



2025W10 第 56 期





Κ Ε

01 ب ل ° g

[illegible]
$$02 \quad \downarrow \quad \Phi \quad \cup \quad \tilde{\Omega}$$
[illegible]

03 'Ω Ũ Φ ʘ ẽ

[illegible]

04 f گ g

Internet2	Λ υ λ Λ g ~ \$ A ã \$ Η ζ ρ ρ̄	10
EuroHPC JU	GÉANT V™ T a h K ρ π Λ 1 υ ν [06] Λ ρ ρ̄	10

05 Ү А Ү 3

٧ ٨ AĪ'H ٢ ٣ ٤ ٥ ٦ ٧ ٨ ٩ ١٠ 2025w	11
١١ ١٢ ١٣ ١٤ ١٥ ١٦ ١٧ ١٨ ١٩ ٢٠ ٢١ ٢٢ ٢٣ ٢٤ ٢٥ ٢٦ ٢٧ ٢٨ ٢٩ ٣٠ ٣١ ٣٢ ٣٣ ٣٤ ٣٥ ٣٦ ٣٧ ٣٨ ٣٩ ٤٠ ٤١ ٤٢ ٤٣ ٤٤ ٤٥ ٤٦ ٤٧ ٤٨ ٤٩ ٥٠ ٥١ ٥٢ ٥٣ ٥٤ ٥٥ ٥٦ ٥٧ ٥٨ ٥٩ ٦٠ ٦١ ٦٢ ٦٣ ٦٤ ٦٥ ٦٦ ٦٧ ٦٨ ٦٩ ٧٠ ٧١ ٧٢ ٧٣ ٧٤ ٧٥ ٧٦ ٧٧ ٧٨ ٧٩ ٨٠ ٨١ ٨٢ ٨٣ ٨٤ ٨٥ ٨٦ ٨٧ ٨٨ ٨٩ ٩٠ ٩١ ٩٢ ٩٣ ٩٤ ٩٥ ٩٦ ٩٧ ٩٨ ٩٩ ١٠٠	11
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ᐅ ᐃ ᑭ ᐃ ᑲ ᓴ _____ ᕐ ᐃ

ق

ǎ h ɣ p H"H"

λ ǎ γ u ð ʔ

٧~ [OBJ]Y p N₁ f # " [OBJ]h̃ ص ح ط | “ َ ° R ó ” ج ِ

ψ ĭ # “ β p s i ” “. p f ɦ ᵀ ɲ i ă̇ چ X ɸ x ɸ و ó ỳ چ [OBJ] î



◊ f K ∧ r ˆ D z ǎ l c

š ڦ k ħ š ʕ گ ر ړ ا
 “YÂ Ä ð n Ĥ p ƚ ɥ ∆ ƞ † ƞ ω”
 ǝ Ḥ A ĭ ʈ ف ھ ٲ Ω ■ ý ʈ ò u ɹ̣ G ʒ ʌ ř ω ɹ Å ȳ ʈ ‡ W
 ‘A = ę



ب ف ۛ ۛ ۛ ۛ Æ ۛ ۛ 2025 ۛ ۛ ۛ

T = U p u h f K % ' D i T M A u y v l n t % ' p m a i f " Y E
2025 v 2025 v % ' m i # z / O A b ' t = a s و ۛ l r i H
m i ' Y l A p u v l n i t v ' t u i H [OBJ] A e A l d ".
w l p u v W J a i f o u a = v t ■ y t ف l w " u v ' O n ± W
" Q E m j l l n r w x h [OBJ] v t i H , ' R F M u i p v t [OBJ] ^ - p . d
i z t o ف ۛ A B a l r i A W J b d i ۛ " H m l z R 1 Z i
ۛ [OBJ] B a ۛ A ف ' H ۛ A ۛ A ■ y t e ' H N = a 5 I
i [OBJ] ' H i o s w " / O 1 t i z = ~ i h m j l " Q و ۛ l r ' s
T H p u y v Z i % ' m u ص % ' h ۛ ' H Z i j t p n l l y i Q
Q G z w w ۛ F l r i



Ö 1 f u 2024W z ä g 2 ð 4 ä 70%

"Ω Ḅ Ġ z : Ω19 K Ḃ Ḥ Ġ z U Ḃ Ġ n ẉz ! %50% Ḉ y [OBJ]
 2024w ك إ Ḥ X Ḃ Ḥ Ġ z Φ [OBJ] Z ẉḢ p'Y Ḥ u z q t ■ `O ك ف
 K Z ẉn Ḣ ð` d B Ω | ~ Z ẉn Ḣ . 7 ẉz[OBJ]%ب p ẉz

2024 w 19 K 1 G U 3 1 2024 Z 0 n G 3 " 237.9 a 5/8 y 2
1.9% 19 K 3 1 2024 Z 0 n G 3 " 201 7 0 3 5/8 72.7% 2 2023 w 0 " 8.3
~ ' P p Z 0 n G 2024 w a 5/8 y 1.9% 2 2023 w y 10.8%
0 I E 0 V B " 9 9 ^ 3 1 A D i Z 0 n G 3 " 2024 y 2 T G 0
U 0 " 0 E n - 1 ' 1 H G 3 0 = K " 1 H 6 K 3 1 Z 0 y < 7
0 y B " p 7 Z 0 2 X 0 0 Y 1 U p

[illegible]

9đ Internet2 λ υ τ λ η θ ~ \$ A ã \$ [OBJ] ჯ ზ უ ა ჟ Ὶ ἶ ὤ Ḳ Ṭ
υ6 2.6Tbps ἱ ω 2026ω ν έ γ ι ς ε Œ ⅈ ᾠ Ἀ800GE w̄
W ∩ Η ᾑ ὀ ᐃ : Ν 11ώ p Λ V ζ ψ̇ 400ζ þ~... ج ث 2027w. h W
ᵝ ī f Γ ∨ = Ω ၊ λ η NERENHũ ã [OBJ] Managed Dedicated Local
Platform p ĳ ۡ S ت ³ λ l s i Å ὀ n X ~ ᾗ ᾗ ἰ W Ã Ñ μ ·
⓪ ī š ! š v ș थ ऍ Baton Rouge ` P " / z n " \ | . ó ژ
99.999% ° ^ 1 E ē * p V ἷ h ȧ g A u Internet2 Cloud Connect
h ₮ \$ x > ω i u ⁻ ī [OBJ] ll α ه à ς ' Ꞇ "A õ > w ἴ P Ñ / ™ H Y
10G/100G/400G ღ Ἲ ł H א - T p ^ ꞌ ת ³ λ Ḧ ᾗ Ἀ [OBJ] ' Չ þ ḏ ᾘ A
ꞑ * p V ´ % Ἱ p À u λ´ ω ð ክ ብ TB / k ٫

Internet2 3 ă

EuroHPC JU GÉANT ۱ ۱ H ۰ ∞ ت ۷ ل ۷ ū ۳ ت د ۱

[illegible]

8 7 2 0 1 8 = EuroHPC JU 2018w | ẽ ° h 'E
 p 0 0 8 ` 3 7 v f B a 7 T 7 ° 8 7 2 0 1 8w | ẽ ° h 'E

↳  GÉANT  



ق ڈ AIΩ ° ҥ ƶ ⅴ Ɑ ~ Ё 2025W
İ ° Ĩ # Φ Û √ Z τ ˜ ■ ʘ ف% ȳ M

٧ ك هـ ز ا ب ت ث ج د

ĩ °Y f f K h ɹ í | ě g ~ H t h Φ “ f —° ‘ D —E ʎ
=— f K h ɹ í ” [OBJ] u ŋ ʎ n l ɸ ð t ’ i ʎ n ǎ T a ʎ n W Ǟ ɥ ʎ
ŋ ʐ Φ h Φ ق J h ɹ í ʎ - 90% ʃ s ʔ ɤ ð t ǎ ʎ ʔ J ”. [OBJ] ʎ
ʎ - ˘ ʎ ^ ʎ y [OBJ] ǿ ǎ / ʎ = ^ P K [OBJ] ǎ ‘ č p W J X ص ʎ °
| ě ɸ ʎ ”. ʎ ǎ ‘ [OBJ] R h ɹ = R ʎ z [OBJ] T . ʌ B r ف | ě g ~ u
ŋ ʎ n ʎ ŋ ʐ Φ ʎ - ʃ ɔ ǎ ‘ č p é ʈ ʎ A = [OBJ] ʌ ʔ ʎ ɹ
M ǎ f O ʃ v ʎ گ ɣ [OBJ] f K h ɹ í ǎ Φ ɸ ʎ Y

↳ $\diamond \quad \neg \forall x' H \quad \vee \quad \wedge \bar{r} \quad \underline{\text{z } \check{a}}$



Gartner* ã λ υ 2025w\A G'H ǎ ž ý 'Y † ĭ ρ w † P [OBJ] L

'H .. Ä γ ú " j 'A Al π ~ M ú ĩ ρ † λ γ o u Ě N w † Ä k A [OBJ]

b 'H ف 'H ō`Ω p    '†    26    10w J V†    † z    [OBJ]    Ǿ `

期望

量子免疫系统
保密计算
自主安全
加密敏捷性
领域专用GenAI模型
增强互联劳动力
通用人工智能
智能模拟
技术主权
可编程货币
决策智能
空间计算
反间谍网络
地理遥感
流动知识
模型上下文协议
双向脑机接口
虚拟货币安全
物理AI
机器销售助手
元计算
自适应体验
人形工作机器人
认知卸载
虚拟队友

AI代理
机器客户
同志加密

技术萌芽期 期望膨胀期 泡沫破裂低谷期 稳步爬升恢复期 生产成熟期

时间

截至2025年8月

新兴生产成熟期的时间：
 <2年
 2-5年
 5-10年
 >10年

- ḵ ḷ ḹ ṛ ṣ ṭ ṭ̃ ṭ̄ ṭ̅ ṭ̆ ṭ̇ ṭ̈ ṭ̉ ṭ̊ ṭ̋ ṭ̌ ṭ̍ ṭ̎ ṭ̏ ṭ̐ ṭ̑ ṭ̒ ṭ̓ ṭ̔ ṭ̕ ṭ̖ ṭ̗ ṭ̘ ṭ̙ ṭ̚ ṭ̛ ṭ̜ ṭ̝ ṭ̞ ṭ̟ ṭ̠ ṭ̡ ṭ̢ ṭ̣ ṭ̤ ṭ̥ ṭ̦ ţ̣ ṭ̨ ṭ̩ ṭ̪ ṭ̫ ṭ̬ ṭ̭ ṭ̮ ṭ̯ ṭ̰ ṭ̱ ṭ̲ ṭ̳ ṭ̴ ṭ̵ ṭ̶ ṭ̷ ṭ̸ ṭ̹ ṭ̺ ṭ̻ ṭ̼ ṭ̽ ṭ̾ ṭ̿ ṭ̿̄ ṭ̿̅ ṭ̿̆ ṭ̿̇ ṭ̿̈ ṭ̿̉ ṭ̿̊ ṭ̿̋ ṭ̿̌ ṭ̿̍ ṭ̿̎ ṭ̿̏ ṭ̿̐ ṭ̿̑ ṭ̿̒ ṭ̿̓ ṭ̿̔ ṭ̿̕ ṭ̖̿ ṭ̗̿ ṭ̘̿ ṭ̙̿ ṭ̿̚ ṭ̛̿ ṭ̜̿ ṭ̝̿ ṭ̞̿ ṭ̟̿ ṭ̠̿ ṭ̡̿ ṭ̢̿ ṭ̣̿ ṭ̤̿ ṭ̥̿ ṭ̦̿ ţ̣̿ ṭ̨̿ ṭ̩̿ ṭ̪̿ ṭ̫̿ ṭ̬̿ ṭ̭̿ ṭ̮̿ ṭ̯̿ ṭ̰̿ ṭ̱̿ ṭ̲̿ ṭ̳̿ ṭ̴̿ ṭ̵̿ ṭ̶̿ ṭ̷̿ ṭ̸̿ ṭ̹̿ ṭ̺̿ ṭ̻̿ ṭ̼̿ ṭ̿̽ ṭ̿̾ ṭ̿̿ ṭ̿̿̄ ṭ̿̿̅ ṭ̿̿̆ ṭ̿̿̇ ṭ̿̿̈ ṭ̿̿̉ ṭ̿̿̊ ṭ̿̿̋ ṭ̿̿̌ ṭ̿̿̍ ṭ̿̿̎ ṭ̿̿̏ ṭ̿̿̐ ṭ̿̿̑ ṭ̿̿̒ ṭ̿̿̓ ṭ̿̿̔ ṭ̿̿̕ ṭ̖̿̿ ṭ̗̿̿ ṭ̘̿̿ ṭ̙̿̿ ṭ̿̿̚ ṭ̛̿̿ ṭ̜̿̿ ṭ̝̿̿ ṭ̞̿̿ ṭ̟̿̿ ṭ̠̿̿ ṭ̡̿̿ ṭ̢̿̿ ṭ̣̿̿ ṭ̤̿̿ ṭ̥̿̿ ṭ̦̿̿ ţ̣̿̿ ṭ̨̿̿ ṭ̩̿̿ ṭ̪̿̿ ṭ̫̿̿ ṭ̬̿̿ ṭ̭̿̿ ṭ̮̿̿ ṭ̯̿̿ ṭ̰̿̿ ṭ̱̿̿ ṭ̲̿̿ ṭ̳̿̿ ṭ̴̿̿ ṭ̵̿̿ ṭ̶̿̿ ṭ̷̿̿ ṭ̸̿̿ ṭ̹̿̿ ṭ̺̿̿ ṭ̻̿̿ ṭ̼̿̿ ṭ̿̿̽ ṭ̿̿̾ ṭ̿̿̿ ṭ̿̿̿̄ ṭ̿̿̿̅ ṭ̿̿̿̆ ṭ̿̿̿̇ ṭ̿̿̿̈ ṭ̿̿̿̉ ṭ̿̿̿̊ ṭ̿̿̿̋ ṭ̿̿̿̌ ṭ̿̿̿̍ ṭ̿̿̿̎ ṭ̿̿̿̏ ṭ̿̿̿̐ ṭ̿̿̿̑ ṭ̿̿̿̒ ṭ̿̿̿̓ ṭ̿̿̿̔ ṭ̿̿̿̕ ṭ̖̿̿̿ ṭ̗̿̿̿ ṭ̘̿̿̿ ṭ̙̿̿̿ ṭ̿̿̿̚ ṭ̛̿̿̿ ṭ̜̿̿̿ ṭ̝̿̿̿ ṭ̞̿̿̿ ṭ̟̿̿̿ ṭ̠̿̿̿ ṭ̡̿̿̿ ṭ̢̿̿̿ ṭ̣̿̿̿ ṭ̤̿̿̿ ṭ̥̿̿̿ ṭ̦̿̿̿ ţ̣̿̿̿ ṭ̨̿̿̿ ṭ̩̿̿̿ ṭ̪̿̿̿ ṭ̫̿̿̿ ṭ̬̿̿̿ ṭ̭̿̿̿ ṭ̮̿̿̿ ṭ̯̿̿̿ ṭ̰̿̿̿ ṭ̱̿̿̿ ṭ̲̿̿̿ ṭ̳̿̿̿ ṭ̴̿̿̿ ṭ̵̿̿̿ ṭ̶̿̿̿ ṭ̷̿̿̿ ṭ̸̿̿̿ ṭ̹̿̿̿ ṭ̺̿̿̿ ṭ̻̿̿̿ ṭ̼̿̿̿ ṭ̿̿̿̽ ṭ̿̿̿̾ ṭ̿̿̿̿ ṭ̿̿̿̿̄ ṭ̿̿̿̿̅ ṭ̿̿̿̿̆ ṭ̿̿̿̿̇ ṭ̿̿̿̿̈ ṭ̿̿̿̿̉ ṭ̿̿̿̿̊ ṭ̿̿̿̿̋ ṭ̿̿̿̿̌ ṭ̿̿̿̿̍ ṭ̿̿̿̿̎ ṭ̿̿̿̿̏ ṭ̿̿̿̿̐ ṭ̿̿̿̿̑ ṭ̿̿̿̿̒ ṭ̿̿̿̿̓ ṭ̿̿̿̿̔ ṭ̿̿̿̿̕ ṭ̖̿̿̿̿ ṭ̗̿̿̿̿ ṭ̘̿̿̿̿ ṭ̙̿̿̿̿ ṭ̿̿̿̿̚ ṭ̛̿̿̿̿ ṭ̜̿̿̿̿ ṭ̝̿̿̿̿ ṭ̞̿̿̿̿ ṭ̟̿̿̿̿ ṭ̠̿̿̿̿ ṭ̡̿̿̿̿ ṭ̢̿̿̿̿ ṭ̣̿̿̿̿ ṭ̤̿̿̿̿ ṭ̥̿̿̿̿ ṭ̦̿̿̿̿ ţ̣̿̿̿̿ ṭ̨̿̿̿̿ ṭ̩̿̿̿̿ ṭ̪̿̿̿̿ ṭ̫̿̿̿̿ ṭ̬̿̿̿̿ ṭ̭̿̿̿̿ ṭ̮̿̿̿̿ ṭ̯̿̿̿̿ ṭ̰̿̿̿̿ ṭ̱̿̿̿̿ ṭ̲̿̿̿̿ ṭ̳̿̿̿̿ ṭ̴̿̿̿̿ ṭ̵̿̿̿̿ ṭ̶̿̿̿̿ ṭ̷̿̿̿̿ ṭ̸̿̿̿̿ ṭ̹̿̿̿̿ ṭ̺̿̿̿̿ ṭ̻̿̿̿̿ ṭ̼̿̿̿̿ ṭ̿̿̿̿̽ ṭ̿̿̿̿̾ ṭ̿̿̿̿̿ ṭ̿̿̿̿̿̄ ṭ̿̿̿̿̿̅ ṭ̿̿̿̿̿̆ ṭ̿̿̿̿̿̇ ṭ̿̿̿̿̿̈ ṭ̿̿̿̿̿̉ ṭ̿̿̿̿̿̊ ṭ̿̿̿̿̿̋ ṭ̿̿̿̿̿̌ ṭ̿̿̿̿̿̍ ṭ̿̿̿̿̿̎ ṭ̿̿̿̿̿̏ ṭ̿̿̿̿̿̐ ṭ̿̿̿̿̿̑ ṭ̿̿̿̿̿̒ ṭ̿̿̿̿̿̓ ṭ̿̿̿̿̿̔ ṭ̿̿̿̿̿̕ ṭ̖̿̿̿̿̿ ṭ̗̿̿̿̿̿ ṭ̘̿̿̿̿̿ ṭ̙̿̿̿̿̿ ṭ̿̿̿̿̿̚ ṭ̛̿̿̿̿̿ ṭ̜̿̿̿̿̿ ṭ̝̿̿̿̿̿ ṭ̞̿̿̿̿̿ ṭ̟̿̿̿̿̿ ṭ̠̿̿̿̿̿ ṭ̡̿̿̿̿̿ ṭ̢̿̿̿̿̿ ṭ̣̿̿̿̿̿ ṭ̤̿̿̿̿̿ ṭ̥̿̿̿̿̿ ṭ̦̿̿̿̿̿ ţ̣̿̿̿̿̿ ṭ̨̿̿̿̿̿ ṭ̩̿̿̿̿̿ ṭ̪̿̿̿̿̿ ṭ̫̿̿̿̿̿ ṭ̬̿̿̿̿̿ ṭ̭̿̿̿̿̿ ṭ̮̿̿̿̿̿ ṭ̯̿̿̿̿̿ ṭ̰̿̿̿̿̿ ṭ̱̿̿̿̿̿ ṭ̲̿̿̿̿̿ ṭ̳̿̿̿̿̿ ṭ̴̿̿̿̿̿ ṭ̵̿̿̿̿̿ ṭ̶̿̿̿̿̿ ṭ̷̿̿̿̿̿ ṭ̸̿̿̿̿̿ ṭ̹̿̿̿̿̿ ṭ̺̿̿̿̿̿ ṭ̻̿̿̿̿̿ ṭ̼̿̿̿̿̿ ṭ̿̿̿̿̿̽ ṭ̿̿̿̿̿̾ ṭ̿̿̿̿̿̿ ṭ̿̿̿̿̿̿̄ ṭ̿̿̿̿̿̿̅ ṭ̿̿̿̿̿̿̆ ṭ̿̿̿̿̿̿̇ ṭ̿̿̿̿̿̿̈ ṭ̿̿̿̿̿̿̉ ṭ̿̿̿̿̿̿̊ ṭ̿̿̿̿̿̿̋ ṭ̿̿̿̿̿̿̌ ṭ̿̿̿̿̿̿̍ ṭ̿̿̿̿̿̿̎ ṭ̿̿̿̿̿̿̏ ṭ̿̿̿̿̿̿̐ ṭ̿̿̿̿̿̿̑ ṭ̿̿̿̿̿̿̒ ṭ̿̿̿̿̿̿̓ ṭ̿̿̿̿̿̿̔ ṭ̿̿̿̿̿̿̕ ṭ̖̿̿̿̿̿̿ ṭ̗̿̿̿̿̿̿ ṭ̘̿̿̿̿̿̿ ṭ̙̿̿̿̿̿̿ ṭ̿̿̿̿̿̿̚ ṭ̛̿̿̿̿̿̿ ṭ̜̿̿̿̿̿̿ ṭ̝̿̿̿̿̿̿ ṭ̞̿̿̿̿̿̿ ṭ̿

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