

# GLOBAL VAM UPDATE

SEPTEMBER 2018

1. Official commercial VAM projects
2. VAM RTO pilot projects
3. VAM technology

# COMMERCIAL SIZE VAM PROCESSING

officially announced as successful installations

UNECE  
Best  
Practice  
Guidance  
case study



DaTong 375 000 Nm<sup>3</sup>/h

ZhengZhou  
60 000 Nm<sup>3</sup>/h

McElroy,  
180 000 Nm<sup>3</sup>/h

VAM Power Plant GaoHe  
1 080 000 Nm<sup>3</sup>/h

IWR  
60 000 Nm<sup>3</sup>/h

VAM Power Plant WestVAMP  
250 000 Nm<sup>3</sup>/h

-  = Single unit
-  = Multiple unit
-  = Power plant

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case study

# COMMERCIAL SIZE VAM PROCESSING

officially announced as successful installations



JWR

60 000 Nm<sup>3</sup>/h

2011 - 2015



McElroy,

180 000 Nm<sup>3</sup>/h

2012 -



DaTong 375 000 Nm<sup>3</sup>/h

2011 - 2016



Zhengzhou  
60 000 Nm<sup>3</sup>/h

2008 -



VAM Power Plant GaoHe  
1 080 000 Nm<sup>3</sup>/h

2015 -



VAM Power Plant WestVAMP  
250 000 Nm<sup>3</sup>/h

2007 - 2016

= Closure due to moving of long wall

= Lack of financial conditions

Achieved:

- ✓ 2 million CO<sub>2e</sub>
- ✓ 300 000 MWh

# COMMERCIAL SIZE VAM PROCESSING

officially announced as successful installations

By 2018:

By Sept 2017:

✓ 1,17 million CO<sub>2e</sub>



"McElroy,"  
180 000 Nm<sup>3</sup>/h

**2012 -**



VAM Power Plant GaoHe  
1 080 000 Nm<sup>3</sup>/h

**2015 -**

# GLOBAL VAM UPDATE

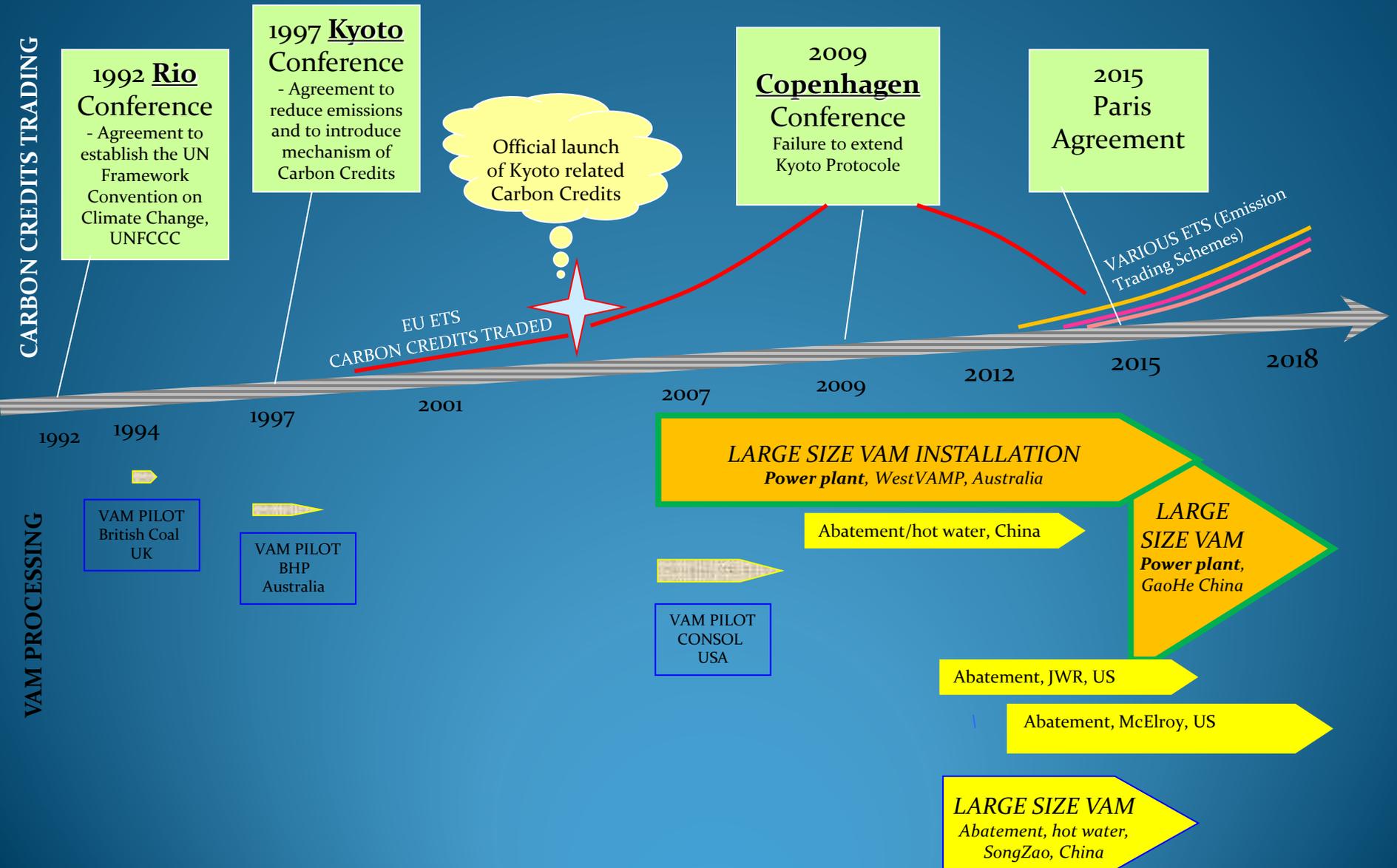
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## 2. Pilot projects

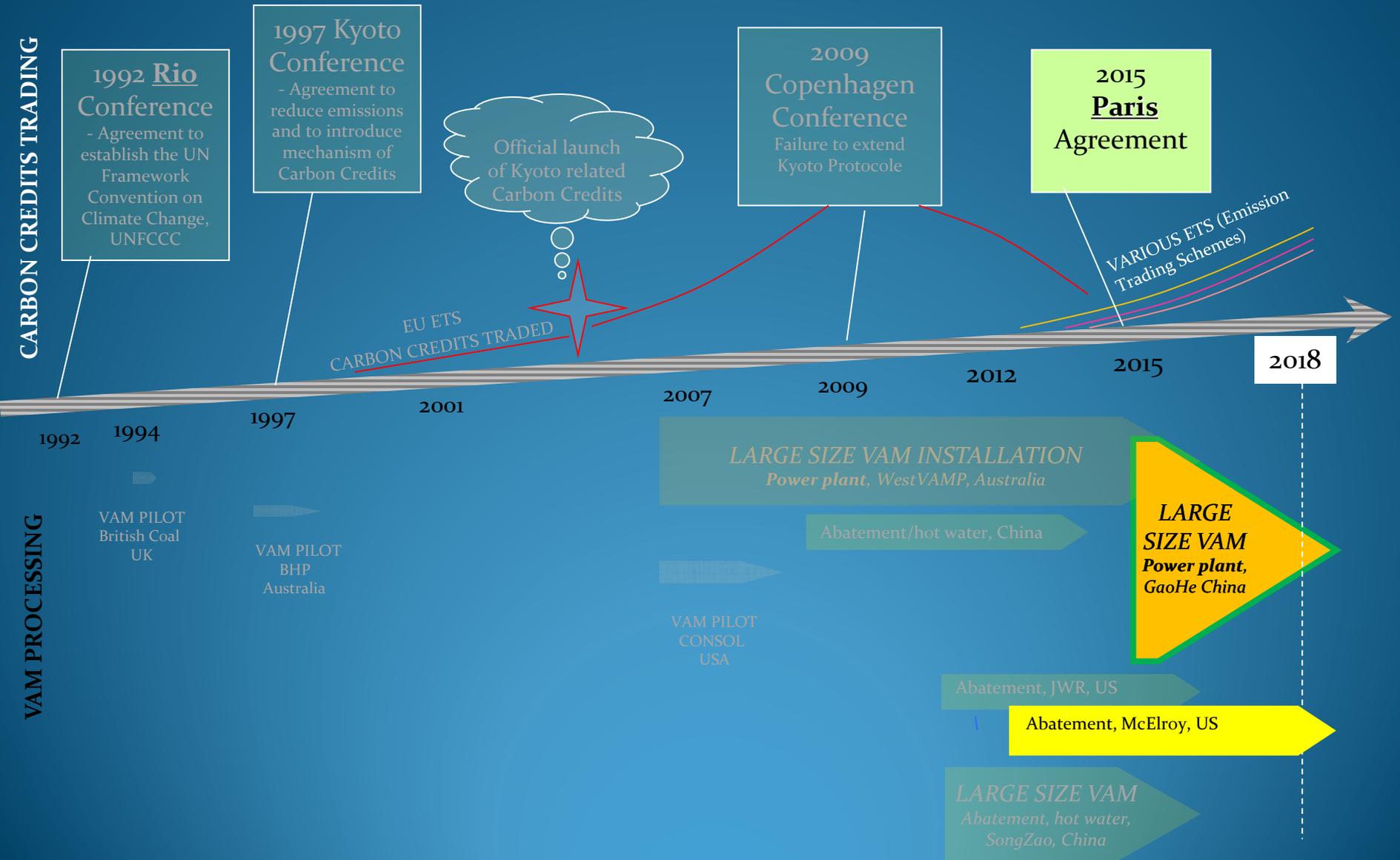


- First successful VAM pilots
  - in 1994, processing VAM several months at British Coal, UK
  - In 1997 - 98, generating steam during 12 months at BHP, Australia
- VAM abatement China - several projects by domestic RTO manufacturers. No info found on status or performance.
- VAM abatement Australia - recent pilot tests with domestic RTO manufacturer and with (non-RTO) at university. Pilot plant projects on hold.
- RTO producers established in other industrial applications are seeking VAM pilot installations.

# VAM PROCESSING AND CARBON CREDITS



# VAM PROCESSING AND CARBON CREDITS



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## 3. VAM processing technologies

- Traditional RTO (Regenerative Thermal Oxidation) technology, as proven in the commercial VAM installations already executed

**- provided by RTO suppliers with extensive experience from thousands of RTO installations (since the 1970's and forwards), whereof many in industries with very high demands on safety.**

- VAM processing technologies under development, such as;
  - new methane catalyst processes
  - lean gas turbines
  - concentrators

These are all yet to be demonstrated.