



shecco

SUSTAINING OUR ATMOSPHERE



natural refrigerants in commercial refrigeration - the next Japanese "Eco Cute"



48th SUPERMARKET TRADE SHOW 2014

Tokyo, 14 February 2014

マーク・シャセロット

ヤン・ドウシエック

shecco Japan 株式会社

Eco Cute: Success of CO2 HP in Japan



10 years of Eco Cute



residential **4 mil**

98% market share



commercial **10k**

production capacity

500k/year



Eco Cute: Success of CO2 HP in Japan



世界第一

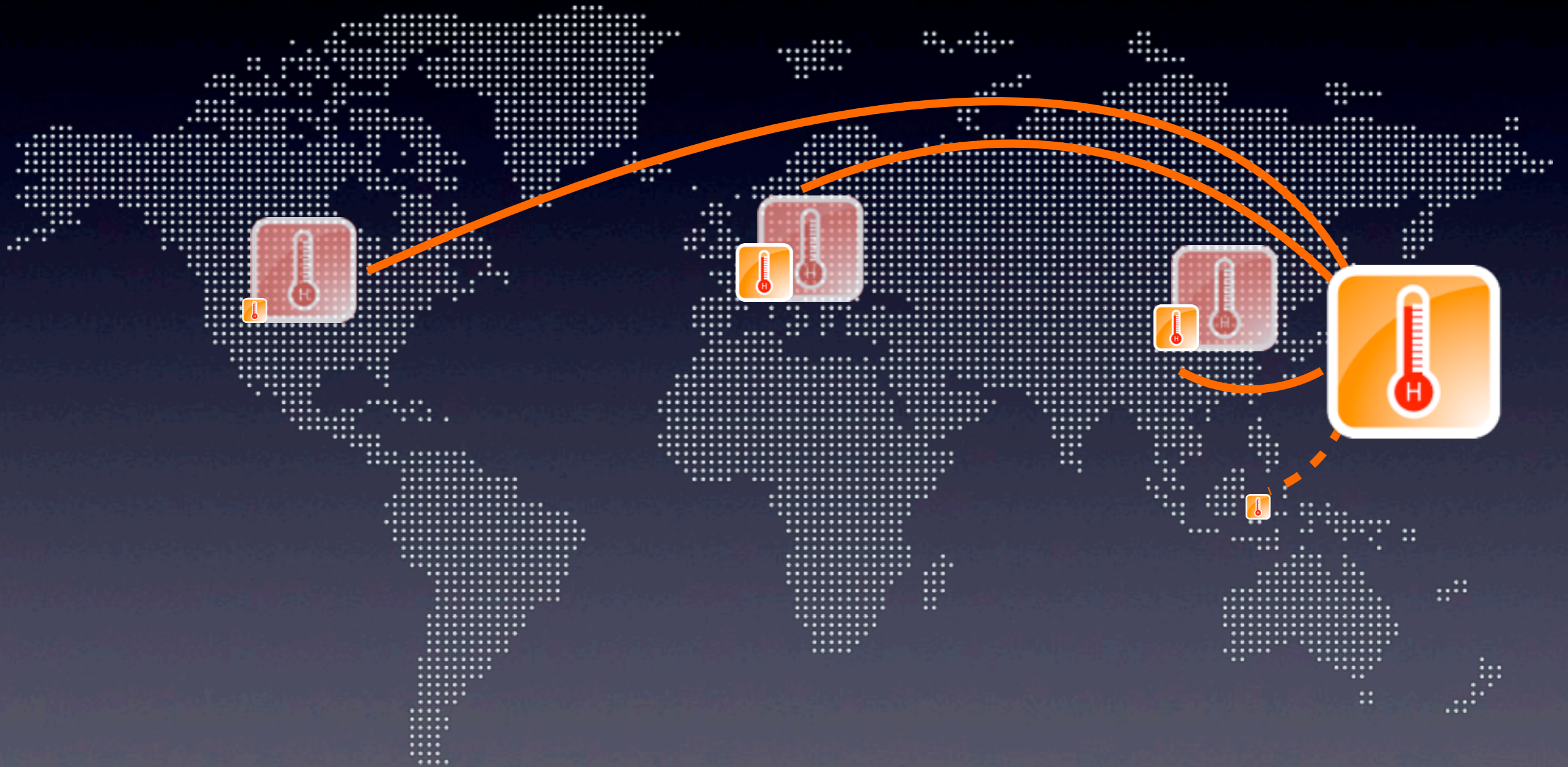
31 brands



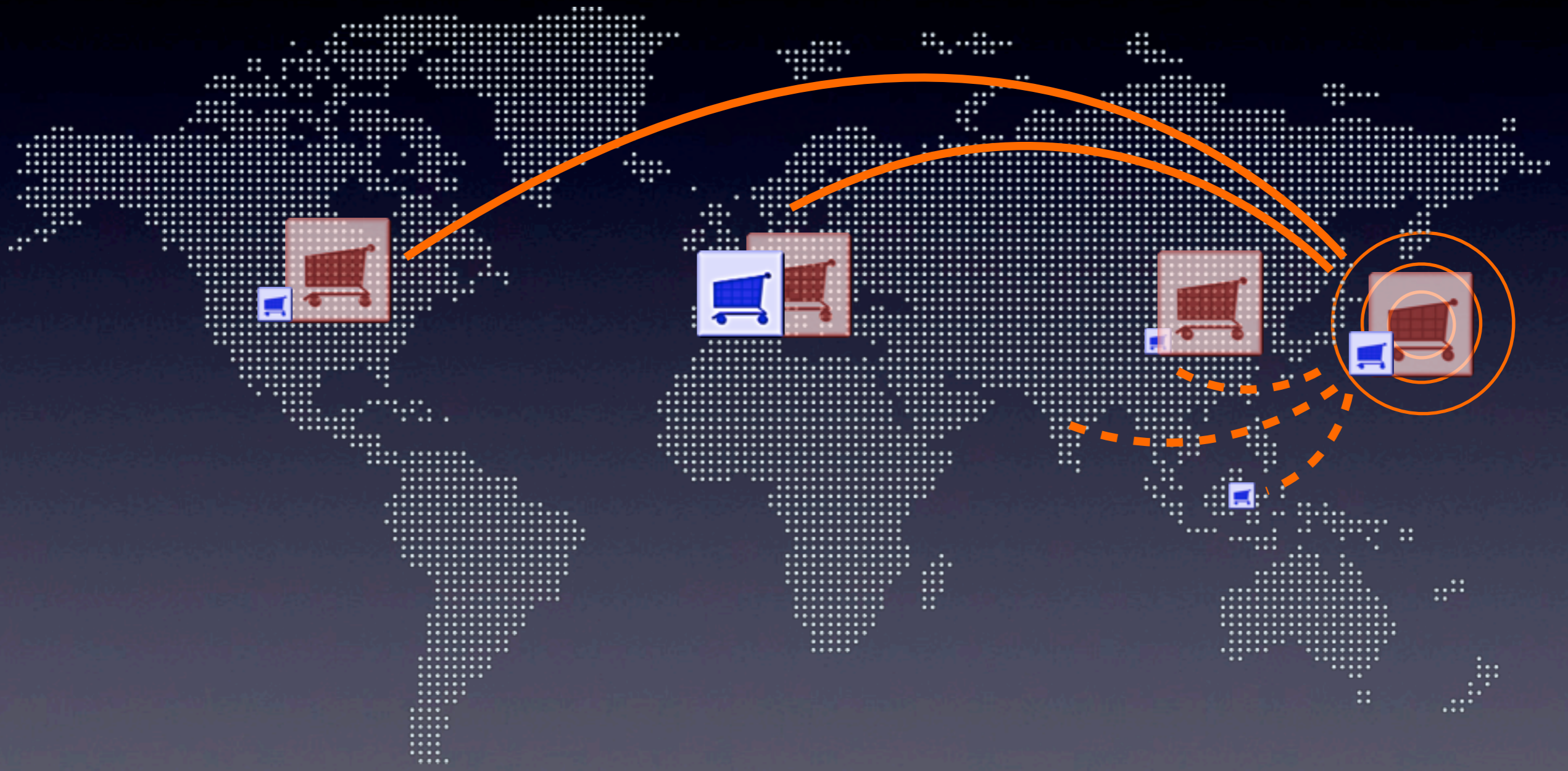
日本の自然冷媒技術の世界へ



例 1 : CO₂ヒートポンプ



例 2 : CO₂業務用冷凍機



shecco Japanについて



- ◎ 本社ベルギー（ブラセル）
- ◎ shecco 日本企業協力 10年間
- ◎ 東京オフィス2013年4月から
- ◎ サンフランシスコオフィス2014年予定
- ◎ 環境技術市場開発の役割
- ◎ 中心業界
 - ◎ HVACR 自然冷媒技術
 - ◎ 電気自動車



ammonia
everything natural



hydrocarbons
everything natural



ATMO
EU sphere
Solutions for Europe
natural refrigerants



100+ 世界中パートナー会社



世界中エンドユーザパートナー



sheccoのサービスについて



マーケットリサーチ



イベント開催



B2B ウェブサイト



getting your technologies
faster to market

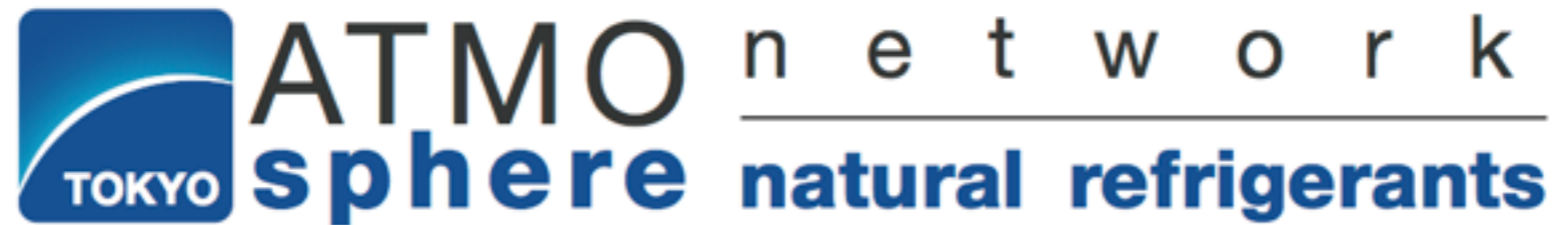
ロビー活動



ATMOsphere 自然冷媒イベントについて



- ◎ ATMOSphereネットワーク東京



- ◎ ATMOSphereアジア 2014 自然冷媒国際会議



ATMOsphereネットワーク東京



Invitation to ATMOsphere network Tokyo event

Commercial refrigeration with natural refrigerants & EU F-Gas Regulation

Program:

Informal Reception
Drinks & Appetizers

Lawson's Action against Global Warming
Hiroyuki Matsutani and Mengmeng Yu, Lawson

Hydrocarbons: Should you make the switch?
Bill Ho, Director of Sales, AHT Asia

EU F-Gas Regulation & Update from global markets
Marc Chasserot, Managing Director, shecco Japan

Date: 19 September 2013, 18:00 – 21:00
Place: Tokyo 21c Club Collaboration Space,
Shin-Marunouchi Building 10F, Tokyo

日時：2013年9月19日（木）18:00 – 21:00
会場：東京21cクラブ・コラボスペース
新丸の内ビルディング10階

Sponsor



Organizer



Invitation to ATMOsphere network Tokyo event

日本でのスーパーマーケットにおける自然冷媒の普及へ ～国内外の導入事例から学ぶ～

Program:

情報交換会

講演 1 今後のフロン類対策等の方向性について
経済産業省 製造産業局 化学物質管理課 課長補佐 保田 友晶

講演 2 スーパーマーケットにおける環境対策事例について
(一社)新日本スーパーマーケット協会 事務局長 島原 康浩

講演 3 CO₂冷媒採用ノンフロン冷凍機システムについて
パナソニックES産機システム課 取締役 食品流通統括部長 土屋 康之

講演 4 イオンのノンフロンへの取組みについて
イオンリテール株式会社 開発・建設統括部長 清水 明

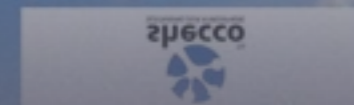
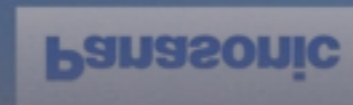
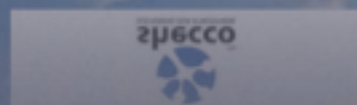
講演 5 欧米のスーパーマーケット事情とHFC税について
shecco Japan 株式会社 代表取締役 マーク・シャセロット

日時：2013年11月27日（水）18:00 – 21:00
会場：東京21cクラブ・コラボスペース
新丸の内ビルディング10階

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Organizer



2 April 2014



ATMO
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TOKYO
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natural refrigerants



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SUSTAINING OUR ATMOSPHERE

自然冷媒ニュースの発行では世界最大手



R718 news, products, community - R718.com is the industry platform for the natural refrigerant water used in cooling and refrigeration. Everything R718

ammonia21 everything natural news, products, community - ammonia21.com is the industry platform for ammonia cooling and heating experts worldwide.

hydrocarbons21 everything natural news, products, community - hydrocarbons21.com is the industry platform for hydrocarbon cooling and heating experts worldwide.

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Community feed
Sabine Lobrig | 1 hour ago
Posted new comment: Have a look in the product section: <http://www.r744.com/produ...>
Edward Socha | 14 hours ago
is looking for: I am looking for training and formation in CO2 refrigeration L...
Juan Ignacio Fandos | 1 day ago
joined in and is looking for: Looking for vocational training school partners to develop a L...

GOLD PARTNERS
MAYEKAWA MYCOM Carrier Parker Panasonic Ideas for life GREEN & COOL Green Refrigeration Systems

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水冷媒

アモニア冷媒

炭化水素冷媒

CO2冷媒

shecco Japan ウィークリーダイジェスト



shecco Japan ウィークリーダイジェスト

Edition: 1
25.11.2013

Weekly alert for the latest news from the refrigerant industry platforms
R744.com, ammonia21.com, hydrocarbons21.com, R718.com, atmo.org and
shecco.com

ATMOsphere Asia 2014でのテクノロジー・ケーススタディ・セッションに向けて、アジアにおける、またはアジア向けの自然冷媒の分野での最新の製品イノベーション、開発、効率向上の結果を発表するケーススタディを募集いたします。アブストラクト（要約）の提出の締め切りは2013年10月30日です。



R744.COM



米国のスーパーマーケットにHFCへの転換を求める報告書
R744.com / Industry News, 31.10.2013

Major American supermarkets and retailers are not doing enough to replace the climate damaging HFC gases in their refrigerati...

[Read more...](#)



ハリソン・ホーニング氏インタビュー：米国初のCO₂遷移臨界シ
R744.com / Interviews, 29.10.2013

Following the Delhaize Group's ground-breaking CO₂ transcritical installation in North America Harrison Horning s...

[Read more...](#)

日本初、R290ヒートポンプとガスハイブリッドシステムが初年度5000台販売へ
hydrocarbons21.com / Industry News, 09.10.2013
On 24 September, Noritz, a Japanese manufacturer of household water heaters with a head office in Kobe, released the first Ja...
[Read more...](#)

AHT、日本市場に初めてR290ショーケースを導入
hydrocarbons21.com / Product News, 08.10.2013
On 19 September AHT Cooling Systems introduced a natural refrigerant solution for Japanese supermarkets and convenience store...
[Read more...](#)

船川製作所が異温スチームヒートポンプを開発
hydrocarbons21.com / Events News, 08.11.2013
At the 2013 JSRAE Annual Conference in Japan, Mayekawa presented a novel hydrocarbon (HC) refrigerant heat pump capable of su...
[Read more...](#)

R718.COM

R718 世界初、水冷ターボ冷凍機が実現（日本）
R718.com / Industry News, 14.08.2013
Japan, traditionally a pioneer in sorption R718 technologies, has brought to market the world's first turbo chiller bas...
[Read more...](#)

小型吸着式冷凍機 [7-10kW] が日本で実現
R718.com / Industry News, 06.08.2013
In July Mitsubishi Plastics, Inc. announced that it will start selling a small adsorption chiller imported from InvenSor, a G...
[Read more...](#)



NEWS

無料サービス

GUIDEs 自然冷媒市場レポート

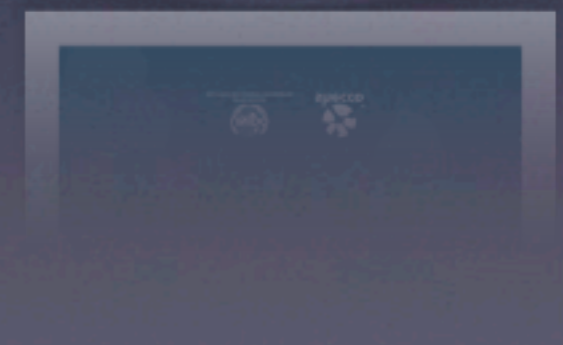


GUIDE Europe 2014



GUIDE North America 2013

GUIDE UNIDO 2013



GUIDE Japan 2014



- 1st dedicated report on the market trends for natural refrigerants in Japan
- expected launch: Q3 2014
- **highlights:**
- market outlook: industry expectations for the years to come - trend analysis
- case studies: best practice examples
- technology & market maps: info graphics and trend charts for successful NR technologies
- voice of key players: in-depth interviews with end-users, policy makers

shecco publications - new platform



shecco publications

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FREE

GUIDE UNIDO 2013 - Natural Solutions for Developing Countries

Published: 18 November 2013
Lead authors: Nina Masson, Marc Chassevot, Hulting Ja
Size: 5.83 MB
Number of pages: 94

The United Nations Industrial Development Organization (UNIDO) and shecco have published a Guide supporting the transition away from ozone-depleting substances to natural refrigerants and foam-blowing agents. It presents results from the UNIDO ATMOSPHERE Technology Summit, two global surveys, and 50+ case studies.

Cost details

Total price: free
Total items: 1
Multi-user License: free

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world: market drive in selected countries



世界のCO₂ スーパーとコンビニ



japan & asia: innovators & serious contenders



日本のCO₂ スーパーとコンビニ



approx. 180 stores with transcritical CO₂ systems

clear focus on transcritical systems

strong focus on convenience stores

market growth expected: NR subsidies, more competition, rising awareness, F-gas law discussion



source: shecco Japan, end of March 2014 (est.)

changing eco-system in Japan

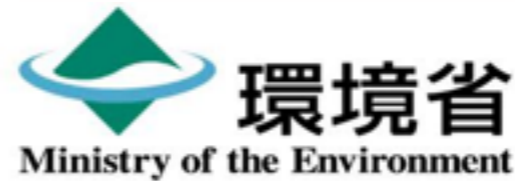


METI / MOE



経済産業省

Ministry of Economy, Trade and Industry



環境省

Ministry of the Environment

End Users

LAWSON

AEON

コープさっぽろ -CO-OP
one for all, all for one.

...

Suppliers

Panasonic

SANDEN
Delivering Excellence

CAREL

...

日本のCO₂ スーパーとコンビニ



source: shecco Japan, status Dec 2013

自然冷媒技術を日本のストアへ



16+ brands

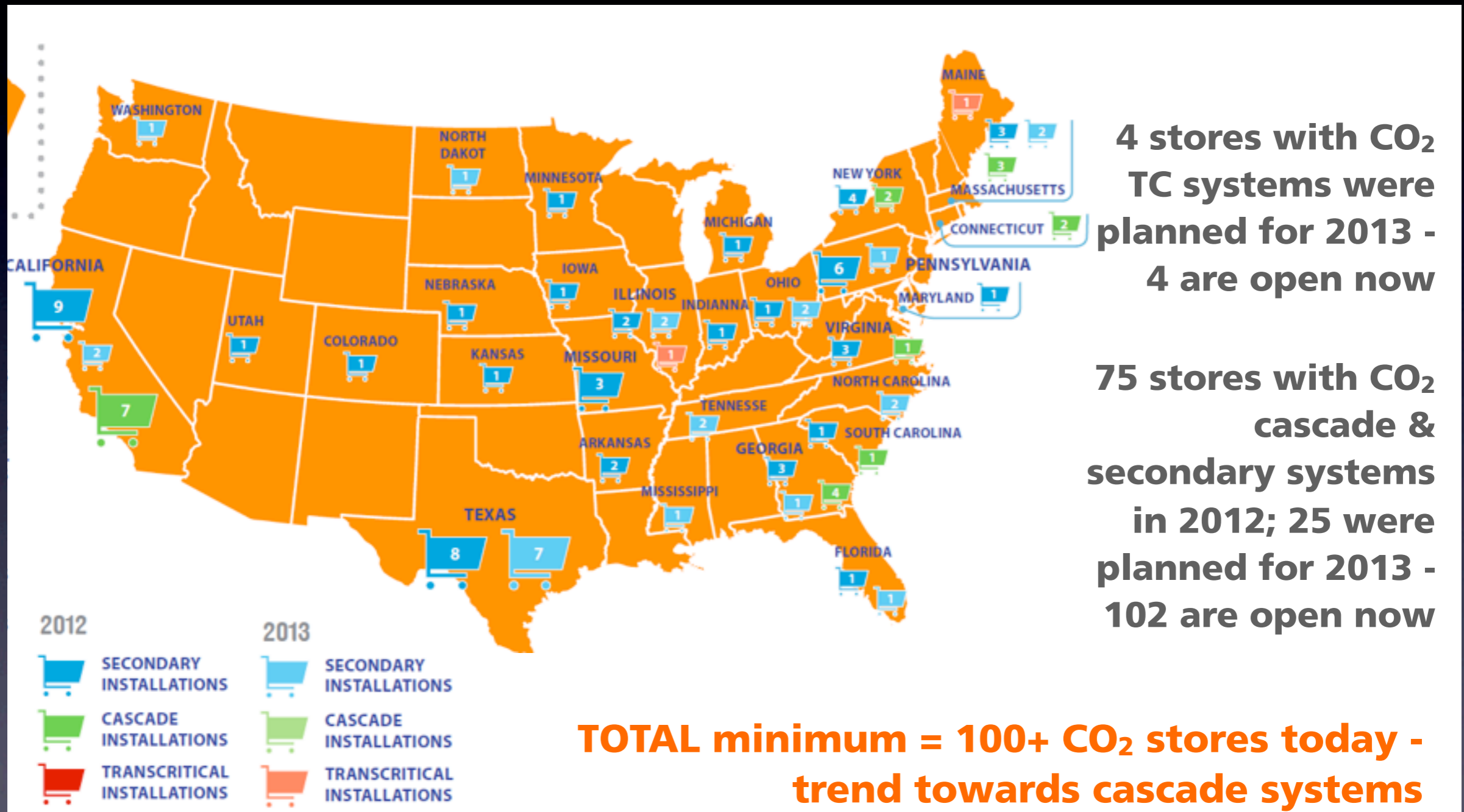


source: shecco Japan, status Feb 2014

north america: huge potential still untapped



米国のCO₂ スーパーマーケット



source: shecco, status Feb 2013 (graphic) - GUIDE 2013: Natural Refrigerants - Market Growth for North America); and Nov 2013 (text with updated figures)

米国のCO₂ スーパーマーケット



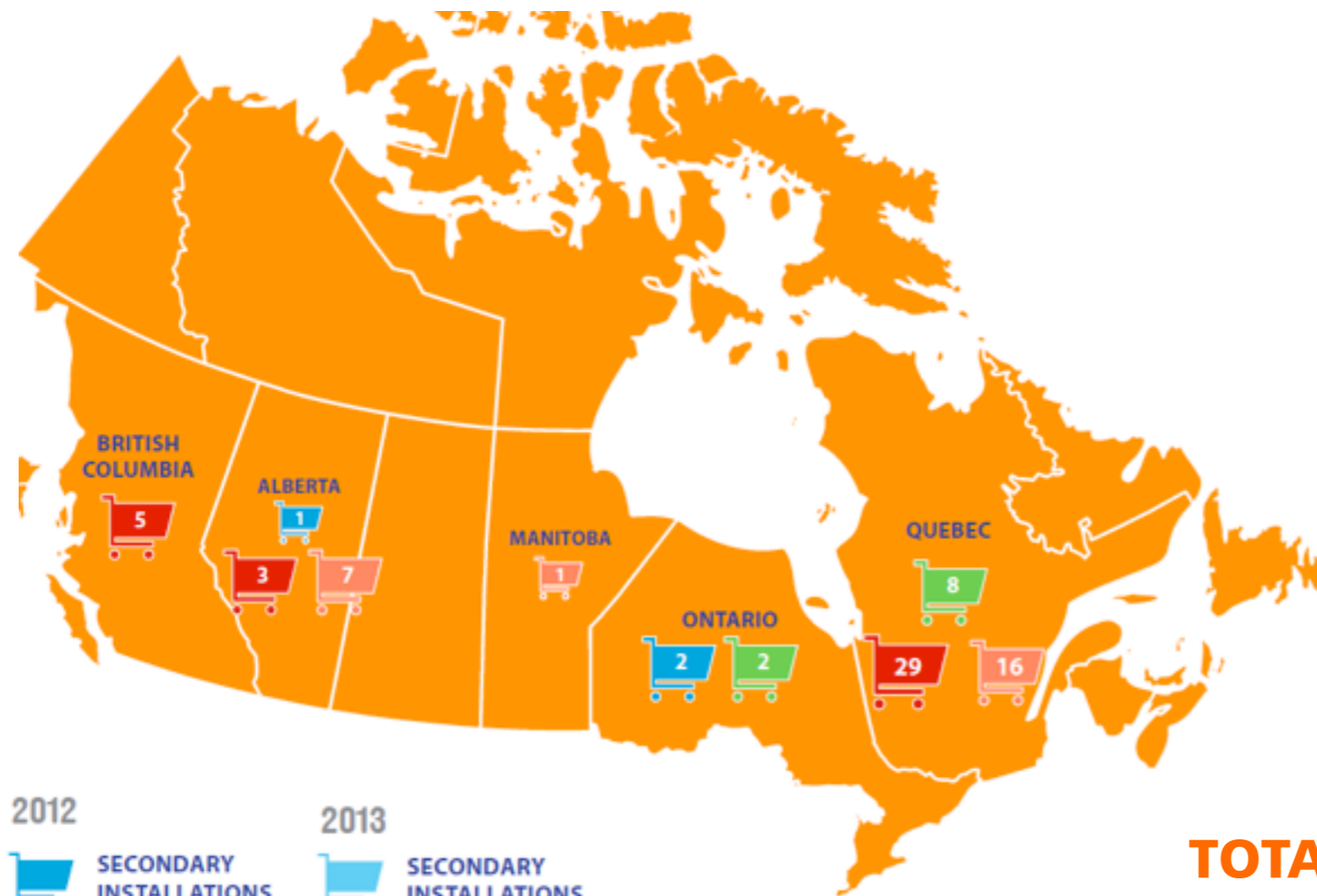
source: shecco, GUIDE 2013: Natural Refrigerants - Market Growth for North America, Feb 2013

カナダのCO₂ スーパーマーケット



37 stores with transcritical CO₂ systems in 2012; 24 were planned for 2013 - 65+ open today

13 stores with CO₂ cascade & secondary systems in 2012



TOTAL minimum = 80+ CO₂ stores today + clear trend towards transcritical systems

source: shecco, status Feb 2013 (graphic) - GUIDE 2013: Natural Refrigerants - Market Growth for North America); and June 2013 (text with updated figures)

カナダのCO₂ スーパーマーケット



metro

sobeys

Cooper's Foods

Walmart

IGA

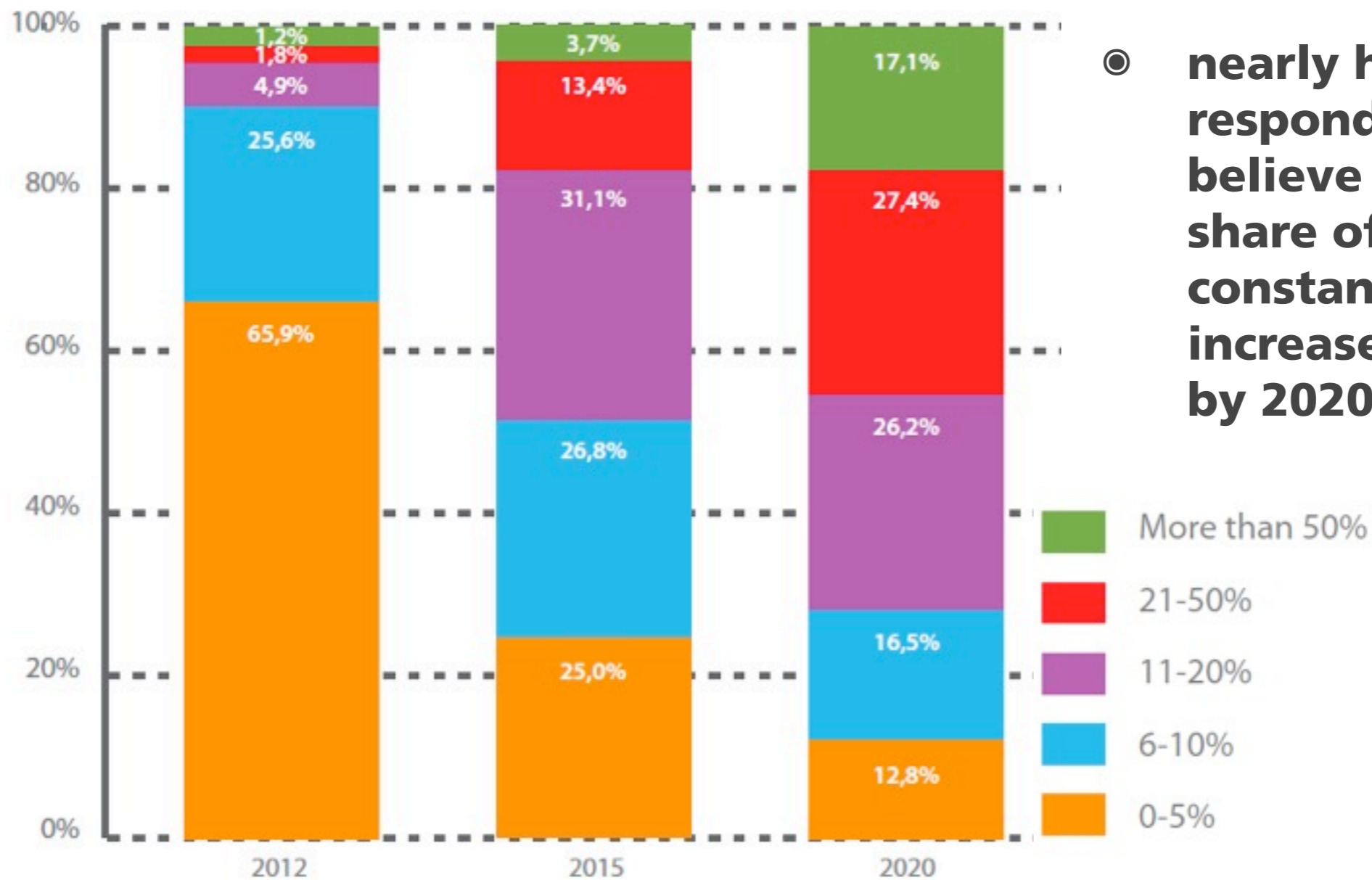
save on foods
SO MUCH *more* IN STORE

Loblaws

Overwaitea Food Group

min 8 brands

north america: market outlook CO₂ commercial refrigeration



◎ **nearly half of all respondents believe the market share of CO₂ will constantly increase to 21%+ by 2020**

source: shecco, GUIDE 2013: Natural Refrigerants - Market Growth for North America, Feb 2013, 164 respondents

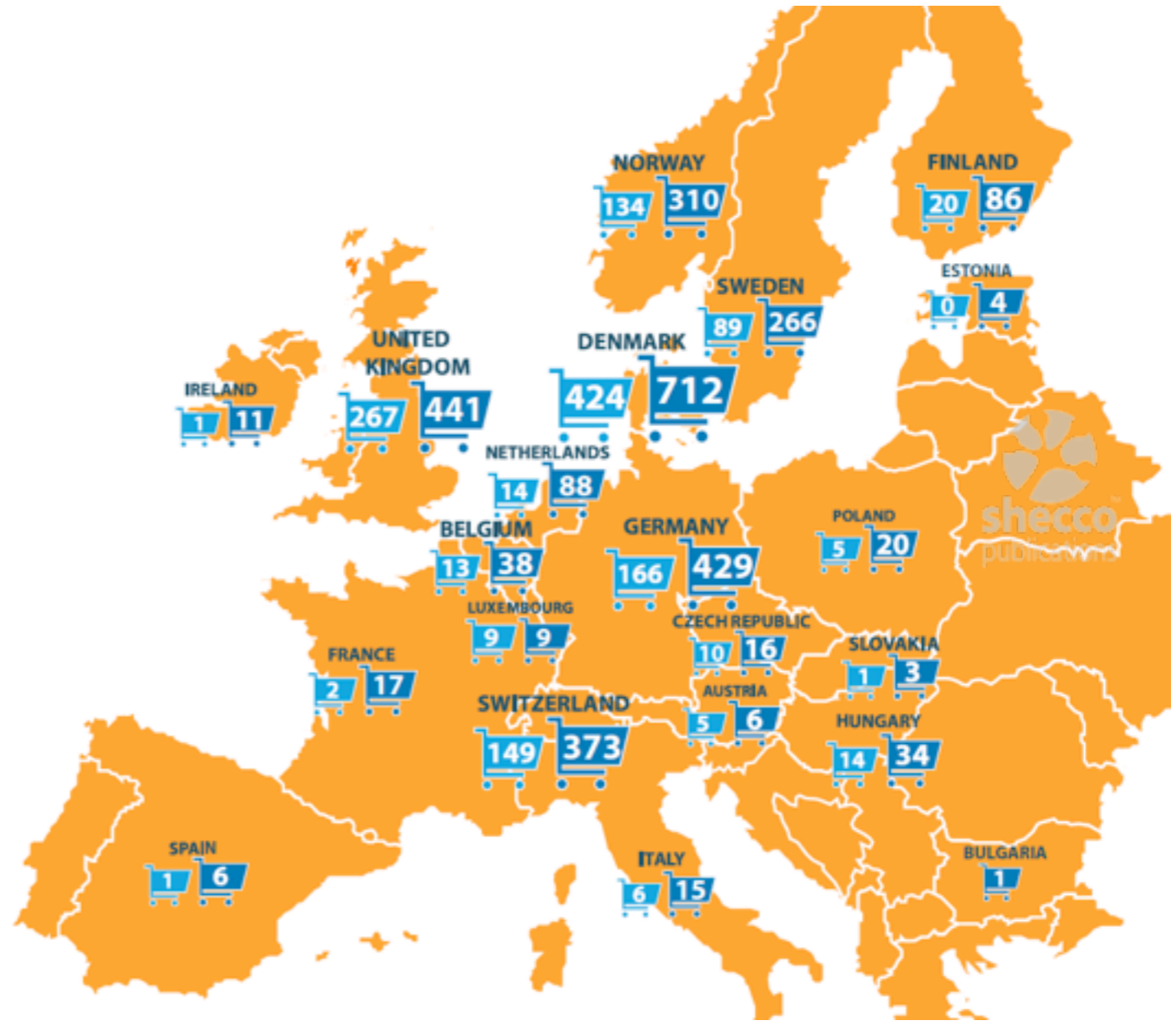
europa: the world leader



ヨーロッパのCO₂スーパーマーケット



market change can happen very fast

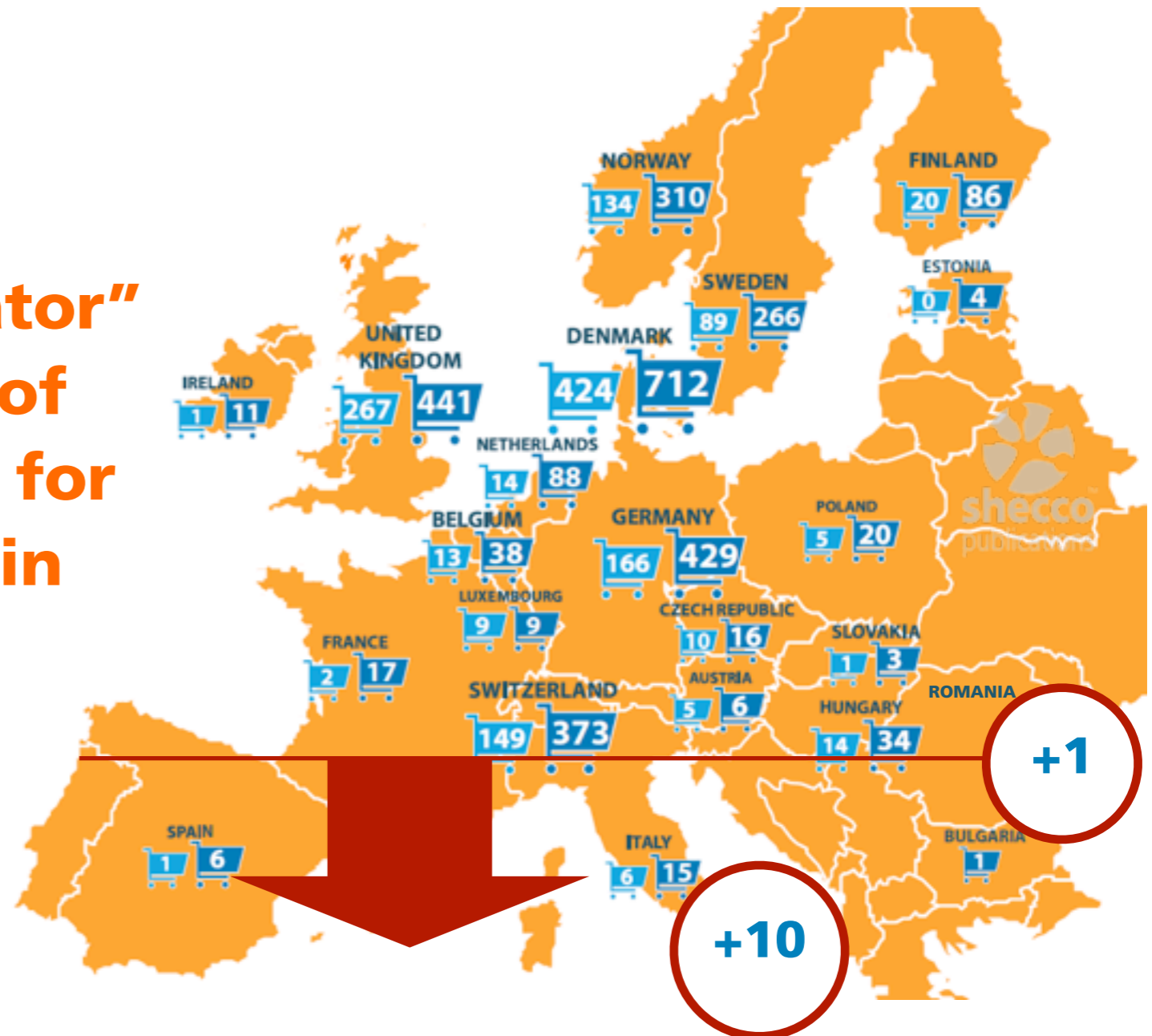


source: shecco, status Nov 2013, data from 14 system suppliers / contractors, 11 food retailers

ヨーロッパのCO₂スーパーマーケット



“CO₂ efficiency equator” disappears - variety of solutions developed for increased efficiency in warm climates



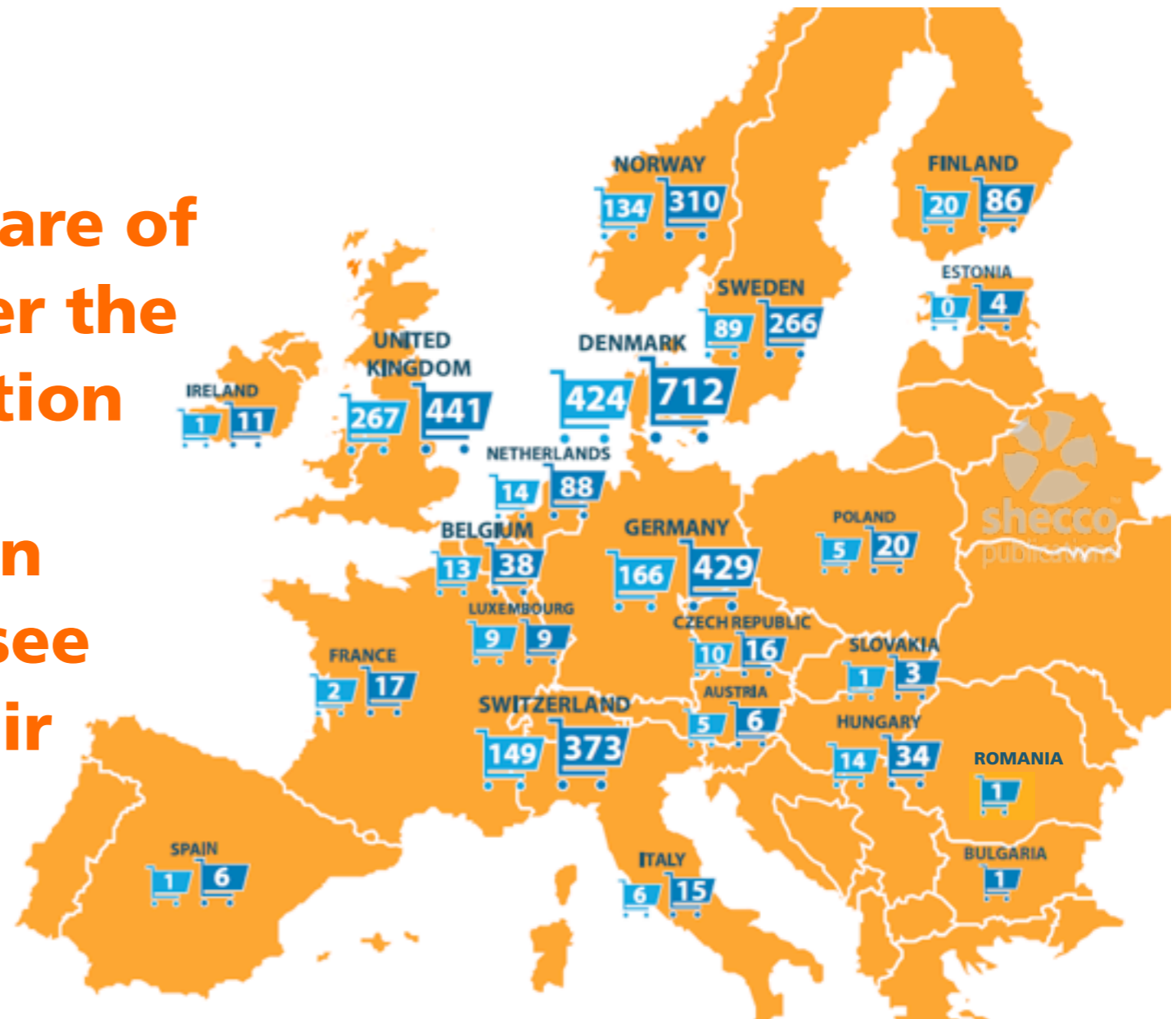
source: shecco, status Nov 2013, data from 14 system suppliers / contractors, 11 food retailers

ヨーロッパのCO₂スーパーマーケット



food retailers are aware of future HFC bans under the revised F-Gas Regulation

**BUT: market leaders in natural refrigerants see no need to adapt their strategy anymore
= secure investments**



source: shecco, status Nov 2013, data from 14 system suppliers / contractors, 11 food retailers

欧州のCO₂ スーパーマーケット



68 brands



world: food retail brands using CO₂



world: HFC-free light-commercial refrigeration



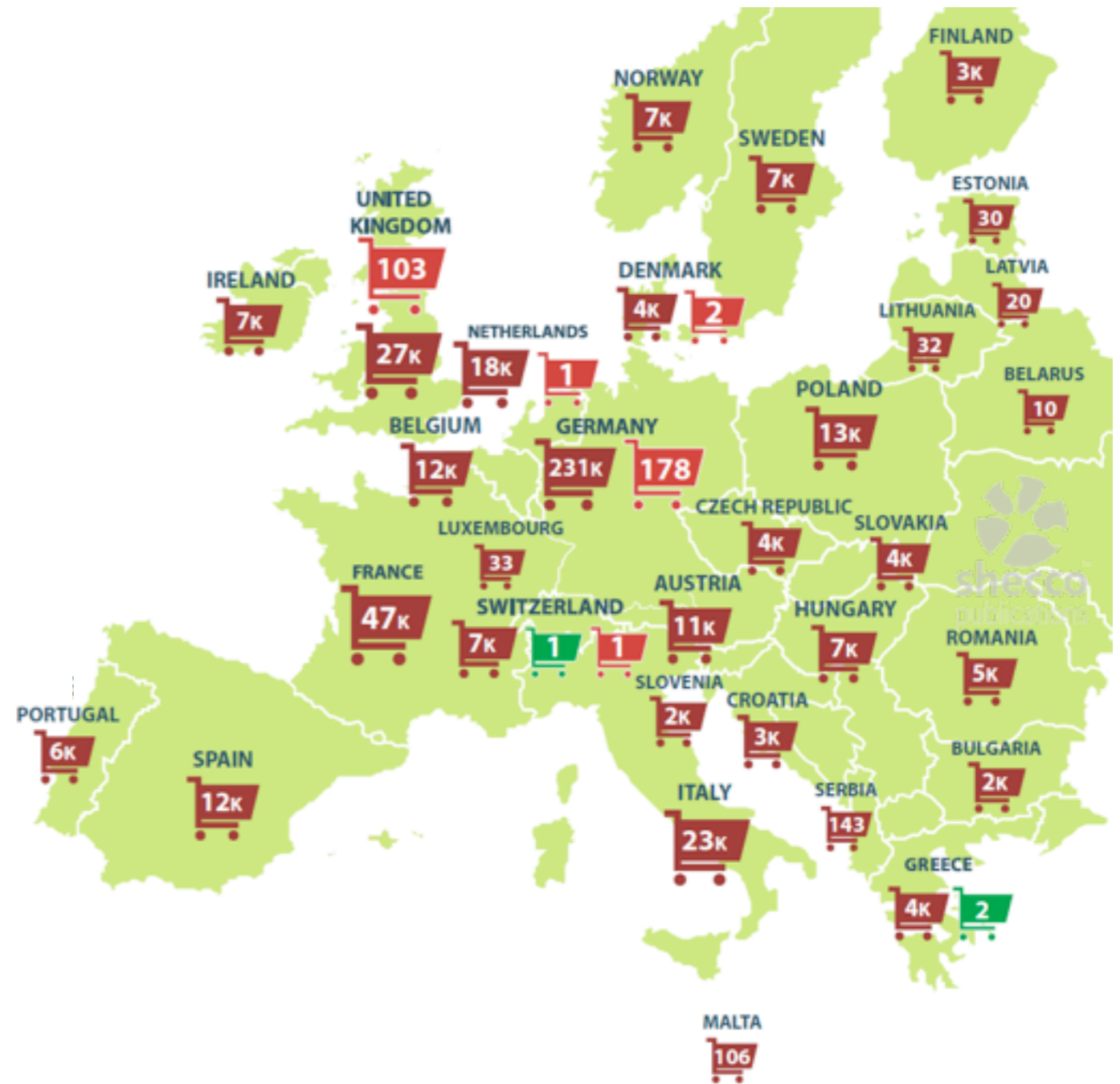
min. 2.7 million HFC-free units worldwide

europa: HC use in European supermarkets end-2013



HC plug-in units:

TOTAL
Hydrocarbon
Plug-in UNITS



source: status Nov 2013, data from 11 system suppliers / contractors, 11 food retailers

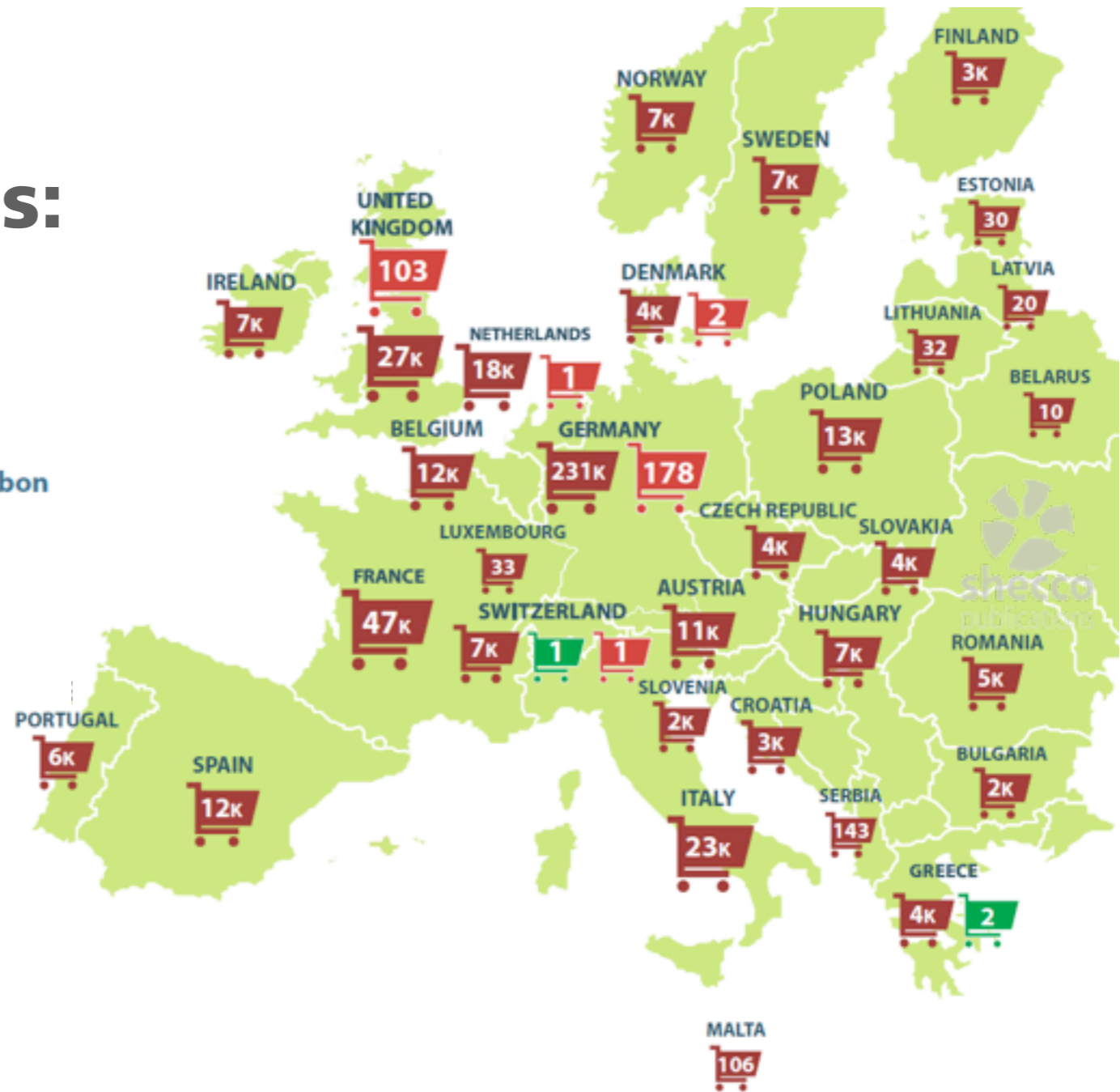
Europe: HC use in European supermarkets end-2013



HC indirect systems:

TOTAL
Indirect Hydrocarbon
SUPERMARKETS

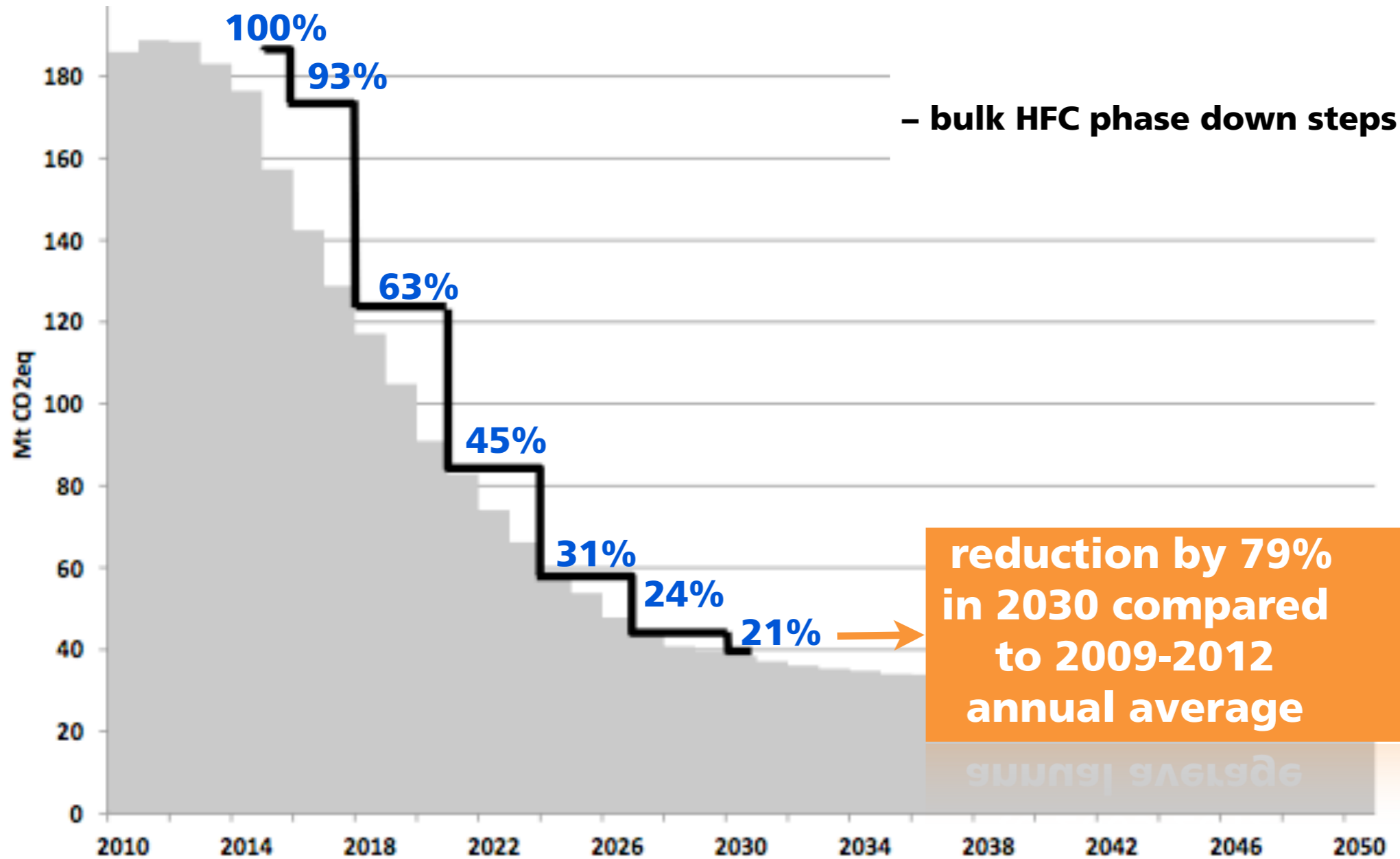
285



source: status Nov 2013, data from 11 system suppliers / contractors, 11 food retailers

HFC税 & 自然冷補助金について

EU F-Gas II - bulk HFC phase-down steps



HFC bans in F-Gas II - Informal deal vs. original proposal



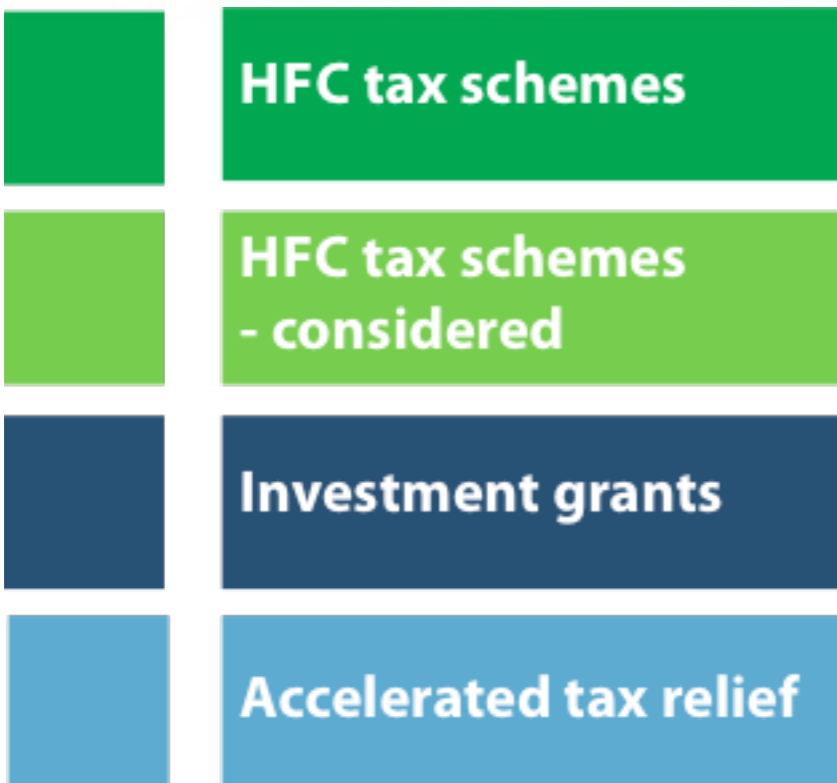
SECTOR (SUB-SECTOR)		informal F-Gas deal (Dec 2013)	
		GWP limit	As of (year)
1	Domestic refrigeration	150	2015
2	Refrigerators and freezers (hermetically sealed) for commercial use	2.500	2020
		150	2022
3	Movable room AC (hermetically sealed)	150	2020
4	Stationary refrigeration, except equipment intended for application design to cool products to temperatures below -50°C	2.500	2020
5	Multipack centralised commercial refrigeration systems with capacity ≥ 40 kW that contain f-gases with $GWP \geq 150$, except in the primary refrigerant circuit of cascade systems where f-gases with a $GWP < 1500$ may be used	150	2022
6	Single split AC systems containing less than 3 kg of f-gases	750	2025

HFC taxes, investment grants & tax relief schemes for natural refrigerants

→ At least 13 European countries have adopted or considered fiscal measures

→ At least 10 European countries with fiscal measures in place

with fiscal measures in place



HFC taxation - growing appetite in Europe

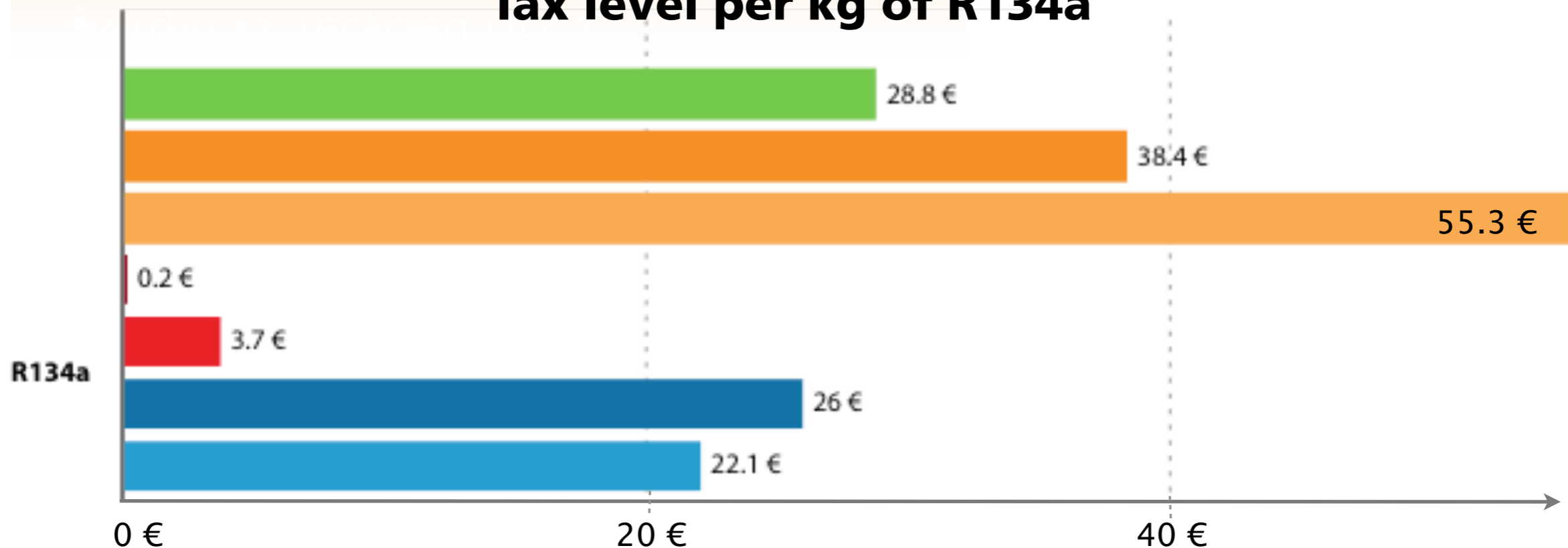
→ Tax levels can vary significantly

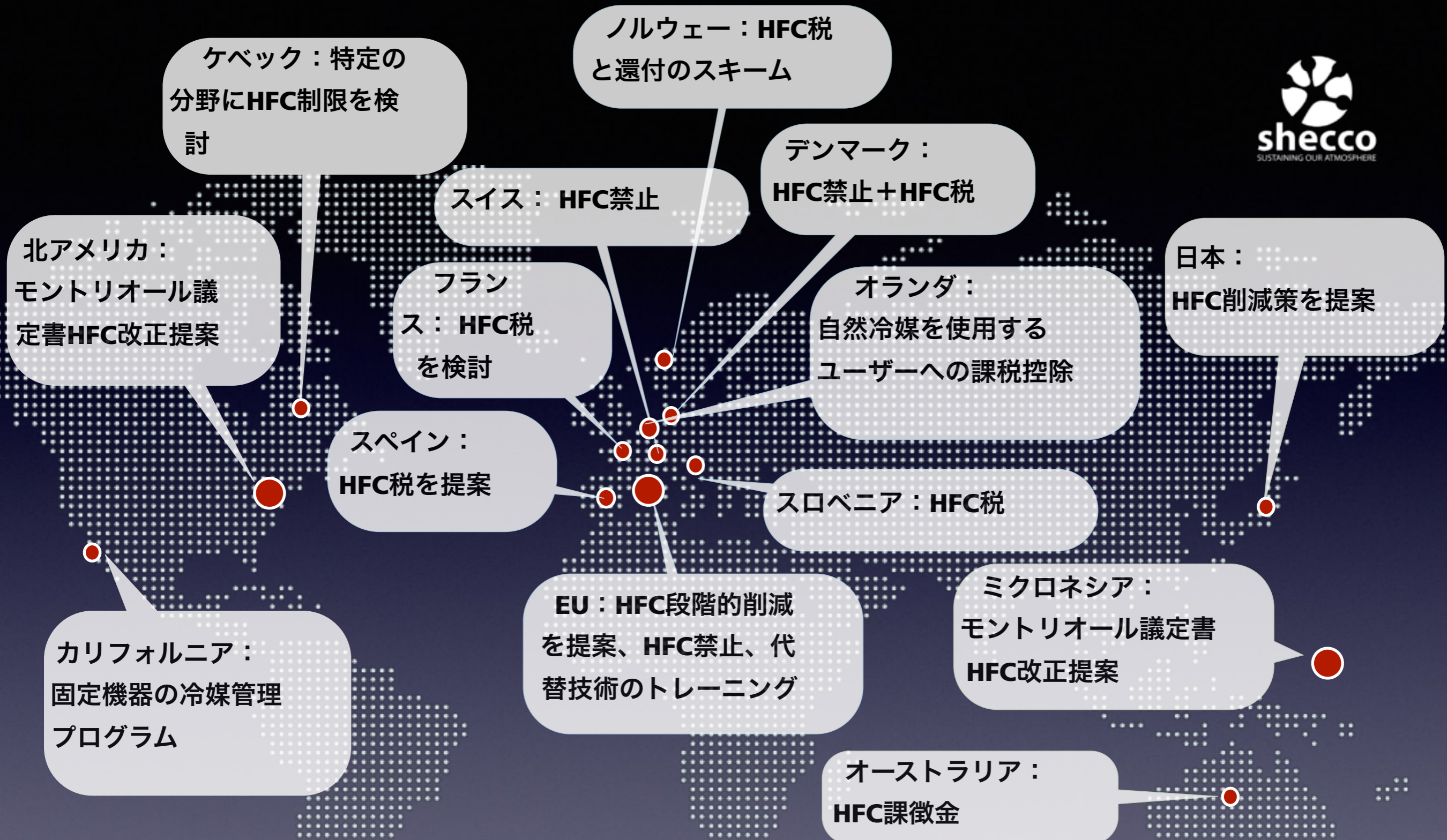
- by country
- first charge vs. servicing,
- virgin vs. recycled HFCs

→ Norway leads the way

- Denmark 2013/4
- Norway 2013
- Norway 2014
- Slovenia 2014, first charge
- Slovenia 2014, servicing
- Spain 2016 - virgin HFCs
- Spain 2016 - recycled HFCs

Tax level per kg of R134a





世界HFC規制強化 & 他の対策

sources:

- 1. shecco (2013), GUIDE+ on HFC taxes & fiscal incentives for Natural Refrigerants in Europe
- 2. R744.com industry platform on CO2 refrigerant, www.R744.com

GUIDE+ HFC 税 & 自然冷媒補助金



- HFC taxes, HFC deposit & refund schemes, fiscal incentives for natural refrigerants ...
- Tax levels and trends, comparative analysis of incentives, forward looking (expectations) ...
- Geographical scope: key European countries (e.g. Denmark, France, Germany, Norway, Poland, Slovenia, Spain ...)

12月発行

€500 / copy

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Industry Platforms:

<http://www.hydrocarbons21.com>

<http://www.R744.com>

<http://www.ammonia21.com>

<http://www.R718.com>

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どうも有り難うございました！