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Europe Economics' response to submissions to Consultation 23/52

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1 Review and Response to Consultation Feedback

This document sets out Europe Economics' response to certain issues raised in relation to ComReg's consultation on the proposed package of interventions for scam communications. (Document 23/52). We summarise the feedback across a number of key themes, and present our response to same. While there was a number of issues raised in response to ComReg's consultation, we focus on the feedback relevant to our first report Document 23/52a.

1.1 Harm

Tesco Mobile considered it inappropriate to include the costs to the HSE because in its view the HSE was hit by a major cybersecurity attack that went beyond scam calls.

1.1.1 Our response

The inclusion of the HSE ("Health Service Executive") case study and the harms we discussed in relation to this example is appropriate in our view for a number of reasons. The HSE is often impersonated by scammers (as evidenced from the consumer survey) and the harm to the HSE is typical of many public bodies who are victims of scams.

To be clear, the specific cost arising from the incident Tesco is referring to (HSE cyber-attack in May 2021) – was not included in our cost modelling.

We focused on the costs arising from a lack of trust in HSE notifications as a result of scam calls and texts (measured in the form of hospital appointment 'did not attend') and the costs to the HSE directly addressing the effects of scam calls and texts. The modelling of these specific costs is our own, but serves to illustrate the likely wider impact of scams in reducing the effectiveness of public body communications – again this is representative of a wider problem.

1.2 Benefits of the interventions

Four respondents commented on the estimation of the benefits in the RIA (which referenced our report).¹ Three respondents (Three, BPFi and IBEC/TII) noted that the harm from scam communications may continue irrespective of the interventions such that these benefits could be overestimated. They point to potential migration of scams to Number Independent Interpersonal Communications Services (NIICS) such as Whatsapp, and the increased prevalence of scam texts originating from mobile numbers rather than Sender IDs. Even though the interventions may be highly effective in reducing harm, they will not eliminate the harm. One respondent (Virgin) again noted that there is insufficient evidence that a voice firewall solution is needed now, and that a 'wait and see' approach could be better.

¹ Three, BPFi, IBEC/TII and Virgin.

1.2.1 Our response

To our knowledge, no respondent or commentator has ever doubted that scammers are adaptive and would seek out new vulnerabilities as authorities take action. However, there is very little information available on how scammers might adapt to the proposed interventions in reality (noting many are novel). Nevertheless, we have attempted to capture the issue of scammers switching when estimating the benefits of the interventions by making a number of reasonable and evidence-based assumptions.

First, in our modelling the effectiveness of the interventions was assumed to decay with time, as scammers circumvented the measures. This means that for every scenario we presented, there was an allowance made for scammers overcoming the intervention with time. Therefore, the benefits analysis did include an assumption of some migration of scams and the erosion of the effectiveness of the interventions. This recognises that none of the interventions are 100 per cent effective. We remain of the view that there are no “silver bullets” in the fight against scams and each of the interventions has a role to play in mitigating the harms caused by scam calls and texts even where the effectiveness of these interventions may decay with time.

Second, we have attempted to directly account for scammer’s switching behaviour by incorporating this into our modelling. To the best of our knowledge, ours is the first attempt to do so internationally. The guiding assumption was that existing SMS scammers and existing Voice scammers targeting Ireland can readily switch between different scams using the same medium, in response to static interventions (which prevent CLI or SenderID spoofing) (as many scam texts and scam calls are produced in more or less a similar manner). Notwithstanding, we did not pick a given level of switching and instead gave figures for the range of possibilities, where scammers either switch minimally, or perfectly (such that the benefits of the static interventions are zero).

Similarly, the potential migration of scam calls from spoofed CLIs to legitimate numbers was also factored into the effectiveness assumptions for the interventions. It should be noted that the evidence for the justification of a voice firewall comes from a number of sources, not just the increase in Irish-number scams. The results from other jurisdictions seem positive. Due to the erosion of the other interventions a voice firewall will be needed in the future to reduce harm in a dynamic form. There is also a need to be proactive in this space, given the long lead time for voice firewall solutions. Furthermore, as CLI blocking close down the international routes it is likely that scams will increasingly migrate its Irish-based numbers, hence the need for a future-proof solution. It is already the case that national-based scams are increasing and ComReg needs to have proactive interventions in this space.

Similarly, the potential migration of scam texts from Sender IDs to mobile numbers was also factored into the effectiveness assumptions for the interventions as part of the RIA analysis. As recognised by the respondent raising that concern (BPF), we consider text scams using mobile numbers rather than Sender IDs will be less convincing and the Sender ID intervention still has an important and beneficial role. We understand that ComReg is considering the need for this intervention separately and is in discussions with its parent department, the Department of the Environment, Climate and Communications (“DECC”) about the need for supporting legislation. We remain of the view that there is a significant requirement for a SMS Scam Filter to contend with scam SMS without Sender ID. Moreover, such legislation is necessary to extend the dynamic protection to SMS, much like the protection the Voice Firewall affords Voice calls.

We did not have sufficient information to make assumptions regarding the level of switching by scammers **between** different technologies, for example between call and SMS or between other sources such as email, website, WhatsApp, online marketplaces or deepfakes. While certain scammers may target multiple channels (e.g., SMS and Voice) it is unclear to what degree scammers can or do switch between communications channels in practice. In relation to over the top (OTT) applications such as Whatsapp in particular a number of differences were noted in comparison to SMS and Voice, such as its lower population coverage (e.g., SMS

and Voice are preinstalled in every handset), and the fact that it is a single end-to-end network as opposed to many interconnecting networks. This suggests Whastapp and other such apps are very different channels to SMS or Voice for scammers to reach consumers.

1.3 Costs of the interventions

Six respondents commented on the cost estimates of the interventions.² Three of them (Three, eir, IBEC) were of the view that the RIA underestimates the costs of the interventions, either in terms of direct investment costs and resources, or that the implementation deadlines are likely to increase costs and reduce operators' ability to deliver the interventions. Furthermore, it was suggested that implementation of the interventions would require the diversion of resources from other programmes. Of these, one operator (Three) stated that the cost estimates do not reflect the complexity of its network and history, and a number called for 'detailed industry engagement' to ensure an accurate understanding of the costs involved before the proposals become mandatory. A fourth (Virgin) considered that there was insufficient specification to suggest that the voice firewall solutions are likely to be 'off the shelf'.

Alternatively, one respondent (Cellusys) considered that the costs for larger operators are slightly overestimated.

1.3.1 Our response

The analysis underpinning the CBA includes (i) the results of in-depth interviews with two large operators, the summaries of which were shared with operators for confirmation and (ii) with other industry stakeholders such as vendors, and expert views on infrastructure costs. The analysis details the various cost categories to ensure all the material ones are included. The modelling includes bottom-up estimates where we took steps to avoid underestimation (e.g. using up to date industry wage figures and conservative assumptions) and also top-down sense checks. The cost estimates are based on industry engagement including operators (with different systems), desk research and in-house expertise. We consider this provides a suitable and robust evidence base for the scope of the RIA. All such information on the costs and their assumed values was contained in the published report, which was open for stakeholders to review for a 10-week period (including the extensions to the consultation sought by IBEC/TII, the lobby & business representative group). No operator has suggested costs that were overlooked, or noted any assumed input cost that was too great. Indeed, no respondent provided any alternative estimates on what the costs would be.

Furthermore, the cost-benefit analysis for the RIA shows that the benefits of the interventions outweigh the costs by an order of magnitude, which accounts for remaining uncertainty in the cost estimates and provides a sufficiently robust basis for consultation on the interventions. No operator has given an indication that costs were so greatly underestimated as to impact the conclusions drawn from the cost benefit analysis.

The voice firewall costs are based in part on vendor costs for solutions that are likely to provide the required specifications, plus a conservative (i.e. generous) estimate of operator project/ongoing costs. Therefore we consider these appropriate estimates notwithstanding the level of detail in the specification. We note that the respondent with the greatest familiarity with the solution – a vendor – considered our estimate to be, if anything, overly high.

² Three, eir, Cellusys, IBEC/TII, Twilio and Virgin.

1.4 Consumers

Three respondents commented on consumer-related issues.³ They all noted that in their view network-based solutions to scams would be better than anything that requires consumer action (e.g. downloading an app) which could be limited to certain handsets and/or suffer from consumer inertia. Additionally IBEC contended that the intervention proposals will have impacts on the operation of the entire market as they affect the whole value chain, and that a competition assessment would be needed in its view.

1.4.1 Our response

The comment about favouring network over app-based solutions is not directly relevant to our work (being a decision on the interventions), but common sense and learnings from behavioural economics imply that solutions that do not rely on consumers' actions are indeed likely to be more effective. We agree with the experience of the operators that offer both network and app-based interventions and who thus are well-positioned to comment.

We understand that in response to competition concerns that ComReg included a detailed competition assessment for each of its draft RIAs, referencing our report where relevant.

Comreg has also modified the SenderID registry, including but not limited to removing the “single PA” requirement. This was done specifically to address competition concerns raised in relation to the Sender ID intervention.

More generally, we note that ComReg would be able to use its powers to investigate competition concerns where these arise.

1.5 Proportionality of the package

Six respondents commented on the timing and proportionality of the package of interventions.⁴ Three respondents noted the existence of other regulatory interventions and projects which also require planning and resources, which could be impeded by the scam intervention requirements. They urge ComReg to reconsider the phasing of the scam interventions.

A couple of respondents noted that the proposed network-based solution for Phase I of the Mobile CLI block is overly burdensome for operators with large legacy networks. They also noted that the reporting requirements of the CLI blocking would be very burdensome if operators do not already have these in place.

Eir made the point that the benefits of the interventions are for all of society, such that operators should not be the main stakeholders bearing the cost, and that a fund should be developed to support the investment.

1.5.1 Our response

We suggest that the issues around the timing of the interventions is primarily an issue for ComReg. Indeed, we note that ComReg has brought in a separate technical advisor to consider this matter further. That said, our modelling suggests that a delay in implementing the interventions will result in the continuation of significant levels of harm to Irish society, such that the proposed timing for implementation represents the best cost-benefit approach. (i.e. the timelines should only be as long as reasonably required).

In relation to the Mobile CLI block, ComReg has subsequently revised Phase I to only apply to large IGOs and cover the period before Phase 2 starts, therefore removing any overlap.

³ Hiya, Ericsson and IBEC/TII.

⁴ Three, Verizon, ALTO, eir, IBEC/TII and Virgin.

Operators are clearly the best-placed to put the interventions in place. Regulators in many sectors often impose measures for the benefit of wider society that impose costs on industry stakeholders, in particular in relation to safety and security.⁵ In general, operators are not provided financial support for ensuring that their services are safe and secure, it is only in certain and specific instances that there is a case to be made that public money should be spent on supporting these measures. Any such assessment is beyond the scope and remit of our work.

⁵ Noting that who ultimately bears any such costs is dependent on market forces, as the initial payee may or may not pass on the cost. Basic economic theory indicates that this can be affected by the relative elasticities of supply and demand.

2 Appendix: Cost addendum following Consultation 23/52a

In response to the consultation on interventions to tackle nuisance communications (23/52a) ComReg has made the following changes and clarifications, which have some impact on our cost-benefit modelling.

Intervention	Change / clarification
SenderID Registry	ComReg is removing the requirement for a direct connection, so PAs may connect in the existing manner – <i>which was a cost for MSPs/PAs</i>
Mobile CLI – Phase 1	ComReg is only requiring this of IGOs with a turnover greater than 50 Million euro p/a.
Mobile CLI – Phase 2	ComReg is dropping the requirement for a VoLTE upgrade

SenderID Registry

The removal of the requirement for a direct connection for PAs will reduce the costs of the SenderID Registry intervention. It is not practicable to re-estimate the cost of this intervention, but it is clear that the actual costs would be lower than those originally modelled to some extent.

Mobile CLI Phase 1

Our core cost-benefit model already assumes that the mobile CLI block would only affect the largest operators, so this confirmation does not change our core model costs. See Table 6.1 of our published report [here](#).

Mobile CLI Phase 2

Removing the requirement for a VoLTE upgrade would reduce the total one-off costs across all relevant operators from €3,424,000 to €1,424,000 (a reduction of €2 million), and the ongoing costs from €640,000 to €240,000 per year. This is already shown in Table 9.3 of our published report. Table 6.2 shows the costs per operator without the VoLTE upgrade requirement.

Updates to estimates of costs, net benefit and benefit to cost ratios

This reduction in costs results in a small increase in the total net benefit of the package over time, from €1,601 million to €1,604 million. Figure 9.6 in our published report changes to the following, with the new cost of €4.5 million replacing the old cost of €8 million for the static interventions.

Figure 9.6 (revised): Comparison of costs and benefits assuming different levels of scammers'

Intervention	Cost (€m)	Net Benefit	
		Scammers adapt minimally	Scammers adapt fully
Voice interventions			
Static interventions (DNO,PN, Fixed & Mobile CLI Blocking)	4.5	899	- 4.5
Voice firewall	10.2	142	881
SMS Interventions			
SMS registry – Full (phased-in)	6.4	366	-6.4
SMS scam filter	6.2	197	514
Combined			
Total	27	1,604	1,384
Combined without SMS Scam filter			
Total	21	1,407	870

In 23/52a, Europe Economics estimated net benefits of €1.5 billion (the average of the net benefits across the scenarios where scammers adapt minimally and adapt fully to the static interventions) with a cost/benefit ratio of €53:1 for the minimal adaptation scenario. This however requires an update in light of the reduced costs of implementation (due to the dropping of the requirement for a VoLTE upgrade) and the reduced costs and benefits (due to the removal of the SMS Scam Filter from the current set of interventions).

The table below shows the changes in benefits and costs:

	Pre-intervention change	Post-intervention change
Average total benefit across the two adaptation scenarios	€1,522m	€1,160m
Average total cost across the two adaptation scenarios	€31m	€21m
Average cost-benefit ratio	€49:1	€55:1

Absent the SMS Scam Filter the overall average benefit reduces by approximately €360 million to €1,160 million (i.e. a 24% reduction) while the costs reduces to €21 million⁶ (i.e. a 33% reduction)⁷. Overall, this increases the average cost-benefit ratio from €49:1 to €55:1.

⁶ €4 million due to removal of VoLTE requirement and €6.2million from the SMS Scam Filter.

⁷ Note: Adaptation does not account for switching by scammers from Voice to SMS, which would likely occur absent a SMS Scam Filter.