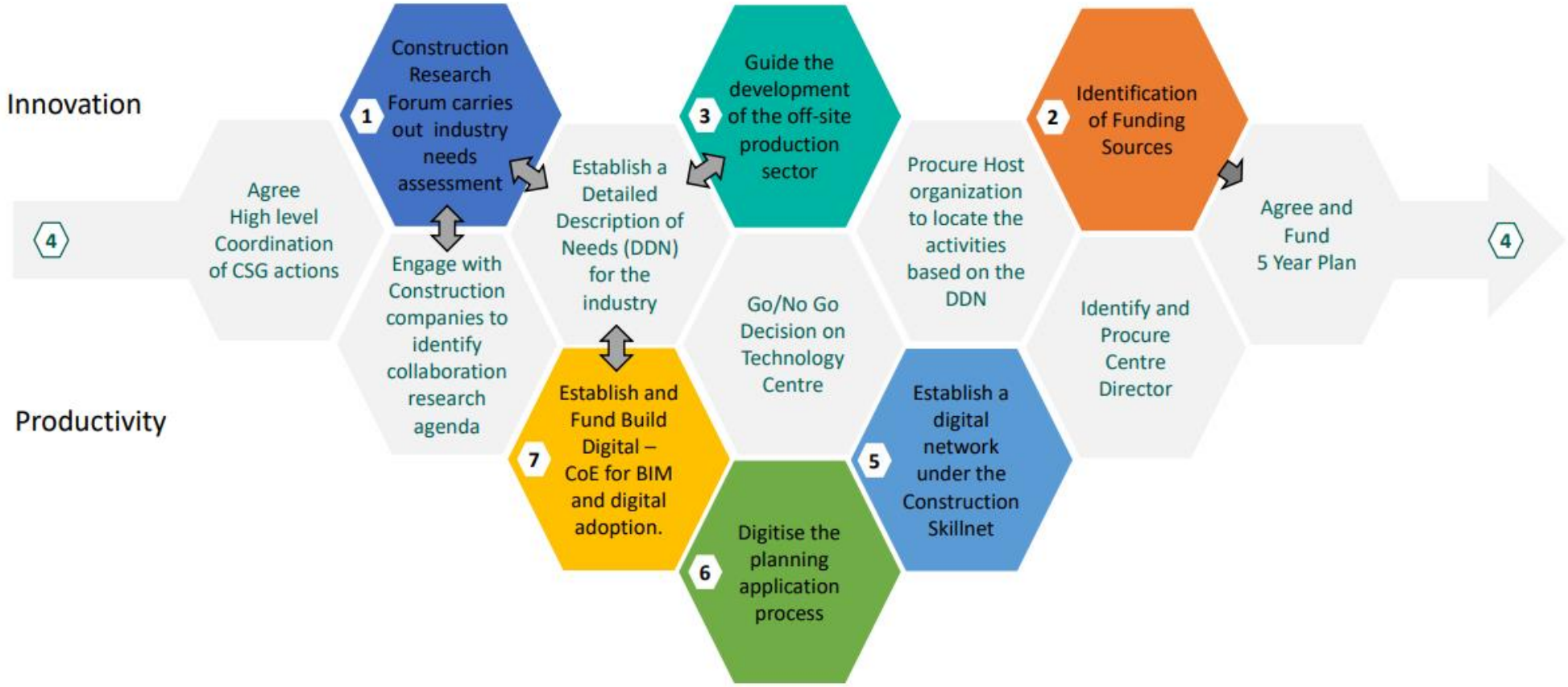
DPER	Eng. Ire.	BMF	RIAI	CIF	Ent. Ire.	NSAI	DBEI	SCSI	LGMA/LAs	ACEI
Ronnie Downes Kevin Meaney	Richard Manton	David Duffy	David Browne	Sean Downey	Neil Kerrigan	Sean Balfe	Alan Kelly	Patrick King	Eileen Dennan	Sarah Ingle

Innovation 7 Actions - Project Team – Chair PJ Rudden

Meet Every 4 weeks

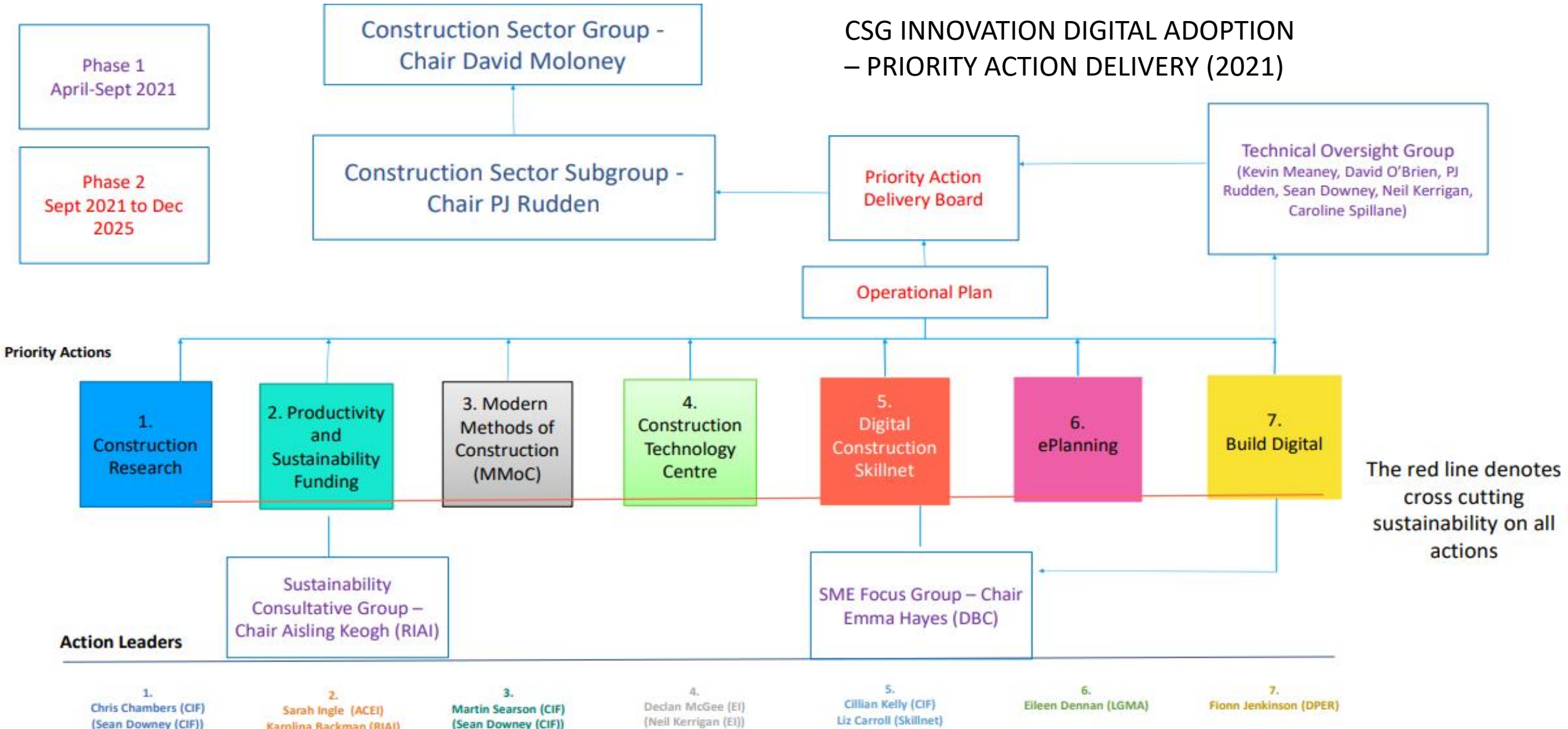
1	2	3	4	5	6	7
Construction Research Forum carries out industry needs assessment	Identification of Funding Sources	Guide the development of Modern Methods of Construction (MMC)	Construction Technology Centre	Establish a digital network under the Construction Skillnet	Digitise the Planning Application Process	Establish & Fund Build Digital CoE for BIM and digital adoption
1. Chris Chambers (CIF) *(Sean Downey CIF)	2. Sarah Ingle (ACEI) Marcus Keane (Eng. Ire.) Declan McGee (EI)	3. Martin Searson (CIF) Joe Kennedy (RIAI) William Power (CIF) Sean Downey (CIF) Stephen Ashe (SCSI) Jim Clifford (SCSI) *(David Browne RIAI)	4. Declan McGee (EI) Sean Downey (CIF) Martin Searson (CIF) Fionn Jenkinson (DPER) *(Neil Kerrigan EI)	5. Cillian Kelly (CIF) Diarmuid Mollin (Eng. Ire) *(Sean Downey CIF) *(Neil Kerrigan EI)	6. Eileen Dennan (LGMA) Brian Beck (Tipp CC) Teresa Kiely (Tipp CC) *(Neil Kerrigan EI)	7. Fionn Jenkinson (DPER) Siobhán Moneley (ACEI) Diarmuid Mollin(Eng. Ire.) Coman DeBurca (RIAI) Cillian Kelly (CIF) Trevor Wood (SCSI) Noel Walsh (SCSI) Neil Kerrigan (EI)

The Adoption of BIM in Ireland - 2021



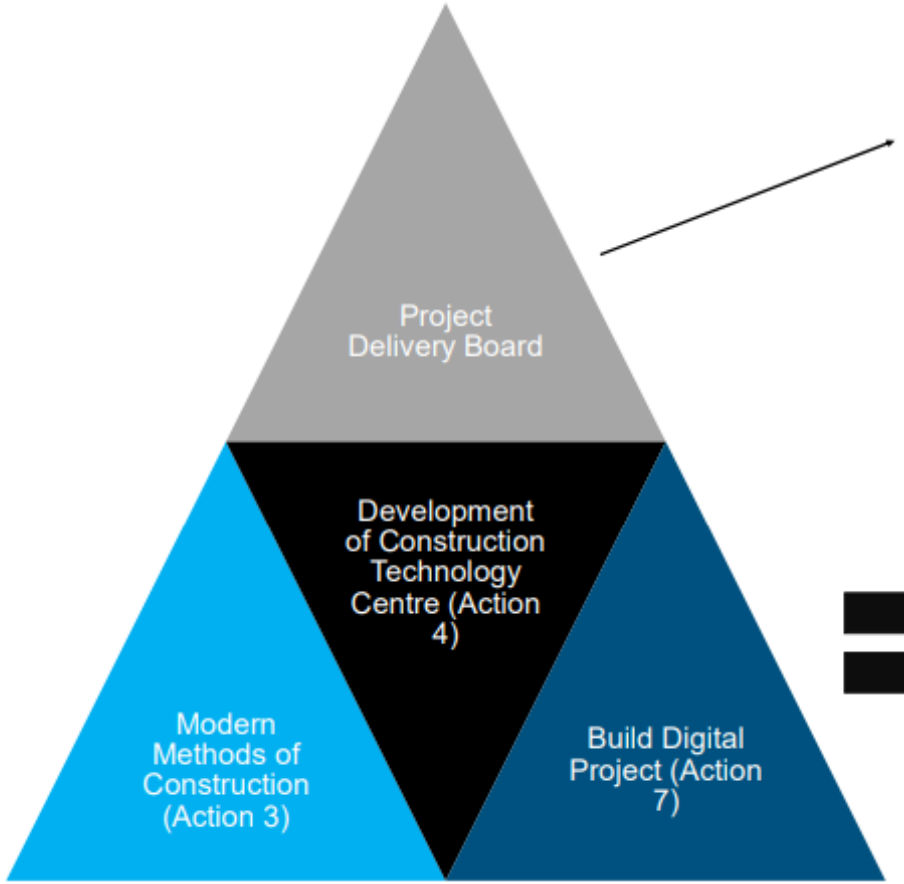
CONSTRUCTION TECHNOLOGY CENTRE BUILD PROCESS (Linked to 7 CSG Actions on innovation and digital adoption)

The Adoption of BIM in Ireland - 2021



The Adoption of BIM in Ireland - 2021

Innovation and Digital Adoption Project (7 priority actions) – Project Development Phase



Project Delivery Board overseeing Delivery of Actions 1 to 7, specifically Actions 3, 4, 7

=

3 major deliverables within the new construction technology centre

The burning platform for the industry

Construction Sector Group (CSG) Members

- Construction Industry Federation
- Irish Congress for Trade Union
- The Building Materials Federation
- Engineers Ireland
- Society of Chartered Surveyors Ireland
- Royal Institute of the Architects of Ireland
- Association of Consulting Engineers of Ireland
- Irish Planning Institute

Rialtas na hÉireann
Government of Ireland

Construction Sector Group
Building Innovation

16 June 2020

Enable Technology & Innovation Advancement across the Sector - 7 Actions for Innovation Subgroup

7 Innovation Actions	Leader	Primary Impact
1. Further expand and develop the work of the Construction research Forum and carry out an industry needs assessment.	CIF	Increase value of output
2. Develop an action plan to promote funding opportunities arising from external funding sources such as the Horizon 2020 Programme and the Disruptive Technology Innovation Fund.	ACEI/CIC	Increase value of output
3. Establish a joint working group to guide the development of the off-site production sector.	CIF	Increase efficiency & reduce cost
4. Establish and fund a Construction Technology Centre	Enterprise Ireland	Increase value of output
5. Establish a digital network under the Construction Skillnet	CIF	Develop human capital
6. Digitise the planning application process to reduce unsustainable, time and cost inefficient paper-passed reporting.	LGMA, Local Authorities	Increase efficiency & reduce cost
7. Establish and Fund Build Digital – a centre of excellence to promote BIM and digital adoption.	DPER	Increase efficiency & reduce cost

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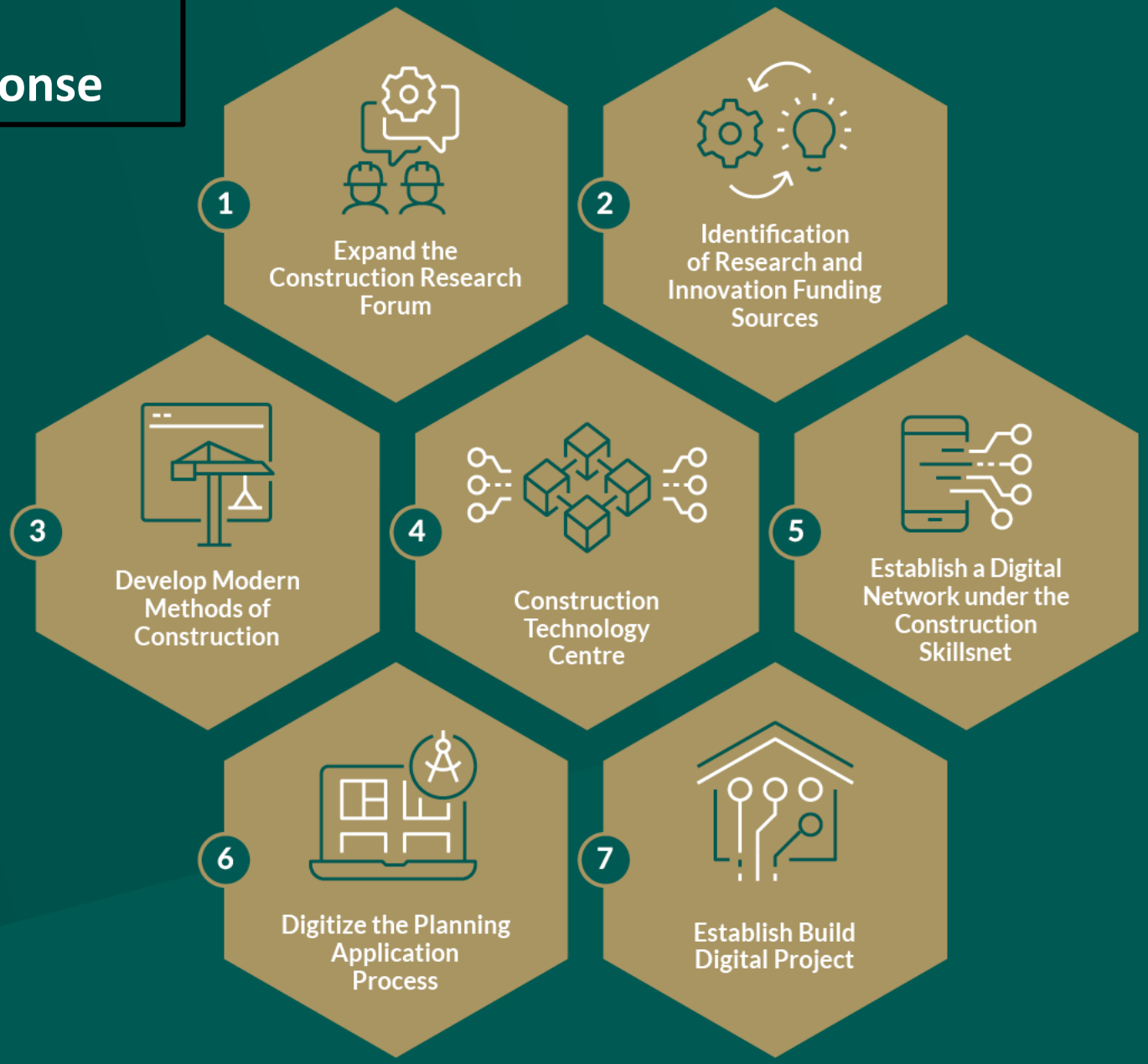
Government of Ireland

Tionscadal Éireann
Project Ireland
2040

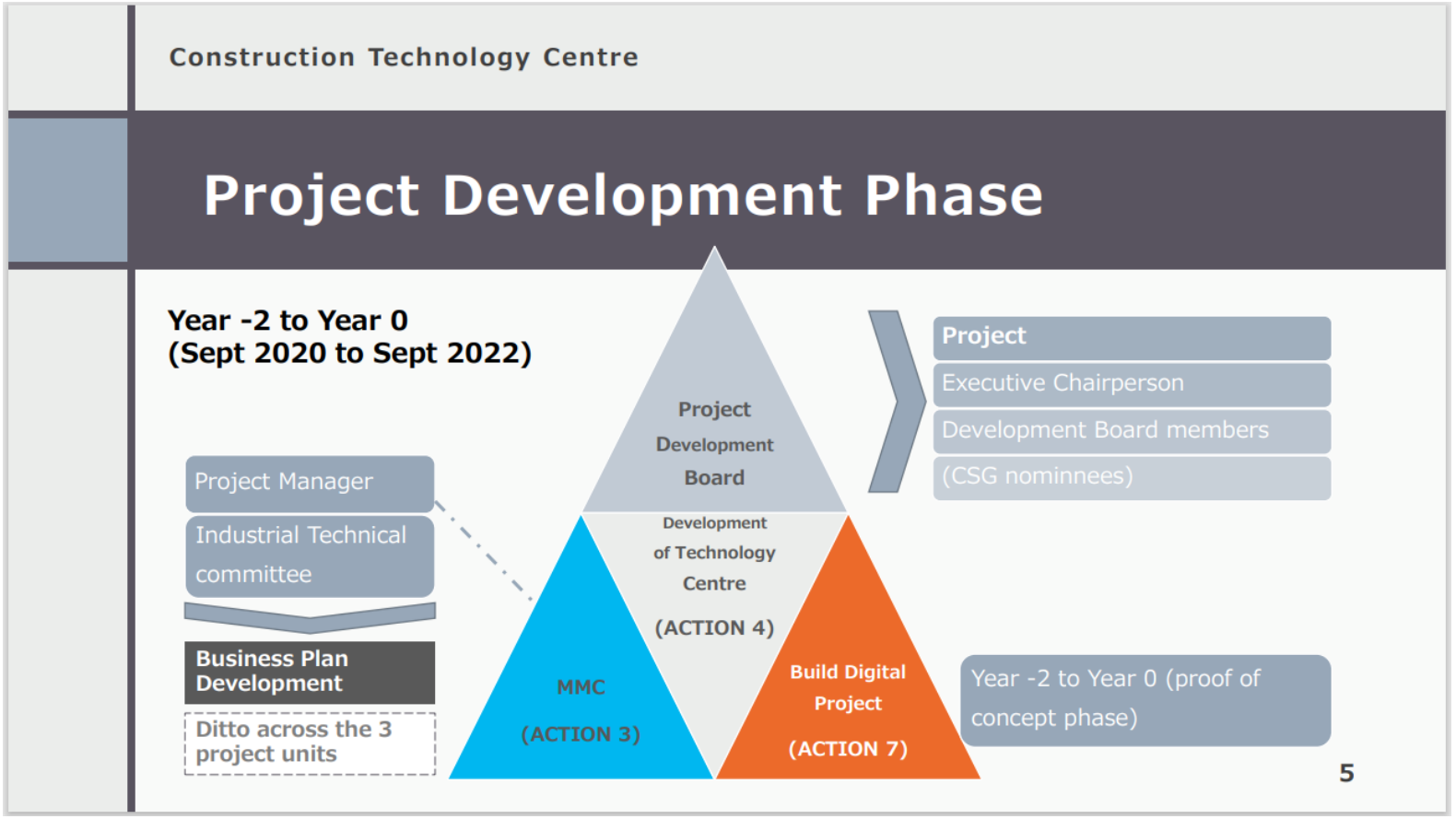
Priority Actions of the Innovation and Digital Adoption Team

Our Response



Find more info at **www.gov.ie**

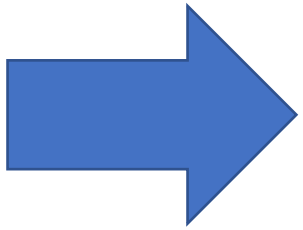
Prepared by the Department of Public Expenditure and Reform



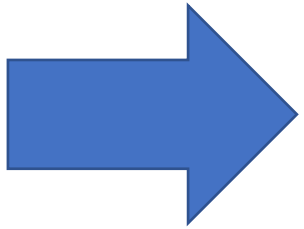
What are we planning to build?

How we will drive adoption and engagement

- KEY STAKEHOLDERS
  - Industry
  - Dept. of Finance/DPE&R
  - DETE & Agencies
  - Dept. of Housing
  - Dept. of Education
  - Dept. of Health
  - Dept. of Climate Change
  - OPW
  - TII



- KEY CHALLENGES
  - Capability
  - Productivity
  - Sustainability



- KEY OBJECTIVES
  - Reduced Costs
  - Reduced Programme Times
  - Increased exports

Thank you and I welcome your questions

Data is the new gold -

Troels Blicher Danielsen, Administrative Director at Tekniq (Denmark), GCP Europe VP

what are the new areas of development for the European installation sector?

TEKNIQ ARBEJDSGIVERNE

Open data

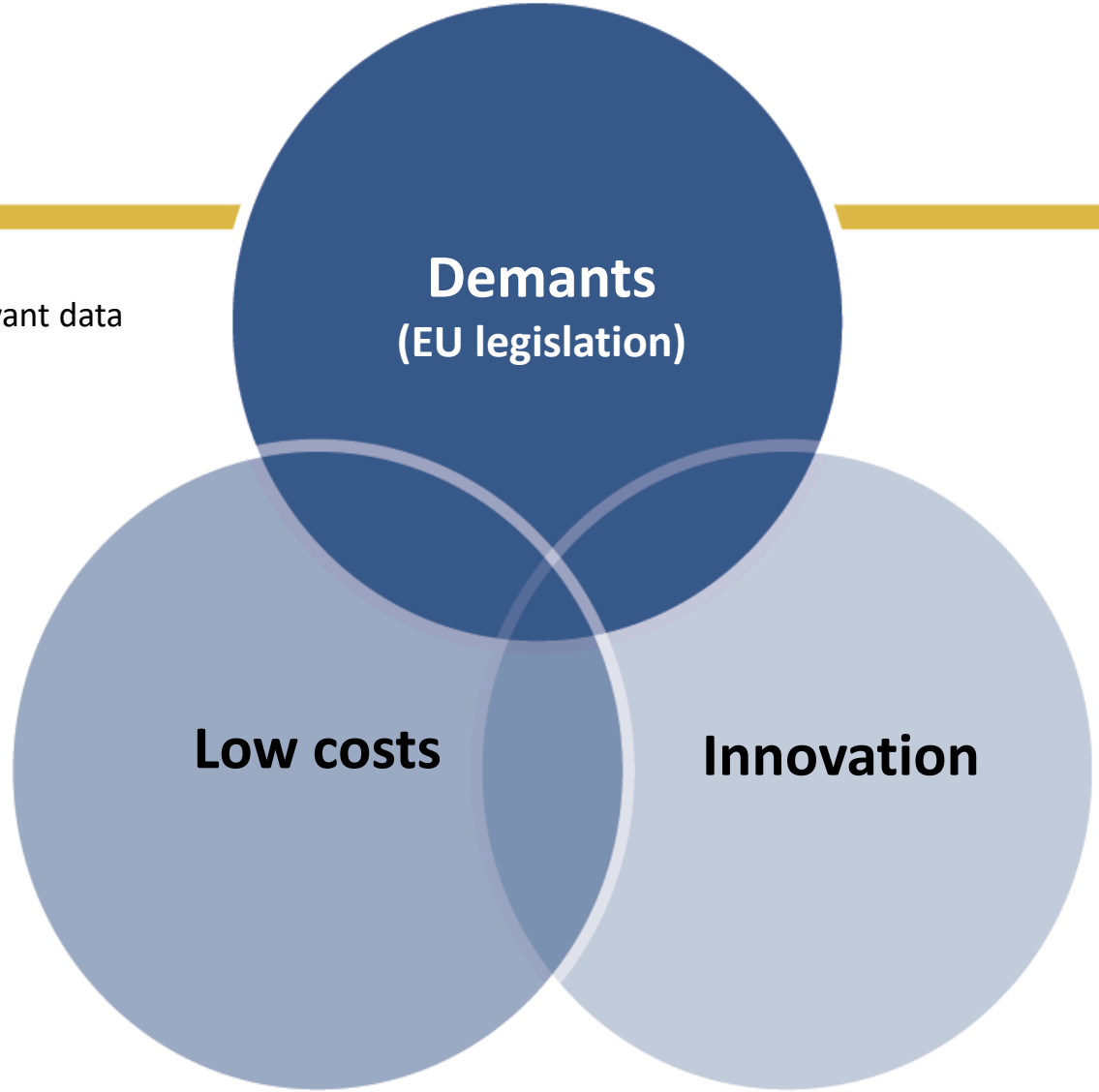
– public sector information (PSI) - better access - smarter world

TEKNIQ ARBEJDSGIVERNE

Why working with data?

Gains are only realizable if the companies do have access to relevant data (both fast, cheap and simple).

It’s not like that today!



What does data bring?

Information about consumption in real time	Adjusted consumption Energy efficiency Innovation
Information about errors or defects	Scheduling services Possibility to fast reparations
Possibility to link data between different databases	Link between for example weather-data, energy-data etc. creates the possibility to smarter and more environmental ´consumption

Intelligent meters and the consumption

ELECTRICITY

- Around 70 % of the consumptioners have not used their intelligent meters

WATER

- Intelligent meters are not that rare yet
- Data is only used rarely. The supply-companies is mostly aware of the data used to settlement
- We do expect intelligent meters to dominate within 5 years.

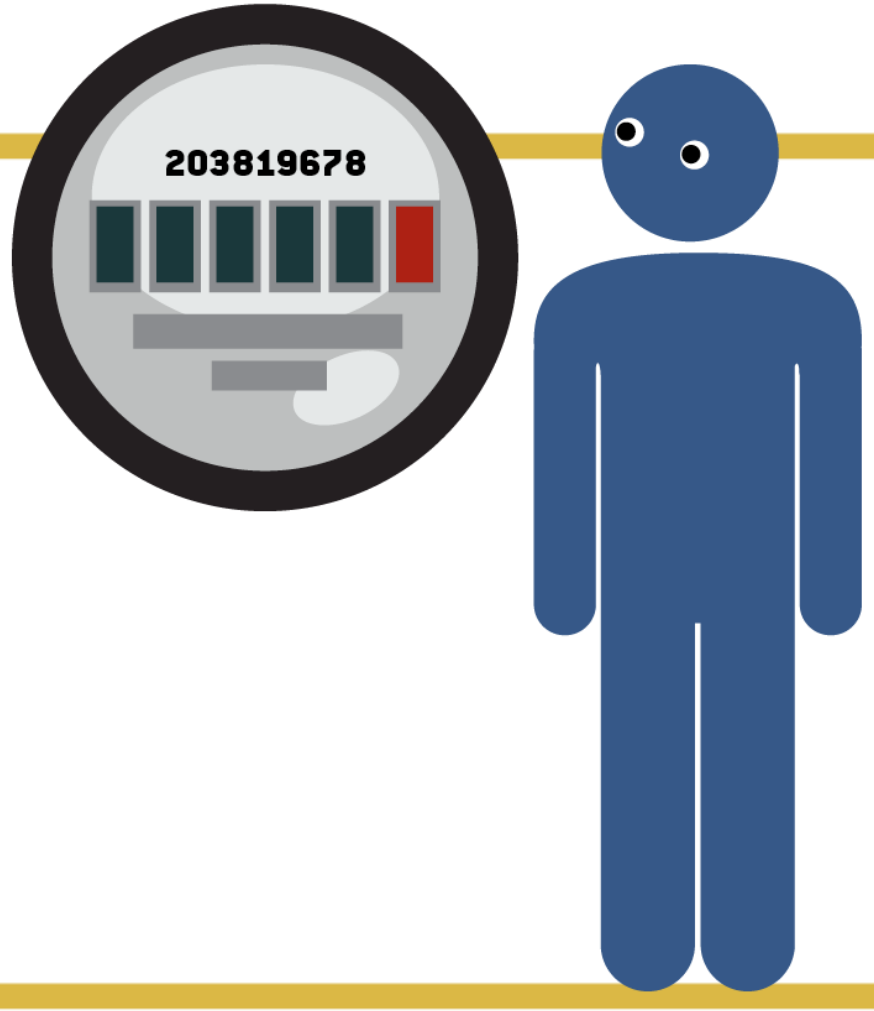
HEATING / GAS

- 64 % of the buildings use district heating
- 75 % of the heating-installations do have defects or are regulated wrong
- Only 30 % of the district-heating-installations gets regular service
- 81 % of the gas installations gets regular service
- 75 % of the oil installations gets regular service
- Potential save i buildings going from collective to individual meter on 10-40 %

ENERGY IN BUILDINGS

- Buildings consuming 40 % of total energy in Denmark
- Buildings cause 23 % of total emission in Denmark
- Potential safe on 500.000 ton emission

Consumers (building owners) need insight in their own consumption



Intelligent meters and open access to data could give users better insight into their own use.

This could motivate users getting better use-patterns.

Gaining both society and environment.

TEKNIQ ARBEJDSGIVERNE

Companies can also use data…

How to improve data-access for companies → making new businesses

- Access can move focus from scheduled service-visits to service when it's needed. That saves driving-emission and customers does only pay for required service
- Meter-data about energy-consumption-patters and errors – merged with other data about weather or building installations creates opportunities for smaller companies to provide innovative services to customers.
- Exactly data in real time gives companies the possibility to target energy efficiency even more. With these data the companies can create tailormade solutions which does not use more or less energy than necessary.
- Direct and fast access to information about rules, dimensioning and requirements saves companies administration-time.

Case: Lower emission in Copenhagen Area?

What?
By using data, the companies Kemp & Lauritzen and Vitani can lower the emission on public buildings in the Copenhagen Area with 70 % in 4 years.
Deal with the Copenhagen Public Area for 10 years and counts a total of 750 buildings - more than 2 million square meters.

How?
Smart intelligent internet-based meters in all public buildings collects data on where to lower energy consumption.
By drawing a detailed map on buildings consumption, the public sector can actually see what they use energy for and how to save energy.

Vitina has been doing this for years using the Omega-platform. They have done so in more than 600 grocery stores. Ending up saving more than 3,6 million DKK.

What does it take?
A closely masked measure-system, the right competences - and that the building owner has the will to extract data from the buildings.

what are the new areas of development for the European installation sector?

The sustainability of buildings is becoming increasingly important

-

Bernhard Dürheimer,
Vice President at BTGA (Germany)

The sustainability of buildings is becoming increasingly important

Bernhard Dürheimer, Vice President at BTGA (Germany)

This presentation is available on a separate PDF in the same folder

The future landscape for HVAC integration with Energy Management

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Casto Cañavate,
Marketing Manager
at KNX

what are the new areas of development for the European installation sector?

Smart home and building solutions.
Global. Secure. Connected.

The future landscape for HVAC integration with Energy Management

HVAC industry is expected to change

New (possible) regulations and interest of users:

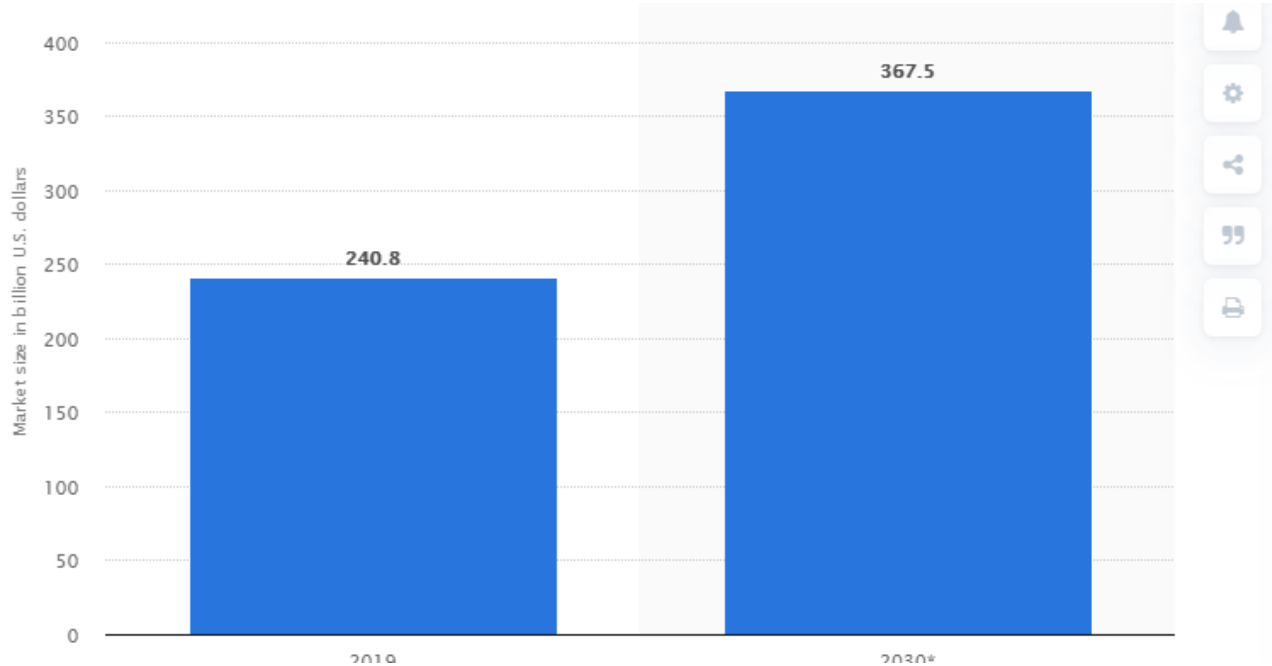
- Due to COVID, there is a new **trend to regulate** IAQ solutions.
- There is a general interest in **greener HVAC** solutions
- HVAC companies busy with **new developments**

Growing focus on Sustainability & IAQ (Indoor Air Quality)

Projected worldwide Market Size for HVAC

To reach 367.5 Bill USD by 2030 (Annual growth rate 3.9%)

- 50% sales revenues from Split air conditioners (reason: ease of installation)
- Demand for air conditioning is high due to global temperature increase
- HVAC systems to include new features and applications, such as: IAQ



Source: statista 2021 - Report: Projected market size for heating, ventilation, and air conditioning (HVAC) worldwide from 2019 to 2030

New focus for HVAC technology and solutions

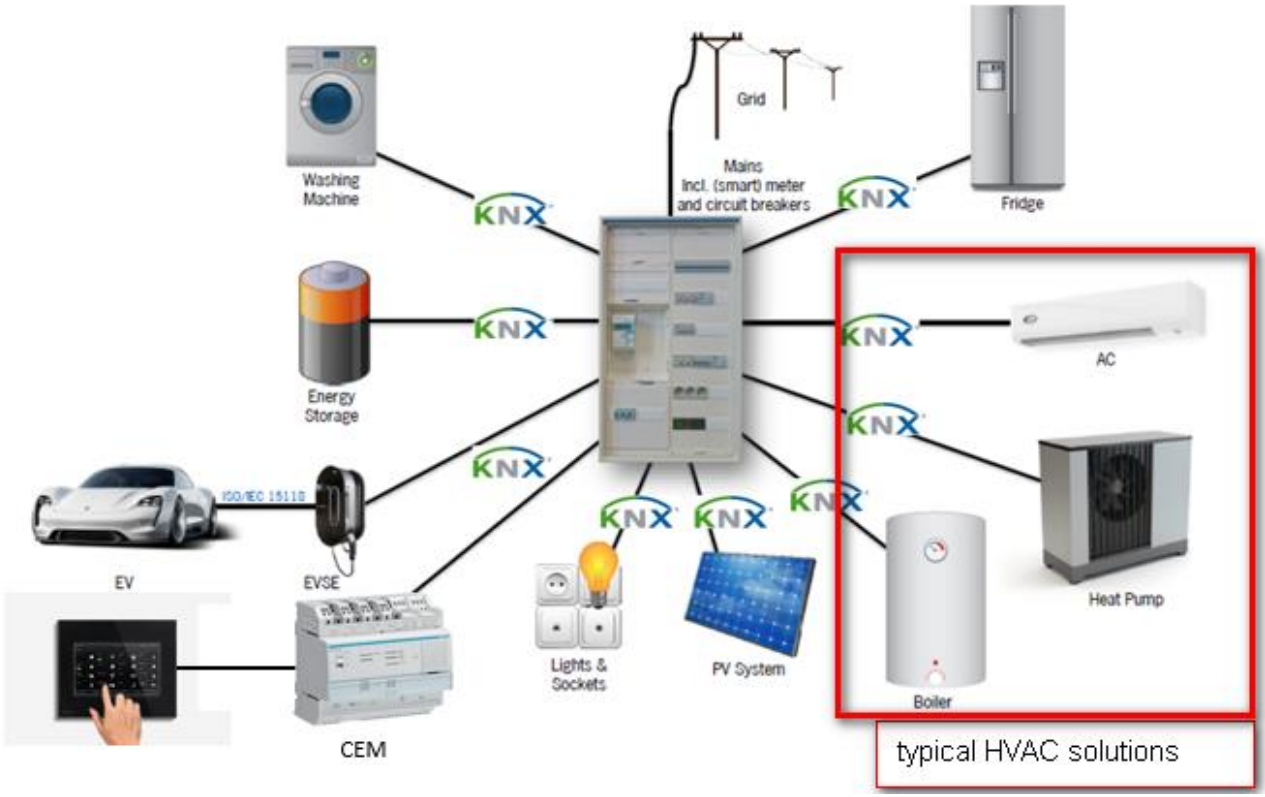
HVAC does not need to be old-fashion anymore

- Automation brings simplicity
- Improved data collection
- sustainability awareness has increased

Where is the role of HVAC within Energy Management?

HVAC perfectly integrates with KNX Energy Management

- HVAC is not a silo anymore.
- HVAC can be fully integrated with any KNX solution & devices
- HVAC can be greener when it is connected to Energy Management Services.



KNX IoT – Services with KNX – Energy Management

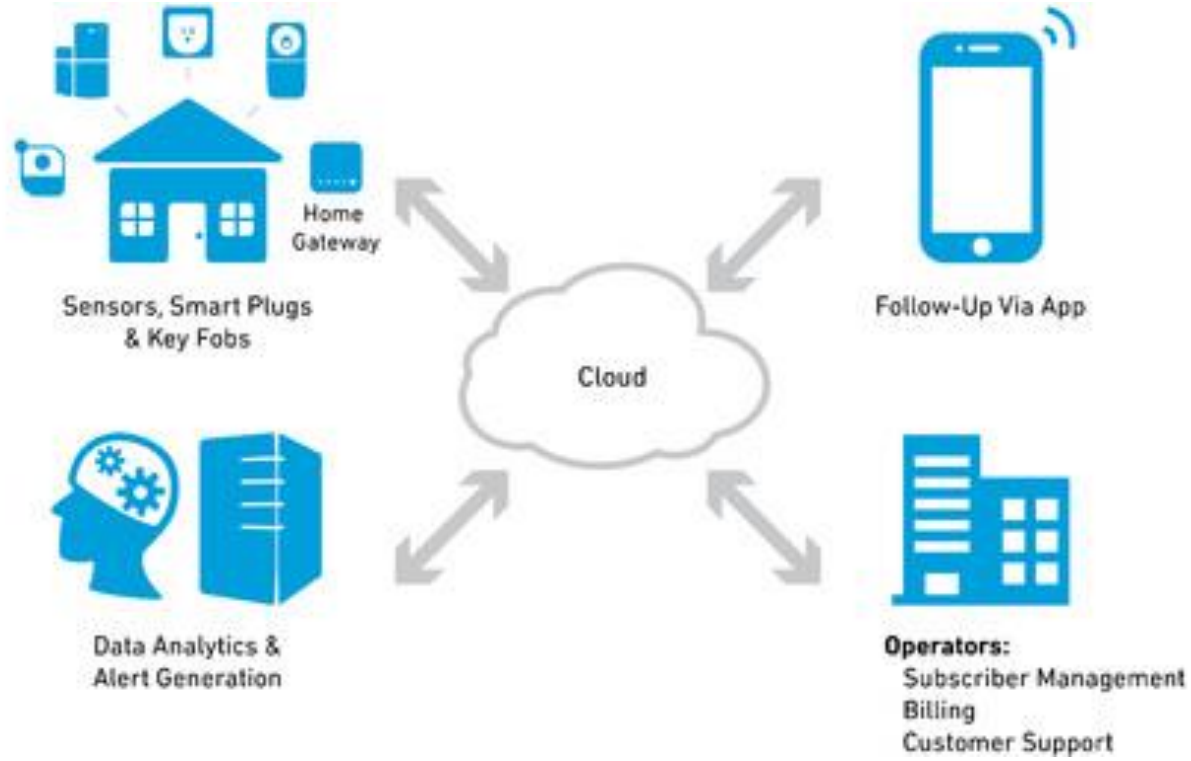
KNX is constantly expanding and evolving: KNX IoT

- Digitalisation
- IP-based
- Cyber-secure

KNX IoT – Services with KNX – Energy Management

Devices >> Ecosystem >> Services with KNX

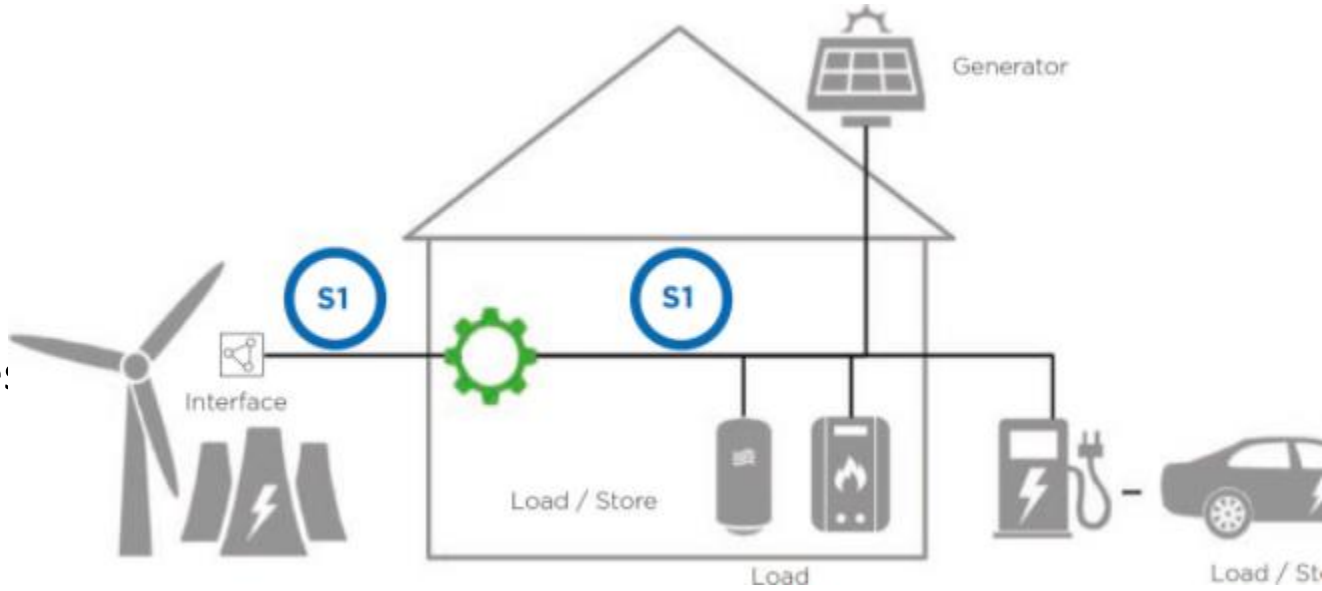
- Generate energy
- Use the energy
- Store the non-used energy for later



Energy Management a holistic approach for energy

En. Management is a very special Service with KNX:

1. Stop the use of fossil source of energy
2. Integration of renewable source of energie
3. Less dependency from the grid
4. Charging battery of EVs.
5. Storage of electrical energy
6. Converting energy into hot-water
7. Buy/sell electrical energy from/to the grid



In sum

Energy Management with KNX open new possibilities to greener HVAC solutions and a more sustainable world.

Thanks.

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what are the new areas of development for the European installation sector?

Questions & Answers

Conclusion

-

Julie Beaufils,
EuropeOn Secretary General

what are the new areas of development for the European installation sector?

Join us again in 30 minutes for our second session:

Session 2: **Enabling the deployment of smart buildings with new skills and jobs** (15h30-17h00)

- **Introduction by EuropeOn President**

- **Views from the EU Commission on Green skills: Key to ensure a successful and fair transition**
  - Tim Schreiber, Policy Officer at EU Commission's Directorate-General for Employment, Social Affairs & Inclusion

- **The electrical and mechanical sectors' takes on the skills and jobs of tomorrow: going beyond installation**
  - Daniel Gerber, electrical apprentice (Switzerland): a young worker's perspective
  - Claudia Reiner, CEO at Caris & Reiner and VP at Techniek Nederland, and Jan Cromwijk, Project coordinator at ISSO (research institute): Developing green skills in the Dutch construction sector and our involvement in EU's project BUILD UP Skills
  - Alexander Neuhäuser, Deputy Managing Director at ZVEH (Germany): Electro-technician for building system integration: a new career and a new apprenticeship
  - Pär Lundström, Senior Policy Advisor at Installatörsföretagen (Sweden): Skills in a Circular Economy

- **Q&A and conclusion**

Thank you!

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Job Potential Report

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