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Tethering: An approach to build customer demand

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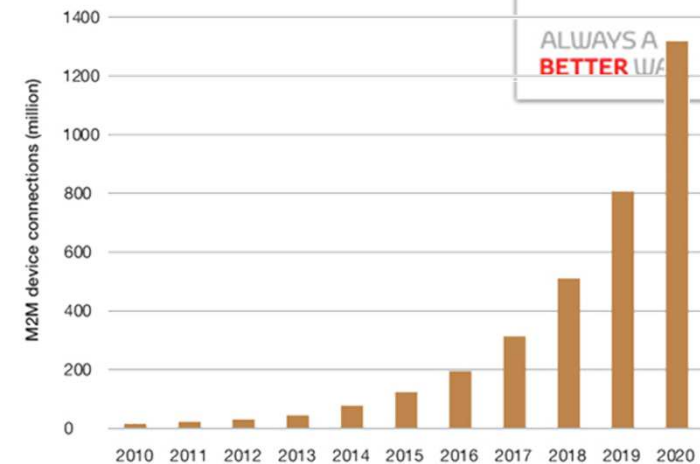
26 February 2013
at Mobile World Congress, Barcelona

High, but uncertain MNO expectations for automotive telematics

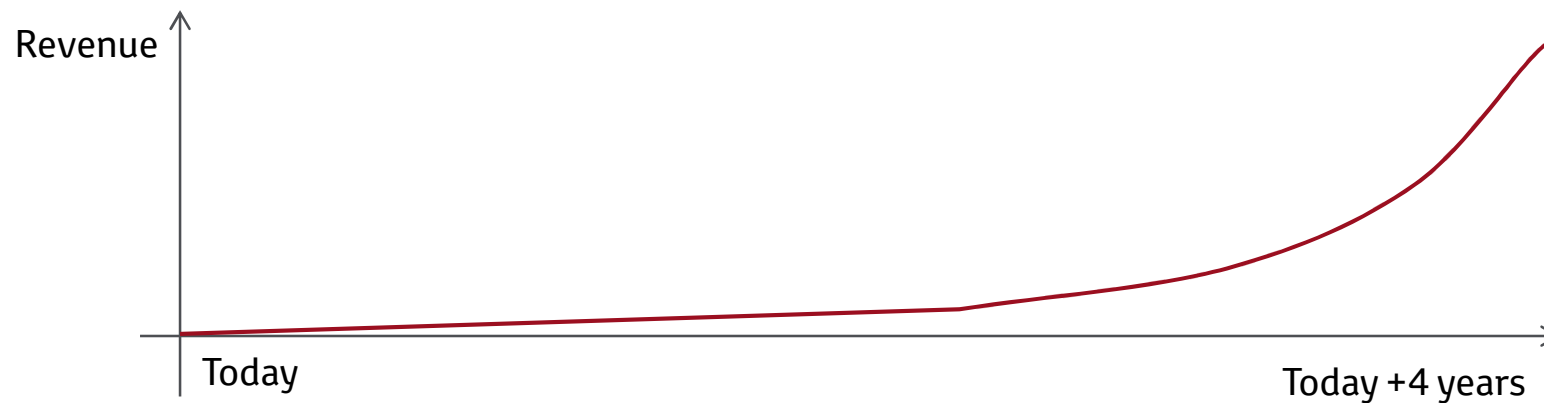


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1. Double-digit annual M2M growth drives MNO revenue expectations
2. Automotive telematics always just around the corner
 - EU eCall delay saga
 - Private eCall launches, cancellations



Source: Analysys Mason, 2011 (Figure 1)



This time it is different



1. EU eCall and ERA-Glonass seem to really come in 2015/16

- Embedded SIM seems required, but total system cost is way beyond possible revenue, so implementation will follow regulation

2. Real time traffic, and speed camera services are becoming popular in aftermarket devices

- Car makers want to bring to Original Equipment (OE), but face cost challenge from factory standardization effect and cost-up from higher quality. → look to use customer's phone
- Customer pull for these services is still weak, so car makers need to prove the value and build the demand

Question: What is the cost effective way to bring connected navigation services to the market?

The basic connectivity options are “embedded” and “tethered”



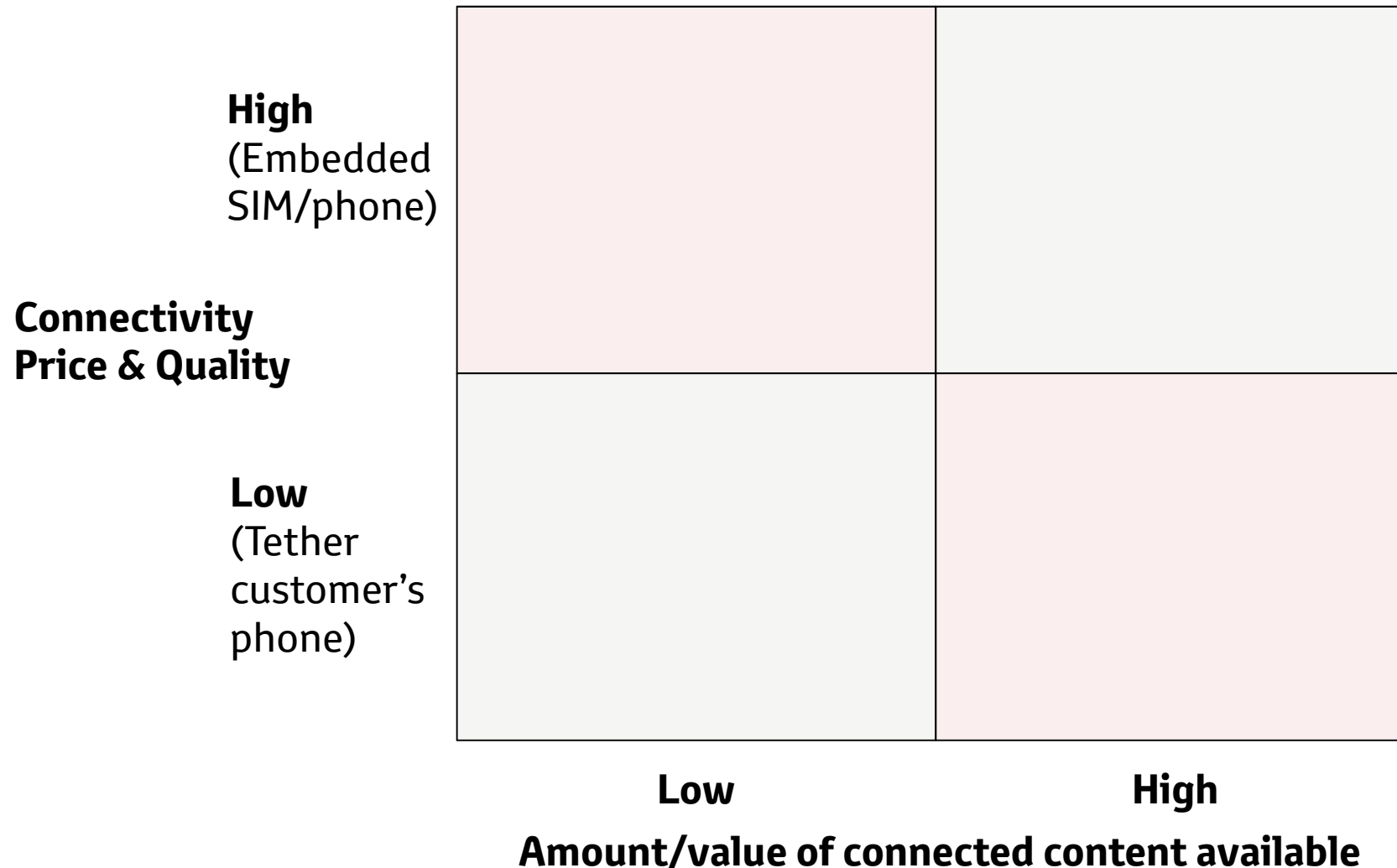
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An approach to selecting connectivity options for navigation services



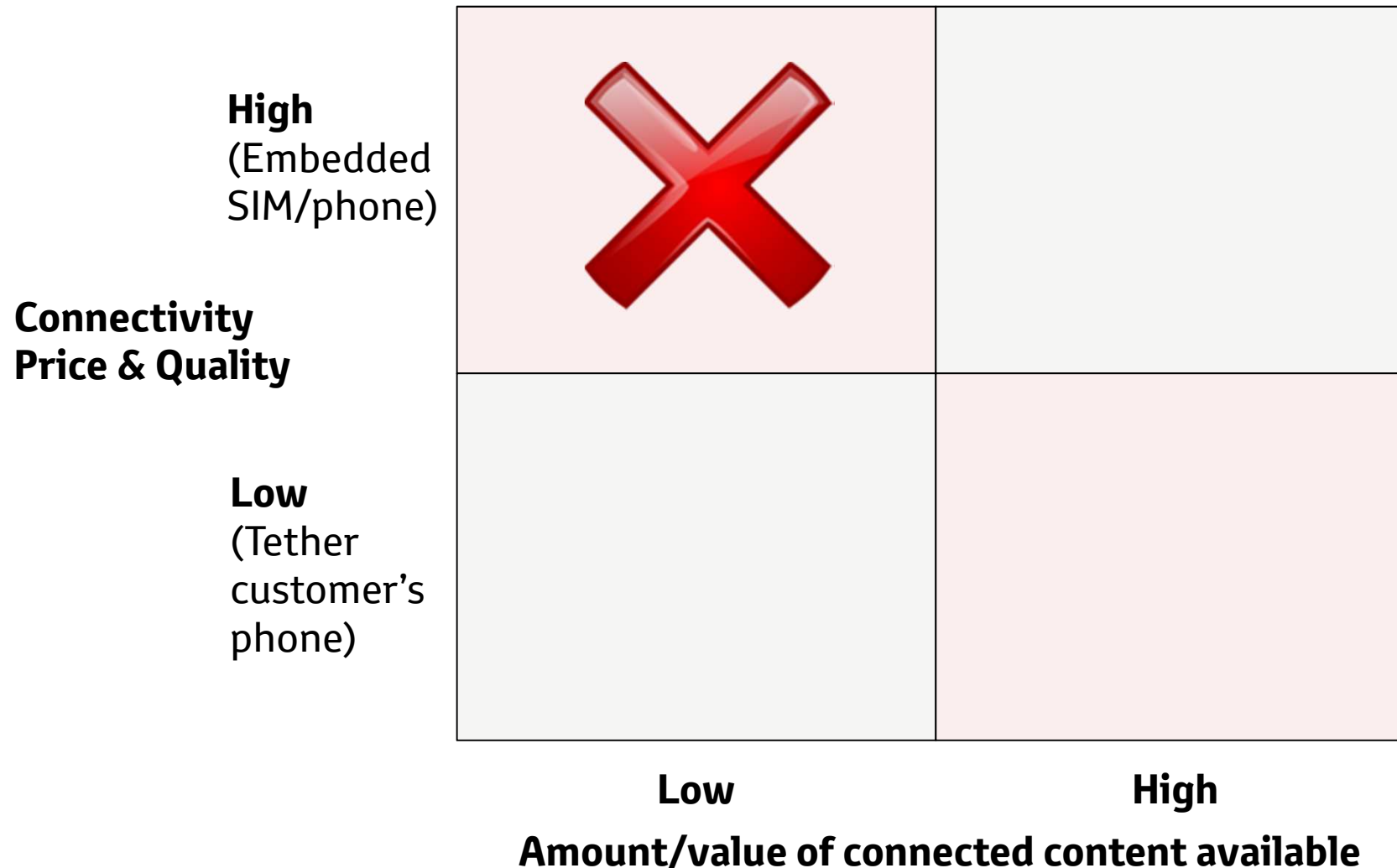
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No sense to provide great connectivity for little content



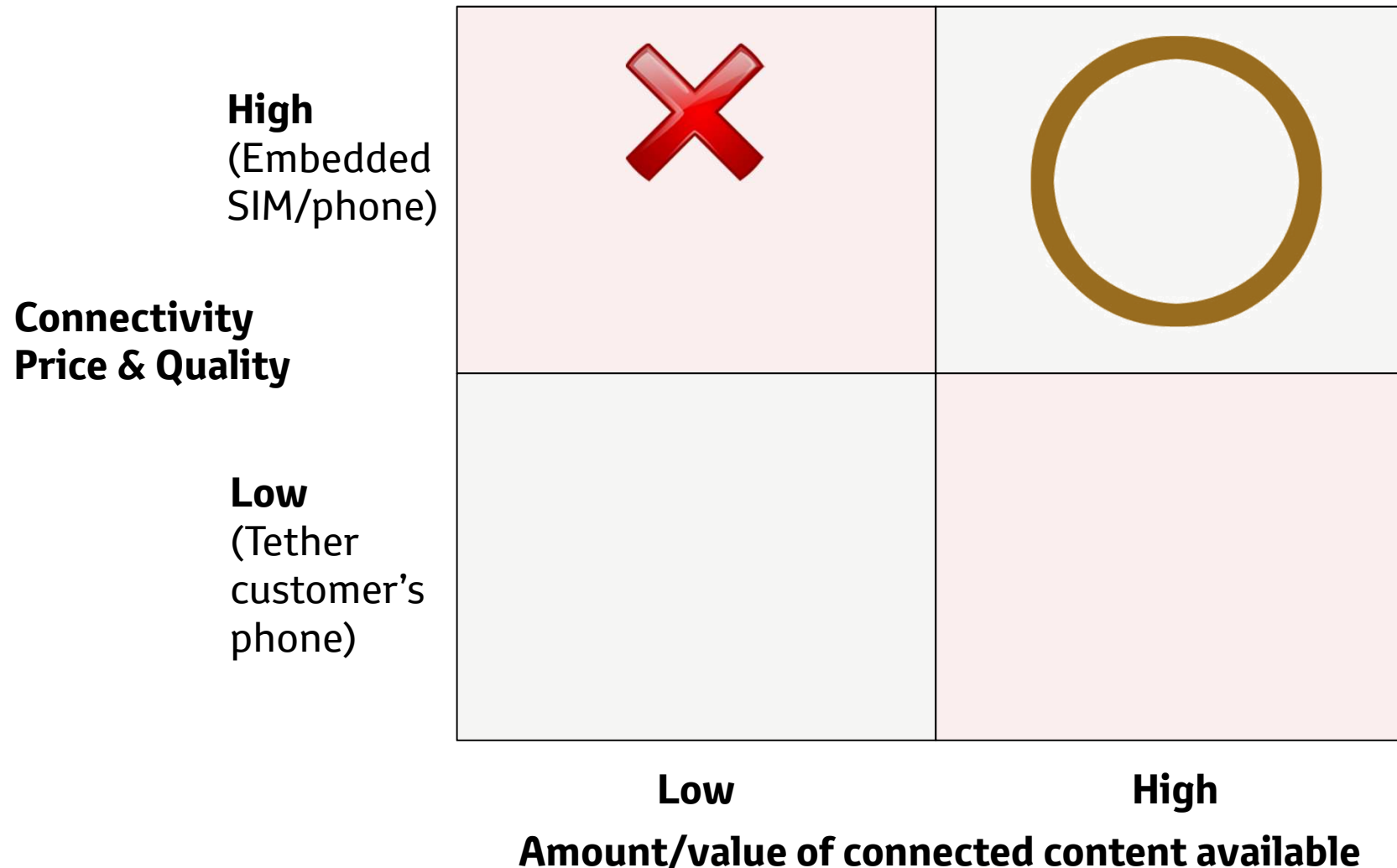
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The best customer experience that money can buy → initially premium



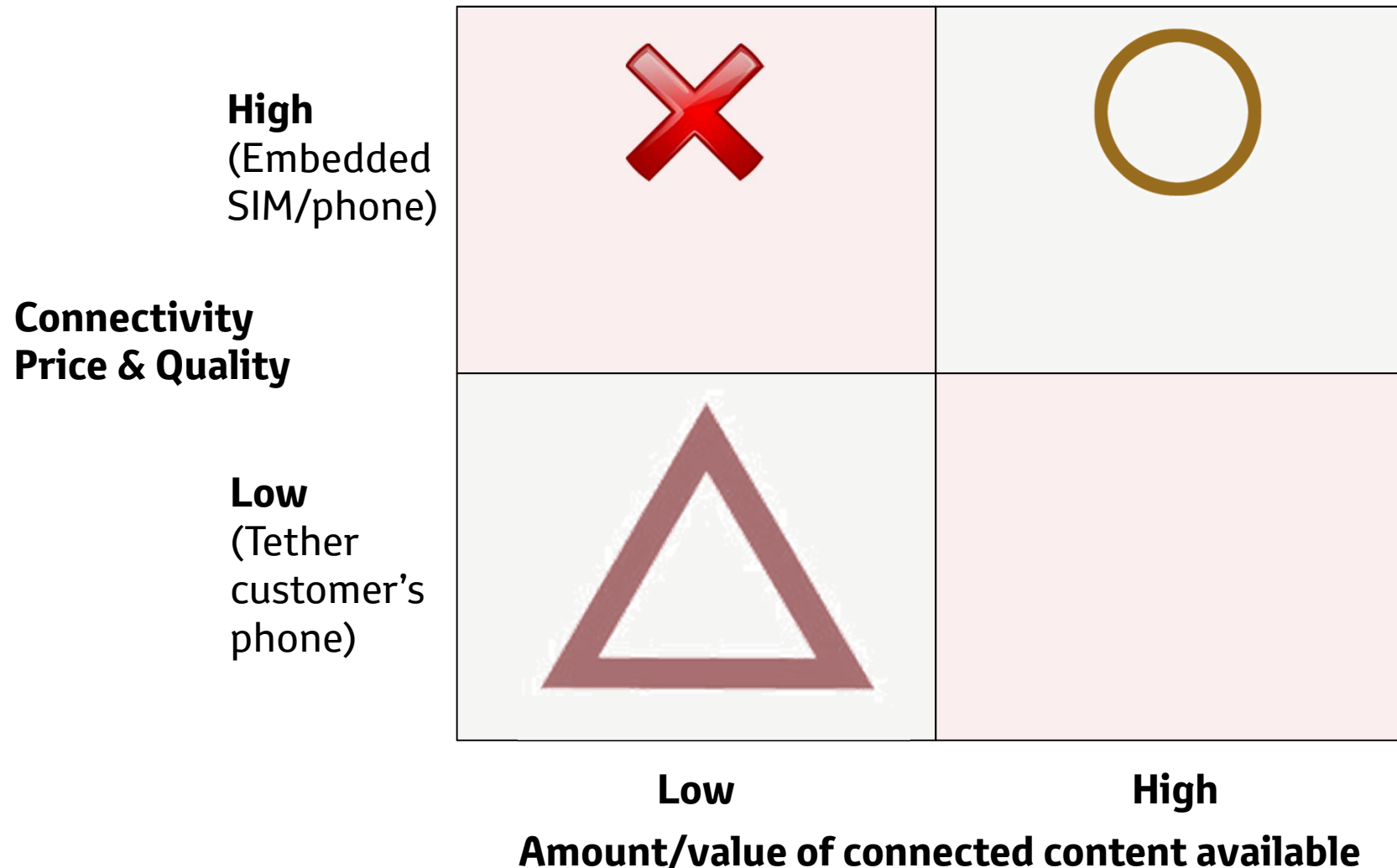
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A low cost entry solution to build service awareness and get learning



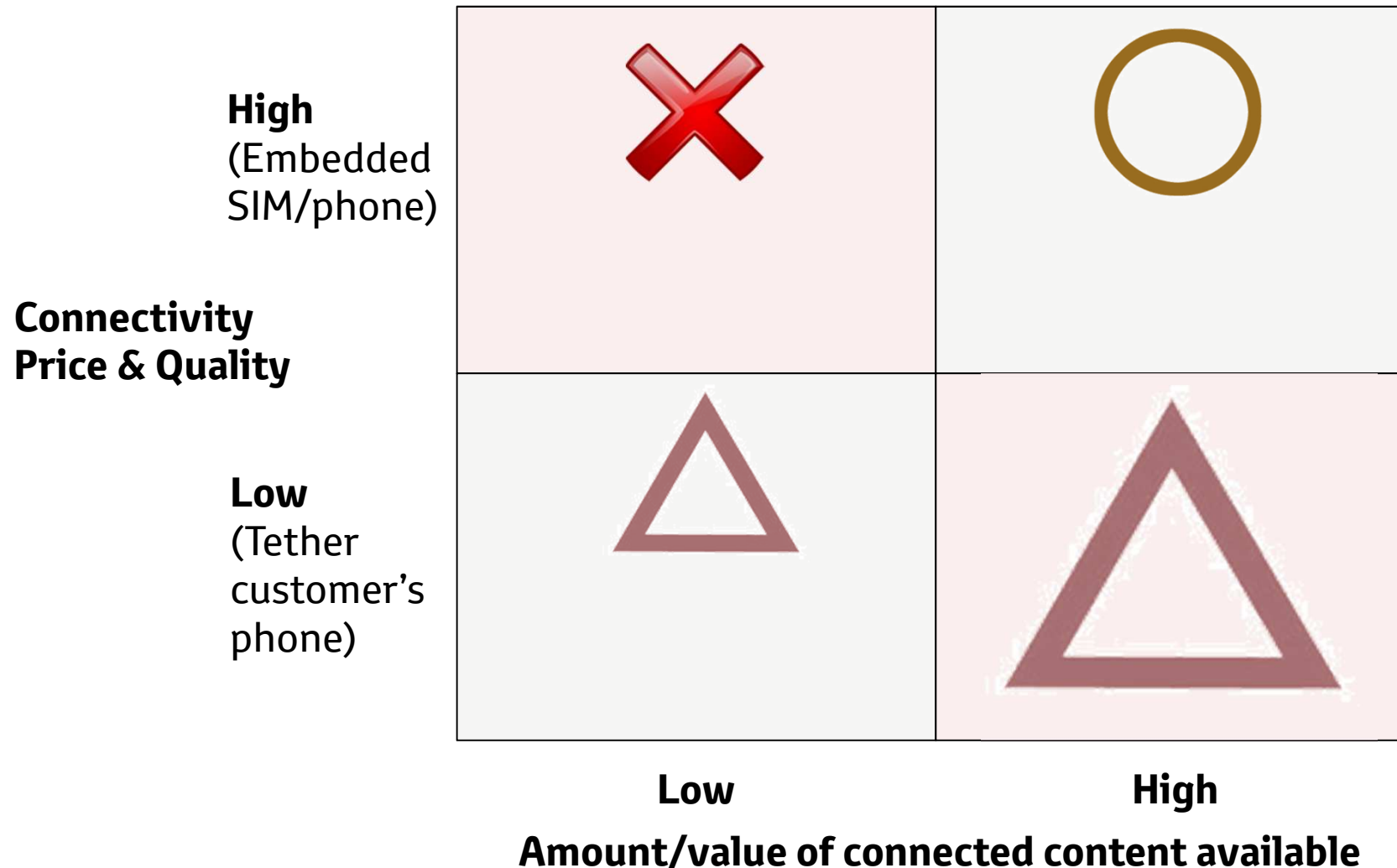
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A way to always have the fastest network connection



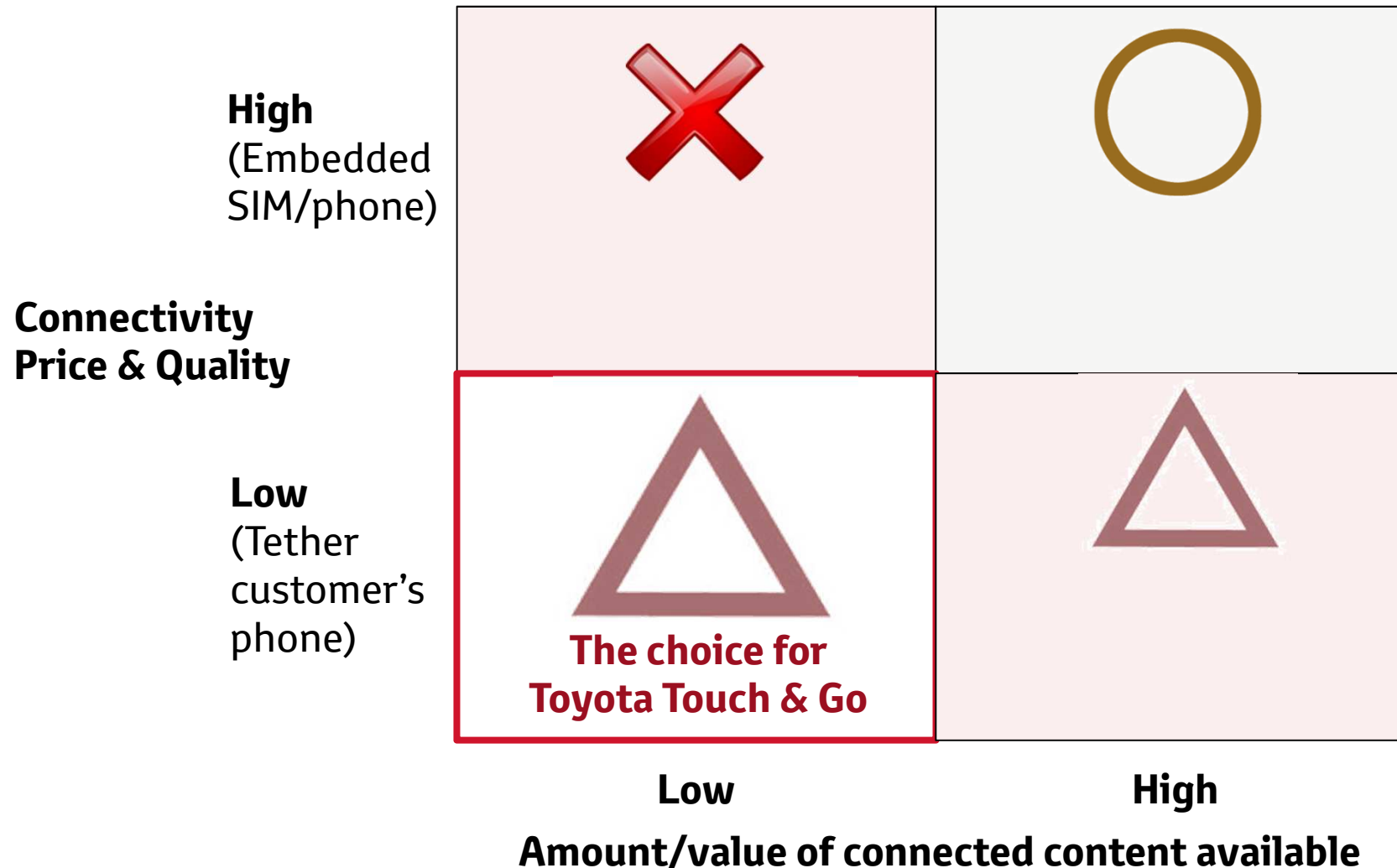
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Toyota Europe chose tethering for our first connected navigation



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Touch & Go product and services



Weather (free)



Last mile directions (€5.99)



Fuel prices (€11.99)



Parking (€5.99)



Tethering problems create a poor customer experience <BT DUN/PAN>



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Issue	Cumulative image of OK condition									
Handset was developed with DUN/PAN? (No predictability for automakers. Many handsets, impossible to test them all.)	Y	Y	Y	Y	Y	Y	N	N	N	N
MNO allows DUN/PAN function on the phone the customer bought? (Sometimes removed from OS)	Y	Y	Y	Y	Y	N	N	N	N	N
MNO has data plans which allow tethering? (Many different plans, even in 1 country)	Y	Y	Y	N	N	N	N	N	N	N
Customer has/is willing to take a data plan? (Smartphone penetration, data plan penetration issues)	Y	Y	N	N	N	N	N	N	N	N
Data plan includes enough DUN/PAN data? (Sometimes specific limit on DUN/PAN data!)	Y	N	N	N	N	N	N	N	N	N

Tethering problems have started to reduce



1. Phone compatibility increased

- More customers have phones with data plans
- Samsung support PAN from Android 4.0

2. GSMA created “Connected Car Forum”

- Created mutual understanding between MNOs and car makers
- Asked the Terminal Steering Group to support

3. GSMA’s “Terminal Steering Group” acted

- Agreed a guideline for MNOs and handset makers to:
 - Implement PAN indefinitely
 - Implement DUN until January 2015

Remaining issues



1. Smartphones sold without BT DUN/PAN

- Can phone makers/MNOs upgrade firmware within lifecycle?

2. BT Handsfree pairing difficulties remain

- GSMA's CCF is exploring options to improve, including NFC

3. Some data plans discourage tethering

- Up to individual MNOs to solve the issue of 'all-you-can-eat' offers

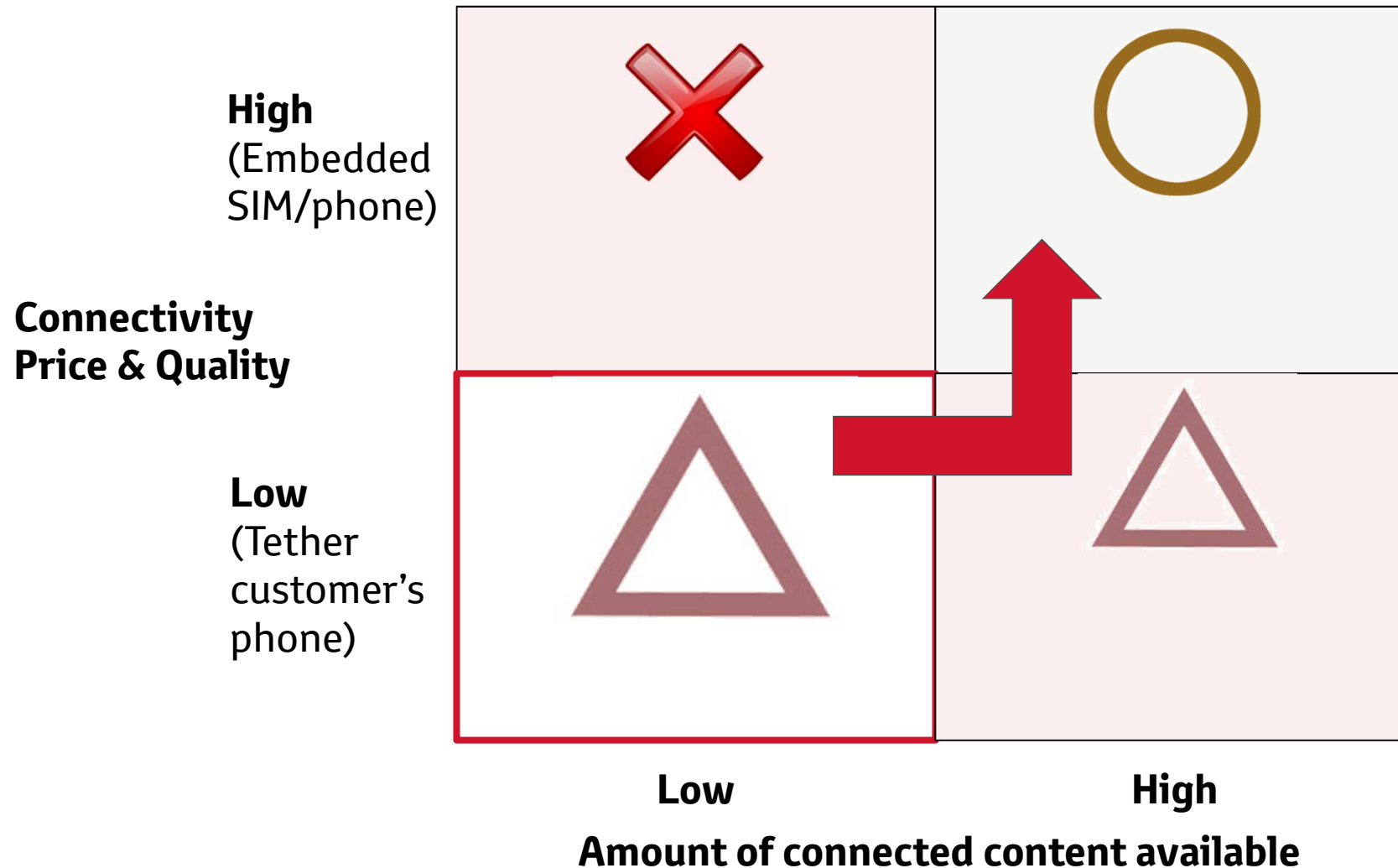
4. Mid-term replacement of BT PAN for higher bandwidth services

- GSMA's CCF is studying a 'champion' technology, possibly Wi-Fi

Mutual vision: build demand, add valuable services, embed connectivity



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Thank you