Dansk Betondag

Automatisering af betonbyggeri med 3D printet beton

22-09-2022

RAMBØLL

Bright ideas.
Sustainable change.

Philip Douglas

Rambøll, Urban Civil Structures

Odense

Rambøll (2021-)

M.Sc. Structural Engineering
Syddansk Universitet
(2019-2021)

COWI (2018-2019)

Rambøll (2017-2018)

B.Sc. Civil engineering,
Syddansk Universitet
(2013-2017)

Automatisering af betonbyggeri med 3D printet beton

- Hvorfor er 3D betonprint interessant?
- Markedet for 3D betonprint
- 3D betonprint teknologi
- Standarder og godkendelse
- Aktuelle projekter i Rambøll

Hvorfor er 3D betonprint interessant?

Fordele ved 3D printet byggeri

Automatisering

Geometri

Produktivitet

Ressourceforbrug

Arbejdskraft

Materialespild

Transport

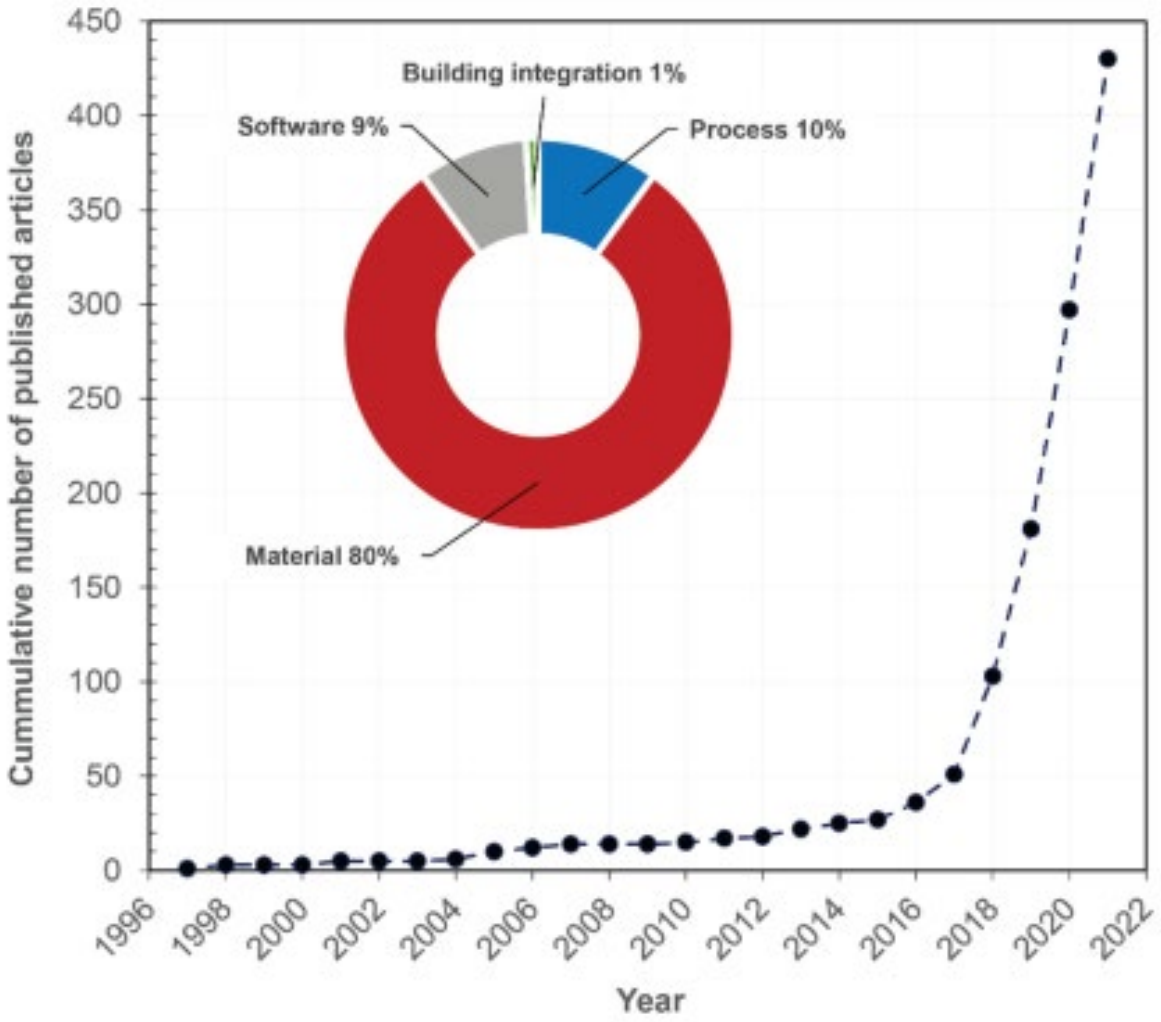
Klimabelastning

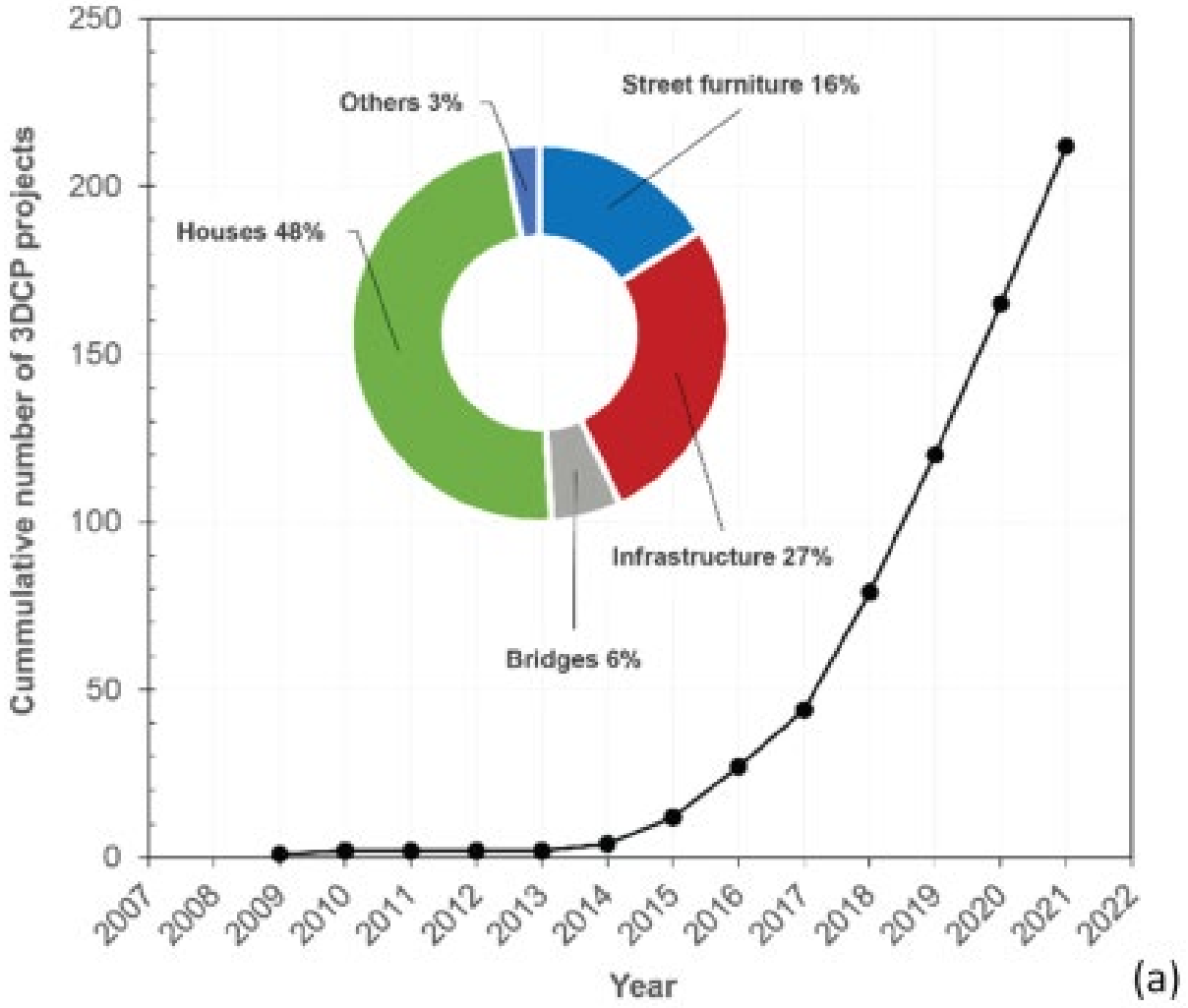
Markedet for 3D betonprint

3D betonprint er et globalt marked

Denmark
UK
Netherlands
Switzerland
Canada
China
Italy
Finland
India
UAE
Japan
Australia
Philippines
US
South Africa
Malawi

Eksponentiel udvikling

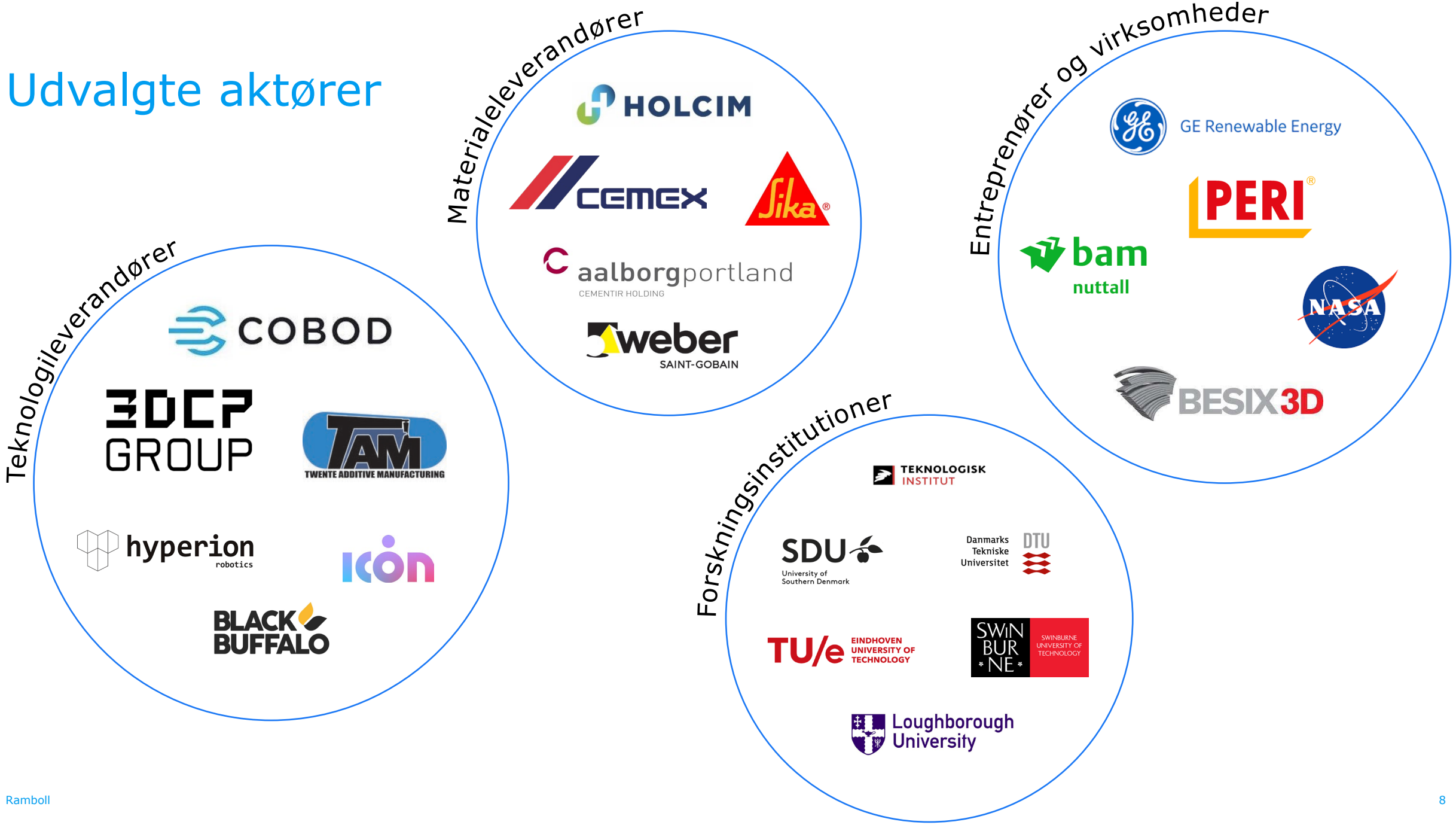




Kilde: **Technology readiness: A global snapshot of 3D concrete printing and the frontiers for development**

Guowei Ma, Richard Buswell, Wilson Ricardo Leal da Silva, Li Wang, Jie Xu, Scott Z. Jones

Udvalgte aktører



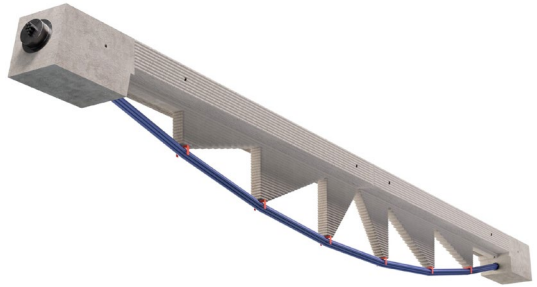
State-of-the-art projekter

FUNDAMENTSELEMENTER, FINLAND

CYKEL OG GANGBRO, HOLLAND

3DCP GROUP, HOLSTEBRO

PERI / COBOD BOLIGBYGGERI, BECKUM



MINIMASS BJÆLKER, KONCEPT

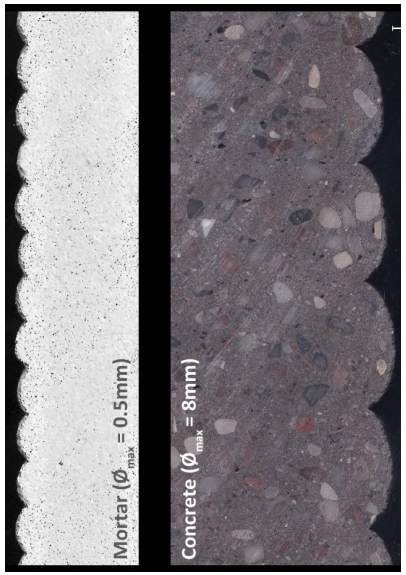
TECLA CLAY HOUSE, ITALIEN

3D betonprint teknologi

METODE

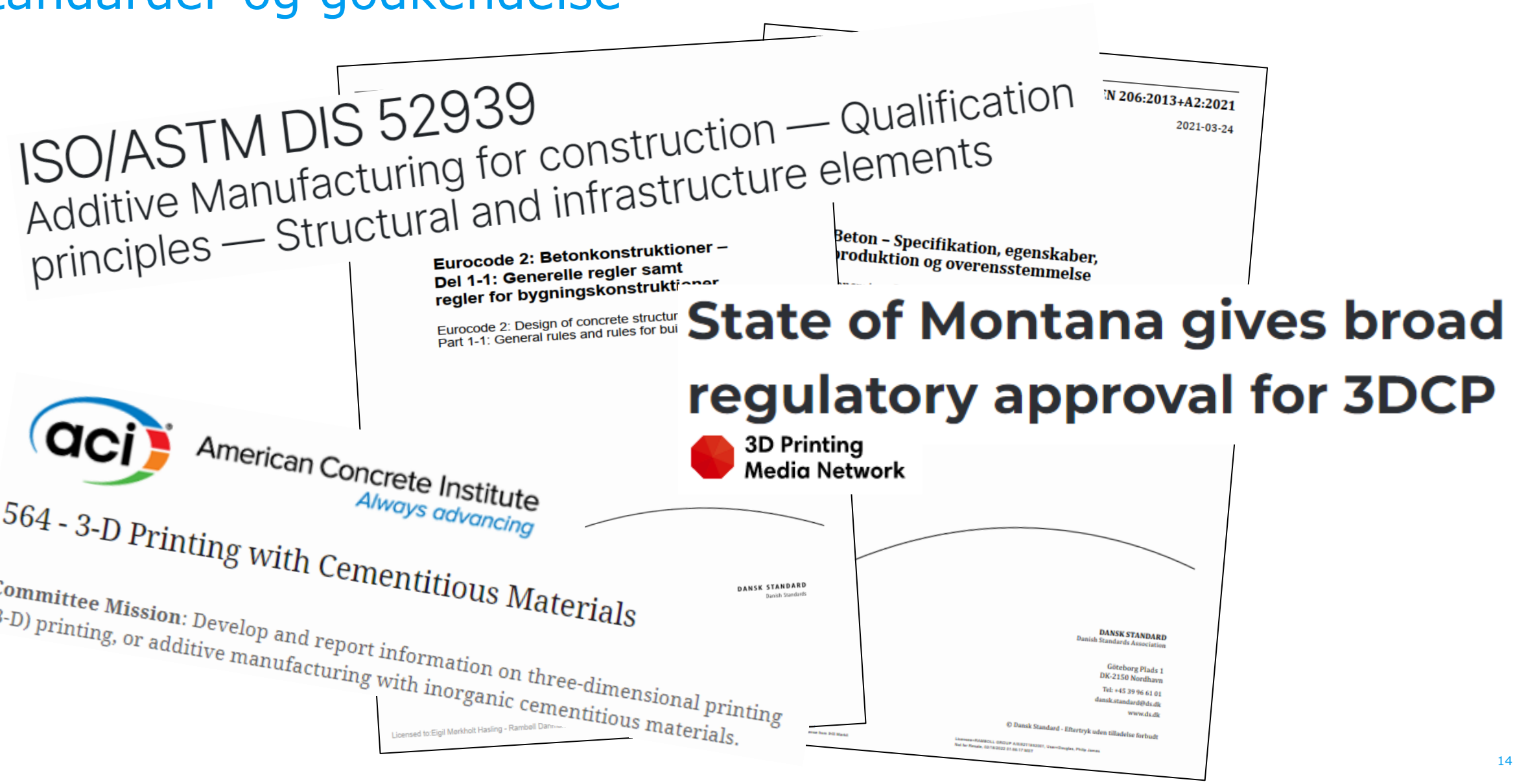
UDSTYR

MATERIALE



Standarder og godkendelse

Standarder og godkendelse



Aktuelle projekter i Rambøll

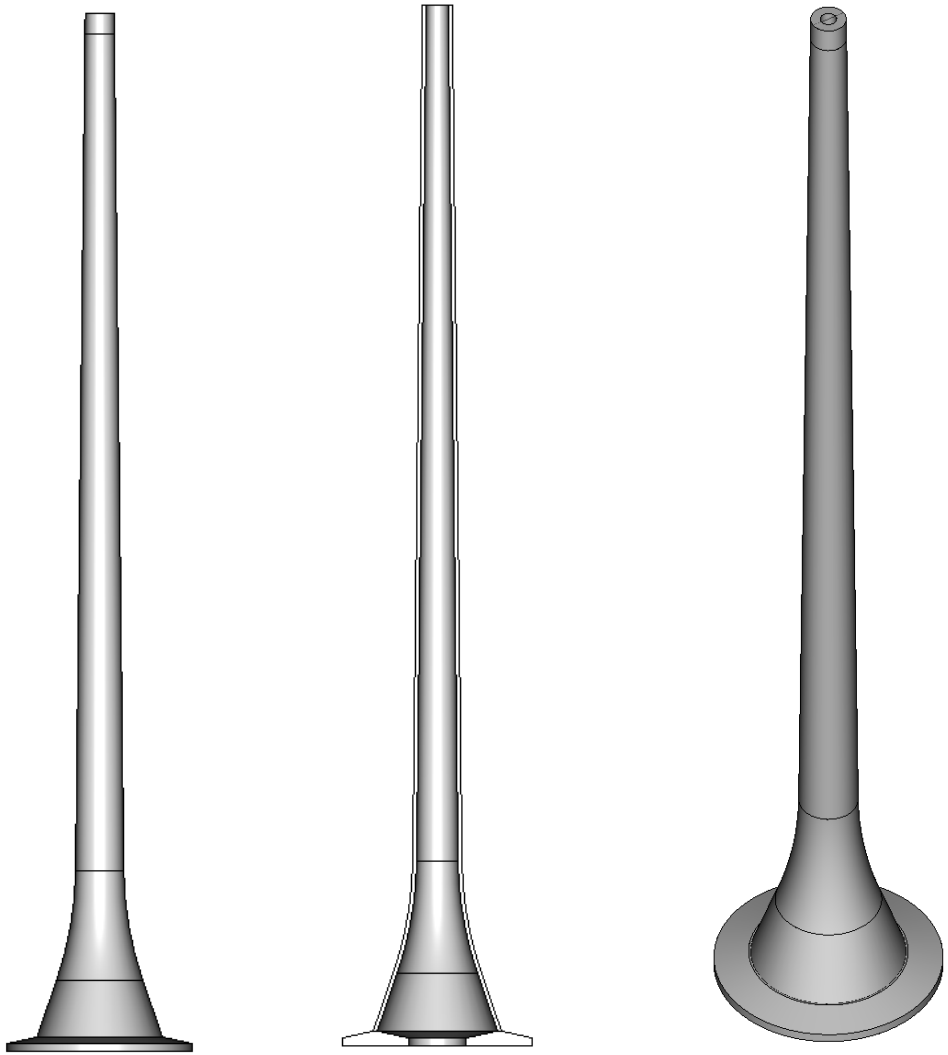
Onshore hybridtårne til vindmøller

Foto: Suzlon Energy Limited

Foto: COBOD International

Foto: GE Renewable Energy

Høje vindmølletårne

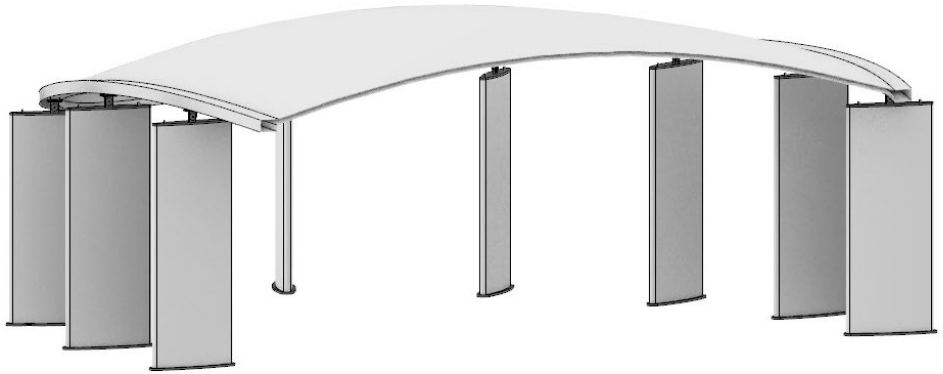


Illustrationer: Rambøll

Foto: CJR Renewables

Foto: COBOD International

Kanalbyen, Fredericia



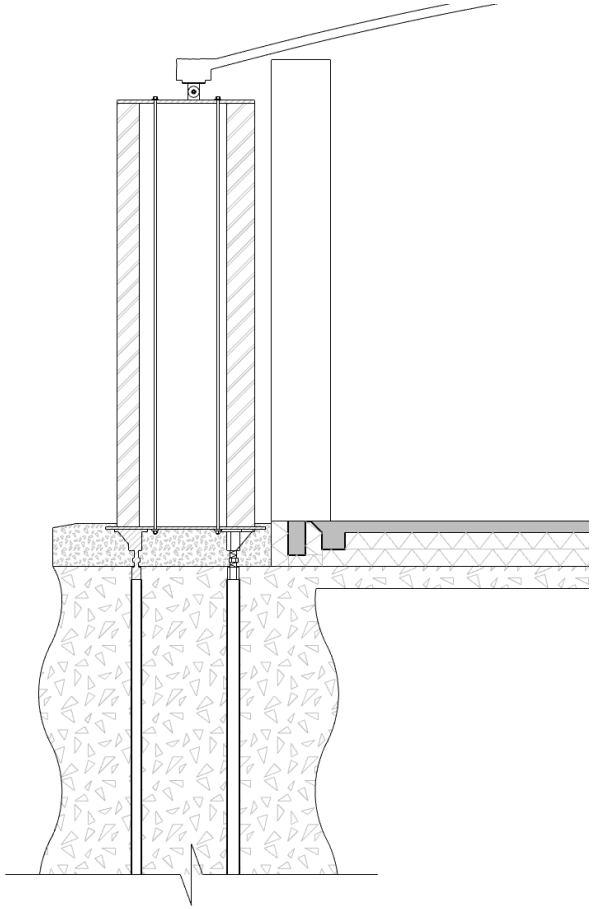


Foto og illustrationer: Rambøll

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It’s just the beginning

Tak

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